European Commission

JRC SCIENCE FOR POLICY REPORT

Scientific, Technical and Economic Committee for Fisheries (STECF) - Evaluation of Joint Recommendations on the Landing Obligation and on the Technical Measures Regulation (STECF-21-05)

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https://ec.europa.eu/jrc

JRC126128

EUR 28359 EN

PDF	ISBN978-92-76-40593-1	ISSN 1831-9424	doi:10.2760/83668
STECF		ISSN 2467-0715	

Luxembourg: Publications Office of the European Union, 2021

How to cite this report: Scientific, Technical and Economic Committee for Fisheries (STECF) - Evaluation of Joint Recommendations on the Landing Obligation and on the Technical Measures Regulation (STECF-21-05). EUR 28359 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-40593-1, doi:10.2760/83668, JRC126128.

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EWG-20-04 report:

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Abstract

Commission Decision of 25 February 2016 setting up a Scientific, Technical and Economic Committee for Fisheries, C(2016) 1084, OJ C 74, 26.2.2016, p. 4–10. The Commission may consult the group on any matter relating to marine and fisheries biology, fishing gear technology, fisheries economics, fisheries governance, ecosystem effects of fisheries, aquaculture or similar disciplines. This report contains a review of Joint Recommendations submitted by Member States Regional Groups for the implementation of the Landing Obligation in 2022 and beyond.

SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF) - Evaluation of Joint Recommendations on the Landing Obligation and on the Technical Measures Regulation (STECF-21-05)

Background provided by the Commission

Joint Recommendations on the Landing Obligation (exemptions)

After consulting the relevant Advisory Councils, Member States cooperating at sea-basin level may provide the Commission with joint recommendations requesting exemptions from the landing obligation. Where the STECF's advice is positive, the Commission adopts delegated acts implementing these joint recommendations into EU law, in accordance with Article 15(6) of the Common Fisheries Policy[1] (CFP). Where there is no multiannual plan for the fishery in question, article 15(6) of the CFP empowers the Commission to adopt delegated acts laying down on a temporary basis specific discard plans containing the exemptions. The six potential elements that can be contained in a discard plan are the following:

- definitions of fisheries and species;
- provisions for survivability exemptions;
- provisions on de minimis exemptions;
- the fixation of minimum conservation reference sizes;
- additional technical measures needed to implement the landing obligation; and
- the documentation of catches.

The temporary discard plans under Article 15(6) with a maximum of 6 years have expired in 2020 or will expire in 2021 and have been or should be replaced by provisions adopted under article 15(5) and specified in multiannual plans. Under the existing multiannual plans, provisions[2] specify that the Commission is empowered to adopt delegated acts following Article 18 of the CFP (Regionalisation procedure). Currently, most of the delegated regulations specifying the details of implementation of the landing obligation have been adopted by the Commission under the existing multiannual plans (Western Waters, the North Sea and Baltic). In 2021, the discard plan for certain demersal fisheries in the Mediterranean Sea will expire. Member States will submit two joint recommendations to request exemptions for beyond 2021: one covering certain demersal fisheries in the western Mediterranean Sea, and one joint recommendation covering certain demersal fisheries in the Adriatic Sea, Central and Eastern

[1] Regulation (EU) 1380/2013

[2] Article 13, Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008

[2] Article 11, Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008

[2] Article 7, Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007

[2] Article 14, Regulation (EU) 2019/1022 of the European Parliament and of the Council of 20 June 2019 establishing a multiannual plan for the fisheries exploiting demersal stocks in the western Mediterranean Sea and amending Regulation (EU) No 508/2014

Mediterranean Sea on only *de minimis* exemptions[3], due to the absence of a multiannual plan for this area. While the legal basis is different[4], the scientific assessment process is identical to the cases listed above.

Article 15(5) does not stipulate a specific period of validity as was the case with Article 15(6).

STECF has reviewed the Joint Recommendations prepared by the regional groups of Member States annually since 2014-2020 on fisheries subject to the Landing Obligation in the subsequent year. STECF is requested through EWG 21-05 to review and evaluate the Member States' joint recommendations requesting either additional or continued (with additional scientific information as requested by STECF) exemptions for >2022 as well any new requests for exemptions.

Joint Recommendations on Technical Measures (Regulation)
STECF is also asked to evaluate JRs relating to technical measures. All amendments, supplements, repeal or derogations from technical measures will be based upon Article 15 of the Technical Measures Regulation (Regulation (EU) 2019/1241). The entry into force of this Regulation resulted in the introduction of the process of regionalization in numerous fields as far as technical measures are concerned. In this process, the regional groups should develop joint recommendations are assessed by STECF against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation.

Main elements of the joint recommendations to be considered by STECF

Landing obligation - de Minimis and High Survivability
The main elements that STECF should continue to evaluate are the additional exemptions for *de minimis* or based on high survivability for species subject to the landing obligation.

In addition to any new exemptions, STECF should also review additional information supplied to support several of the exemptions granted for 2021 but with the provision that the Member States concerned should submit further data to the Commission by 1 May 2021 to allow STECF to further assess these exemptions.

Technical measures
Not foreseen currently (February 2021) but submitted joint recommendations on technical measures cover the following:

- Measures modifying the size and characteristics of fishing gear that MS may wish to implement in certain areas to increase selectivity and decrease the negative effects of the activity in the environment
- Minimum Conservation References Sizes for recreational fisheries
- Mitigation measures for bycatch of certain sensitive species, such as cetaceans or sea birds
- Definition of the directed fisheries for each species and sea basin, with a deadline of August 2020.

Terms of Reference

[3] Under Article 15(7) CFP, the Commission may adopt delegated act laying down *de minimis* exemptions only. While no joint recommendation is formally required, the MS should however provide the scientific evidence justifying the exemptions.
[4] Under Article 15(7) CFP, the Commission may adopt delegated act laying down *de minimis* exemptions only. While no joint recommendation is formally required, the MS should however provide the scientific evidence justifying the exemptions.

Based on the previous evaluations of the STECF, suggested structure of the next STECF evaluation, an Adhoc contract on temporary de minimis exemptions, the joint recommendations that will be submitted by Member States regional groups (see annex), the following draft terms of reference are proposed: STECF is requested to:

1. Review the supporting documentation underpinning exemptions on the basis of high survivability in respect of:

a) Exemptions agreed for 2021 on the basis of high survivability where there was a requirement for further information to be supplied by 1 May 2021. In such cases, STECF should assess the quality of the information supplied and, where possible, provide a qualitative assessment of the ongoing efforts to address the needs for further information identified by STECF last year;

b) New exemptions based on high survivability. In data poor situations, assess what further supporting information may be available and how this could be supplied in the future (e.g. survival studies, tagging experiments).

2. Review the supporting documentation (biological, technical and/or economic) for de minimis exemptions on the basis that either increasing selectivity is very difficult to achieve, or to avoid handling unwanted catches would create disproportionate cost in respect of:

a) The de minimis exemptions agreed for 2021 where there was a requirement for further information to be supplied by 1 May 2021. In such cases, STECF should assess the quality of the information supplied and, where possible, provide a qualitative assessment of the ongoing efforts to address the needs for further information identified by STECF last year;

b) New de minimis exemptions. In data poor situations, assess what further supporting information may be available and how this could be supplied in the future (e.g. discard data collection, selectivity studies).

As joint recommendations might be submitted on the basis of the Technical Measures Regulation (TMR) and they will be reviewed in this same EWG, STECF is also requested to: Based on the conclusions of STECF PLEN 20-02 and its preparatory ad hoc contract, the STECF is requested to assess whether and to what extent the joint recommendations that are setting out the specifications of Article 27.7 and in Part B of Annexes V to XI of Regulation (EU) 1241/2019:

I. Could lead to a deterioration of selectivity standards and to what extent in particular in terms of an increase in the catches of juveniles, existing on 14 August 2019 (date of entry into force of TMR);

II. Would help achieve the objectives and targets set out in Articles 3 and 4 of TMR;

III. The information provided for each sea basin is sufficient or whether it is possible to identify complementary information allowing for a complete analysis.

If joint recommendations are submitted, the Member States provided the data and information to demonstrate that the three elements listed above (STECF conclusions 20-02) have been taken into account in the definition proposed for 'directed fishing' and the definition can be justified based on such data and information. This also includes providing corresponding datasets of individual logbook and sea-sampling trip data that are needed to assess the robustness and the impact of the catch composition threshold. Where the data provided information is not sufficient, the STECF is requested to identify what information and data should be provided in order for a complete assessment IV.

The STECF should further assess the implications of the joint recommendations for other policies, mainly the compatibility with the landing obligation (Article 15 CFP) and other technical regulations. If joint recommendations on another element of the TMR have been submitted, STECF is requested to: Review whether there is sufficient information to support proposed minimum conservation reference size(s) that deviate from existing minimum landing sizes, and whether they are consistent with the objective of ensuring the protection of juveniles; Review the supporting documentation provided for technical measures aimed at increasing gear selectivity for reducing or, as far as possible, eliminating unwanted catches including reducing fishing mortality on stocks in need of remedial measures for rebuilding biomass. This should include, if relevant, an indication of where further selectivity is currently difficult to achieve in a specific fishery, given the current state of technological developments.

STECF Response

Review of the EWG 21-05 report

General observations

The report of Expert Working Group 21-05 (STECF EWG 21-05) presents the findings of the meeting convened to review and address the implications associated with the implementation of the Member States' joint recommendations requesting either additional or continued (with additional scientific information as requested by STECF) exemptions for 2022 and beyond.

Joint recommendations for discard plans represent the agreement among Member States (MSs) cooperating regionally on the elements for the preparation of Union law (Commission delegated act) in accordance with Article 15.6 of the Common Fisheries Policy. Where there is no multiannual plan for the fishery in question, article 15(6) of the CFP empowers the Commission to adopt delegated acts laying down on a temporary basis specific discard plans containing the exemptions. The potential elements that can be contained in a discard plan are: definitions of fisheries and species; de minimis and high survivability exemptions; setting of minimum conservation reference sizes (MCRS); additional technical measures needed to implement the landing obligation; and the documentation of catches.

EWG 21-05 reviewed the new or amended joint recommendations for the North Sea, North-Western waters (NWW), and South-Western waters (SWW). These pertained to de minimis and high survivability exemptions with separate JRs for technical measures. Additionally, in 2021, as the discard plan for certain demersal fisheries in the Mediterranean Sea expired, Member States submitted three joint recommendations to extend several de minimis exemptions for demersal fisheries beyond 2021: one for the Western Mediterranean, a second for the South-Eastern Mediterranean Sea, and a third for GSA17 and GSA18 in the Adriatic Sea. These were also evaluated by EWG 21-05 along with a request for a high survivability exemption for the Black Sea.

As in 2020, STECF recognises that for 2021 the restrictions imposed due to the coronavirus pandemic created additional challenges to Regional Groups, the Commission and the STECF in the preparation of proposals and supporting information, collation and review of joint recommendations.

Improvements in selectivity: STECF reiterates that the avoidance of unwanted catch through improved selectivity or other means should be the primary focus in implementing the Landing Obligation. EWG 21-05 recognizes that modifying selectivity can result in some immediate reduction in revenue, but these should be viewed in the broader context of medium-term gains in stocks and the risk of choke events and the utilization of quota to land low value catches.

Quality of data: STECF recognises the progress made in supplying supporting information to justify exemptions and the volume of work that has been carried out to generate this information. However, for the 2021 JR's there are still many cases where the information and data supplied is generic with the justifications based on information previously submitted. For some exemptions, no supporting information has been provided at all. Therefore, STECF reiterates the need to improve the quality and consistency of catch data provided to support exemptions. Such data is important to understand the relationship between the level of potential discards under the requested exemptions and the actual level of unwanted catches in the relevant fishery and for the relevant stocks. This will allow STECF to make an assessment as to the level of risk of

discards allowed under exemption will potentially have on the status of the stock or stocks involved.

Reporting of catch data: STECF notes that weaknesses remain in the collection of catch documentation data. If the data situation does not improve and the reported catches do not reflect the actual removals, there will likely be a significant impact on the quality of scientific advice compromising the achievement of the MSY objective. This potential for this discrepancy is higher for the de minimis than high survival exemptions because the actual discarded amounts may be substantially higher than the permitted de minimis amounts. For high survival exemptions, this risk has been mitigated to some extent by deducting the estimated dead discards associated with the exemptions from the total allowable quota prior to allocation. STECF also highlights that efficient monitoring measures such as CCTV and Remote Electronic Monitoring (REM) have been applied in pilot studies and demonstrated to be a more effective way to monitor the Landing Obligation to generate catch evidence for science and compliance.

Observations on the review process

In 2021, EWG 21-05 met remotely from the 17-21 May to carry out the evaluation of the JRs submitted. Following the EWG meeting, DG MARE invited Member States to submit supplementary information on each exemption. Member States were given 5 days to provide this information. The supplementary information received by DG MARE from Member States was compiled and reviewed under an ad-hoc contract (STECF contract 2120) between 4 and 10 June and the reviewer's comments were incorporated into the regional sections contained in the EWG 21-05 report. The final revised report of the EWG was submitted to DG MARE on 11 June, and later replaced by a corrected version on 28 June.

As in previous years, there was limited time for Regional Groups to respond to any serious gap identified by the EWG. Any additional information provided was primarily fishery information or provision of missing catch data. STECF suggests it may be worth considering making the provision of such fishery information and catch data a pre-requisite for the evaluation by STECF, to avoid such gaps to occur.

Beyond those obvious gaps, and as in previous years, in many cases what the EWG identified as missing from the supporting evidence is more substantive information which can only be collected from scientific trials or through dedicated studies. Therefore, in these cases, the additional information supplied did not influence the conclusions made by the EWG. It is questionable whether the request for additional information beyond what can be easily obtained from standard data sources is actually useful, given it generally does not alter the STECF observations and conclusions.

Observations on de minimis exemptions

Recording of catches: STECF observes that under Article 15 of the CFP Basic regulation MSs have a legal requirement to record all catches discarded under de minimis exemptions. However, STECF notes that in many cases this information is lacking from the supporting information provided by MSs.

Impact of de minimis exemptions: STECF notes that in many exemptions the relationship between the de minimis volume requested and the level of unwanted catches is unclear from the information provided to support the exemption. In some cases, the de minimis volume covers 100% of the unwanted catches, usually in fisheries where the levels of unwanted catch are small. In other cases, the de minimis volume covers only a small part of the unwanted catches and the supporting information should contain indications on the measures to be taken to reduce these residual unwanted catches.

Disproportionate costs: STECF acknowledges the substantial effort made by the MS Groups to provide information and analyses on disproportionate costs. STECF considers the approach of quantifying the economic impacts of not granting the exemptions (opportunity costs between granting and not granting the exemption) developed by the SWW Group as promising and potentially providing a means to judge the economic impacts of the landing obligation on the different fishing fleets. However, it has become increasingly clear to STECF that there is no scientific methodology or reasons available to justify whether a certain level of additional costs is disproportionate or not. Even with very detailed calculations, STECF cannot judge at which level costs are disproportionate because there is no way of assessing objectively what level of costs constitutes disproportionate. Therefore, as observed by PLEN 21-01, it may be appropriate for MSs to follow the wording of Article 15 (5c) of the CFP Basic Regulation (Regulation (EU) 1380/2013) more closely. MSs should describe the relationship between the de minimis volume requested and the actual level of unwanted catches to put the proposed exemption in the context of the fishery and also the state of the stock for which the exemption is covering. This will allow an assessment as to whether risk of the exemption to the relevant stocks covered by the exemption is minimal. To support this, STECF consider that information to define the fleets impacted along with a clear description of the problem is required. Economic data demonstrating the level of increased costs because of having to handle and store unwanted catches on board should also be provided.

Calculation of de minimis: STECF notes that MSs have continued to use a variety of ways to calculate de minimis volumes. In most cases, for single species de minimis exemptions a percentage (e.g. 5% or 7%) has been applied to the catches of the relevant species in the relevant fishery. However, for several fisheries where the intention is to discard 100% of the catches (e.g. boarfish in the NWW and whiting bycatch in demersal beam trawl fisheries the North Sea), catches of the relevant stocks from all fisheries (e.g. for boarfish catches from all gears) or for different species (e.g. in the case of whiting, catches of sole and plaice are used) have been used as the basis for the calculation. EWG 21-05 has commented on this approach in the relevant exemption requests. However, the EWG cannot adjudicate whether this is a correct interpretation of Article 15(5c) of the CFP Basic Regulation.

Incentive to discard: STECF agrees with EWG 21-05 that de minimis exemptions can provide an incentive for vessel operators to continue discarding unwanted catches at sea and only retain unwanted catches on board if they are inspected on hauling, or to land only permitted de minimis quantities.

De minimis exemptions in Mediterranean demersal fisheries: STECF notes that the discard rates in the South-eastern Mediterranean vary by species, area and gear type. In some cases, the observed discards are higher than the estimated de minimis volume, while for others the volume of discards is lower. Therefore, while the discard proportions of all MCRS species combined (as a portion of the total catch) do not exceed the requested de minimis volume, for some specific species, the discards far exceed the de minimis requested (e.g. trawl-caught *Pagellus bogaraveo* in the western Mediterranean). The transition from these currently high discard rates for these species to the de minimis level will be challenging without changes in the fishing pattern, either through improvements in selectivity or by avoiding areas of unwanted catches of these species. This is not exclusive to the Mediterranean but is much more apparent than in other regions given the complex catch composition in the fisheries in the Mediterranean.

Observations on high survivability exemptions

Assessing high survivability: STECF reiterates that assessing what constitutes high survivability is problematic, which is made more complex by the limited information

available and the variability in the available survival estimates. This means that basing judgment on the representativeness of individual or limited studies as an indicator of discard survival across an entire fishery is difficult given the range of factors that can influence survival and how they may vary in time even within a fishery.

Cuckoo Ray survivability: STECF notes the observations of EWG 21-05 that trends are emerging from the evidence provided to support survivability exemptions. In particular, STECF notes the emerging evidence to suggest that the survival of cuckoo rays is less than other ray species while reported discard rates are between 27 and 39%.

Roadmaps: STECF notes and agrees with the observation of EWG 21-05 that further clarity on the objectives for roadmaps developed for survivability of plaice and skates and rays is needed in order to facilitate an evaluation along with a timetable for the completion of the roadmap. STECF highlights that MSs should be encouraged to use their joint scientific capacity to compile and analyse previous and new data in a more systematic way to assist future assessment of the exemptions covered under the roadmap. STECF observes that to date, survival and discard evidence and fleet information has been reported in a rather incoherent way that hindered assessment by the EWG. Most information is MS specific within regions and there is very limited transboundary linkages to neighbouring areas with shared stocks and fisheries. There remain gaps in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catch data for all MSs to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps.

Discard rate and discard mortality: STECF re-emphasises the need to consider survivability in the context of the discard rate for the fishery seeking an exemption (STECF 17-02), highlighting that medium survival rates in high discarding fisheries still lead to high discard mortality rates. STECF has also previously concluded (STECF 19-02) that unless surviving discards are accounted for in stock assessments when dead discards are accounted for in TAC setting, where survivability exemptions are in place, the actual fishing mortality will not match the agreed catch level.

Observations on technical measures

Uptake of selective gears: STECF highlights that despite many experiments to test selective gears, there are still relatively few examples of such gears being incorporated into the JRs submitted. Uptake of selective gears remains extremely low even in fisheries where unwanted catches remain high, in the absence of the use of such gears being mandatory under legislation.

Coordination of selectivity studies: STECF reiterates that while extensive work has been carried out on selectivity, for some regions, this work has been uncoordinated and not necessarily targeted at the right fisheries. A review of the work completed to identify what works and what does not, along with detailing the gaps in knowledge would help to channel further experiments into the appropriate fisheries.

Articles 3 and 4 of the TMR: STECF reiterates the conclusion of EWG 21-05 that it is challenging to assess Joint Recommendations for technical measures against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation. Generally, the data provided is not sufficient to quantitatively assess such JRs and therefore, any assessment is qualitative and based on expert judgement.

Red Sea Bream and king scallop: STECF agrees with EWG 21-05 that the separate JRs relating to Red Sea Bream (NWW and SWW) and King Scallop in ICES division 7d contain positive elements that will improve the management of the stocks. However, it is not possible to assess fully whether the impacts of these measures on the respective stocks.

Observations on the definition of directed fishing

Application of catch thresholds: STECF notes the observation of EWG 21-05 that the data provided to support the JR on defining directed fishing in SWW allowed for an evaluation of the suitability of the use of a catch threshold to define directed fisheries. However, STECF agrees that the analysis suggests that the thresholds defined may not be suitable for the metiers present in SWW, given the variability in the catch compositions in the fisheries in SWW.

Articles 3 and 4 of the TMR: STECF agrees with EWG 21-05 that it is not possible to evaluate if catch thresholds will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. Further, it is not possible to assess whether it would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241.

Monitoring of catch thresholds: STECF reiterates that as no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries or would apply in the context of the landing obligation, under which all catches must be landed. STECF highlights the conclusion of EWG 21-05 that, if no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

Observations on joint recommendations

Based on the terms of reference, EWG 21-05 considered a combination of existing exemptions for de minimis and high survivability which were granted on a temporary basis for one year for which, the Commission requested additional information from Member States. A limited number of new requests for de minimis and high survivability exemptions.

Regulation (EU) 2019/1241 establishes a framework for technical measures for the conservation of fisheries resources and the protection of marine ecosystems. Article 15 of this Regulation and corresponding annexes put in place technical measures at regional level and include an empowerment for the Commission to adopt delegated acts to amend, supplement, repeal or derogate from those technical measures. These delegated acts are based on Joint Recommendations submitted by Member States concerned, in accordance with the regionalisation procedure described in Article 18 of the CFP. Therefore, EWG 21-05 has considered Joint Recommendations on regional technical measures. Such Joint Recommendations were received from the NWW, North Sea and SWW regional groups. They contained specific proposals on selective gears in NWW and the North Sea as well as proposals in relation to Red Sea Bream (NWW and SWW) and King Scallop in NWW. Additionally, EWG 21-05 assessed a Joint Recommendation from the SWW relating to the definition of directed fishing. This is in the context of Article 27 paragraph 7 of Regulation (EU) 2019/1241.

The number of exemptions proposed in the JRs for evaluation by EWG 21-05 was comparable with the previous submissions in 2020 (EWG 20-02, STECF PLEN 20-02).

The number of individual exemptions proposed for introduction or continuation in 2021 was 58 compared with 55 for 2020.

For the Mediterranean, three Joint Recommendations were submitted by the different regional groups (SUDESTMED, PESCAMED and ADRIATICA); additional supporting information relating to de minimis exemptions for demersal species and for high survivability in the PESCAMED area were submitted. A request for a high survivability exemption for the Black Sea was also submitted by Romania and Bulgaria.

The number of recommendations for exemptions by type and region are summarised in Table 1.1.

Table 1.1 Number of recommendations by type and region evaluated by EWG 21-05

Region	De minimis exemptions	High Survivability exemptions	Technical Measures	Directed Fishing
NWW	3	3	3	
North Sea	2	3	1	
SWW	13	2	1	1
PESCAMED	5	4		
SUDESTMED	8			
ADRIATIC	8			
BLACK SEA		1		
Total	**39**	**14**	**5**	**1**

Main findings

For each exemption by region the information set out in a-d is provided:

a. the main findings of the EWG 21-05;

b. a list of supplementary data and information provided by Member states in response to a request from DG MARE and based on the draft EWG findings;

c. the reviewer's comments on the supplementary data and information provided by Member States;

d. the comments arising from the STECF review of the EWG 21-05 report

Table 1a. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **North Sea**.

De minimis	
Exemption	Combined de minimis exemption for whiting and cod below the minimum conservation reference size in mixed demersal fisheries using bottom trawls or seines with a mesh size of 70-99 mm in ICES division 4c
Main findings of EWG 21-05	Very limited new information has been supplied to support the request to extend this exemption past the end of 2021. Therefore, the previous STECF comments remain valid. The conclusions made by STECF 20-04 regarding the exemption for similar fisheries in ICES Divisions 4a and 4b are also relevant. Specifically, based on the information provided it would seem the de minimis catch requested covers only a part of the unwanted catches in the fisheries and improving selectivity in the fisheries should remain the

	priority. No technical measures for these fisheries have been proposed by the Member States to the knowledge of the EWG, noting that improving selectivity for whiting has been well researched and solutions are readily available. The supporting document reports that 56% of whiting caught are discarded, so discarding of whiting remains high in the fishery. The additional evidence provided (French OBSMER program report) for 2021 suggests that the discard volumes relevant to this exemption are below the 5% de minimis volume (for undersized cod and whiting) and the 2% limit for cod. For cod, no discards and only very limited cod catches are reported for 2019 and 2020. However, EWG 21-05 notes that the catch information provided is based only on sampling of the French fleet. No respective information was available for the other Member Stated involved in the fishery as was the case for previous assessments. Moreover, the sampling of catches and discards during the OBSMER program took place in the Eastern Channel (ICES Division 7d), not in the 4c. EWG 21-05 understands that the fishery in 4c and in 7d are essentially the same fisheries based on previous assessments, but it is not clear whether there are significant differences in levels of unwanted catches of whiting and cod between the two areas. Catch information taken from the FDI database is reported in the supporting annex, but it is not clear how this relates to the OBSMER data. Data for the fishery in 4c is needed to assess the full impact of the exemption, particularly given the very low cod catches observed, accepting that the volumes reported to be discarded under the exemption (i.e. 18 tonnes of whiting in 2020) are relatively low compared to overall catches in the fishery.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: NLD. Additional data of 2019 and 2020 for the de minimis exemption on whiting and cod, covering the Dutch fleet. Table reporting number of vessels subject to the landing obligation, landings and discards of cod and whiting. Data are based on the information available for area IV as a whole, as there is not enough coverage for 4c only. Based on the effort distribution in that area, the share of discards for IVc specifically was calculated. 2019. No. dutch vessels subject to LO: ~28 - Whiting, landings: 338 t, discards: 9.38 t, discard ratio: 2.70% - Cod, landings: 8 t, discards: 0.29 t, discard ratio: 3.50% - Combined whiting and cod, landings: 346 t, discards: 9.67 t, discard ratio: 2.72% 2020. No. Dutch vessels subject to LO: ~25 - Whiting, landings: 317 t, discards: 7.61 t, discard ratio: 2.34% - Cod, landings: 8 t, discards: 0.32 t, discard ratio: 3.85% - Combined whiting and cod, landings: 325 t, discards: 7.93 t, discard

	ratio: 2.38% DEU. Germany indicated no discards under this exemption. *Reviewer's comments* *In the supplementary table, there is no indications of gear type. However, it is assumed that Netherlands combined data of bottom trawls and seines. The supplementary information provided by Netherlands are relevant to this exemption request to enhance the evaluation but only are provided for the Dutch fisheries.* *Despite the supplementary information provided by Netherlands being relevant to this exemption request, it does not affect the findings of the EWG 21-05 given above.* *Netherlands presents combined discard rates (COD+WHG) in the range of 2.4%-2.7% below the de minimis (5%). The discard rates and volumes are relatively low based on the French data provided (but only for 7d) and for the Netherlands. The limited catch information from the Member States, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. Any incentive to avoid unwanted catches and reduce or eliminate discards is likely to be negated.*
STECF Comments	Limited evidence has been provided to support this exemption, much of which relates to the fishery in ICES subarea 7d, rather than ICES subarea 4c. Therefore, while there are indications that the impact of the exemption on whiting and cod may be low, this cannot be fully assessed.
Exemption	Whiting below the minimum conservation reference size by vessels using beam trawls with mesh size 80-119mm in ICES subarea 4
Main findings of EWG 21-05	The Joint Recommendation addresses to a large degree the issues brought up by STECF-in previous assessments with respect to the de minimis request for undersized whiting in the BT2 fishery in the North Sea. The new (2021) information from the Dutch study provided as support to the request indicates that the estimated costs of landing unwanted catches of whiting are significant and would require substantial additional labour on board, particularly in the situation of high volumes of bycatch of undersized whiting. EWG 21-05 is not able to fully assess the robustness of the study provided but based on the results presented observes that the estimated costs involved are significant. However, as identified previously by STECF for this and other exemptions, given the de minimis volume covers only a part of the overall unwanted catches, the costs for handling the residual unwanted catches not discarded under the exemption would remain regardless of whether the exception is in place or not. There is no evidence of attempts to increase selectivity to reduce

	unwanted catches, accepting this is difficult in beam trawl fisheries targeting sole. As a response, the present JR provides an overview of the studies conducted to improve selectivity in the BT2 fishery. This provides a useful summary and clearly indicates the issues and challenges involved in improving selectivity in this fishery. There are also indications for future work planned without any detail provided. Calculating the de minimis based on catches of sole and plaice, means 100% of unwanted catches below MCRS can be potentially discarded. However, the JR argues the Commission will calculate the volume of the exemption and deducts that amount from the total allowable catch (TAC), the impact on the stock is considered. EWG 21-05 considers it is the role of managers to decide whether this justifies the calculation method used.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comment of EWG 21-05.
High Survivability	
Exemption	Plaice below the minimum conservation reference size caught with 80-119 mm beam trawl gears (BT2) in ICES subarea 4
Main findings of EWG 21-05	The representativeness of the new survival estimates (sampled in the Celtic Sea and Eastern channel) for the North Sea fisheries is not clear. However, the results are in line with earlier observations and with large variability between trips, likely due to varying conditions (season, vessel size, catch size and composition, gear characteristics and area). The new survival estimates add to the overall knowledge about undersized plaice survival for larger beam trawlers (>221 kW, i.e. to exemption 7.1.a and not 7.1.b). A first indication about the effect of the use of a flip-up rope is also provided but the study was too limited in scope to draw any conclusions. Progress has been made compared to last year in terms of estimation of catch volumes and composition, by development of systems and protocols for self-reporting and automated video analysis. Similarly, Belgium has described on developing species identification software under laboratory conditions, to analyse video footage from EM systems. The Dutch have reported on sub projects on selectivity describe ongoing scientific projects. While no results are presented, the work planned on the creation of a gentler catching process in order to increase probability of discards to survive is relevant. This work will run until Jan 2023. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. Further clarity on the objectives for the roadmap is needed in order to

	facilitate an evaluation. There is currently no timetable for the completion of the roadmap.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF notes the new estimates of survival provided as well as the update catch volumes and catch composition which improves the knowledge on plaice survivability in the beam trawl fishery and the impact of the exemption. However, STECF notes this information is only for the larger beam trawl vessels and no information has been provided for smaller vessels. STECF notes the planned selectivity trials which are a positive initiative and potentially may help to increase survival rates in the beam trawl fishery. STECF agrees with the comment of EWG 21-05 relating to the roadmap and the need for clarity on objectives and timelines.
Exemption	Skates and rays caught by all fishing gears in the North Sea in ICES division 3a and ICES subarea 4
Main findings of EWG 21-05	No new survival estimates or substantial new information about fleets and fisheries for all affected Member States has been provided. However, the JR as reported on initiated and planned actions for the three steps of the roadmap from 2018: (1) Improve knowledge on stocks and survivability (Annexes F1-F7). (2) AC measures to minimize discards and improve survivability (Annex F8). (3) Coordination of work by regional group chair. This has helped to consolidate the knowledge on the survival of skates and rays in the North Sea. To date, survival and discard evidence and fleet information is reported in a too incoherent way to make sensible use of all information. Most information is member state specific within regions and there are very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catches incl. discards per species and métier for all member states to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. The special condition regarding scientific information about cuckoo ray as specified in the current exemption (article 9 of Regulation (EU) No 2020/2014) is not reflected in the on-going and planned work presented in the JR.
Supplementary information	No supplementary information was provided.

provided to the Commission post EWG 21-05	
STECF Comments	STECF agrees with the comments of EWG 21-05 and notes that no additional information has been provided on cuckoo ray. Indications from recent studies show that survival rates for cuckoo ray are low with reasonably high discard rates. Therefore, STECF highlights that catch data for cukoo ray in the North Sea would allow some assessment of the risk of the continuation of cuckoo ray being covered under this exemption.
Exemption	Plaice caught with trawls with a mesh size of at least 90-99 mm equipped with Seltra panel targeting flatfish or roundfish in ICES division 3a, — plaice caught with trawls with a mesh size of at least 80-99 mm targeting flatfish or roundfish in ICES subarea 4
Main findings of EWG 21-05	This is an amendment to an existing exemption. It refers to a request for additional information to define a bottom-trawl fishery targeting round- and flatfish in the Union waters of ICES division 3a and subarea 4 with mesh sizes of 90 to 119 mm. The Scheveningen Group proposed to define a fishery targeting round and flatfish when <33% (in weight) of Nephrops is present in the catch. Otherwise, it can be considered a *Nephrops* targeted fishery for which the high survival derogation for plaice should not apply, and consequently all plaice have to be landed. No further justification on this arbitrary threshold was provided, and how catches will be registered on-board in compliance to such a rule. Without any measures in place to register catches and monitor the discarding of (exempt) unwanted catches, a risk is introduced to allow discarding under a status quo. No specific provision was included in the JR to accompany the catch composition rule with measures to improve the documentation of catches, such as a provision for CCTV. Furthermore, no justification or evidence was provided to support the proposal to expand this exemption also to bottom trawls used in the Kattegat, using a square mesh panel of at least 120 mm fitted on trawls in the period from 1 October to 31 December. The Scheveningen group suggested when there is more than 33% (in weight) of *Nephrops* in the catch, the high survival derogation for plaice should not apply and all plaice must be landed, based on the reasoning that more *Nephrops* in the catch reduces the survival of discarded plaice. Based on the available survival information that this assumption is correct. However, no further justification was provided to support the threshold proposed. It is an arbitrary rule. It is not clear how the catch would be registered on-board to determine its composition, and in a way to facilitate enforcement and this is a concern.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: DNK. Following the request of EWG 21-05 to provide new substantial survival information for extending the exemption to the Kattegat, namely for a square mesh panel of at least 120 mm fitted on trawls in the period from 1 October to 31 December, Denmark supplied the following two documents:

	Research article: Karlsen JD, Krag LA, Albertsen CM, Frandsen RP (2015) From Fishing to Fish Processing: Separation of Fish from Crustaceans in the Norway Lobster-Directed Multispecies Trawl Fishery Improves Seafood Quality. PLoS ONE 10 (11): e0140864. DTU Aqua internal note dated 02/03/2020, which specifically provides information on improved flatfish selectivity from new studies, and an evaluation of the results from the Danish discard survival studies for the 100-119 mm trawl fishery. *Reviewer's comments* *Denmark supplied an official note from the Danish scientific institute for aquatic resources, DTU Aqua, on the survivability issue regarding panels used in the Kattegat. Karlsen et al. (2015) and the supplementary internal DTU Aqua note confirm that it is expected that the effect of target species (i.e. the discard survival of plaice was less likely when targeting Nephrops than when targeting plaice) is larger than an effect of mesh size or selectivity device. Furthermore, the supplementary information confirms that the discard survival of plaice will be similar or better for larger mesh sizes, including the SELTRA and 120 mm square mesh panels, compared to the 80-99 mm otter trawl fishery.* *However, no further justification was provided to support the threshold (i.e., 33% in weight of Nephrops in the catch) proposed by the Scheveningen group. This remains an arbitrary rule rather than based on rigorous and scientific analysis. There is still an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.*
STECF Comments	STECF agrees with EWG 21-05 that it would be challenging to monitor and enforce this exemption based on the catch threshold proposed, accepting that plaice survivability is increased where catches of *Nephrops* are low. Including conditions such as restricting the exemption to fishing at certain depths, tow durations and to specific groups of vessels, or as in this case based on a catch threshold may influence discard survival, but there is no evidence that these conditionalities can or are being applied in practice or enforced by Member States.
Exemption	Turbot caught with beam trawls (TBB) with a cod-end equal to or larger than 80mm in ICES subarea 4
Main findings of EWG 21-05	The new survival estimates from beam trawl catches are valuable as previous estimates where from pulse trawls. However, the estimated survival is based on very few observations (17 individuals from two trips), which makes it difficult to draw any conclusions about both likely survival rate and the compatibility compared to current fishing practises as the conditions in the wider fishery is not put into context with the estimated survival rate. A synthesis of available survival estimates, and characteristics of all relevant fisheries is needed to assess the consequences of the exemption (see plaice exemption). It would be valuable to expand the Dutch proposal to study survival of

	plaice for the Tiaki cod end to also estimate survival of turbot (does not seem to be planned now) as the Dutch fisheries are a major source of turbot discards.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF notes that limited new survival estimates have been provided which has increased the knowledge on turbot survivability. However, STECF agrees with EWG 21-05 that these need to be put in the context of the wider fishery and current levels of unwanted catches to allow an assessment of the impact of the exemption of the turbot stock.
Technical Measures	
Exemption	Specific technical measures in the Skagerrak
Main findings of EWG 21-05	EWG 21-05 concludes that the proposed amendment to the technical measures in the Skagerrak and Kattegat consolidates existing measures contained in Annex V of Regulation (EU) 2019/1241. It achieves its main aim of removing any ambiguity in the current regulations and confirms that vessels using seine nets or beam trawls cannot use the 90mm mesh size in the Skagerrak. The reduction in scope (i.e. the derogation applies only otter trawls) will offer higher protection for juveniles, thereby improving the exploitation patter due to the fact that the 90mm derogation is no longer available to beam trawls and seine nets. This was the intention of the agreement with Norway as evidenced by the EU/Norway Working Report referenced in the JR. The removal of this ambiguity contributes to the optimisation of exploitation patterns in the demersal fisheries in the Skagerrak and Kattegat and provides better protection for juveniles and spawning aggregations of marine biological resources in these fisheries. Therefore, the JR is in line with the objectives in Article 3 and the target in Article 4 that, "catches of marine species below the minimum conservation reference size are reduced as far as possible in accordance with Article 2(2) of Regulation (EU) No 1380/2013".
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05 that the JR is in line with the objectives in Article 3 and the target in Article 4 of the TMR.

Table 1b. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **NWW.**

De minimis

Exemption	Whiting caught by vessels using bottom trawls and seines with a mesh size equal to or greater than 80 mm, pelagic trawls and beam trawls with a mesh size of 80 to 119 mm in ICES divisions 7b to 7k
Main findings of EWG 21-05	A lot of work seeking to improve fishing gears selectivity for whiting has been carried out in many of the relevant fisheries implemented in the Celtic Sea. Future work is also planned. Analysis carried out by STECF PLEN 20-01 and 20-02 has shown that the regulated gears in the whitefish and *Nephrops* fisheries are selective for whiting. However, the overall impact of these gears on reducing unwanted catches of whiting in these fisheries cannot be fully evaluated in the absence of catch data. The implications of granting the proposed exemption to the fishery and species concerned cannot be quantified with the information provided with the JR. Updated catch data is provided only for the relevant French fleets. Additionally, due to the absence of catch data, the relationship between the de minimis volume and the actual level of unwanted catches cannot be evaluated.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Whiting 7b-k, Ireland - Trawls, Seines & Beam Trawls (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. <u>Nephrops trawls</u> Landings: 22 t, discards : 3 t, discard ratio 12%, de minimis 1 tonne Number of vessels : ~ 76 vessels <u>Whitefish trawls</u> Landings : 1233 t, discards 58 t, discard ratio 4% de minimis 65 t Number of vessels : ~ 40 vessels <u>Whitefish Scottish Seines</u> Landings : 626 tonnes, discards 15 t, discard ratio 2% de minimis 32 t <u>Beam Trawls</u> Landings: 45 t, discards: 15 t, discard ratio: 25%, de minimis: 3 t. Number of vessels: ~13 Irish vessels subject to LO *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request but does not affect the findings of the EWG 21-05 given above. Additional information was only provided by Ireland and not the other countries, with vessels availing of this exemption. Without catch information from the other Member States it is not possible to quantify the implications of granting the proposed exemption.*
STECF Comments	STECF notes that in the absence of catch data for all Member States involved in the fleet, it is not possible to assess fully the impact of the exemption. However, the French and Irish data provided suggested discard rates are relatively low in trawl and seine fisheries where selectivity has

	been improved under the measures introduced into the Celtic Sea. STECF also notes that the cod stock in the Celtic Sea remains heavily depleted. Reducing fishing mortality on this stock should be a priority and therefore continuation of an exemption for a stock closely associated with cod if not strictly monitored, may lead to increased fishing mortality due to unreported discarding.
Exemption	Haddock caught in the TR1 and TR2 trawl and seine fisheries in ICES divisions 7b, 7c and 7e to 7k
Main findings of EWG 21-05	A lot of work seeking to improve fishing gears selectivity for haddock has been carried out in many of the relevant fisheries implemented in the Celtic Sea. Analysis carried out by STECF PLEN 20-01 and 20-02 has shown that the regulated gears in the whitefish and *Nephrops* fisheries are selective for haddock. However, the overall impact of these gears on reducing unwanted catches of haddock in these fisheries cannot be fully evaluated in the absence of catch data. The implications of granting the proposed exemption to the fishery and species concerned cannot be quantified with the information provided with the JR. Additionally, due to the absence of catch data, the relationship between the de minimis volume and the actual level of unwanted catches cannot be evaluated.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Haddock 7b-k, Ireland - Trawls, Seines & Beam Trawls (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. <u>Nephrops trawls</u> Landings : 221 t, discards : 100 t, discard ratio 31%, de minimis 16 t Number of vessels : ~ 76 vessels <u>Whitefish trawls</u> Landings : 1302 t, discards 576 t, discard ratio 31% de minimis 91 t Number of vessels : ~ 40 vessels <u>Whitefish Scottish Seines</u> Landings : 610 tonnes, discards 336 t, discard ratio 36% de minimis 47 t Number of vessels : ~ 9 vessels <u>Beam Trawls</u> Landings: 411 t, discards: 180 t, discard ratio: 30%, de minimis: 30 t. Number of vessels: ~13 Irish vessels subject to LO *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request but does not affect the findings of the EWG 21-05 given above. Additional information was only provided by Ireland and not the other countries, with vessels availing of this exemption. Without catch*

	information from the other Member States it is not possible to quantify the implications of granting the proposed exemption.
STECF Comments	STECF notes that the catch information provided for Ireland shows that levels of unwanted catches of haddock remain high (~ 30%) across the main fisheries. This suggests that the selective gears introduced into the Celtic Sea have been less effective for haddock than for whiting, noting that there have been several pulses in recruitment of haddock in recent years that have introduced large numbers of small fish into the fisheries. STECF also notes that the cod stock in the Celtic Sea remains heavily depleted. Reducing fishing mortality on this stock should be a priority and therefore continuation of an exemption for a stock closely associated with cod if not strictly monitored, may lead to increased fishing mortality due to unreported discarding.
Exemption	Boarfish caught by vessels using bottom trawls in ICES divisions 7b-c and 7f-k
Main findings of EWG 21-05	This exemption is due to remain in place until the end of 2023. The requested rewording of the exemption has implications in terms of the permitted potential de minimis discard volume. Using data for 2018 submitted by Member States to the STECF FDI database, the total catch of boarfish by all gears in 7b, c, f-k was 4220 t (discards 187 tonnes), whereas the total catch using bottom trawls was 179 tonnes (discards 178 tonnes). The implied discard volume for a 0.5% de minimis is small in each case (21 tonnes based on catches by all gears and < 1 tonne based on catches by bottom trawls. Almost all reported discards for 2018 (187 tonnes) were attributed to bottom trawls (178 t). Therefore, the current 0.5% de minimis based on bottom trawl catches only would not have been sufficient to account for the unwanted catches of boarfish reported for 2018 for the French fleet. This is based only on the French data provided and the levels of unwanted catches of boarfish from other fleets operating in the same fisheries is unknown. Catch data and a description of the fisheries of other Member States availing of this exemption would be helpful but would not materially change the observation that under both the current wording and the new wording, the exemption covers only a small portion of the total unwanted catches. It is not clear from the supporting information what steps are planned to deal with the residual unwanted catches over and above the de minimis volume. While the supporting information concludes that selectivity improvement by regulatory measures to avoid the catches of boarfish will be hard to achieve without severe economic impacts on the revenue of the boats concerned, this is not supported by quantitative information. The arguments presented are generic and do not relate to the unwanted catches of boarfish. The priority should be to improve selectivity to reduce the unwanted catches and therefore, the costs for handling such catches, accepting that this should be balanced against the costs of sorting small quantities of boarfish from the other marketable catch.
Supplementary information provided to the Commission post	No supplementary information was provided.

EWG 21-05	
STECF Comments	STECF agrees with the comments of EWG 21-05.
High Survivability	
Exemption	Skates and rays (Rajiformes) caught by any fishing gear in the North-Western Waters (ICES subareas 6 and 7)
Main findings of EWG 21-05	New survival evidence for cuckoo ray is provided which is relevant for the French otter trawl fishery in the border zone between area 7e, 7h and 8a. The overall survival probability across seasons and vessels between 14-23% (95% CI). There was some indication of captivity related effects (20% of controls died in the summer, and up to 80% in the winter). The observations from winter were therefore not used for estimating the relationship between vitality index and long-term survival. A slightly lower survival rate was observed during winter but variability between vessels was larger than between seasons. The most important factor identified to affect survival rate was haul duration but also wave height, fishing depth, air temperature and duration of air exposure displayed significant effects. Discard data for cuckoo ray from France reports a discard rate of 27% is reported for the particular fishery, while 39% discards are reported for French bottom trawls in the Celtic Sea, western channel and west of Ireland as a whole. This is concern given the observed low survival estimates observed in the French trials. Ireland reports on a planned survival experiment 2021 for cuckoo ray for otter trawls in the Irish Sea. The project plan indicates a scientifically robust experiment that will add to the knowledge about cuckoo ray survivability in North-Western waters.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF observes that the new survival estimates provided for cuckoo ray are quite low but with a high degree of variability. The additional study planned by Ireland should add to the knowledge on survivability and confirm whether the low rate observed is correct. STECF also notes that the information provided shows discard rates are quite high, meaning that there may be high levels of discard mortality associated with this exemption if the survival is low. However, the catch information provided is only for one Member State, so it is not clear whether this is the case for the fleets of other Member States.
Exemption	Plaice caught in ICES divisions 7a to 7g using beam trawls
Main findings of EWG 21-05	New evidence was provided for the Belgian beam trawl fleet that operates in North-Western waters and in the North Sea. The new survival estimates were based on sampling and captive monitoring of undersized plaice on two trips in the Celtic Sea and the Eastern Channel 2020. Estimated long-term

	survival (Kaplan-Meier asymptote) of 268 discarded undersized plaice ranged between 13% (9%-19%, 95% CI) from the summer trip (July 2020, Celtic Sea), with conventional trawl and 51% (41%-64%, 95% CI) from the winter trip (December 2020, Eastern Channel) with a flip-up rope, and 44%, (35-56%, 95% CI) without a flip up rope. Updated information about the Belgian fleet for 2019-2020 was provided but not for the other countries (effort, landings, discards by area). The area based Belgian discard rates for plaice in 2019 and 2020 respectively was reported to be 7a, 7d and 7e- 51% and 40%, 7g, 7h- 29% and 33%. No discard rate was reported for 7h, 7j (or 8a and 8b). Last year´s JR also contained Belgian information but none from other relevant countries. The new survival estimates add to the overall knowledge about undersized plaice survival for larger beam trawlers (>221 kW, i.e. to exemption 7.1.a and not 7.1.b). A first indication about the effect of the use of a flip-up rope is also provided but the study was too limited in scope to draw any conclusions. More information and analysis of representativeness and transferability of survival evidence is needed.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Plaice 7a-k, Ireland – Beam Trawls (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. - Plaice, 7a, BT2. No. vessels subject to LO: ~11, landings: 146 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~44% (Uhlmann et al, 2020) - Plaice, 7fg, BT2. No. vessels subject to LO: ~11, landings: 140 t, discards: 19 t, discard ratio: 12%, Estimated survival rate: ~44% (Uhlmann et al, 2020) - Plaice, 7hjk, BT2. No. vessels subject to LO: ~11, landings: 0 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~44% (Uhlmann et al, 2020) *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request but does not affect the findings of the EWG 21-05 given above. Additional information was only provided by Ireland and not the other countries, with vessels availing of this exemption. Without catch information from the other Member States it is not possible to quantify the implications of granting the proposed exemption.*
STECF Comments	STECF notes the new estimates of survival provided as well as the update catch volumes and catch composition which improves the knowledge on plaice survivability in the beam trawl fishery and the impact of the exemption. However, STECF notes this information is only for the larger beam trawl vessels and no information has been provided for smaller vessels. STECF notes the planned selectivity trials which are a positive initiative and

	potentially may help to increase survival rates in the beam trawl fishery. STECF agrees with the comment of EWG 21-05 relating to the roadmap and the need for clarity on objectives and timelines.
Exemption	Plaice (Pleuronectes platessa) caught in ICES divisions 7a, 7b, 7c, 7f, 7g, 7h, 7j and 7k with seine nets
Main findings of EWG 21-05	New survival evidence was presented for the Irish Scottish seine fishery which followed up from an earlier study where plaice were evaluated for vitality aboard, but not monitored in captivity. Fishing took place in ICES 7j. This new captive survival study was assessed to be done consistent with ICES guidelines but was limited in scope. Overall, 71% of plaice survived, which was comparable to a captivity study of Danish-seine caught plaice. Most plaice were in excellent condition and all still alive when landed on deck. While survival was modelled by parametric survival analyses, contributing factors that could influence survival were listed and discussed, but not modelled. Other studies have shown that if other factors are being considered alongside vitality, a model fit can be improved. However, the survival estimate can be considered robust for the conditions of the fishing trial. More details on the fishery, from all relevant member states, including vessel numbers, catches and catch composition, as well as technical aspects of the fishing operation such as sorting times, are needed for a full evaluation.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Plaice 7b-k, Ireland, Seine nets (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. - Plaice, 7a, SSC. No. vessels subject to LO: ~9, landings: 5 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~71% (Oliver et al., 2021) - Plaice, 7b, SSC. No. vessels subject to LO: ~9, landings: 0.9 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~71% (Oliver et al., 2021) - Plaice, 7fg, SSC. No. vessels subject to LO: ~9, landings: 16 t, discards: 13 t, discard ratio: 45%, Estimated survival rate: ~71% (Oliver et al., 2021) - Plaice, 7hjk, SSC. No. vessels subject to LO: ~9, landings: 6 t, discards: 0.4 t, discard ratio: 6%, Estimated survival rate: ~71% (Oliver et al., 2021) *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request. No other country has supplied any information requested by the EWG 21-05 about plaice catches in seine net fisheries, noting that no such catches are reported in the FDI database.* *The evidence submitted to support survival exemptions for plaice highlights that survivability in most of the fisheries is affected by many factors and is*

	highly variable. In the ICES division 7f,g, the discard ratio is high but the actual discarded volume is low (e.g., 13 tonnes) considering a stock with a TAC of 2003 tonnes in 2020, see at the ICES link. *As there are no other countries with reported catches in 7f,g according to the FDI database with seines it means that potentially just 4 tonnes may not survive, using the 71% survival rate.*
STECF Comments	Based on the information provided, it would seem that given the survival rate is high and the actual level of unwanted catches of plaice in the relevant fishery is low, the impact of this exemption on the plaice stocks is likely to be low.
Technical Measures	
Exemption	Technical measures in the Celtic Sea, Irish Sea and West of Scotland
Main findings of EWG 21-05	The NWW Member States submitted a JR covering technical measures for the Celtic Sea, Irish Sea and West of Scotland, containing measures for commercial and recreational fisheries. This JR was largely the same as the JR submitted in 2020 and assessed by STECF PLEN 19-02. This was not re-assessed and the conclusions from STECF PLEN 20-02 remain valid.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05.
Exemption	Joint Recommendation to include T90 100 mm on the basis of equivalent selectivity with T0 120 mm
Main findings of EWG 21-05	Following the assessment by STECF PLEN 20-02 of the NWW technical measures JR, the use of a 100mm T90 codend was removed as a gear option for the Irish Sea because: 1. The number of hauls was low and the study did not use the more robust twin-rig catch comparison method nor a covered codend to measure the absolute selectivity. 2. There was little detail on the analysis and no information on the variation between hauls. 3. It was not possible to discern whether there is a disproportionate dependence on any particular haul. Based on a re-assessment and new information provided, EWG 21-05 recognises that the catch comparison approach is a standard and well-established method, which has been used in many studies of the catching performance of fishing gears. Therefore, EWG 21-05 observes that the use of catch comparison method in this study was a reasonable approach, given the objective of the trials was to assess the differences in catches between the test (100mm T90) and control (120mm T0) gears.

	The analysis carried out shows that the abundance was highly variable between hauls, with low abundance evident in numerous hauls for cod, haddock and whiting. Ireland tried to account for this variability using generalised additive models (GAM) and bootstrapping. This resulted in a high level of uncertainty within the model. A further analysis attempted to reduce such uncertainty by grouping hauls based on spatial proximity and matched all possible valid combinations from within these groups. Both methods resulted in a similar mean modelled overall proportions retained in T90 100 mm and suggest regardless of the higher variability, the use of the first model based on GAM and bootstrapping because has less bias due to arbitrary combinations of control and test hauls. The additional analysis provided indicates that the 100 mm T90 has similar selectivity characteristics for whiting and haddock as a 120 mm T0 codend, noting the data provided is still limited in terms of the number of hauls.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05 and based on this it would appear the proposed gear option is in line with the objectives in Article 3 and the target in Article 4 of the TMR, noting that only limited catch data is provided.
Exemption	King Scallop in ICES division 7d
Main findings of EWG 21-05	The High-Level Group of the North-Western waters submitted a JR to introduce technical measures for the King scallop fishery framework in the English Channel (ICES subarea 7d). Based on the assessment by EWG 21-05 it is apparent the prohibition on scallop fishing applies to all fleets during a specified time period, which is a major step forward and follows the conclusions of STECF PLEN 16-02. The introduction of an extended timeframe (15th May-15th October) for the closure in the intermediate zone of the Eastern Channel South of latitude 49°42’ N is likely to be beneficial for stock biomass. While the closure in the rest of area 7d and 7e is shorter than that for the Baie de Seine (15th May-15th October), the measure is still likely to be beneficial given it applies to all fleets. The JR encourages Member States to improve existing management measures (e.g. selectivity) and, if trials are conclusive, all Member States would commit to enforcing these new management measures and the JR should be updated accordingly.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.

STECF Comments	STECF agrees with the comments of EWG 21-05 and therefore concludes that the JR is in line with the objectives in Article 3 and the target in Article 4 that, catches of marine species below the minimum conservation reference size would be reduced through the measures proposed. STECF also agrees that further measures in relation to improving selectivity in the scallop fishery would be beneficial by further reducing the catches of juveniles.
Exemption	Establishing Management Measures for the Red Seabream in ICES subareas 6 and 7
Main findings of EWG 21-05	The North-Western Waters Member States Group has submitted a JR with additional conservation measures to improve the status of the Red Sea Bream stock in subareas 6 and 7. The management measures presented in the Joint Recommendation of the North-Western Waters represent an improvement on the measures presented in 2019. They have the potential to reduce catches of red seabream but due to lack of supporting data it is not possible to assess fully whether catches will be reduced to the level of the 2021 TAC. The French national spatio-temporal closure coincides with the spawning period for this species. However, the closure only prohibits targeted fishing for red seabream and should bycatch occur when fishing for other species the landing obligation necessitates that red seabream be landed and counted against quota. The increased MCRS for commercial use of 36cm is below the MCRS of 40cm proposed by STECF PLEN 19-01 and 19-03 necessary to protect adult females and is necessary to rebuild the stock. No additional size selectivity measures have been established to reduce unwanted catches below MCRS as was also highlighted in STECF PLEN 19-01 and 19-03. Without an increase in size selectivity catches are likely to remain the same while the unwanted portion of the catch is likely to increase. The MCRS of 40cm proposed for recreational fisheries is considered appropriate. Significant research work is planned by NWW Member States which will contribute to the biological knowledge of the red sea bream stock.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05 in that the measures proposed are in line with the objectives and targets in Articles 3 and 4 of the TMR and have gone some way to addressing the limitations of the previous proposals identified by STECF. However, STECF highlights given the depleted state of the Red Sea Bream stock, further measures may be needed to allow the stock to recover in the future. Whether such measures

	are needed and what they should equate to, should be informed by the research work planned.

Table 1c. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **SWW.**

De minimis	
Exemption	Horse mackerel caught by vessels using beam trawls, bottom trawls and seines in ICES subareas 8 and 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. More information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified due to a lack of catch data at gear level for all Member States. However, based on the catch data for 2019, the total volume discarded was 423 tonnes, against total catches in areas 8 and 9 with all gears of around 60,000 tonnes, around 0.7% of total catches. Therefore, in the context of the overall stock of horse mackerel, the impact of the exemption is likely to be limited from a stock perspective. The additional information provided by France, Spain and Portugal shows relatively low rate of discards (i.e. Spanish OTB_MPD_>=55 metier targeting horse mackerel had a discard rate of 1.8% in 2019) for some fisheries but quite high discard rates in others (i.e. Spanish OTB_MCD_>=55 metier has a discard rate of 66% in 2019). Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, implementing the most promising of these gears may help to address the issue of reducing discard rates for horse mackerel in the longer term. Spain has further selectivity work planned that may help to develop suitable gears.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project

					Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.

STECF Comments	STECF agrees with the comments of EWG 21-05. Efforts should be focused on reducing the level of unwanted catches of horse mackerel in the fisheries with the highest volumes of unwanted catches currently as identified by EWG 21-05. In this context STECF acknowledges the work planned by Spain although notes it is not altogether clear whether these trials will actually be carried out in the most relevant fisheries.
Exemption	Horse mackerel by vessels using gillnets in ICES subareas 8, 9 and 10 and CECAF zones 34.1.1, 34.1.2, 34.2.0
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. More information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. For France and Spain this is relatively low. Portugal does not provide data for total discards but reports a relatively high discard rate of 20-30% in the relevant fisheries. The implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for Portugal cannot be assessed. The data provided indicates the impact of the exemption on the horse mackerel stock will be low for Spain and France (less than 10 tonnes). The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

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Start: 01/01/2021
Trials: 04-08/06/2021
Final report: 30/11/2021</td></tr>
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Reviewer’s comments
Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.
</td></tr>
<tr><td>STECF Comments</td><td>STECF agrees with EWG 21-05 that given the low values of unwanted catches reported in the relevant fisheries, the likely impact of this exemption on the horse mackerel stock is likely to be low.</td></tr>
<tr><td>Exemption</td><td>Mackerel caught by vessels using beam trawls, bottom trawls and seines) in ICES subareas 8 and 9</td></tr>
<tr><td>Main findings of EWG 20-04</td><td>
The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments.
Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of mackerel discarded under this exemption. Based on the average catch data provided, the average total volume discarded was 727 tonnes, against average total catches in areas 8 and 9 with bottom trawls, beam trawls and seines of around 8,500 tonnes, around 8.7% of total catches. Therefore, the percentage level of mackerel being discarded under the exemption is likely to exceed the de minimis percentage of 5%.
The additional information provided by France, Spain and Portugal shows relatively low rate of discards (i.e. Spanish OTB_MPD_>=55 metier targeting mackerel had an average discard rate of 6.6% in 2019) for some fisheries but quite high discard rates in others (i.e. Spanish OTB_MCD_>=55 metier has an average discard rate of 83% in the period 2017-2020). Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, implementing the most promising of these gears may help to address the issue of reducing discard rates for mackerel in the longer term.
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<tr><td></td><td>The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 20-04</td><td>The following supplementary information was received from Member States:

ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.
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Start: 01/01/2021
Trials: 04-08/06/2021
Final report: 30/11/2021</td></tr>
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Reviewer’s comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.</td></tr>
<tr><td>STECF Comments</td><td>STECF notes that the volume of discards reported in some of the relevant fisheries are high and likely to exceed the level of de minimis volume granted. This suggests discarding over and above the de minimis exemption is likely to be occurring. Efforts should be focused on reducing the level of unwanted catches of mackerel in the fisheries with the highest volumes of unwanted catches currently as identified by EWG 21-05. In this context STECF acknowledges the work planned by Spain although notes it is not altogether clear whether these trials will actually be carried out in the most relevant fisheries.</td></tr>
<tr><td>Exemption</td><td>Mackerel by vessels using gillnets in ICES subareas 8 and 9 and and CECAF zones 34.1.1, 34.1.2, 34.2.0</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, more information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments.

Updated catch data has been provided by France, Spain and Portugal, which</td></tr>
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	provides an indication of the volumes of horse mackerel discarded under this exemption. For France and Spain this is relatively low. Portugal does not provide data for total discards but reports a relatively high discard rate of 30% in the trammel net fishery. The implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for Portugal cannot be fully assessed. The data provided indicates the impact of the exemption on the mackerel stock will be low for Spain and France (less than 10 tonnes). For Portugal even though the discard rate is high for the trammel net fishery based on the supporting information the actual volume discarded is low. Therefore, overall, the impact of the exemption on the overall horse mackerel stock is likely to be low. The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with EWG 21-05 that given the low values of unwanted catches reported in the relevant fisheries, the likely impact of this exemption on the mackerel stock is likely to be low.
Exemption	Megrim caught with bottom trawls, seines & beam trawls in ICES areas 8 & 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain, Portugal and Belgium which provides an indication of the volumes of megrim discarded under this exemption. Based on the average catch data provided, the total volume discarded in 2019 was ~260 tonnes. However, without overall catch data, the impact of the exemption on the overall megrim stock in subareas 8 and 9 cannot be estimated. The additional information provided by France, Spain, Portugal and Belgium shows relatively low rate of discards for most trawl fisheries except for the Spanish OTB_DEF_>=55 metier where discard volumes are quite high (accounted for approximately 80% of all discards reported) with a discard rate of 27% in 2020. Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show

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<tr><td></td><td>quite high losses of commercial catch. Nonetheless, implementing the most promising of these gears may help to address the issue of reducing discard rates for megrim in the longer term, particularly in the Spanish OTB_DEF>=55 metier.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 21-05</td><td>The following supplementary information was received from Member States:

ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.
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Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.</td></tr>
<tr><td>STECF Comments</td><td>STECF agrees with the comments of EWG 21-05. Efforts should be focused on reducing the level of unwanted catches of megrim in the fisheries with the highest volumes of unwanted catches currently as identified by EWG 21-05. In this context STECF acknowledges the work planned by Spain although notes it is not altogether clear whether these trials will actually be carried out in the most relevant fisheries.</td></tr>
<tr><td>Exemption</td><td>Megrim caught by vessels using gillnets in ICES subareas 8 and 9</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, more information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments.

Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of megrim discarded under this exemption. For the three countries this is very low (less than 1.5 tonnes) and in many of the metiers for which data has been provided no discards are reported.

The implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for all countries</td></tr>
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	cannot be fully assessed. However, the data provided indicates the impact of the exemption on the megrim stock will be low.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with EWG 21-05 that given the low values of unwanted catches reported in the relevant fisheries, the likely impact of this exemption on the megrim stock is likely to be low.
Exemption	Anglerfish caught with bottom trawls, seines & beam trawls in ICES areas 8 & 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain, Portugal and Belgium which provides an indication of the volumes of anglerfish discarded under this exemption. Based on the average catch data provided, the total volume discarded in 2019 was ~12 tonnes, against total catches of anglerfish in trawl fisheries estimated at 2650 tonnes, around 0.45%. The discard rate across the fisheries is low, typically less than 5%. Therefore, the impact on the anglerfish stock of the exemption is likely to be low. Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

	Reviewer's comments *Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.*
STECF Comments	STECF agrees with EWG 21-05 that given the low values of unwanted catches reported in the relevant fisheries, the likely impact of this exemption on the anglerfish stock is likely to be low.
Exemption	Anglerfish caught by vessels using gillnets in ICES subareas 8 and 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information is necessary on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. The additional information provided by France, Spain and Portugal indicate a relatively low rate of discards for France (0.3%) and Portugal (close to zero) are well below the maximum 4% de minimis for anglerfish in the fisheries covered by the exemption. The discard rate for Spain is much higher in their directed anglerfish fishery averaging around 11% of total anglerfish catches. However, reducing these discards through improvements in selectivity would not be possible, given the vessels operating in this fishery already operate with gillnets with a mesh size of 280mm. The overall volumes between the three countries combined seem to be relatively small when put in the context of the anglerfish stocks in areas 8 and 9. Therefore, while the volume of de minimis that could be discarded under the exemption due to incomplete catch data cannot be assessed, it is unlikely that discards under this exemption will have a significant impact on the anglerfish stock.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05 that the likely impact of this exemption on the anglerfish stock is low. However, STECF does note the higher discard rate in the Spanish gillnet fishery and would question whether this is due to damage by predators and therefore covered under Article 15(4d) of the CFP Basic Regulation.
Exemption	Whiting -by vessels using bottom trawls, seines & beam trawls in ICES subarea 8
Main findings of EWG 21-05	No economic information specific to whiting is provided and therefore cannot make any evaluation in relation to disproportionate costs. Only France and Belgium report catches of whiting in trawl fisheries. France

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<tr><td></td><td>reports very low volumes of discards (4 tonnes in 2020) and Belgium reports no discards at all with very low catches. Therefore, based on total catches of around 565 tonnes, the estimated volume of discards is less than 1% of total catches. The impact of the exemption on the overall whiting stock is likely to be low.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 21-05</td><td>The following supplementary information was received from Member States:

ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.
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Start: 01/01/2021

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Reviewer’s comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.</td></tr>
<tr><td>STECF Comments</td><td>STECF agrees with the comments of EWG 21-05.</td></tr>
<tr><td>Exemption</td><td>Whiting caught by vessels using gillnets in ICES subarea 8</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>No economic information specific to whiting is provided and therefore cannot make any evaluation in relation to disproportionate costs.

The catch information provided by France indicates that the volume discarded under the exemption was 2.7 tonnes in 2020 out of total catches of 184 tonnes, around 1.4%. Therefore, the likely impact of the exemption on the whiting stock is likely to be low.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 21-05</td><td>The following supplementary information was received from Member States:

ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.
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	AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021
	Reviewer's comments *Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.*				
STECF Comments	STECF agrees with the comments of EWG 21-05.				
Exemption	Red Sea Bream caught by vessels using bottom trawls, seines & beam trawls in 9a				
Main findings of EWG 21-05	No new information has been provided. Information on economic impacts was provided already in 2020. At that time, EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be.				
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.				
STECF Comments	STECF notes no new information has been provided to support this exemption so therefore cannot not comment.				
Exemption	Sole caught by vessels using bottom -trawls, seines and beam trawls in 9a				
Main findings of EWG 21-05	No new information has been provided. The information on economic impacts was provided already in 2020. At the time, EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels				

	involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be. Based on the limited catch data provided, the level of discards of sole in the relevant fisheries is negligible. Therefore, the impact of the exemption on the sole stock is likely to be low.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05, noting that only very limited information has been provided.
Exemption	Anchovy caught by vessels using beam trawls, bottom trawls and seines in ICES subareas 8 and 9
Main findings of EWG 21-05	Only limited new information has been provided. The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the French vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be. The additional information provided by France indicate a low rate of discards well below the maximum 5% de minimis for anchovy in the fisheries covered by the exemption. The information provided by Portugal indicates similarly low levels of discards < 1 tonnes in the relevant bottom trawl fisheries. No information is provided for Spain and it is felt highly unlikely that the Belgium beam trawl fleet operating in the northern part of the Bay of Biscay would encounter anchovy. Therefore, while the volume of de minimis that could be discarded under the exemption cannot be assessed due to a lack of catch data (no data from Spain), it is unlikely that discards under this exemption will have any significant impact on the anchovy stock, given the volumes of unwanted catch reported are so low.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project

					Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.

STECF Comments	STECF agrees with the comments of EWG 21-05.
High Survivability	
Exemption	**Cuckoo Ray** caught caught by trammel nets in ICES subareas 8 and 9; caught by bottom trawls in ICES subarea 8
Main findings of EWG 21-05	New survival evidence was provided in the form of a French study on cuckoo ray from the border between areas 7e/7h and 8a with bottom otter trawl. The study involved extensive vitality scoring (164 trips) coupled to captive survival monitoring of a stratified subsample (based on a vitality index) during summer 2020. The relationship between vitality index and captive long-term survival (monitored 21 days) together with the vitality scores from the wider fishery was then used to estimate seasonal and overall survival. The ICES critical review was applied, and the estimates were considered robust. The overall survival probability across seasons and vessels between 14-23% (95% CI). There was some indication of captivity related effects (20% of controls died in the summer, and up to 80% in the winter). The various evidence from different regions corroborates earlier indications that cuckoo rays display lower survival than other, larger ray species and that there could be zero survival in some fisheries. Further field work is planned in 2021 (third quarter) as part of a PhD thesis (Universidad do Algarve) in Portugal to quantify survival of cuckoo ray discarded from a Southern Portuguese crustacean trawl-fishery. This study will combine on-board vitality observations with monitoring observations in captivity.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF observes that the new survival estimates provided for cuckoo ray are quite low but with a high degree of variability. The additional study planned by Portugal should add to the knowledge on survivability and confirm

	whether the low rate observed is correct. STECF also notes that the information provided shows discard rates are quite high, meaning that there may be high levels of discard mortality associated with this exemption if the survival is low. However, the catch information provided is only for one Member State, so it is not clear whether this is the case for the fleets of other Member States.
Exemption	**Red seabream** caught by vessels using the artisanal gear voracera in ICES division 9a and with hooks and lines in ICES subareas 8 and 10 and ICES division 9a
Main findings of EWG 21-05	No new information was provided as due to the COVID-19 pandemic, additional experiments planned to occur in 2020 were postponed to late 2021/early 2022. Additional survivability experiments with red seabream caught by demersal longlines are planned to be conducted under the project PPCENTRO. Those experiments aim to estimate the survival rates based on captive observations and during a longer observation period as suggested by STECF 19-08. Captivity observations will be conducted for periods of three-weeks in IPMA's facilities in Peniche (located near the fishing harbour). Vitality, RAMP and lesions of the specimens and water quality parameters will be monitored daily. Additional vitality data after capture, RAMP and lesions will be recorded onboard for all the captured specimens
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05. The additional survivability experiments provided should help to provided robust survival estimates from the relevant fishery.
Exemption	**Skates and rays (except cuckoo ray)** (Rajiformes) caught with all gears in ICES subareas 8 and 9
Main findings of EWG 21-05	No additional information on survival and fishery compatibility has been provided. However, it is stated that discards for this species are negligible, being mostly related to fish below the minimum landing size. Additional experiments to obtain survival rates over a longer period under captive conditions are required. New experiments were planned to be conducted in late 2019/early 2020, to obtain survival rates for a longer period of time under captive conditions, but the trials have been postponed due to constraints acquiring material for the experiments.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.

STECF Comments	STECF agrees with the comments of EWG 21-05.
Technical Measures	
Exemption	Establishing Management Measures for the Red Seabream in The Bay Of Biscay
Main findings of EWG 21-05	The South-Western Waters Member States Group has submitted a JR with additional conservation measures to improve the status of the Red Sea Bream stock in subarea 8. The management measures presented in the Joint Recommendation of the South-Western Waters represent an improvement on the measures presented in 2019. They have the potential to reduce catches of red seabream but due to lack of supporting data it is not possible to assess fully whether catches will be reduced to the level of the 2021 TAC. The Spanish national closures for commercial fisheries are in the general area where spawning is likely to take place, but it is not possible to evaluate how effective they will be due to lack of supporting evidence. The introduction of the Spanish national measures of closed areas to recreational fishers appear to be in areas (estuaries and around ports) where juvenile red seabream aggregate. However, it is not possible to evaluate how effective they will be due to lack of supporting evidence. The additional Spanish national catch limit of one fish per licensed recreational fisher per year has potential to substantially reduce catches of red seabream in coastal areas. The French national spatio-temporal closure coincides with the spawning period for this species. However, the closure only prohibits targeted fishing for red seabream and should bycatch occur when fishing for other species the landing obligation necessitates that red seabream be landed and counted against quota. The increased MCRS for commercial of 36cm is below the MCRS of 40cm proposed by STECF PLEN 19-01 and 19-03 necessary to protect adult females and is necessary to rebuild the stock. The MCRS of 40cm proposed for recreational fisheries is appropriate. No additional size selectivity measures have been established to reduce unwanted catches below MCRS as was also highlighted in STECF PLEN 19-01 and 19-03. Without an increase in size selectivity catches are likely to remain the same while the unwanted portion of the catch is likely to increase. Significant research work is planned by SWW Member States which will contribute to the biological knowledge of the red sea bream stock.
Supplementary information provided to the Commission post	No supplementary information was provided.

EWG 21-05	
STECF Comments	STECF agrees with the comments of EWG 21-05 in that the measures proposed are in line with the objectives and targets in Articles 3 and 4 of the TMR and have gone some way to addressing the limitations of the previous proposals identified by STECF. However, STECF highlights given the depleted state of the Red Sea Bream stock, further measures may be needed to allow the stock to recover in the future. Whether such measures are needed and what they should equate to, should be informed by the research work planned.
Definition of Directed Fishing	
Exemption	Directed Fishing for SWW
Main findings of EWG 21-05	The South-Western Waters Member States Group has submitted a JR to define directed fishing as per Article 27(7) of Regulation (EU) 2019/1241. This was supported by catch data provided by the SWW The data provided allows for an evaluation of the suitability of the use of a catch threshold to define directed fisheries for the SWWs. The thresholds based on catch to defined directed fisheries may not be suitable for the metiers present in the SWW. Furthermore, the catch thresholds as defined in the SWW JR exclude a high proportion of the vessels already derogated from the TMR baseline mesh sizes. The impact of a vessel not reaching a catch threshold, namely if it will be required to operate within the baseline mesh size or not, is unknown. It is not possible to evaluate if it will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. It is not possible to assess whether it would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241. In any case the derogations are already contained in the TMR 2019/1241, and since they refer to smaller mesh sizes compared to the baseline, they are unlikely to help reaching the objectives and targets contained in Articles 3 and 4. The PLEN 20-03 conclusion that as no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries remains relevant and important. The PLEN 20-03 conclusion that it is also unclear as to how these thresholds would apply in the context of the landing obligation, under which all catches must be landed is also still relevant. If no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.
Supplementary information provided to the	No supplementary information was provided.

Commission post EWG 21-05	
STECF Comments	STECF agrees with the conclusions of EWG 21-05 that it is not possible to evaluate if the proposed catch thresholds will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. STECF also agrees it is not possible to assess whether the catch thresholds would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241. In any case the derogations are already contained in the TMR 2019/1241, and since they refer to smaller mesh sizes compared to the baseline, they are unlikely to help reaching the objectives and targets contained in Articles 3 and 4. STECF concludes in the absence of specific control and monitoring measures, the use of catch thresholds to define fisheries would be ineffective as they are likely to conflict with the requirement under the landing obligation to land all catches.

Table 1d. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **Western Mediterranean.**

De minimis	
Exemption	Hake and mullets, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Western Mediterranean Sea
Main findings of EWG 21-05	The evidence is reasonable in terms of the catch and discard data but, the supporting information to justify the exemptions is scant. Arguments in favour of the exemption are based on the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) of around €3000 euro per year. This represents about 7.5% of the gross profit of the "average" vessel. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate, but it cannot be assessed whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. The level of the exemption sought is close to 100% of the volume of discards. Improving selectivity should be the priority and in this regard, it is desirable that, as committed by the concerned Member States, additional selectivity studies are conducted on further mesh size / mesh orientation combinations, in order to assess whether improvements are possible. The use of MPAs, which was not included in previous JRs as an alternative to selectivity improvements, is not mentioned in any of the deliverables submitted in support of the JR (e.g. on additional areas or seasons with fisheries restrictions), even though it is also a part of the commitments

	reflected under recital (24) of Delegated Regulation (EU) 2020/4. However, according to the provision established in the MAP of Western Mediterranean, the Italian government was tasked with the introduction of specific area closures, in order to pursue the objective of reducing at least 20% of catches of juveniles of European hake. Ten Fishery Restricted Areas (FRAs) to protect EFH for recruitment of hake were thus implemented in the Ligurian, Sardinian, and Tyrrhenian Seas covered by Reg. EU 1022/2019 in GSA 9, 10 and 11. These FRAs, in which the use of any towed gear, such as "divergent trawls", "rapid trawls", "divergent twin nets", "pelagic trawls with pairs", "divergent pelagic trawls" and "dredges pulled by vessels", is prohibited, have been identified in the Annex 1 of the Decree of the General Director of Fisheries (MiPAAF) Prot. No 9045689 of 6 August 2020. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF would encourage the Member States in the Western Mediterranean carry out an assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using gillnets and trammel nets in the Western Mediterranean Sea
Main findings of EWG 21-05	Arguments in favour of the exemption are based on the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) of around €3000 euro per year. This represents about 7.5% of the gross profit of the "average" vessel. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the

	only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. The level of the exemption sought is close to 100% of the volume of discards. Improving selectivity should be the priority and in this regard, it is desirable that, as committed by the concerned Member States, additional selectivity studies are conducted on further mesh size / mesh orientation combinations, in order to assess whether improvements are possible. The use of MPAs, which was not included in previous JRs as an alternative to selectivity improvements, is not mentioned in any of the deliverables submitted in support of the JR (e.g. on additional areas or seasons with fisheries restrictions), even though it is also a part of the commitments reflected under recital (24) of Delegated Regulation (EU) 2020/4. However, EWG 21-05 notes that according to the provision established in the MAP of Western Mediterranean, the Italian government was tasked with the introduction of specific area closures, in order to pursue the objective of reducing at least 20% of catches of juveniles of European hake. Ten Fishery Restricted Areas (FRAs) to protect EFH for recruitment of hake were thus implemented in the Ligurian and the Tyrrhenian Seas covered by Reg. EU 1022/2019 in GSA 9, 10 and 11. These FRAs, in which the use of any towed gear, such as "divergent trawls", "rapid trawls", "divergent twin nets", "pelagic trawls with pairs", "divergent pelagic trawls" and "dredges pulled by vessels", is prohibited, have been identified in the Annex 1 of the Decree of the General Director of Fisheries (MiPAAF) Prot. No 9045689 of 6 August 2020. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF would encourage MSs in the Western Mediterranean carry out an assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been

	affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Total catches of demersal finfish under the Landing Obligation (excluding hake, mullets and pelagic species) and deep-water rose shrimp, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Western Mediterranean Sea
Main findings of EWG 21-05	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. While an estimate of the potential increase in costs of handling unwanted catches are provided, the estimate is generic to the "average" bottom trawler. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. Whether this represents a disproportionate cost cannot be assessed. Furthermore, detailed fishery-specific data and analyses are unlikely to add value to such a judgement. The 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. No reference is made to such areas in the documentation in support of the continuation of the current exemption. The limited information from France, Spain and Italy provided with the JR, indicates that with the exception of trawl caught *Pagellus bogaraveo*, the estimated discards are less than the catch corresponding to the maximum *de minimis* percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue unrestricted, as was the case before the Landing Obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the Landing Obligation was introduced. Furthermore, because the proportion of the catches discarded are small, the costs of handling unwanted catches are unlikely to be disproportionate. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information	No supplementary information was provided.

provided to the Commission post EWG 21-05	
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF would encourage MSs in the Western Mediterranean carry out an assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 3% of the total annual catches by vessels using gillnets and trammel nets in the Western Mediterranean Sea
Main findings of EWG 21-05	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. While an estimate of the potential increase in costs of handling unwanted catches are provided, the estimate is generic to the "average" bottom trawler. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. STECF 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. No reference is made to such areas in the documentation in support of the continuation of the current exemption. The limited information on landings and discards indicates that for gill and trammel nets, the proportion of the catches discarded are less than the requested maximum de minimis percentage of 3% of the total catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue unrestricted, as was the case before the Landing Obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the Landing Obligation was introduced. Furthermore, because the proportion of the catches discarded are small, the costs of handling unwanted catches are

	unlikely to be disproportionate. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF would encourage the Member States in the Western Mediterranean carry out an assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 1% of the total annual catches by vessels using hooks and lines in the Western Mediterranean Sea
Main findings of EWG 21-05	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. No estimates of discards are provided in support of the proposed exemptions although it is unclear whether this implies that there are no discards from bottom long line gears in the Western Mediterranean, but discards are likely to be only a small proportion of the total catch as such gears are generally highly selective and generate few discards. Hence, granting the exemption implies that discarding of the species concerned is likely to continue unrestricted, as was the case before the Landing Obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the Landing Obligation was

	introduced. Furthermore, because the proportion of the catches discarded is zero or likely to be small, the costs of handling unwanted catches are unlikely to be disproportionate. STECF 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. No reference is made to such areas in the documentation in support of the continuation of the current exemption. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF would encourage the Member States in the Western Mediterranean carry out an assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
High Survivability	
Exemption	Scallop (*Pecten jacobaeus*), Carpet clams (*Venerupis* spp.), and Venus shells (*Venus* spp.) below the minimum conservation reference size caught with mechanised dredges in the Western Mediterranean
Main findings of EWG 21-05	No evidence supporting high survivability for the three bivalves subject of this exemption request is provided. High probability of survival (94-95%) is only deduced from discards of other bivalve species (*Donax trunculus* and *Chamelea gallina*) caught by mechanized dredges. Therefore, as the survivability is inferred from discards of other bivalve species, it is not possible to assess the compatibility of discarded scallops, carpet clams and Venus shells with mechanised dredges.

Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF notes that only limited supporting information relating to different species was provide, therefore it is not possible to make any evaluation of the proposed exemption.
Exemption	Norway lobster (*Nephrops norvegicus*) below the minimum conservation reference size caught with all bottom trawls in the Western Mediterranean
Main findings of EWG 21-05	Survival evidence is based on the results of the MINOUW project, where experiments of survivability on Norway lobster in bottom trawl fishery have been conducted. The survival rate of Norway lobsters discarded from trawl catches in the western Mediterranean showed seasonal differences, varying between 6% in summer and 74% in winter, with values of 36% in spring. These seasonal differences were also observed in the Gulf of Cádiz, with a higher survivability rate in spring (68%) than in autumn (34%) for bottom trawl fishery. The supporting study pointed out that the differences in the survivability rates could be due to higher levels of physiological stress to which individuals are subjected when they are captured in summer versus winter and suggest that the air temperature may play an important role in survivability. However, such results confirm what had been already observed by EWG 18-06, concerning the very low survivability of Norway lobster during June, July and August. To improve an understanding of the thermal stress physiology, temperature records along the trajectory of fishing and handling should be presented. This could indicate whether higher environmental (acclimated) temperatures in summer or the temperature shock (when exiting bottom water; being pulled through the water column during hauling; and being exposed to (warm) air during sorting) are relevant predictors of discard survival.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF observes that in addition to the comments made by EWG 21-05 regarding additional analysis, accurate catch data, including the levels of unwanted catch to allow assessment of the impact of the exemption, would be helpful.
Exemption	Norway lobster (*Nephrops norvegicus*) below the minimum conservation reference size caught with pots and traps (FPO, FIX) in the Western Mediterranean

Main findings of EWG 21-05	The information provided is limited and to make any assessment of the exemption in the context of the Norway lobster stock, additional data should be provided indicating the scale of the fishery and level of catches. Given the minimal catches indicated and the absence of a targeted fishery, it is questionable whether this exemption is required at all.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05.
Exemption	Red seabream (*Pagellus bogaraveo*) below the minimum conservation reference size caught with hooks and lines in the Western Mediterranean
Main findings of EWG 21-05	Survival evidence is provided by Italy based on a survivability experiment carried out in the DiscardLess Project. This study was already reviewed in EWG 19-08. In particular, a report concerning vitality and survivability of *P. bogaraveo* caught with bottom longlines and handlines in the Azores (ICES subarea 10) shows that the direct at-vessel mortality, including both dead and moribund individuals, represented 16.5% and 12.7% for bottom longlines and handlines, respectively. In the same report, a study on red seabreams smaller than MCRS showed that long term survivability (21 days) is very high (90%) on specimens caught with hooks and lines in shallow waters (10 m depth). In addition, the survivability of *P. bogaraveo* caught with handlines was estimated by telemetry and it was observed a survival rate of 67% after 8 days. As the supporting studies on the survivability were conducted in the Atlantic, it is difficult to determine whether survival rates may differ across gear types (in particular the hook type), seasons and geographic areas. As suggested in EWG 19-08, a full study following ICES WKMEDS guidelines to directly observe discard survival should ideally be conducted in the Mediterranean.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05 and would suggest an assessment be made of the representativeness of the survival estimates from the studies carried out in the Atlantic compared to the fisheries in the Western Mediterranean.
Exemption	Lobster and Crawfish (*Palinuridae)* caught with nets and with pots and traps in the Western Mediterranean
Main findings of EWG 21-05	A survival rate of 0.64 is reported by Italy for both species caught with nets, pots and traps. This value is based on a study on undersized crawfish,

	but as no references are provided it is not possible to assess the quality of this estimation. Additional studies showing high survivability for both species are also mentioned, but such information is summarised only with references without a full report. Survivability for both species is expected to be high, while reported catches are generally low, so the impact of the survivability exemption for these fisheries is likely to be low. However, there is no quantitative evidence to support this assertion for these fisheries. Additional survival studies would be advisable, as well as supplementary information on the operational modalities of these fisheries.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
STECF Comments	STECF agrees with the comments of EWG 21-05.

Table 1e. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **South-eastern Mediterranean.**

De minimis	
Exemption	Hake and mullets, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. While it is accepted that the combined discards ratio for all species covered under the exemption is low, for some species the proportion of the catch that is discarded may be high. Italy and Greece present discard values slightly higher values (6-7%) than the de minimis (5%) The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, suggestions for technical measures, including spatial approaches, are provided in Annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. The implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information provided to the Commission post	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries

EWG 21-05	Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of*

the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. For Greece, EWG 21-05 used STECF data to calculate the discard ratio for hake (HKE) and mullets (MUX).

Species	Landings	Discards	Catch	dratio(%)
HKE	2666.94	1.12	2668	0.04
MUX	1804.88	4.508	1809	0.25
Combined	**4471.82**	**5.63**	**4477.45**	**0.13**

For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.13%), and not above as found by EWG 21-05 using the STECF data.

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, EWG 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.

Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.

	STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF acknowledges the selectivity experiments proposed by the MSs in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.
Exemption	Deep-water rose shrimp, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. While it is accepted that the combined discards ratio for all species covered under the exemption is low, for some species the proportion of the catch that is discarded may be high. Italy and Greece present discard rates in the range of 3%-5% below the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards is likely to be negated. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, the suggestions for technical measures, including spatial approaches, are provided in Annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information	The following supplementary information and updated annexes was

provided to the Commission post EWG 21-05	received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments*

Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 calculated a combined discard ratio of around 4.8% for deep-water rose shrimp (DPS). For Greece, using new ERS data resulted in zero discard for deep-water rose shrimp.

Species	Landings	Discards	Catch	dratio(%)
DPS	2661.86	0.00	2661.86	0.00

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, EWG 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.

Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

STECF Comments

STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.

STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would

	seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF acknowledges the selectivity experiments proposed by the MSs in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using gillnets and trammel nets in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	Based on the supporting data provided by Cyprus, Greece, Italy and Malta, EWG 21-05 notes that the discard rates reported in gillnet fisheries are very low. Given that gillnets are relatively selective gears and most of the vessels are small size artisanal boats, it is likely that the volume of discards is low, noting there is no conclusive evidence that improvements in selectivity in these fisheries are difficult to achieve. The data provided identifies several métiers, which have larger discard rates and are particularly impacting species, and where improvements of selectivity could mitigate the bycatch. Currently discard values are lower than the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. The supporting information on disproportionate costs for Cyprus and Greece indicate high costs associated with handling and sorting time onboard. It is not clear how representative these analyses are for all the fleets operating in the SUDESTMED area (GSA14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27). The EWG notes that the introduction of technical measures on spatial closures of nursery areas in Greece, may lead to reductions in unwanted catches of juveniles in the longer term. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the

	target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to*

achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 managed to calculate a combined discard ratio for hake and mullets of around 1.2% based on STECF data presented by Greece in Annex A. For Greece, using new ERS data confirmed a combined discard ratio for the concerned species below the de minimis (0.22%).

Gear	Species	Landings	Discards	Catch	dratio(%)
GNS, GTN, GTR	HKE	84.68	0.00	85	0.00
	MUX	82.79	0.37	83	0.45
	Combined	167.46	0.37	167.84	0.22

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.

Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

STECF Comments

STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.

STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken.

STECF acknowledges the selectivity experiments proposed by the Member States in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.

Exemption

Total catches of demersal species under the Landing Obligation excluding

	hake, mullets, deep-water rose shrimp and pelagic species, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. Accepting that the combined discards ratio for all species covered by the exemption is low, for some species the proportions of the catch that is discarded may be high. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, suggestions for technical measures, in particular spatial approaches, are provided in annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Italy and Greece present discard values in the range 8-15%, which is higher than the de minimis (5%). The limited information from Greece, Italy, Cyprus and Malta provided with the JR, indicates that the estimated discards are higher than the catch corresponding to the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that potential selectivity improvements and other avoidance measures are needed. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries

EWG 21-05	Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of*

the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allows to calculate and amend the findings of EWG 21-05. EWG 21-05 managed to calculate a combined discard ratio of 14.7% for the other demersal species under the landing obligation in Annex A. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.08%), and not above as found by EWG 21-05 using the STECF data.

Species	Landings	Discards	Catch	dratio(%)
All demersal (excluded HKE, MUX)	**3364.48**	**2.66**	**3367**	**0.08**

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.

Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

STECF Comments

STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.

STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be

	undertaken. To date, no such evaluation has been undertaken. STECF acknowledges the selectivity experiments proposed by the Member States in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.
Exemption	Total catches of Anchovy, Sardine, Mackerel and Horse Mackerel, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. Accepting that the combined discards ratio for all species covered by the exemption is low, for some species the proportions of the catch that is discarded may be high. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Italy presents discard values close to 60% well above the de minimis (5%). The limited information from Greece, Italy, Cyprus and Malta provided with the JR, indicates that the estimated discards in Italy are higher than the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that potential selectivity improvements and other avoidance measures are needed. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in

	Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very*

limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 calculated a combined discard ratio of 3.3% for the pelagic species under landing obligation. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.14%).

Species	Landings	Discards	Catch	dratio(%)
Pelagic species	1862.90	2.56	1865	0.14

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.

Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

STECF Comments

STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.

STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken.

STECF acknowledges the selectivity experiments proposed by the Member States in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.

Exemption	Total catches of demersal species under the Landing Obligation excluding hake and mullets, up to a maximum of 3% of the total annual catches by vessels using gillnets and trammel nets in the South-Eastern Mediterranean Sea. Up to maximum of 5% in the case annual landing of the relevant species of these fisheries are less than 25% of the total landings of the fisheries.
Main findings of EWG 21-05	Based on the supporting data provided by Cyprus, Greece, Italy and Malta, The discard rates reported in gillnet fisheries are very low. Given that gillnets are relatively selective gears and most of the vessels are small size artisanal boats, it is likely that the volume of discards is low, noting there is no conclusive evidence that improvements in selectivity in these fisheries are difficult to achieve. The data provided identifies several métiers, which have larger discard rates and are particularly impacting species, and where improvements of selectivity could mitigate the bycatch. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, suggestions for technical measures, including spatial approaches, are provided in annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption regarding the fishery and species concerned cannot be quantified with the information provided with the JR. Currently discard values are lower than the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.

Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO.

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.13%).

Species	Landings	Discards	Catch	dratio(%)
All demersal (excluded HKE, MUX)	**246.77**	**0.32**	**247**	**0.13**

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, EWG 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.

Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

STECF Comments

STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.

STECF stresses that considering that the current proposal relates to a

	continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF acknowledges the selectivity experiments proposed by the Member States in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.
Exemption	Total catches of demersal finfish under the Landing Obligation, up to a maximum of 1% of the total annual catches by vessels using hooks and lines in the South-Eastern Mediterranean Sea. Up to maximum of 3% in the case annual landing of the relevant species of these fisheries are less than 25% of the total landings of the fisheries.
Main findings of EWG 21-05	The supporting information provided is valuable and includes supporting data for 4 countries (Cyprus, Greece, Italy and Malta). There is no information on selectivity studies. The discard rates indicates that arguments presented are reasonable as hooks (mainly longlines) are selective gears and most of the vessels are small size artisanal boats. However, there are not conclusively evidences that improvements in selectivity in these fisheries are difficult to achieve. The supporting information on disproportionate costs analyses for Cyprus shows that there will be not high cost. It is not clear how representative this analysis is for all the fleets operating in the SUDESTMED area (GSA14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27). Additionally, the introduction of technical measures on Spatial management of nursery areas in Greece seems a reasonable approach that should lead to reductions in unwanted catches, but this seems include mainly trawl fisheries. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Currently discard values are lower than the de minimis (5%) The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same than the catch corresponding to the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that discarding.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25, these elements are not relevant to this exemption request. GRC. More details on future projects to improve trawl selectivity were

	provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted, these elements are not relevant to this exemption request. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.* *The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 managed to calculate a combined discard ratio of 1.3% for the other demersal species under the landing obligation in Annex A. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.05%).*

<table>
<tr><td></td><td>
<table>
<tr><th>Gears</th><th>Species</th><th>Landings</th><th>Discards</th><th>Catch</th><th>dratio(%)</th></tr>
<tr><td>LHM, LHP, LLD, LLS, LTL</td><td>All demersal (excluded HKE, MUX)</td><td>78.54</td><td>0.04</td><td>79</td><td>0.05</td></tr>
</table>
The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.
Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.
Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.
</td></tr>
<tr><td>STECF Comments</td><td>
STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions.
STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken.
STECF acknowledges the selectivity experiments proposed by the Member States in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.
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<tr><td>Exemption</td><td>Total catches of lobster and crawfish, up to a maximum of 1% of the total annual catches by vessels using pots and traps in the South-Eastern Mediterranean Sea</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>Whether this exemption is justified or not as the information provided is largely uninformative and unrelated to the relevant fisheries cannot be assessed. Any arguments presented are generic and not backed up with any relevant data.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 21-05</td><td>
The following supplementary information and updated annexes was received from Member States:
Annex A. Description of the fisheries
Annex B. Supporting evidence under disproportionate costs
</td></tr>
</table>

	Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25, these elements are not relevant to this exemption request. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted, these elements are not relevant to this exemption request. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (*Thunnus thynnus*) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.*

	The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. For Greece, using new ERS data resulted in a combined zero ratio for the concerned species. **Gears** | **Species** | **Landings** | **Discards** | **Catch** | **dratio(%)** FPO | Crawfish, lobster | **0.15** | **0.00** | **0.15** | **0.00** *The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, EWG 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.* *Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna and are not relevant to this exemption request.* *Other evidence concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF acknowledges the selectivity experiments proposed by the Member States in the south-eastern Mediterranean, but stresses that uptake of the selective gears tested should be prioritised.

Table 1f. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **Adriatic**

De minimis	
Exemption	Hake and mullets, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are

	particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. Only Italy has provided data on discard rates for trawlers. Therefore, the discard ratio of the two combined species can only be estimated in the case of Italy to be 17.3%. Consequently, the de minimis volume is likely to cover only a proportion of the discards if no other measures are put in place by the Member States (e.g. increasing selectivity and/or spatio-temporal measures). The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed*

	due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022. *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using gillnets and trammel nets in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that

	shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and*

	juvenile specimens of the key commercial species. *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using rapido in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean

	basin. The implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive*

	part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice). *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.
Exemption	Total catches of common sole, up to a maximum of 3% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. Only Italy has provided data on discard rates for common sole in GSA 17, where the estimated discard rate corresponds to 3.3%. Without data from other fleets, the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.

Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the*

	previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region. *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.
Exemption	Total catches of demersal finfish under the Landing Obligation (excluding hake, mullets and pelagic species) and deep-water rose shrimp, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. Only Italy has provided data on discard rates and therefore not even a combined discard rate can be estimated as discard data is not fully provided for all species or GSAs. For four species for which data has been provided, shows the discard ratios are relatively high. However, without data from other fleets, the implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery or the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Supplementary information provided to the	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of

Commission post EWG 21-05	the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future*

	but does not materially alter the substance of the assessment of EWG 21-05.
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 3% of the total annual catches by vessels using gillnets and trammel nets in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, the limited information provided suggests discards are very low in these fisheries.
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	regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
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Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 1% of the total annual catches by vessels using hooks and lines in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, EWG the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN.

	Reviewer's comments *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken.

	STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.
Exemption	Total catches of Anchovy, Sardine, Mackerel and Horse Mackerel, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. EWG 21-05 notes that only Italy has provided data on discard rates for trawlers, where the estimated combined discard rate corresponds to 57.6%. Consequently, the de minimis volume is likely to cover only a proportion of the discards if no other measures are put in place by the Member States (e.g. increasing selectivity and/or spatio-temporal measures). Without data from other fleets, the implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. *Implemed* project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further*

	considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05. *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
STECF Comments	STECF agrees with the comments of EWG 21-05. The information provided is quite generic and the same justification has been used for multiple exemptions. It is therefore not possible to provide a full assessment of the impacts of the proposed exemptions. STECF stresses that considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. STECF also stresses reducing the level of unwanted catches through the use of selective gears or MPAs should be prioritised.

Table 1g. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **Black Sea**

High Survivability	
Exemption	Turbot (*Scophthalmus maximus*) caught with bottom-set gillnets (GNS) in the Black Sea (GSA29)
Main findings of EWG 21-05	Survival evidence is provided accordingly to scientific advice from IFR (Bulgaria) and NIMRD (Romania) stating that turbot has a high survivability (around 90%) when released from gillnets and trawls. However, high survivability of this species is not documented with any reference or supporting report, therefore the quality of the information cannot be assessed. Survival evidence is poorly documented and mainly refers to survival of turbot in trawl fisheries, while the exemption concerns only gillnets. Moreover, it is reported that gillnets are hauled at 2-4 days intervals without affecting the survival rate of individuals below MCRS. However, there is no evidence to support this assertion and based on information from similar gillnet fisheries, The supporting information provided is limited and much is unrelated to gillnets. Therefore, additional experiments to obtain survival rates of turbot caught with gillnets are required. A full study following ICES WKMEDS guidelines to directly observe discard survival should ideally be conducted in the gillnet fishery to provide robust survival estimates for turbot.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. <u>Bulgaria</u> - Pilot project for assessment of discard in *Rapana venosa* fisheries with beam trawls in the black sea during 2017; evaluation of the impact on juvenile stages of turbot and shark - Bottom trawl surveys in the Bulgarian Black Sea Area (Autumn 2019) - Bottom trawl surveys in the Bulgarian Black Sea Area (Autumn-winter 2020) - Bottom trawl surveys in the Bulgarian Black Sea Area (Spring 2019) - Bottom trawl surveys in the Bulgarian Black Sea Area (Summer 2020) - Assessment of the caught, discarded and landed quantities and biological data collection of fish species and other marine organisms through scientific observations on board of Bulgarian fleet fishing vessels in 2018 - Assessment of the caught, discarded and landed quantities and biological data collection of fish species and other marine organisms through scientific observations on board of Bulgarian fleet fishing vessels in 2019 <u>Romania</u> - Information on the four priority surveys for turbot and sprat in 2019 - Pilot Study 2: Level of fishing and impact of fisheries on biological

	resources and marine ecosystem - Research on the selectivity of gillnets used in Romanian turbot fisheries *Reviewer's comments* *Supplementary information was supplied by Bulgaria. However, the information concerns projects and programmes not related to the fisheries covered by this exemption, these elements are therefore not relevant to this request.* *Romania supplied two documents concerning surveys on the Romanian Black Sea coastline to estimate: (i) demersal and pelagic species biomass, (ii) demographic structure of commercial species, (iii) oceanographic data (temperature and salinity), and environmental fishing impact. This information is unrelated to gillnet fisheries and to the requested survival rates of turbot caught with gillnets. It is therefore not relevant to this exemption. The third document relates to selectivity of Romanian turbot gillnets. It provides useful recommendations aiming at improving gillnet selectivity but does not contain any relevant information on turbot survival rates.* *Therefore, the supplementary information provided by Bulgaria and Romania does not materially alter the substance of the assessment of EWG 21-05. There is still a lack of relevant information on the survival of turbot in gillnet fisheries.*
STECF Comments	STECF agrees with the comments of EWG 21-05. In the absence of survival estimates relating to the gillnet fishery for turbot no assessment of the impact of the re-introduction of this exemption can be made. Further survival work is needed to provide robust survival estimates for turbot.

STECF conclusions

STECF endorses the observations and main findings of the EWG 21-05. Based on such findings STECF concludes that many of its previous conclusions remain valid and where appropriate are included in the conclusions below.

General conclusions

- The role of STECF EWGs set up to evaluate Joint Recommendations remains to evaluate the scientific rigor and robustness of the underpinning information supplied by Member States to support the main elements of Joint Recommendations. The EWG or STECF cannot adjudicate on whether exemptions should be accepted or not.
- The avoidance of unwanted catch through improved selectivity or other means should be the primary focus in implementing the landing obligation. While recognising that modifying selectivity can result in some reduction in revenue, such loss in revenue should be viewed in the broader context of medium-term gains in stocks from an increase in selectivity, the reduced risk of choke events and better utilization of quota to land a higher proportion of more valuable catch.

- The quality of submissions to support the exemptions has generally improved since the first JR's were submitted in 2014. However, there are cases in the 2021 JRs where the quality of submission is poor or absent, making it difficult to conduct an analysis. Members States Regional Groups where possible should use the templates developed by STECF to supply fisheries and fleet descriptors; in the case of *de minimis* exemptions provide economic data to support such proposals; and for high survival exemptions provide all relevant survival information.
- The quality and consistency of catch data provided to support exemptions need to improve. Such data is important to understand the relationship between the de minimis volume requested and the actual level of unwanted catches to put the proposed exemption in the context of the fishery and also the state of the stock for which the exemption is covering. This will allow an assessment as to whether risk of the exemption to the relevant stocks covered by the exemption is minimal.
- Weaknesses remain in the collection of catch documentation data. If the data situation does not improve and the true quantities being caught as reported do not reflect the actual removals, it will likely have a significant impact on the quality of scientific advice and may compromise the achievement of the MSY objective. This potential for this discrepancy is higher for *de minimis* than high survival exemptions because the actual discard amount may be substantially higher than the permitted *de minimis* amount. For high survival exemptions, this risk has been mitigated to some extent by deducting the estimated dead discards associated with the exemptions from the total allowable quota prior to allocation.
- It would be timely for the Member States Groups and the Commission to review exemptions that have been in place since the introduction of the Landing Obligation. This review would help to determine whether they need to be amended or are still required given likely changes in catch patterns, gears used, vessels involved and uptake.

Conclusions on de minimis exemptions

- Under Article 15 of the CFP Basic regulation Member States have a legal requirement to record all catches discarded under de minimis exemptions. However, in many cases this information is lacking from the supporting information provided by Member States.
- *De minimis* exemptions can provide an incentive for vessel operators to continue discarding unwanted catches at sea and only retain unwanted catches on board if they are inspected on hauling, or to bring only permitted *de minimis* quantities ashore on landing.
- For many exemptions, the relationship between the *de minimis* volume requested and the level of unwanted catches is unclear from the information provided to support the exemption. In some cases, the *de minimis* volume covers 100% of the unwanted catches, usually in fisheries where the levels of unwanted catch are small. In other cases, the *de minimis* volume covers only a small part of the unwanted catches and the supporting information should contain indications on the measures to be taken to reduce these residual unwanted catches.
- The case for *de minimis* should not be improved by having high levels of unwanted catches, and therefore high handling costs, where the incentive to improve selectivity should be maintained. Improving selectivity or avoidance

methods to reduce the catches of unwanted catches should be the priority.

- It has become increasingly clear to STECF that there is no scientific methodology or reasons available to justify whether a certain level of additional costs is disproportionate or not. Even with very detailed calculations, STECF cannot judge at which level costs are disproportionate because there is no way of assessing objectively what level of costs constitutes disproportionate. For this reason, in assessing de minimis exemptions, the relationship between the de minimis volume, the actual level of unwanted catches and the overall status of the stocks involved has been the focus of the assessments.

Conclusions on high survivability exemptions

- Assessing what constitutes high survivability is complicated by the limited evidence and the variability in the available estimates. Many factors can affect survival, but these are not well understood. This makes assessment of requests for survivability complex as many factors need to be considered.
- Survivability should be considered in the context of the discard rate for the fishery seeking an exemption. Medium survival rates in high discarding fisheries still lead to high discard mortality rates. STECF has previously concluded (STECF PLEN 19-02) that unless surviving discards are accounted for in stock assessments when dead discards are accounted for in TAC setting, where survivability exemptions are in place, the actual fishing mortality will not match the agreed catch level. This should continue to be discussed in the assessment forums for stocks with survival exemptions.
- Where survivability exemptions are linked to a roadmap setting out work planned to develop survival estimates and accompanying measures to increase survivability, the JRs should report against the different tasks set out in the roadmap to facilitate future evaluations.
- Trends are emerging from the evidence provided to support survivability exemptions. Most of the exemptions in the demersal fisheries have continued to focus on a few species, Norway lobster, plaice, sole and skates and rays. Studies on these species are indicating general differences in overall discard survival between gear types, whereby otter trawl fisheries have higher survival levels compared with beam (including pulse) trawl fisheries. The species most studied to date is plaice. Several studies on plaice have shown that discard survival is lower when more Norway lobster are caught. For rays, there is emerging evidence to suggest that the survival of cuckoo rays is less than other ray species.
- To date, survival and discard evidence and fleet information is reported in rather incoherent way that hindered assessment by the EWG. Most information is Member State specific within regions and there is very limited transboundary linkages to neighbouring areas with shared stocks and fisheries.
- There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catch data for all Member States to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks.

Conclusions on technical measures

- Despite many experiments to test selective gears, there are still relatively few examples of such gears being incorporated into the JRs submitted. Where there is no specific legislation making the use of selective gears mandatory, uptake of selective gears remains extremely low even in fisheries where unwanted catches remain high.
- While extensive work has been carried out on selectivity, for some regions, this work has been uncoordinated and not necessarily targeted at the right fisheries. A review of the work completed to identify what works and what does not, along with detailing the gaps in knowledge would help to channel further experiments into the appropriate fisheries.
- It is challenging to assess Joint Recommendations for technical measures against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation. Generally, the data provided is not sufficient to quantifiably assess such JRs and therefore, any assessment is qualitative and based on expert judgement.
- The separate JRs relating to Red Sea Bream (NWW and SWW) and King Scallop in ICES division 7d contain positive elements that will improve the management of the stocks, but due to lack of supporting data it is not possible to assess fully whether the impacts of these measures on the respective stocks.

Conclusions on the definition of directed fishing

- The data provided to support the JR on defining directed fishing in SWW allowed for an evaluation of the suitability of the use of a catch threshold to define directed fisheries. However, the analysis suggests that the thresholds defined may not be suitable for the metiers present in SWW, given the variability in the catch compositions in the fisheries in SWW.
- As no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries.
- It is unclear how such catch thresholds would apply in the context of the landing obligation, under which all catches must be landed. If no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

Conclusions on the provided economic information for JR

- SWW – Spanish study on disproportionate costs: STECF agrees with EWG 21-05 that more economic information is necessary to judge whether this new methodology on opportunity costs of not granting the exemptions is improving our understanding of the economic impacts of the LO.
- North Sea – Dutch study on disproportionate costs: STECF agrees with EWG 21-05 that the provided study gives a comprehensive overview on what economic impacts may occur in case the discarding of undersized whiting is not allowed anymore. STECF concludes also that the study shows the substantial effort necessary to conduct such a study.
- General conclusion: STECF repeats its conclusion that it is always a value judgement whether an increase in costs is classified as 'disproportionate' or not.

There is no scientific argumentation allowing judging whether a level of increase of e.g. 7% compared to 0.8% is disproportionate or not. Therefore, STECF has suggested that very detailed economic studies are not necessarily required to demonstrate disproportionate costs although the information, when it exists, is very useful. STECF suggests that reasonable costs estimates for the JR of the LO together with detailed information on, for example, the volume of discards compared to the overall landings of a species (see STECF 2021 – PLEN 21-01 report) can provide a coherent justification. That should however not hinder the further assessment of the economic impacts of the landing obligation, as only very limited information is yet available. Better insight is rather needed on how the JR influences the incentive to reduce unwanted catches – which should remain the primary focus in implementing the landing obligation.

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[1] - Information on STECF members' affiliations is displayed for information only. In any case, Members of the STECF shall act independently. In the context of the STECF work, the committee members do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: http://stecf.jrc.ec.europa.eu/adm-declarations

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REPORT TO THE STECF

EXPERT WORKING GROUP ON Evaluation of Joint Recommendations on the Landing Obligation and on the Technical Measures Regulation (EWG-21-05)

Virtual meeting, 17-21 May 2021

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area

1. EXECUTIVE SUMMARY

Following from previous EWGs (EWGs 15-10, 16-10, 17-08, 18-06, 19-08 and 20-04 as well as STECF PLEN 14-02 and 19-02) set up to evaluate the Joint Recommendations, STECF has repeatedly made some general observations relating to the Joint Recommendations submitted by the Regional Groups of Member States. Many of these remain valid. EWG 21-05 has split these into general observations; observations relating to *de minimis* exemptions; observations relating to high survivability exemptions; and observations on technical measures.

General Observations

- EWG 21-05 acknowledges the continued difficulties experienced by the Member States Groups due to the Covid-19 pandemic in providing comprehensive Joint Recommendations.
- EWG 21-05 reiterates that the role of the EWG and any future STECF EWGs set up to evaluate joint recommendations, should continue to be the evaluation of the scientific rigour and robustness of the underpinning information supplied by Member States. The EWG does not adjudicate on whether exemptions should be accepted or not. This remains the remit of DG MARE.
- EWG 21-05 reiterates that the avoidance of unwanted catch through improved selectivity or other means should be the primary focus in implementing the Landing Obligation. EWG 21-05 recognizes that modifying selectivity can result in some reduction in revenue, but these should be viewed in the broader context of medium-term gains in stocks and the risk of choke events and the utilization of quota to land low value catches.
- EWG 21-05 has identified shortfalls in data and information in the supporting documentation to specific exemption requests. However, it is important to note that that while such information can be useful and fill knowledge gaps, it should not be construed that it will change the observations or conclusions of STECF.
- EWG 21-05 recognises the progress made in supplying supporting information to justify exemptions and the volume of work that has been carried out to generate this information. However, EWG 21-05 notes that for the 2021 JR's there are many cases where the information and data supplied is generic with the justifications based on information previously submitted. For some exemptions no supporting information has been provided at all.
- EWG 21-05 reiterates the need to improve the quality and consistency of catch data provided to support exemptions. Such data is important to understand the relationship between the de minimis volume requested and the actual level of unwanted catches to put the proposed exemption in the context of the fishery and also the state of the stock for which the exemption is covering. This will allow an assessment as to whether risk of the exemption to the relevant stocks covered by the exemption is minimal.
- EWG 21-05 observes that there remain weaknesses in the collection of catch documentation data. If the data situation does not improve and the true quantities being caught as reported do not reflect the actual removals, it will likely have a significant impact on the quality of scientific advice and may compromise the achievement of the MSY objective. This potential for this discrepancy is higher for *de minimis* than high survival exemptions because the

actual discard amount may be substantially higher than the permitted *de minimis* amount. For high survival exemptions, this risk has been mitigated to some extent by deducting the estimated dead discards associated with the exemptions from the total allowable quota prior to allocation.

- EWG 21-05 highlights that innovative monitoring measures such as CCTV and Remote Electronic Monitoring (REM) have been applied in pilot studies and could be a more effective way to monitor the Landing Obligation to generate catch evidence for science and compliance.
- EWG 21-05 reiterates that it would be timely for the Member States Groups and the Commission to review exemptions that have been in place since the introduction of the Landing Obligation. This review would help to determine whether they need to be amended or are still required given likely changes in catch patterns, gears used, vessels involved and uptake.
- EWG 21-05 acknowledges that the same exemption can impact several fisheries, but without any specific linkage to the stocks and fisheries involved, it is extremely difficult to make any evaluation as to whether the exemption makes sense or not.

Observations on *de minimis* exemptions

- EWG 21-05 observes under Article 15 of the CFP Basic regulation Member States have a legal requirement to record all catches discarded under de minimis exemptions. However, EWG 21-05 notes that in many cases this information is lacking from the supporting information provided by Member States.
- EWG 21-05 notes in many exemptions the relationship between the *de minimis* volume requested and the level of unwanted catches is unclear from the information provided to support the exemption. In some cases, the *de minimis* volume covers 100% of the unwanted catches, usually in fisheries where the levels of unwanted catch are small. In other cases, the *de minimis* volume covers only a small part of the unwanted catches and the supporting information should contain indications on the measures to be taken to reduce these residual unwanted catches.
- EWG 21-05 observes that for de minimis exemption proposals that are a continuation of existing exemptions that have been in place for several years, estimates for discards provided in support of the proposed extensions should correspond to the permitted de minimis volume granted under each exemption. For many proposed exemptions, particularly in the Mediterranean, this is clearly not the case.
- EWG 21-05 notes that past EWG's have requested additional information to the data provided to support de minimis exemptions based on disproportionate costs. However, it has become increasingly clear to STECF that there is no scientific methodology or reasons available to justify whether a certain level of additional costs is disproportionate or not. Even with very detailed calculations, STECF cannot judge at which level costs are disproportionate because there is no way of assessing objectively what level of costs constitutes disproportionate. For this reason, EWG 21-05 in assessing de minimis exemptions, has attempted to concentrate on the relationship between the de minimis volume, the actual level of unwanted catches and the overall status of the stocks involved.
- EWG 21-05 acknowledges the detailed economic analysis provided by the SWW Member States Group in 2020 on the economic viability of unwanted catches that are subject to the Landing Obligation in SWW and which has been used again in the 2021 JR to justify the extension of specific de minimis exemptions This

employs a different methodology than previous studies to measure disproportionate costs of handling unwanted catches based on the loss of opportunity costs arising from the removal of *de minimis* exemptions. EWG 21-05 has evaluated this methodology but observes that more economic information is necessary to judge whether this new methodology on opportunity costs of not granting the exemptions is improving our understanding of the economic impacts of the Landing Obligation.

- EWG 21-05 acknowledges the detailed economic analysis provided by the North Sea Member States Group to support an exemption for whiting below MCRS in the beam trawl fishery. This study provides a comprehensive overview on what economic impacts may occur in case the discarding of undersized whiting is not allowed anymore. EWG 21-05 concludes that the study shows the substantial effort necessary to conduct such a study but stresses it is still a judgement call as to whether it shows the costs associated are disproportionate.
- EWG 21-05 notes that Member States have continued to use a variety of ways to calculate *de minimis* volumes. In most cases for single species *de minimis* exemptions, a percentage (e.g. 5% or 7%) has been applied to the catches of the relevant species. However, for several fisheries where the intention is to discard 100% of the catches (e.g. boarfish in the NWW and whiting bycatch in demersal beam trawl fisheries the North Sea), catches from the entire fishery or for different species have been used as the basis for the calculation. EWG 21-05 has commented on this approach in the relevant exemption requests. However, the EWG cannot adjudicate whether this is a correct interpretation of Article 15 of the CFP Basic Regulation.
- EWG 21-05 reiterates that in some cases where the unwanted catch of species subject to the Landing Obligation are substantial, granting a *de minimis* of 5-7% of the catches of such species will have little, most likely an unmeasurable effect on their overall fishing mortality and only a marginal effect on the ability of the vessels concerned to continue fishing legally. It is likely that granting an exemption to discard 5%, will achieve little in terms of mitigating the costs of landing the other 95% of the unwanted catch.
- EWG 21-05 reiterates that *de minimis* exemptions can provide an incentive for vessel operators to continue discarding unwanted catches at sea and only retain unwanted catches on board if they are inspected on hauling, or to bring only permitted *de minimis* quantities ashore on landing.
- EWG 21-05 has identified areas where there are limitations in the information presented or the methodologies used and, in some cases, where there are inconsistencies. In these cases, further clarification may be required. Where evidence is presented and shows that for example increasing selectivity results in losses of marketable fish, then this is noted, but whether this constitutes a technical difficulty is not something that can be readily answered by the EWG. Inevitably, improvements in selectivity result in some degree of loss, and therefore some reduction in revenue. However, these should be viewed in the broader context of medium term gains in stocks and in the absence of improvements in selectivity, would the fishery be worse off in comparison due to choke effects and utilization of quota for fish that have little or no value.
- EWG 21-05 notes that for many de minimis exemptions, particularly in SWW and NWW, the number of vessels that potentially could avail of this exemption is large, meaning that the monitoring of discards under the exemption is potentially challenging given that in these cases the volume of discards is very low.

- EWG 21-05 notes that the discard rates in the South-eastern Mediterranean vary by species, area and gear type. In some cases, the observed discards are higher than the estimated de minimis volume, while for others the volume of discards is lower. Therefore, while the discard proportions of all MCRS species combined (as a portion of the total catch) do not exceed the requested de minimis volume, for some specific species, the discards far exceed the de minimis requested. The transition from these currently high discard rates for these species to the de minimis level will be challenging without changes in the fishing pattern, either through improvements in selectivity or by avoiding areas of unwanted catches of these species.

Observations on high survivability exemptions

- EWG 21-05 recognises the challenges for Member States in presenting appropriate information to support survival exemptions. STECF has previously published a template for the provision of supporting evidence to assist the regional groups (STECF EWG 13-23 and EWG 16-10). These have been further refined and expanded here (Annex I), alongside a description of the critical review process that is applied to assess the quality of the discard survival estimates based on the ICES best practices guidance (Annex II).
- EWG 21-05 reiterates that assessing what constitutes high survivability is problematic, which is made more complex by the limited information available and the variability in the available survival estimates. What is clear is that there are a wide range of factors that can affect survival, and these are likely to be the primary cause of the high variability observed across the various studies. However, identifying and quantifying these is difficult due to the relatively limited species-specific information and differences between experiments including timing, season, gear handling, observation period. This means that passing judgment on the representativeness of individual or limited studies as an indicator of discard survival across an entire fishery is difficult given the range of factors that can influence survival and how they may vary in time even within a fishery.
- EWG 21-05 observes that trends are emerging from the evidence provided to support survivability exemptions. Most of the exemptions in the demersal fisheries have continued to focus on a few species, Norway lobster, plaice, sole and skates and rays. Studies on these species are indicating general differences in overall discard survival between gear types, whereby otter trawl fisheries have higher survival levels compared with beam (including pulse) trawl fisheries. The species most studied to date is plaice. Several studies on plaice have shown that discard survival is lower when more Norway lobster are caught. Also, season has been identified as an influencing factor in several studies, with higher plaice survival observed in winter months when seawater temperatures are lower. For rays, there is emerging evidence to suggest that the survival of cuckoo rays is less than other ray species.
- EWG 21-05 observes that vitality data is increasingly being used to support high survival proposals because of calls for additional supporting information. This is due to the relative ease and low cost of collecting this evidence compared with direct discard survival observations. Information on the health condition of fish at the point of release provides useful information on the survival potential of discards. However, the proportion of fish alive at the point of release does not constitute a valid survival estimate due to the mortalities that are known to occur post-release. The relationship between health condition and survival probability can be established by collecting survival estimates and vitality data in combination. Studies have demonstrated, within a fishery, fish assessed at

different vitalities have significantly different survival probabilities, and therefore vitality from a wider sample can be used as a proxy for survival. However, the relationship between assessed vitality and survival probability varies between fisheries and studies for the same species. There is still insufficient evidence to use vitality as a proxy for survival, outside of the fisheries from which these relationships have been generated, to provide discard survival estimates with meaningful levels of confidence.

- EWG 21-05 observes that to date, survival and discard evidence and fleet information is reported in a rather incoherent way that hindered assessment by the EWG. Most information is Member State specific within regions and there is very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catch data for all Member States to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps.
- EWG 21-05 notes that several existing exemptions for plaice and sole continue to be linked to conditions such as restricting the exemption to fishing to certain depths, tow durations and to specific groups of vessels or specified selective gears. A further condition linked to a catch threshold for plaice to differentiate whitefish from *Nephrops* fisheries has been assessed by EWG 21-05. While these factors may influence survival, there is no evidence of these conditionalities being applied by Member States. In practice controlling and enforcing such measures to any degree will be challenging. A balance is needed between extrapolating the survival evidence from the conditions observed in the studies, and the practical considerations of enforcing and complying with the regulated measures.
- EWG 21-05 notes that several survivability exemptions – plaice and rays and skates – are linked to a roadmap setting out work planned to develop survival estimates and accompanying measures to increase survivability. There has been a positive response to the roadmaps and most of the new research provided is related to the roadmaps. However, EWG 21-05 observes that further clarity on the objectives for the roadmap is needed in order to facilitate an evaluation along with a timetable for the completion of the roadmap. EWG 21-05 would also encourage Member States to use their joint scientific capacity to compile and analyse previous and new data in a more systematic way to assist future EWGs assess the exemptions covered under the roadmap.
- EWG 21-05 re-emphasises the need to consider survivability in the context of the discard rate for the fishery seeking an exemption (STECF 17-02), highlighting that medium survival rates in high discarding fisheries still lead to high discard mortality rates. STECF has also previously concluded (STECF 19-02) that unless surviving discards are accounted for in stock assessments when dead discards are accounted for in TAC setting, where survivability exemptions are in place, the actual fishing mortality will not match the agreed catch level. EWG 21-05 reiterates the need for this to continue to be discussed in the assessment forums for stocks with survival exemptions.

Observations on technical measures

- EWG 21-05 notes despite many experiments to test selective gears, there are still relatively few examples of such gears being incorporated into the JRs

submitted. Where there is no specific legislation making the use of selective gears mandatory, uptake of selective gears remains extremely low even in fisheries where unwanted catches remain high.

- EWG 21-05 reiterates that while extensive work has been carried out on selectivity, for some regions, this work has been uncoordinated and not necessarily targeted at the right fisheries. A review of the work completed to identify what works and what does not, along with detailing the gaps in knowledge would help to channel further experiments into the appropriate fisheries.
- EWG 21-05 notes, that, while in previous years some exemptions were predicated on the use of selective gears, no such exemptions have been proposed for 2020 or 2021, where there was such a requirement included in the exemption.
- EWG 21-05 observes that it is challenging to assess Joint Recommendations for technical measures against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation. Generally, the data provided is not sufficient to quantifiably assess such JRs and therefore, any assessment is qualitative and based on expert judgement.
- EWG 21-05 observes that the separate JRs relating to Red Sea Bream (NWW and SWW) and King Scallop in ICES division 7d contain positive elements that will improve the management of the stocks. but due to lack of supporting data it is not possible to assess fully whether the impacts of these measures on the respective stocks.

Observations on the definition of directed fishing

1. EWG 21-05 observes that the data provided to support the JR on defining directed fishing in SWW allowed for an evaluation of the suitability of the use of a catch threshold to define directed fisheries. However, the analysis suggests that the thresholds defined may not be suitable for the metiers present in SWW, given the variability in the catch compositions in the fisheries in SWW.
2. EWG 21-05 is unable to evaluate if catch thresholds will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. It is not possible to assess whether it would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241. In any case EWG 21-05 notes that the derogations are already contained in the TMR 2019/1241, and since they refer to smaller mesh sizes compared to the baseline, they are unlikely to help reaching the objectives and targets contained in Articles 3 and 4.
3. EWG 21-05 reiterates the PLEN 20-03 conclusion that as no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries.
4. EWG 21-05 reiterates the conclusion of PLEN 20-03 that it is unclear how such catch thresholds would apply in the context of the landing obligation, under which all catches must be landed. If no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

Evaluation of Regional Joint Recommendations

Based on the terms of reference, EWG 21-05 considered a combination of existing exemptions for *de minimis* and high survivability which were granted on a temporary

basis for one year for which, the Commission requested additional information from Member States, as well as new exemption requests for *de minimis* and high survivability.

Additionally, EWG 21-05 has considered Joint Recommendations on regional technical measures. Such Joint Recommendations were received from the NWW, North Sea and SWW regional groups. They contained specific proposals on closed areas and selective gears as well as proposals in relation to MCRS for specific species caught in recreational fisheries.

The number of exemptions proposed in the JRs for evaluation by EWG 21-05 was comparable with the previous submissions in 2020 (EWG 20-02, STECF PLEN 20-02). The number of individual exemptions proposed for introduction or continuation in 2021 was 58 compared with 55 for 2020. This was made up of a limited number of new exemptions and multiple exemptions that were granted for one year, until the end of 2021.

For the Mediterranean, three Joint Recommendations were submitted but the different regional groups (SUDESTMED, PESCAMED and ADRIATICA); submitted additional supporting information relating to *de minimis* exemptions for demersal species.

Table 1.1 Exemptions by type and region evaluated by EWG 21-05

Region	De minimis exemptions	High Survivability exemptions	Technical Measures	Directed Fishing
NWW	3	3	3	
North Sea	2	3	1	
SWW	13	2	1	1
PESCAMED	5	4		
SUDESTMED	8			
ADRIATIC	8			
BLACK SEA		1		
Total	**39**	**13**	**5**	**1**

Main findings

The main findings of the EWG 21-05 are given in Table 1.2 below.

The EWG submitted an incomplete draft of the report to the Commission (DG MARE). The Commission then invited Member States to provide feedback/supplementary information based on the contents of the draft EWG report by 4th June. The responses from the Member States were compiled and reviewed under contract. The compiled responses and comments from the reviewer are also incorporated in Table 1.2.

The responses from Member States and the comments from the reviewer are intended to add value so that in its review of the EWG 21-05 report, the STECF can take account of the findings of the EWG, feedback/supplementary information from Member States provided in response to the draft EWG report and any comments made by the reviewer.

Table 1a. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments:

North Sea

De minimis	
Exemption	Combined de minimis exemption for whiting and cod below the minimum conservation reference size in mixed demersal fisheries using bottom trawls or seines with a mesh size of 70-99 mm in ICES division 4c
Main findings of EWG 21-05	Very limited new information has been supplied to support the request to extend this exemption past the end of 2021. Therefore, the previous STECF comments remain valid. The conclusions made by STECF 20-04 regarding the exemption for similar fisheries in ICES Divisions 4a and 4b are also relevant. Specifically, based on the information provided it would seem the de minimis catch requested covers only a part of the unwanted catches in the fisheries and improving selectivity in the fisheries should remain the priority. No technical measures for these fisheries have been proposed by the Member States to the knowledge of the EWG, noting that improving selectivity for whiting has been well researched and solutions are readily available. The supporting document reports that 56% of whiting caught are discarded, so discarding of whiting remains high in the fishery. The additional evidence provided (French OBSMER program report) for 2021 suggests that the discard volumes relevant to this exemption are below the 5% de minimis volume (for undersized cod and whiting) and the 2% limit for cod. For cod, no discards and only very limited cod catches are reported for 2019 and 2020. However, EWG 21-05 notes that the catch information provided is based only on sampling of the French fleet. No respective information was available for the other Member Stated involved in the fishery as was the case for previous assessments. Moreover, the sampling of catches and discards during the OBSMER program took place in the Eastern Channel (ICES Division 7d), not in the 4c. EWG 21-05 understands that the fishery in 4c and in 7d are essentially the same fisheries based on previous assessments, but it is not clear whether there are significant differences in levels of unwanted catches of whiting and cod between the two areas. Catch information taken from the FDI database is reported in the supporting annex, but it is not clear how this relates to the OBSMER data. Data for the fishery in 4c is needed to assess the full impact of the exemption, particularly given the very low cod catches observed, accepting that the volumes reported to be discarded under the exemption (i.e. 18 tonnes of whiting in 2020) are relatively low compared to overall catches in the fishery.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: NLD. Additional data of 2019 and 2020 for the de minimis exemption on whiting and cod, covering the Dutch fleet. Table reporting number of vessels subject to the landing obligation, landings and discards of cod and whiting. Data are based on the information available for area IV as a whole, as there is not enough coverage for 4c only. Based on the effort

	distribution in that area, the share of discards for IVc specifically was calculated. 2019. No. dutch vessels subject to LO: ~28 - Whiting. landings: 338 t, discards: 9.38 t, discard ratio: 2.70% - Cod, landings: 8 t, discards: 0.29 t, discard ratio: 3.50% - Combined whiting and cod, landings: 346 t, discards: 9.67 t, discard ratio: 2.72% 2020. No. dutch vessels subject to LO: ~25 - Whiting. landings: 317 t, discards: 7.61 t, discard ratio: 2.34% - Cod, landings: 8 t, discards: 0.32 t, discard ratio: 3.85% - Combined whiting and cod, landings: 325 t, discards: 7.93 t, discard ratio: 2.38% DEU. Germany indicated no discards under this exemption. *Reviewer's comments* *In the supplementary table, there is no indications of gear type. However, it is assumed that Netherlands combined data of bottom trawls and seines. The supplementary information provided by Netherlands are relevant to this exemption request to enhance the evaluation but only are provided for the Dutch fisheries.* *Despite the supplementary information provided by Netherlands being relevant to this exemption request, it does not affect the findings of the EWG 21-05 given above.* *Netherlands presents combined discard rates (COD+WHG) in the range of 2.4%-2.7% below the de minimis (5%). The discard rates and volumes are relatively low based on the French data provided (but only for 7d) and for the Netherlands. The limited catch information from the Member States, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. Any incentive to avoid unwanted catches and reduce or eliminate discards is likely to be negated.*
Exemption	Whiting below the minimum conservation reference size by vessels using beam trawls with mesh size 80-119mm in ICES subarea 4.
Main findings of EWG 21-05	The Joint Recommendation addresses to a large degree the issues brought up by STECF-in previous assessments with respect to the de minimis request for undersized whiting in the BT2 fishery in the North Sea. The new (2021) information from the Dutch study provided as support to the request indicates that the estimated costs of landing unwanted

	catches of whiting are significant and would require substantial additional labour on board, particularly in the situation of high volumes of bycatch of undersized whiting. EWG 21-05 is not able to fully assess the robustness of the study provided but based on the results presented observes that the estimated costs involved are significant. However, as identified previously by STECF for this and other exemptions, given the de minimis volume covers only a part of the overall unwanted catches, the costs for handling the residual unwanted catches not discarded under the exemption would remain regardless of whether the exception is in place or not. There is no evidence of attempts to increase selectivity to reduce unwanted catches, accepting this is difficult in beam trawl fisheries targeting sole. As a response, the present JR provides an overview of the studies conducted to improve selectivity in the BT2 fishery. This provides a useful summary and clearly indicates the issues and challenges involved in improving selectivity in this fishery. There are also indications for future work planned without any detail provided. Calculating the de minimis based on catches of sole and plaice, means 100% of unwanted catches below MCRS can be potentially discarded. However, the JR argues the Commission will calculate the volume of the exemption and deducts that amount from the total allowable catch (TAC), the impact on the stock is considered. EWG 21-05 considers it is the role of managers to decide whether this justifies the calculation method used.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
High Survivability	
Exemption	Plaice below the minimum conservation reference size caught with 80-119 mm beam trawl gears (BT2) in ICES subarea 4
Main findings of EWG 21-05	The representativeness of the new survival estimates (sampled in the Celtic Sea and Eastern channel) for the North Sea fisheries is not clear. However, the results are in line with earlier observations and with large variability between trips, likely due to varying conditions (season, vessel size, catch size and composition, gear characteristics and area). The new survival estimates add to the overall knowledge about undersized plaice survival for larger beam trawlers (>221 kW, i.e. to exemption 7.1.a and not 7.1.b). A first indication about the effect of the use of a flip-up rope is also provided but the study was too limited in scope to draw any conclusions. Progress has been made compared to last year in terms of estimation of catch volumes and composition, by development of systems and protocols for self-reporting and automated video analysis. Similarly, Belgium has described on developing species identification software under laboratory conditions, to analyse video footage from EM systems. The Dutch have reported on sub projects on selectivity describe ongoing scientific projects. While no results are presented, the work planned on

	the creation of a gentler catching process in order to increase probability of discards to survive is relevant. This work will run until Jan 2023. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. Further clarity on the objectives for the roadmap is needed in order to facilitate an evaluation. There is currently no timetable for the completion of the roadmap.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Skates and rays caught by all fishing gears in the North Sea in ICES division 3a and ICES subarea 4
Main findings of EWG 21-05	No new survival estimates or substantial new information about fleets and fisheries for all affected Member States has been provided. However, the JR as reported on initiated and planned actions for the three steps of the roadmap from 2018: (1) Improve knowledge on stocks and survivability (Annexes F1-F7). (2) AC measures to minimize discards and improve survivability (Annex F8). (3) Coordination of work by regional group chair. This has helped to consolidate the knowledge on the survival of skates and rays in the North Sea. To date, survival and discard evidence and fleet information is reported in a too incoherent way to make sensible use of all information. Most information is member state specific within regions and there are very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catches incl. discards per species and métier for all member states to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. The special condition regarding scientific information about cuckoo ray as specified in the current exemption (article 9 of Regulation (EU) No 2020/2014) is not reflected in the on-going and planned work presented in the JR.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.

Exemption	Plaice caught with trawls with a mesh size of at least 90-99 mm equipped with Seltra panel targeting flatfish or roundfish in ICES division 3a, — plaice caught with trawls with a mesh size of at least 80-99 mm targeting flatfish or roundfish in ICES subarea 4
Main findings of EWG 21-05	This is an amendment to an existing exemption. It refers to a request for additional information to define a bottom-trawl fishery targeting round- and flatfish in the Union waters of ICES division 3a and subarea 4 with mesh sizes of 90 to 119 mm. The Scheveningen Group proposed to define a fishery targeting round and flatfish when <33% (in weight) of Nephrops is present in the catch. Otherwise, it can be considered a *Nephrops* targeted fishery for which the high survival derogation for plaice should not apply, and consequently all plaice have to be landed. No further justification on this arbitrary threshold was provided, and how catches will be registered on-board in compliance to such a rule. Without any measures in place to register catches and monitor the discarding of (exempt) unwanted catches, a risk is introduced to allow discarding under a status quo. No specific provision was included in the JR to accompany the catch composition rule with measures to improve the documentation of catches, such as a provision for CCTV. Furthermore, no justification or evidence was provided to support the proposal to expand this exemption also to bottom trawls used in the Kattegat, using a square mesh panel of at least 120 mm fitted on trawls in the period from 1 October to 31 December. The Scheveningen group suggested when there is more than 33% (in weight) of *Nephrops* in the catch, the high survival derogation for plaice should not apply and all plaice must be landed, based on the reasoning that more *Nephrops* in the catch reduces the survival of discarded plaice. Based on the available survival information that this assumption is correct. However, no further justification was provided to support the threshold proposed. It is an arbitrary rule. It is not clear how the catch would be registered on-board to determine its composition, and in a way to facilitate enforcement and this is a concern.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: DNK. Following the request of EWG 21-05 to provide new substantial survival information for extending the exemption to the Kattegat, namely for a square mesh panel of at least 120 mm fitted on trawls in the period from 1 October to 31 December, Denmark supplied the following two documents: <u>Research article</u>: Karlsen JD, Krag LA, Albertsen CM, Frandsen RP (2015) From Fishing to Fish Processing: Separation of Fish from Crustaceans in the Norway Lobster-Directed Multispecies Trawl Fishery Improves Seafood Quality. PLoS ONE 10 (11): e0140864. <u>DTU Aqua internal note dated 02/03/2020, which specifically provides information on improved flatfish selectivity from new studies, and an evaluation of the results from the Danish discard survival studies for the 100-119 mm trawl fishery.</u> *Reviewer's comments* *Denmark supplied an official note from the Danish scientific institute for*

	aquatic resources, DTU Aqua, on the survivability issue regarding panels used in the Kattegat. Karlsen et al. (2015) and the supplementary internal DTU Aqua note confirm that it is expected that the effect of target species (i.e. the discard survival of plaice was less likely when targeting Nephrops than when targeting plaice) is larger than an effect of mesh size or selectivity device. Furthermore, the supplementary information confirms that the discard survival of plaice will be similar or better for larger mesh sizes, including the SELTRA and 120 mm square mesh panels, compared to the 80-99 mm otter trawl fishery. *However, no further justification was provided to support the threshold (i.e., 33% in weight of Nephrops in the catch) proposed by the Scheveningen group. This remains an arbitrary rule rather than based on rigorous and scientific analysis. There is still an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.*
Exemption	Turbot caught with beam trawls (TBB) with a cod-end equal to or larger than 80mm in ICES subarea 4
Main findings of EWG 21-05	The new survival estimates from beam trawl catches are valuable as previous estimates where from pulse trawls. However, the estimated survival is based on very few observations (17 individuals from two trips), which makes it difficult to draw any conclusions about both likely survival rate and the compatibility compared to current fishing practises as the conditions in the wider fishery is not put into context with the estimated survival rate. A synthesis of available survival estimates, and characteristics of all relevant fisheries is needed to assess the consequences of the exemption (see plaice exemption). It would be valuable to expand the Dutch proposal to study survival of plaice for the Tiaki cod end to also estimate survival of turbot (does not seem to be planned now) as the Dutch fisheries are a major source of turbot discards.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Technical Measures	
Exemption	Specific technical measures in the Skagerrak
Main findings of EWG 21-05	EWG 21-05 concludes that the proposed amendment to the technical measures in the Skagerrak and Kattegat consolidates existing measures contained in Annex V of Regulation (EU) 2019/1241. It achieves its main aim of removing any ambiguity in the current regulations and confirms that vessels using seine nets or beam trawls cannot use the 90mm mesh size in the Skagerrak. The reduction in scope (i.e. the derogation applies only otter trawls) will offer higher protection for juveniles, thereby

	improving the exploitation patter due to the fact that the 90mm derogation is no longer available to beam trawls and seine nets. This was the intention of the agreement with Norway as evidenced by the EU/Norway Working Report referenced in the JR. The removal of this ambiguity contributes to the optimisation of exploitation patterns in the demersal fisheries in the Skagerrak and Kattegat and provides better protection for juveniles and spawning aggregations of marine biological resources in these fisheries. Therefore, the JR is in line with the objectives in Article 3 and the target in Article 4 that, "catches of marine species below the minimum conservation reference size are reduced as far as possible in accordance with Article 2(2) of Regulation (EU) No 1380/2013".
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.

Table 1b. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **NWW**

De minimis	
Exemption	Whiting caught by vessels using bottom trawls and seines with a mesh size equal to or greater than 80 mm, pelagic trawls and beam trawls with a mesh size of 80 to 119 mm in ICES divisions 7b to 7k
Main findings of EWG 21-05	A lot of work seeking to improve fishing gears selectivity for whiting has been carried out in many of the relevant fisheries implemented in the Celtic Sea. Future work is also planned. Analysis carried out by STECF PLEN 20-01 and 20-02 has shown that the regulated gears in the whitefish and *Nephrops* fisheries are selective for whiting. However, the overall impact of these gears on reducing unwanted catches of whiting in these fisheries cannot be fully evaluated in the absence of catch data. The implications of granting the proposed exemption to the fishery and species concerned cannot be quantified with the information provided with the JR. Updated catch data is provided only for the relevant French fleets. Additionally, due to the absence of catch data, the relationship between the de minimis volume and the actual level of unwanted catches cannot be evaluated.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Whiting 7b-k, Ireland - Trawls, Seines & Beam Trawls (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. Nephrops trawls Landings: 22 t, discards : 3 t, discard ratio 12%, de minimis 1 tonne Number of vessels : ~ 76 vessels

	Whitefish trawls Landings : 1233 t, discards 58 t, discard ratio 4% de minimis 65 t Number of vessels : ~ 40 vessels Whitefish Scottish Seines Landings : 626 tonnes, discards 15 t, discard ratio 2% de minimis 32 t Beam Trawls Landings: 45 t, discards: 15 t, discard ratio: 25%, de minimis: 3 t. Number of vessels: ~13 Irish vessels subject to LO *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request, but does not affect the findings of the EWG 21-05 given above. Additional information was only provided by Ireland and not the other countries, with vessels availing of this exemption. Without catch information from the other Member States it is not possible to quantify the implications of granting the proposed exemption.*
Exemption	Haddock caught in the TR1 and TR2 trawl and seine fisheries in ICES divisions 7b, 7c and 7e to 7k
Main findings of EWG 21-05	A lot of work seeking to improve fishing gears selectivity for haddock has been carried out in many of the relevant fisheries implemented in the Celtic Sea. Analysis carried out by STECF PLEN 20-01 and 20-02 has shown that the regulated gears in the whitefish and *Nephrops* fisheries are selective for haddock. However, the overall impact of these gears on reducing unwanted catches of haddock in these fisheries cannot be fully evaluated in the absence of catch data. The implications of granting the proposed exemption to the fishery and species concerned cannot be quantified with the information provided with the JR. Additionally, due to the absence of catch data, the relationship between the de minimis volume and the actual level of unwanted catches cannot be evaluated.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Haddock 7b-k, Ireland - Trawls, Seines & Beam Trawls (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. <u>Nephrops trawls</u> Landings : 221 t, discards : 100 t, discard ratio 31%, de minimis 16 t Number of vessels : ~ 76 vessels <u>Whitefish trawls</u> Landings : 1302 t, discards 576 t, discard ratio 31% de minimis 91 t Number of vessels : ~ 40 vessels <u>Whitefish Scottish Seines</u>

	Landings : 610 tonnes, discards 336 t, discard ratio 36% de minimis 47 t Number of vessels : ~ 9 vessels <u>Beam Trawls</u> Landings: 411 t, discards: 180 t, discard ratio: 30%, de minimis: 30 t. Number of vessels: ~13 Irish vessels subject to LO *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request, but does not affect the findings of the EWG 21-05 given above. Additional information was only provided by Ireland and not the other countries, with vessels availing of this exemption. Without catch information from the other Member States it is not possible to quantify the implications of granting the proposed exemption.*
Exemption	Boarfish caught by vessels using bottom trawls in ICES divisions 7b-c and 7f-k.
Main findings of EWG 21-05	This exemption is due to remain in place until the end of 2023. The requested rewording of the exemption has implications in terms of the permitted potential de minimis discard volume. Using data for 2018 submitted by Member States to the STECF FDI database, the total catch of boarfish by all gears in 7b, c, f-k was 4220 t (discards 187 tonnes), whereas the total catch using bottom trawls was 179 tonnes (discards 178 tonnes). The implied discard volume for a 0.5% de minimis is small in each case (21 tonnes based on catches by all gears and < 1 tonne based on catches by bottom trawls. Almost all reported discards for 2018 (187 tonnes) were attributed to bottom trawls (178 t). Therefore, the current 0.5% de minimis based on bottom trawl catches only would not have been sufficient to account for the unwanted catches of boarfish reported for 2018 for the French fleet. This is based only on the French data provided and the levels of unwanted catches of boarfish from other fleets operating in the same fisheries is unknown. Catch data and a description of the fisheries of other Member States availing of this exemption would be helpful but would not materially change the observation that under both the current wording and the new wording, the exemption covers only a small portion of the total unwanted catches. It is not clear from the supporting information what steps are planned to deal with the residual unwanted catches over and above the de minimis volume. While the supporting information concludes that selectivity improvement by regulatory measures to avoid the catches of boarfish will be hard to achieve without severe economic impacts on the revenue of the boats concerned, this is not supported by quantitative information. The arguments presented are generic and do not relate to the unwanted catches of boarfish. The priority should be to improve selectivity to reduce the unwanted catches and therefore, the costs for handling such catches, accepting that this should be balanced against the costs of sorting small quantities of boarfish from the other marketable catch.
Supplementary information provided to the	No supplementary information was provided.

Commission post EWG 21-05	
High Survivability	
Exemption	Skates and rays (Rajiformes) caught by any fishing gear in the North-Western Waters (ICES subareas 6 and 7).
Main findings of EWG 21-05	New survival evidence for cuckoo ray is provided which is relevant for the French otter trawl fishery in the border zone between area 7e, 7h and 8a. The overall survival probability across seasons and vessels between 14-23% (95% CI). There was some indication of captivity related effects (20% of controls died in the summer, and up to 80% in the winter). The observations from winter were therefore not used for estimating the relationship between vitality index and long-term survival. A slightly lower survival rate was observed during winter but variability between vessels was larger than between seasons. The most important factor identified to affect survival rate was haul duration but also wave height, fishing depth, air temperature and duration of air exposure displayed significant effects. Discard data for cuckoo ray from France reports a discard rate of 27% is reported for the particular fishery, while 39% discards are reported for French bottom trawls in the Celtic Sea, western channel and west of Ireland as a whole. This is concern given the observed low survival estimates observed in the French trials. Ireland reports on a planned survival experiment 2021 for cuckoo ray for otter trawls in the Irish Sea. The project plan indicates a scientifically robust experiment that will add to the knowledge about cuckoo ray survivability in North-Western waters.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Plaice caught in ICES divisions 7a to 7g using beam trawls
Main findings of EWG 21-05	New evidence was provided for the Belgian beam trawl fleet that operates in North-Western waters and in the North Sea. The new survival estimates were based on sampling and captive monitoring of undersized plaice on two trips in the Celtic Sea and the Eastern Channel 2020. Estimated long-term survival (Kaplan-Meier asymptote) of 268 discarded undersized plaice ranged between 13% (9%-19%, 95% CI) from the summer trip (July 2020, Celtic Sea), with conventional trawl and 51% (41%-64%, 95% CI) from the winter trip (December 2020, Eastern Channel) with a flip-up rope, and 44%, (35-56%, 95% CI) without a flip up rope. Updated information about the Belgian fleet for 2019-2020 was provided but not for the other countries (effort, landings, discards by area). The area based Belgian discard rates for plaice in 2019 and 2020 respectively was reported to be 7a, 7d and 7e- 51% and 40%, 7g, 7h- 29% and 33%. No discard rate was reported for 7h, 7j (or 8a and 8b). Last year´s JR also contained Belgian information but none from other relevant countries.

	The new survival estimates add to the overall knowledge about undersized plaice survival for larger beam trawlers (>221 kW, i.e. to exemption 7.1.a and not 7.1.b). A first indication about the effect of the use of a flip-up rope is also provided but the study was too limited in scope to draw any conclusions. More information and analysis of representativeness and transferability of survival evidence is needed.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Plaice 7a-k, Ireland – Beam Trawls (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. - Plaice, 7a, BT2. No. vessels subject to LO: ~11, landings: 146 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~44% (Uhlmann et al, 2020) - Plaice, 7fg, BT2. No. vessels subject to LO: ~11, landings: 140 t, discards: 19 t, discard ratio: 12%, Estimated survival rate: ~44% (Uhlmann et al, 2020) - Plaice, 7hjk, BT2. No. vessels subject to LO: ~11, landings: 0 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~44% (Uhlmann et al, 2020) *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request, but does not affect the findings of the EWG 21-05 given above. Additional information was only provided by Ireland and not the other countries, with vessels availing of this exemption. Without catch information from the other Member States it is not possible to quantify the implications of granting the proposed exemption.*
Exemption	Plaice (Pleuronectes platessa) caught in ICES divisions 7a, 7b, 7c, 7f, 7g, 7h, 7j and 7k with seine nets
Main findings of EWG 21-05	New survival evidence was presented for the Irish Scottish seine fishery which followed up from an earlier study where plaice were evaluated for vitality aboard, but not monitored in captivity. Fishing took place in ICES 7j. This new captive survival study was assessed to be done consistent with ICES guidelines but was limited in scope. Overall, 71% of plaice survived, which was comparable to a captivity study of Danish-seine caught plaice. Most plaice were in excellent condition and all still alive when landed on deck. While survival was modelled by parametric survival analyses, contributing factors that could influence survival were listed and discussed, but not modelled. Other studies have shown that if other factors are being considered alongside vitality, a model fit can be improved. However, the survival estimate can be considered robust for the conditions of the fishing trial. More details on the fishery, from all relevant member states, including vessel numbers, catches and catch composition, as well as technical aspects of the fishing operation such as sorting times, are needed for a full

	evaluation.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from the Member States: IRL. Plaice 7b-k, Ireland, Seine nets (FDI, 2019). Table reporting landings, discards, and number of vessels subject to the LO. - Plaice, 7a, SSC. No. vessels subject to LO: ~9, landings: 5 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~71% (Oliver et al., 2021) - Plaice, 7b, SSC. No. vessels subject to LO: ~9, landings: 0.9 t, discards: 0 t, discard ratio: 0%, Estimated survival rate: ~71% (Oliver et al., 2021) - Plaice, 7fg, SSC. No. vessels subject to LO: ~9, landings: 16 t, discards: 13 t, discard ratio: 45%, Estimated survival rate: ~71% (Oliver et al., 2021) - Plaice, 7hjk, SSC. No. vessels subject to LO: ~9, landings: 6 t, discards: 0.4 t, discard ratio: 6%, Estimated survival rate: ~71% (Oliver et al., 2021) *Reviewer's comments* *The supplementary information provided by Ireland is relevant to this exemption request. No other country has supplied any information requested by the EWG 21-05 about plaice catches in seine net fisheries, noting that no such catches are reported in the FDI database.* *The evidence submitted to support survival exemptions for plaice highlights that survivability in most of the fisheries is affected by many factors and is highly variable. In the ICES division 7f,g, the discard ratio is high but the actual discarded volume is low (e.g., 13 tonnes) considering a stock with a TAC of 2003 tonnes in 2020, see at the ICES link..* *As there are no other countries with reported catches in 7f,g according to the FDI database with seines it means that potentially just 4 tonnes may not survive, using the 71% survival rate.*
Technical Measures	
Exemption	Technical measures in the Celtic Sea, Irish Sea and West of Scotland
Main findings of EWG 21-05	The NWW Member States submitted a JR covering technical measures for the Celtic Sea, Irish Sea and West of Scotland, containing measures for commercial and recreational fisheries. This JR was largely the same as the JR submitted in 2020 and assessed by STECF PLEN 19-02. This was not re-assessed and the conclusions from STECF PLEN 20-02 remain valid.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Joint Recommendation to include T90 100 mm on the basis of equivalent

	selectivity with T0 120 mm
Main findings of EWG 21-05	Following the assessment by STECF PLEN 20-02 of the NWW technical measures JR, the use of a 100mm T90 codend was removed as a gear option for the Irish Sea because: 4. The number of hauls was low and the study did not use the more robust twin-rig catch comparison method nor a covered codend to measure the absolute selectivity. 5. There was little detail on the analysis and no information on the variation between hauls. 6. It was not possible to discern whether there is a disproportionate dependence on any particular haul. Based on a re-assessment and new information provided, EWG 21-05 recognises that the catch comparison approach is a standard and well-established method, which has been used in many studies of the catching performance of fishing gears. Therefore, EWG 21-05 observes that the use of catch comparison method in this study was a reasonable approach, given the objective of the trials was to assess the differences in catches between the test (100mm T90) and control (120mm T0) gears. The analysis carried out shows that the abundance was highly variable between hauls, with low abundance evident in numerous hauls for cod, haddock and whiting. Ireland tried to account for this variability using generalised additive models (GAM) and bootstrapping. This resulted in a high level of uncertainty within the model. A further analysis attempted to reduce such uncertainty by grouping hauls based on spatial proximity and matched all possible valid combinations from within these groups. Both methods resulted in a similar mean modelled overall proportions retained in T90 100 mm and suggest regardless of the higher variability, the use of the first model based on GAM and bootstrapping because has less bias due to arbitrary combinations of control and test hauls. The additional analysis provided indicates that the 100mm T90 has similar selectivity characteristics for whiting and haddock as a 120mm T0 codend, noting the data provided is still limited in terms of the number of hauls.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	King Scallop in ICES division 7d
Main findings of EWG 21-05	The High-Level Group of the North-Western waters submitted a JR to introduce technical measures for the King scallop fishery framework in the English Channel (ICES subarea 7d). Based on the assessment by EWG 21-05 it is apparent the prohibition on scallop fishing applies to all fleets during a specified time period, which is a major step forward and follows the conclusions of STECF PLEN 16-02. The introduction of an extended timeframe (15th May-15th October) for the closure in the intermediate zone of the Eastern Channel South of latitude

	49°42’ N is likely to be beneficial for stock biomass. While the closure in the rest of area 7d and 7e is shorter than that for the Baie de Seine (15th May-15th October), the measure is still likely to be beneficial given it applies to all fleets. The JR encourages Member States to improve existing management measures (e.g. selectivity) and, if trials are conclusive, all Member States would commit to enforcing these new management measures and the JR should be updated accordingly.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Establishing Management Measures for the Red Seabream in ICES subareas 6 and 7
Main findings of EWG 21-05	The North-Western Waters Member States Group has submitted a JR with additional conservation measures to improve the status of the Red Sea Bream stock in subareas 6 and 7. The management measures presented in the Joint Recommendation of the North-Western Waters represent an improvement on the measures presented in 2019. They have the potential to reduce catches of red seabream but due to lack of supporting data it is not possible to assess fully whether catches will be reduced to the level of the 2021 TAC. The French national spatio-temporal closure coincides with the spawning period for this species. However, the closure only prohibits targeted fishing for red seabream and should bycatch occur when fishing for other species the landing obligation necessitates that red seabream be landed and counted against quota. The increased MCRS for commercial use of 36cm is below the MCRS of 40cm proposed by STECF PLEN 19-01 and 19-03 necessary to protect adult females and is necessary to rebuild the stock. No additional size selectivity measures have been established to reduce unwanted catches below MCRS as was also highlighted in STECF PLEN 19-01 and 19-03. Without an increase in size selectivity catches are likely to remain the same while the unwanted portion of the catch is likely to increase. The MCRS of 40cm proposed for recreational fisheries is considered appropriate. Significant research work is planned by NWW Member States which will contribute to the biological knowledge of the red sea bream stock.
Supplementary information provided to the Commission post	No supplementary information was provided.

EWG 21-05	

Table 1c. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **SWW**

De minimis	
Exemption	Horse mackerel caught by vessels using beam trawls, bottom trawls and seines in ICES subareas 8 and 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. More information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified due to a lack of catch data at gear level for all Member States. However, based on the catch data for 2019, the total volume discarded was 423 tonnes, against total catches in areas 8 and 9 with all gears of around 60,000 tonnes, around 0.7% of total catches. Therefore, in the context of the overall stock of horse mackerel, the impact of the exemption is likely to be limited from a stock perspective. The additional information provided by France, Spain and Portugal shows relatively low rate of discards (i.e. Spanish OTB_MPD_>=55 metier targeting horse mackerel had a discard rate of 1.8% in 2019) for some fisheries but quite high discard rates in others (i.e. Spanish OTB_MCD_>=55 metier has a discard rate of 66% in 2019). Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, implementing the most promising of these gears may help to address the issue of reducing discard rates for horse mackerel in the longer term. Spain has further selectivity work planned that may help to develop suitable gears.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start:

					01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.

Exemption	Horse mackerel by vessels using gillnets in ICES subareas 8, 9 and 10 and CECAF zones 34.1.1, 34.1.2, 34.2.0
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. More information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. For France and Spain this is relatively low. Portugal does not provide data for total discards but reports a relatively high discard rate of 20-30% in the relevant fisheries. The implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for Portugal cannot be assessed. The data provided indicates the impact of the exemption on the horse mackerel stock will be low for Spain and France (less than 10 tonnes). The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021

					Trials: 04-08/06/2021 Final report: 30/11/2021

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.

Exemption	Mackerel caught by vessels using beam trawls, bottom trawls and seines) in ICES subareas 8 and 9
Main findings of EWG 20-04	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of mackerel discarded under this exemption. Based on the average catch data provided, the average total volume discarded was 727 tonnes, against average total catches in areas 8 and 9 with bottom trawls, beam trawls and seines of around 8,500 tonnes, around 8.7% of total catches. Therefore, the percentage level of mackerel being discarded under the exemption is likely to exceed the de minimis percentage of 5%. The additional information provided by France, Spain and Portugal shows relatively low rate of discards (i.e. Spanish OTB_MPD_>=55 metier targeting mackerel had an average discard rate of 6.6% in 2019) for some fisheries but quite high discard rates in others (i.e. Spanish OTB_MCD_>=55 metier has an average discard rate of 83% in the period 2017-2020). Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, implementing the most promising of these gears may help to address the issue of reducing discard rates for mackerel in the longer term. The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.
Supplementary information provided to the Commission post EWG 20-04	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

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<tr><th>Institute</th><th>ICES area</th><th>Nature of the experiment</th><th>Fisheries</th><th>Project info</th></tr>
<tr><td>AZTI</td><td>ICES 8c</td><td>De minimis</td><td>Trawl_OTB_DEF</td><td>CASELEM 21 project
Start: 01/01/2021
Trials: 04-08/06/2021
Final report: 30/11/2021</td></tr>
</table>
Reviewer’s comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.
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<tr><td>Exemption</td><td>Mackerel by vessels using gillnets in ICES subareas 8 and 9 and and CECAF zones 34.1.1, 34.1.2, 34.2.0</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments.

Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. For France and Spain this is relatively low. Portugal does not provide data for total discards but reports a relatively high discard rate of 30% in the trammel net fishery.

The implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for Portugal cannot be fully assessed. The data provided indicates the impact of the exemption on the mackerel stock will be low for Spain and France (less than 10 tonnes). For Portugal even though the discard rate is high for the trammel net fishery based on the supporting information the actual volume discarded is low. Therefore, overall, the impact of the exemption on the overall horse mackerel stock is likely to be low.

The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.</td></tr>
<tr><td>Supplementary information provided to the Commission post</td><td>No supplementary information was provided.</td></tr>
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EWG 21-05	
Exemption	Megrim caught with bottom trawls, seines & beam trawls in ICES areas 8 & 9.
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain, Portugal and Belgium which provides an indication of the volumes of megrim discarded under this exemption. Based on the average catch data provided, the total volume discarded in 2019 was ~260 tonnes. However, without overall catch data, the impact of the exemption on the overall megrim stock in subareas 8 and 9 cannot be estimated. The additional information provided by France, Spain, Portugal and Belgium shows relatively low rate of discards for most trawl fisheries except for the Spanish OTB_DEF_>=55 metier where discard volumes are quite high (accounted for approximately 80% of all discards reported) with a discard rate of 27% in 2020. Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, implementing the most promising of these gears may help to address the issue of reducing discard rates for megrim in the longer term, particularly in the Spanish OTB_DEF>=55 metier.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG

	21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.
Exemption	Megrim caught by vessels using gillnets in ICES subareas 8 and 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of megrim discarded under this exemption. For the three countries this is very low (less than 1.5 tonnes) and in many of the metiers for which data has been provided no discards are reported. The implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for all countries cannot be fully assessed. However, the data provided indicates the impact of the exemption on the megrim stock will be low.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Anglerfish caught with bottom trawls, seines & beam trawls in ICES areas 8 & 9
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. Updated catch data has been provided by France, Spain, Portugal and Belgium which provides an indication of the volumes of anglerfish discarded under this exemption. Based on the average catch data provided, the total volume discarded in 2019 was ~12 tonnes, against total catches of anglerfish in trawl fisheries estimated at 2650 tonnes, around 0.45%. The discard rate across the fisheries is low, typically less than 5%. Therefore, the impact on the anglerfish stock of the exemption is likely to be low. Reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

	Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
	AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021
	Reviewer's comments *Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.*				
Exemption	Anglerfish caught by vessels using gillnets in ICES subareas 8 and 9				
Main findings of EWG 21-05	The economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. The additional information provided by France, Spain and Portugal indicate a relatively low rate of discards for France (0.3%) and Portugal (close to zero) are well below the maximum 4% de minimis for anglerfish in the fisheries covered by the exemption. The discard rate for Spain is much higher in their directed anglerfish fishery averaging around 11% of total anglerfish catches. However, reducing these discards through improvements in selectivity would not be possible, given the vessels operating in this fishery already operate with gillnets with a mesh size of 280mm. The overall volumes between the three countries combined seem to be relatively small when put in the context of the anglerfish stocks in areas 8 and 9. Therefore, while the volume of de minimis that could be discarded under the exemption due to incomplete catch data cannot be assessed, it is unlikely that discards under this exemption will have a significant impact on the anglerfish stock.				
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.				
Exemption	Whiting -by vessels using bottom trawls, seines & beam trawls in ICES subarea 8				
Main findings of	No economic information specific to whiting is provided and therefore				

<table>
<tr><td>EWG 21-05</td><td>cannot make any evaluation in relation to disproportionate costs.

Only France and Belgium report catches of whiting in trawl fisheries. France reports very low volumes of discards (4 tonnes in 2020) and Belgium reports no discards at all with very low catches. Therefore, based on total catches of around 565 tonnes, the estimated volume of discards is less than 1% of total catches. The impact of the exemption on the overall whiting stock is likely to be low.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 21-05</td><td>The following supplementary information was received from Member States:

ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.
<table>
<tr><th>Institute</th><th>ICES area</th><th>Nature of the experiment</th><th>Fisheries</th><th>Project info</th></tr>
<tr><td>AZTI</td><td>ICES 8c</td><td>De minimis</td><td>Trawl_OTB_DEF</td><td>CASELEM 21 project

Start: 01/01/2021

Trials: 04-08/06/2021

Final report: 30/11/2021</td></tr>
</table>
Reviewer’s comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.</td></tr>
<tr><td>Exemption</td><td>Whiting caught by vessels using gillnets in ICES subarea 8</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>No economic information specific to whiting is provided and therefore cannot make any evaluation in relation to disproportionate costs.

The catch information provided by France indicates that the volume discarded under the exemption was 2.7 tonnes in 2020 out of total catches of 184 tonnes, around 1.4%. Therefore, the likely impact of the exemption on the whiting stock is likely to be low.</td></tr>
<tr><td>Supplementary information provided to the Commission post EWG 21-05</td><td>The following supplementary information was received from Member States:

ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.
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</table></td></tr>
</table>

	AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.

Exemption	Red Sea Bream caught by vessels using bottom trawls, seines & beam trawls in 9a
Main findings of EWG 21-05	No new information has been provided. Information on economic impacts was provided already in 2020. At that time, EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Sole caught by vessels using bottom -trawls, seines and beam trawls in 9a
Main findings of EWG 21-05	No new information has been provided. The information on economic impacts was provided already in 2020. At the time, EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be.

	Based on the limited catch data provided, the level of discards of sole in the relevant fisheries is negligible. Therefore, the impact of the exemption on the sole stock is likely to be low.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Anchovy caught by vessels using beam trawls, bottom trawls and seines in ICES subareas 8 and 9
Main findings of EWG 21-05	Only limited new information has been provided. The economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the French vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be. The additional information provided by France indicate a low rate of discards well below the maximum 5% de minimis for anchovy in the fisheries covered by the exemption. The information provided by Portugal indicates similarly low levels of discards < 1 tonnes in the relevant bottom trawl fisheries. No information is provided for Spain and it is felt highly unlikely that the Belgium beam trawl fleet operating in the northern part of the Bay of Biscay would encounter anchovy. Therefore, while the volume of de minimis that could be discarded under the exemption cannot be assessed due to a lack of catch data (no data from Spain), it is unlikely that discards under this exemption will have any significant impact on the anchovy stock, given the volumes of unwanted catch reported are so low.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States: ESP. Ongoing and future projects regarding survival/de minimis in the NWW and SWW: state of play, Member States involved, scientific institutes. Table with information on dates for the start/end of the trials and final report deadlines.

Institute	**ICES area**	**Nature of the experiment**	**Fisheries**	**Project info**
AZTI	ICES 8c	De minimis	Trawl_OTB_DEF	CASELEM 21 project Start: 01/01/2021 Trials: 04-08/06/2021 Final report: 30/11/2021

	Reviewer's comments *Supplementary information on the fisheries covered by this exemption was supplied by Spain but do not alter the substance of the assessment of EWG 21-05. The information provides more detail on an ongoing study relevant to the de minimis exemption.*
High Survivability	
Exemption	**Cuckoo Ray** caught caught by trammel nets in ICES subareas 8 and 9; caught by bottom trawls in ICES subarea 8
Main findings of EWG 21-05	New survival evidence was provided in the form of a French study on cuckoo ray from the border between areas 7e/7h and 8a with bottom otter trawl. The study involved extensive vitality scoring (164 trips) coupled to captive survival monitoring of a stratified subsample (based on a vitality index) during summer 2020. The relationship between vitality index and captive long-term survival (monitored 21 days) together with the vitality scores from the wider fishery was then used to estimate seasonal and overall survival. The ICES critical review was applied, and the estimates were considered robust. The overall survival probability across seasons and vessels between 14-23% (95% CI). There was some indication of captivity related effects (20% of controls died in the summer, and up to 80% in the winter). The various evidence from different regions corroborates earlier indications that cuckoo rays display lower survival than other, larger ray species and that there could be zero survival in some fisheries. Further field work is planned in 2021 (third quarter) as part of a PhD thesis (Universidad do Algarve) in Portugal to quantify survival of cuckoo ray discarded from a Southern Portuguese crustacean trawl-fishery. This study will combine on-board vitality observations with monitoring observations in captivity.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	**Red seabream** caught by vessels using the artisanal gear voracera in ICES division 9a and with hooks and lines in ICES subareas 8 and 10 and ICES division 9a
Main findings of EWG 21-05	No new information was provided as due to the COVID-19 pandemic, additional experiments planned to occur in 2020 were postponed to late 2021/early 2022. Additional survivability experiments with red seabream caught by demersal longlines are planned to be conducted under the project PPCENTRO. Those experiments aim to estimate the survival rates based on captive observations and during a longer observation period as suggested by STECF 19-08. Captivity observations will be conducted for periods of

	three-weeks in IPMA's facilities in Peniche (located near the fishing harbour). Vitality, RAMP and lesions of the specimens and water quality parameters will be monitored daily. Additional vitality data after capture, RAMP and lesions will be recorded onboard for all the captured specimens
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	**Skates and rays (except cuckoo ray)** (Rajiformes) caught with all gears in ICES subareas 8 and 9
Main findings of EWG 21-05	No additional information on survival and fishery compatibility has been provided. However, it is stated that discards for this species are negligible, being mostly related to fish below the minimum landing size. Additional experiments to obtain survival rates over a longer period under captive conditions are required. New experiments were planned to be conducted in late 2019/early 2020, to obtain survival rates for a longer period of time under captive conditions, but the trials have been postponed due to constraints acquiring material for the experiments.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Technical Measures	
Exemption	Establishing Management Measures for the Red Seabream in The Bay Of Biscay
Main findings of EWG 21-05	The South-Western Waters Member States Group has submitted a JR with additional conservation measures to improve the status of the Red Sea Bream stock in subarea 8. The management measures presented in the Joint Recommendation of the South-Western Waters represent an improvement on the measures presented in 2019. They have the potential to reduce catches of red seabream but due to lack of supporting data it is not possible to assess fully whether catches will be reduced to the level of the 2021 TAC. The Spanish national closures for commercial fisheries are in the general area where spawning is likely to take place, but it is not possible to evaluate how effective they will be due to lack of supporting evidence. The introduction of the Spanish national measures of closed areas to recreational fishers appear to be in areas (estuaries and around ports) where juvenile red seabream aggregate. However, it is not possible to evaluate how effective they will be due to lack of supporting evidence.

	The additional Spanish national catch limit of one fish per licensed recreational fisher per year has potential to substantially reduce catches of red seabream in coastal areas. The French national spatio-temporal closure coincides with the spawning period for this species. However, the closure only prohibits targeted fishing for red seabream and should bycatch occur when fishing for other species the landing obligation necessitates that red seabream be landed and counted against quota. The increased MCRS for commercial of 36cm is below the MCRS of 40cm proposed by STECF PLEN 19-01 and 19-03 necessary to protect adult females and is necessary to rebuild the stock. The MCRS of 40cm proposed for recreational fisheries is appropriate. No additional size selectivity measures have been established to reduce unwanted catches below MCRS as was also highlighted in STECF PLEN 19-01 and 19-03. Without an increase in size selectivity catches are likely to remain the same while the unwanted portion of the catch is likely to increase. Significant research work is planned by SWW Member States which will contribute to the biological knowledge of the red sea bream stock.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Definition of Directed Fishing	
Exemption	Directed Fishing for SWW
Main findings of EWG 21-05	The South-Western Waters Member States Group has submitted a JR to define directed fishing as per Article 27(7) of Regulation (EU) 2019/1241. This was supported by catch data provided by the SWW The data provided allows for an evaluation of the suitability of the use of a catch threshold to define directed fisheries for the SWWs. The thresholds based on catch to defined directed fisheries may not be suitable for the metiers present in the SWW. Furthermore, the catch thresholds as defined in the SWW JR exclude a high proportion of the vessels already derogated from the TMR baseline mesh sizes. The impact of a vessel not reaching a catch threshold, namely if it will be required to operate within the baseline mesh size or not, is unknown. It is not possible to evaluate if it will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. It is not possible to assess whether it would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241. In any case the derogations are already contained in the TMR 2019/1241, and since they refer to

	smaller mesh sizes compared to the baseline, they are unlikely to help reaching the objectives and targets contained in Articles 3 and 4. The PLEN 20-03 conclusion that as no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries remains relevant and important. The PLEN 20-03 conclusion that it is also unclear as to how these thresholds would apply in the context of the landing obligation, under which all catches must be landed is also still relevant. If no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.

Table 1d. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **Western Mediterranean**

De minimis	
Exemption	Hake and mullets, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Western Mediterranean Sea
Main findings of EWG 21-05	The evidence is reasonable in terms of the catch and discard data but, the supporting information to justify the exemptions is scant. Arguments in favour of the exemption are based on the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) of around €3000 euro per year. This represents about 7.5% of the gross profit of the "average" vessel. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate but it cannot be assessed whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. The level of the exemption sought is close to 100% of the volume of discards. Improving selectivity should be the priority and in this regard, it is desirable that, as committed by the concerned Member States, additional selectivity studies are conducted on further mesh size / mesh orientation combinations, in order to assess whether improvements are possible. The use of MPAs which was not included in previous JRs as an alternative to selectivity improvements, is not mentioned in any of the deliverables

	submitted in support of the JR (e.g. on additional areas or seasons with fisheries restrictions), even though it is also a part of the commitments reflected under recital (24) of Delegated Regulation (EU) 2020/4. However, according to the provision established in the MAP of Western Mediterranean, the Italian government was tasked with the introduction of specific area closures, in order to pursue the objective of reducing at least 20% of catches of juveniles of European hake. Ten Fishery Restricted Areas (FRAs) to protect EFH for recruitment of hake were thus implemented in the Ligurian and the Tyrrhenian Seas covered by Reg. EU 1022/2019 in GSA 9, 10 and 11. These FRAs, in which the use of any towed gear, such as "divergent trawls", "rapid trawls", "divergent twin nets", "pelagic trawls with pairs", "divergent pelagic trawls" and "dredges pulled by vessels", is prohibited, have been identified in the Annex 1 of the Decree of the General Director of Fisheries (MiPAAF) Prot. No 9045689 of 6 August 2020. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using gillnets and trammel nets in the Western Mediterranean Sea
Main findings of EWG 21-05	Arguments in favour of the exemption are based on the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) of around €3000 euro per year. This represents about 7.5% of the gross profit of the "average" vessel. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. The level of the exemption sought is close to 100% of the volume of discards. Improving selectivity should be the priority and in this regard, it is desirable that, as committed by the concerned Member States, additional selectivity studies are conducted on further mesh size / mesh orientation combinations, in order to assess whether improvements are possible. The use of MPAs which was not included in previous JRs as an alternative to selectivity improvements, is not mentioned in any of the deliverables

	submitted in support of the JR (e.g. on additional areas or seasons with fisheries restrictions), even though it is also a part of the commitments reflected under recital (24) of Delegated Regulation (EU) 2020/4. However, EWG 21-05 notes that according to the provision established in the MAP of Western Mediterranean, the Italian government was tasked with the introduction of specific area closures, in order to pursue the objective of reducing at least 20% of catches of juveniles of European hake. Ten Fishery Restricted Areas (FRAs) to protect EFH for recruitment of hake were thus implemented in the Ligurian and the Tyrrhenian Seas covered by Reg. EU 1022/2019 in GSA 9, 10 and 11. These FRAs, in which the use of any towed gear, such as "divergent trawls", "rapid trawls", "divergent twin nets", "pelagic trawls with pairs", "divergent pelagic trawls" and "dredges pulled by vessels", is prohibited, have been identified in the Annex 1 of the Decree of the General Director of Fisheries (MiPAAF) Prot. No 9045689 of 6 August 2020. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Total catches of demersal finfish under the Landing Obligation (excluding hake, mullets and pelagic species) and deep-water rose shrimp, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Western Mediterranean Sea
Main findings of EWG 21-05	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. While an estimate of the potential increase in costs of handling unwanted catches are provided, the estimate is generic to the "average" bottom trawler. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. Whether this represents a disproportionate cost cannot be assessed. Furthermore, detailed fishery-specific data and analyses are unlikely to add value to such a judgement. The 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of

	undersized fish. No reference is made to such areas in the documentation in support of the continuation of the current exemption. The limited information from France, Spain and Italy provided with the JR, indicates that with the exception of trawl caught *Pagellus bogaraveo*, the estimated discards are less than the catch corresponding to the maximum *de minimis* percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue unrestricted, as was the case before the Landing Obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the Landing Obligation was introduced. Furthermore, because the proportion of the catches discarded are small, the costs of handling unwanted catches are unlikely to be disproportionate. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 3% of the total annual catches by vessels using gillnets and trammel nets in the Western Mediterranean Sea
Main findings of EWG 21-05	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. While an estimate of the potential increase in costs of handling unwanted catches are provided, the estimate is generic to the "average" bottom trawler. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. STECF 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid

	unwanted catches of undersized fish. No reference is made to such areas in the documentation in support of the continuation of the current exemption. The limited information on landings and discards indicates that for gill and trammel nets, the proportion of the catches discarded are less than the requested maximum de minimis percentage of 3% of the total catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue unrestricted, as was the case before the Landing Obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the Landing Obligation was introduced. Furthermore, because the proportion of the catches discarded are small, the costs of handling unwanted catches are unlikely to be disproportionate. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 1% of the total annual catches by vessels using hooks and lines in the Western Mediterranean Sea
Main findings of EWG 21-05	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. No estimates of discards are provided in support of the proposed exemptions although it is unclear whether this implies that there are no discards from bottom long line gears in the Western Mediterranean, but discards are likely to be only a small proportion of the total catch as such gears are generally highly selective and generate few discards. Hence, granting the exemption implies that discarding of the species concerned is likely to continue unrestricted, as was the case before the Landing Obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the Landing Obligation was introduced. Furthermore, because the proportion of the catches discarded is

	zero or likely to be small, the costs of handling unwanted catches are unlikely to be disproportionate. STECF 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. No reference is made to such areas in the documentation in support of the continuation of the current exemption. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
High Survivability	
Exemption	Scallop (*Pecten jacobaeus*), Carpet clams (*Venerupis* spp.), and Venus shells (*Venus* spp.) below the minimum conservation reference size caught with mechanised dredges in the Western Mediterranean
Main findings of EWG 21-05	No evidence supporting high survivability for the three bivalves subject of this exemption request is provided. High probability of survival (94-95%) is only deduced from discards of other bivalve species (*Donax trunculus* and *Chamelea gallina*) caught by mechanized dredges. Therefore, as the survivability is inferred from discards of other bivalve species, it is not possible to assess the compatibility of discarded scallops, carpet clams and Venus shells with mechanised dredges.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Norway lobster (Nephrops norvegicus) below the minimum conservation reference size caught with all bottom trawls in the Western Mediterranean
Main findings of EWG 21-05	Survival evidence is based on the results of the Minouw project, where experiments of survivability on Norway lobster in bottom trawl fishery have been conducted. The survival rate of Norway lobsters discarded from trawl catches in the western Mediterranean showed seasonal differences, varying between 6% in summer and 74% in winter, with values of 36% in spring. These seasonal differences were also observed in the Gulf of Cádiz, with a higher survivability rate in spring (68%) than in autumn (34%) for bottom

	trawl fishery. The supporting study pointed out that the differences in the survivability rates could be due to higher levels of physiological stress to which individuals are subjected when they are captured in summer versus winter and suggest that the air temperature may play an important role in survivability. However, such results confirm what had been already observed by EWG 18-06, concerning the very low survivability of Norway lobster during June, July and August. To improve an understanding of the thermal stress physiology, temperature records along the trajectory of fishing and handling should be presented. This could indicate whether higher environmental (acclimated) temperatures in summer or the temperature shock (when exiting bottom water; being pulled through the water column during hauling; and being exposed to (warm) air during sorting) are relevant predictors of discard survival.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Norway lobster (*Nephrops norvegicus*) below the minimum conservation reference size caught with pots and traps (FPO, FIX) in the Western Mediterranean
Main findings of EWG 21-05	The information provided is limited and to make any assessment of the exemption in the context of the Norway lobster stock, additional data should be provided indicating the scale of the fishery and level of catches. Given the minimal catches indicated and the absence of a targeted fishery, it is questionable whether this exemption is required at all.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Red seabream (Pagellus bogaraveo) below the minimum conservation reference size caught with hooks and lines in the Western Mediterranean
Main findings of EWG 21-05	Survival evidence is provided by Italy based on a survivability experiment carried out in the DiscardLess Project. This study was already reviewed in EWG 19-08. In particular, a report concerning vitality and survivability of *P. bogaraveo* caught with bottom longlines and handlines in the Azores (ICES subarea 10) shows that the direct at-vessel mortality, including both dead and moribund individuals, represented 16.5% and 12.7% for bottom longlines and handlines, respectively. In the same report, a study on red seabreams smaller than MCRS showed that long term survivability (21 days) is very high (90%) on specimens caught with hooks and lines in shallow waters (10 m depth). In addition, the survivability of *P. bogaraveo* caught with handlines was estimated by telemetry and it was observed a

	survival rate of 67% after 8 days. As the supporting studies on the survivability were conducted in the Atlantic, it is difficult to determine whether survival rates may differ across gear types (in particular the hook type), seasons and geographic areas. As suggested in EWG 19-08, a full study following ICES WKMEDS guidelines to directly observe discard survival should ideally be conducted in the Mediterranean.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.
Exemption	Lobster and Crawfish (*Palinuridae)* caught with nets and with pots and traps in the Western Mediterranean
Main findings of EWG 21-05	A survival rate of 0.64 is reported by Italy for both species caught with nets, pots and traps. This value is based on a study on undersized crawfish, but as no references are provided it is not possible to assess the quality of this estimation. Additional studies showing high survivability for both species are also mentioned, but such information is summarised only with references without a full report. Survivability for both species is expected to be high, while reported catches are generally low, so the impact of the survivability exemption for these fisheries is likely to be low. However, there is no quantitative evidence to support this assertion for these fisheries. Additional survival studies would be advisable, as well as supplementary information on the operational modalities of these fisheries.
Supplementary information provided to the Commission post EWG 21-05	No supplementary information was provided.

Table 1e. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **South-eastern Mediterranean**

De minimis	
Exemption	Hake and mullets, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. While it is accepted that the combined discards ratio for all species covered under

	the exemption is low, for some species the proportion of the catch that is discarded may be high. Italy and Greece present discard values slightly higher values (6-7%) than the de minimis (5%) The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, suggestions for technical measures, including spatial approaches, are provided in Annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. The implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well.

	GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.* *The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. For Greece, EWG 21-05 used STECF data to calculate the discard ratio for hake (HKE) and*

mullets (MUX).

Species	Landings	Discards	Catch	dratio(%)
HKE	2666.94	1.12	2668	0.04
MUX	1804.88	4.508	1809	0.25
Combined	**4471.82**	**5.63**	**4477.45**	**0.13**

For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.13%), and not above as found by EWG 21-05 using the STECF data.

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, EWG 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.

Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

Exemption	Deep-water rose shrimp, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. While it is accepted that the combined discards ratio for all species covered under the exemption is low, for some species the proportion of the catch that is discarded may be high. Italy and Greece present discard rates in the range of 3%-5% below the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards is likely to be negated.

	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, the suggestions for technical measures, including spatial approaches, are provided in Annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard

data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data.

ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination.

MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO.

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 calculated a combined discard ratio of around 4.8% for deep-water rose shrimp (DPS). For Greece, using new ERS data resulted in zero discard for deep-water rose shrimp.

Species	Landings	Discards	Catch	dratio(%)
DPS	2661.86	0.00	2661.86	0.00

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number

	of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05. *Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.* *Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.*
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using gillnets and trammel nets in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	Based on the supporting data provided by Cyprus, Greece, Italy and Malta, EWG 21-05 notes that the discard rates reported in gillnet fisheries are very low. Given that gillnets are relatively selective gears and most of the vessels are small size artisanal boats, it is likely that the volume of discards is low, noting there is no conclusive evidence that improvements in selectivity in these fisheries are difficult to achieve. The data provided identifies several métiers, which have larger discard rates and are particularly impacting species, and where improvements of selectivity could mitigate the bycatch. Currently discard values are lower than the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. The supporting information on disproportionate costs for Cyprus and Greece indicate high costs associated with handling and sorting time onboard. It is not clear how representative these analyses are for all the fleets operating in the SUDESTMED area (GSA14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27). The EWG notes that the introduction of technical measures on spatial closures of nursery areas in Greece, may lead to reductions in unwanted catches of juveniles in the longer term. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary	The following supplementary information and updated annexes was

information provided to the Commission post EWG 21-05	received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments*

Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 managed to calculate a combined discard ratio for hake and mullets of around 1.2% based on STECF data presented by Greece in Annex A. For Greece, using new ERS data confirmed a combined discard ratio for the concerned species below the de minimis (0.22%).

Gear	Species	Landings	Discards	Catch	dratio(%)
GNS, GTN, GTR	HKE	84.68	0.00	85	0.00
	MUX	82.79	0.37	83	0.45
	Combined	167.46	0.37	167.84	0.22

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.

Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

Exemption	Total catches of demersal species under the Landing Obligation excluding hake, mullets, deep-water rose shrimp and pelagic species, up to a maximum of 5% of the total annual catches by vessels using bottom trawls

	in the South-Eastern Mediterranean Sea
Main findings of EWG 21-05	The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, there is a weakness in the combined *de minimis* approach. Accepting that the combined discards ratio for all species covered by the exemption is low, for some species the proportions of the catch that is discarded may be high. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, suggestions for technical measures, in particular spatial approaches, are provided in annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Italy and Greece present discard values in the range 8-15%, which is higher than the de minimis (5%). The limited information from Greece, Italy, Cyprus and Malta provided with the JR, indicates that the estimated discards are higher than the catch corresponding to the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that potential selectivity improvements and other avoidance measures are needed. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs

	Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of*

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the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allows to calculate and amend the findings of EWG 21-05. EWG 21-05 managed to calculate a combined discard ratio of 14.7% for the other demersal species under the landing obligation in Annex A. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.08%), and not above as found by EWG 21-05 using the STECF data.

<table>
<tr><th>Species</th><th>Landings</th><th>Discards</th><th>Catch</th><th>dratio(%)</th></tr>
<tr><td>All demersal (excluded HKE, MUX)</td><td>3364.48</td><td>2.66</td><td>3367</td><td>0.08</td></tr>
</table>

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.

Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

</td></tr>
<tr><td>Exemption</td><td>Total catches of Anchovy, Sardine, Mackerel and Horse Mackerel, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the South-Eastern Mediterranean Sea</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore,</td></tr>
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	there is a weakness in the combined *de minimis* approach. Accepting that the combined discards ratio for all species covered by the exemption is low, for some species the proportions of the catch that is discarded may be high. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Italy presents discard values close to 60% well above the de minimis (5%). The limited information from Greece, Italy, Cyprus and Malta provided with the JR, indicates that the estimated discards in Italy are higher than the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that potential selectivity improvements and other avoidance measures are needed. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well.

	GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.* *The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 calculated a combined discard ratio of 3.3% for the pelagic species under*

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landing obligation. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.14%).

Species	Landings	Discards	Catch	dratio(%)
Pelagic species	1862.90	2.56	1865	0.14

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.

Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

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<tr><td>Exemption</td><td>Total catches of demersal species under the Landing Obligation excluding hake and mullets, up to a maximum of 3% of the total annual catches by vessels using gillnets and trammel nets in the South-Eastern Mediterranean Sea. Up to maximum of 5% in the case annual landing of the relevant species of these fisheries are less than 25% of the total landings of the fisheries.</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>

Based on the supporting data provided by Cyprus, Greece, Italy and Malta, The discard rates reported in gillnet fisheries are very low. Given that gillnets are relatively selective gears and most of the vessels are small size artisanal boats, it is likely that the volume of discards is low, noting there is no conclusive evidence that improvements in selectivity in these fisheries are difficult to achieve. The data provided identifies several métiers, which have larger discard rates and are particularly impacting species, and where improvements of selectivity could mitigate the bycatch.

While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted.

The SUDESTMED HLG indicates the possibility of introducing ‘Marine Protected Areas’ and ‘Fish Recovery Areas/Fisheries Reserves’ as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a “stop-gap” while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin.

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	In particular, suggestions for technical measures, including spatial approaches, are provided in annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption regarding the fishery and species concerned cannot be quantified with the information provided with the JR. Currently discard values are lower than the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25. More details on the trawl fishery including vessel numbers and restriction measures were provided. From 2011 to 2018, there are two trawl vessels operating within 12 nm and since 2018 only one. A period of 2 years will be given for reaching the target for permanent cessation (until 2023). In the case the target of permanent cessation of the trawl vessels is not achieved, the proposed measure is the replacement of the 50 mm diamond-mesh codend by 40 mm square-mesh codend. A period of 3 years (1 year following the two years given for reaching the target for permanent cessation) is proposed. An additional measure that is currently under evaluation is a closed area for trawling in the north-west part of Cyprus. Following the 2 year - period for reaching the target of permanent cessation, it will be decided whether this measure will be implemented as well. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)"

was rejected by the assessment committee and will be reviewed and resubmitted. Additional information will be provided when available. Moreover, Greece provided supplementary information on current compulsory spatial restrictions for otter trawlers in the Saronic Gulf as specified in the Management Plan. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data.

ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination.

MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO.

Reviewer's comments

Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.

The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.13%).

Species	Landings	Discards	Catch	dratio(%)
All demersal (excluded HKE, MUX)	**246.77**	**0.32**	**247**	**0.13**

	The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05. *Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.* *Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.*
Exemption	Total catches of demersal finfish under the Landing Obligation, up to a maximum of 1% of the total annual catches by vessels using hooks and lines in the South-Eastern Mediterranean Sea. Up to maximum of 3% in the case annual landing of the relevant species of these fisheries are less than 25% of the total landings of the fisheries.
Main findings of EWG 21-05	The supporting information provided is valuable and includes supporting data for 4 countries (Cyprus, Greece, Italy and Malta). There is no information on selectivity studies. The discard rates indicates that arguments presented are reasonable as hooks (mainly longlines) are selective gears and most of the vessels are small size artisanal boats. However, there are not conclusively evidences that improvements in selectivity in these fisheries are difficult to achieve. The supporting information on disproportionate costs analyses for Cyprus shows that there will be not high cost. It is not clear how representative this analysis is for all the fleets operating in the SUDESTMED area (GSA14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27). Additionally, the introduction of technical measures on Spatial management of nursery areas in Greece seems a reasonable approach that should lead to reductions in unwanted catches, but this seems include mainly trawl fisheries. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Currently discard values are lower than the de minimis (5%) The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same than the catch corresponding to the maximum de minimis percentage of 5% of the

	total catches of the species concerned. Hence, granting the exemption implies that discarding.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information and updated annexes was received from Member States: Annex A. Description of the fisheries Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25, these elements are not relevant to this exemption request. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted, these elements are not relevant to this exemption request. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to*

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avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. EWG 21-05 managed to calculate a combined discard ratio of 1.3% for the other demersal species under the landing obligation in Annex A. For Greece, using new ERS data resulted in a combined discard ratio for the concerned species below the de minimis (0.05%).

<table>
<tr><th>Gears</th><th>Species</th><th>Landings</th><th>Discards</th><th>Catch</th><th>dratio(%)</th></tr>
<tr><td>LHM, LHP, LLD, LLS, LTL</td><td>All demersal (excluded HKE, MUX)</td><td>78.54</td><td>0.04</td><td>79</td><td>0.05</td></tr>
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The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.

Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

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<tr><td>Exemption</td><td>Total catches of lobster and crawfish, up to a maximum of 1% of the total annual catches by vessels using pots and traps in the South-Eastern Mediterranean Sea</td></tr>
<tr><td>Main findings of EWG 21-05</td><td>Whether this exemption is justified or not as the information provided is largely uninformative and unrelated to the relevant fisheries cannot be assessed. Any arguments presented are generic and not backed up with any relevant data.</td></tr>
<tr><td>Supplementary information provided to the Commission post</td><td>The following supplementary information and updated annexes was received from Member States:

Annex A. Description of the fisheries</td></tr>
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EWG 21-05	Annex B. Supporting evidence under disproportionate costs Annex C. Information on Saronic Gulf (Greece) CYP. Cyprus provided additional information stating that in 2020, trawlers in Eastern Mediterranean operated only in GSA25, these elements are not relevant to this exemption request. GRC. More details on future projects to improve trawl selectivity were provided by the administration. In particular, Greece clarified that the project proposal "Technological innovations in bottom trawling fishery, with an emphasis on deep - sea fishing, for improving energy efficiency, effectiveness and selectivity of the gear (INNOVTRA -INNOVATIVE TRAWL)" was rejected by the assessment committee and will be reviewed and resubmitted, these elements are not relevant to this exemption request. As requested, Greece supplied discard data by gear, it is therefore now possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. ITA. Italy clarified that the results of the project "Mediterranean Marine initiative (MMI) actions plan to improve protection and environmental conservation of the Mediterranean area" carried out in GSA16 (Southern Sicily) are expected by the second half 2022. Moreover, Italy provided supplementary information on disproportionate costs of handling unwanted catches. In particular, based on experimental case studies, Italy presented indications on the costs (e.g., personnel, energy) and product requirements (e.g., characteristics, requested quantities) related to the discards management from the capture to the final destination. MLT. Malta clarified that a monitoring program and a research project "Study of Atlantic Bluefin tuna (Thunnus thynnus) growth rate in farms: from catch to harvest" is planned to tag of fish at catch, estimate BFT size at catch, estimate BFT size during towing phase, estimate BFT at caging, monitor BFT size and growth during fattening, and data collection at harvest. Besides, Malta outlined to respect the current regulations concerning the closed fishing areas and LO rules. The Maltese administration supplied also survivability justifications for certain species groups and environmental impact issues, e.g. loss of nutrients if the fisheries are subject to LO. *Reviewer's comments* *Supplementary information on the fisheries covered by this exemption was supplied by Cyprus but do not alter the substance of the assessment of EWG 21-05, though a timeframe of two years is sought for the cessation of the two trawler-licenses at which stage Cyprus would not need to avail of the de minimis exemption.* *The supplementary information on current spatial restrictions in the Saronic Gulf (Greece) clarify that the areas available to the fishing boats is very limited. Hence, the findings of the EWG 21-05 given above are unaffected and confirm that fishing prohibitions in such sensitive area may help to avoid unwanted catches of undersized fish. The supplementary arguments presented by Greece regarding improvements in selectivity being difficult to achieve are reasonable but are rather generic and not specific to any fishery. During the period of the requested exemption (i.e. 3 years), the aim is to promote through project and fishers involvement good practice as well as implementing avoidance and selectivity measures to minimise the unwanted catches. However, it is not clear which measures will be*

implemented or their likely effectiveness.

The supplementary information supplied by Greece on discards by gear, allow to calculate and amend the findings of EWG 21-05. For Greece, using new ERS data resulted in a combined zero ratio for the concerned species.

Gears	Species	Landings	Discards	Catch	dratio(%)
FPO	Crawfish, lobster	0.15	0.00	0.15	0.00

The supplementary information provided by Italy confirm the evidence of increased costs associated with handling and storing unwanted catches ashore though these are generic covering all fisheries across the Mediterranean regions. Due to the small quantities and a very large number of landing places, even in the case that landed unwanted catches could be sold, the evidence indicates their costs for collection are potentially high compared to the value of the unwanted catches landed. However, ewg 21-05 cannot definitively conclude these are disproportionate. A similar analysis has been used previously to justify the de minimis exemptions in the Mediterranean. Hence, the information provide better catch information but overall does not affect the findings of EWG 21-05.

Other supplementary information provided do not materially affect the findings of the EWG 21-05 given above. The information supplied by the Maltese authorities for example concern projects and programmes related to the Atlantic bluefin tuna, and are not relevant to this exemption request.

Other evidences concerning survivability and environmental impact if the fisheries are subject to LO are merely anecdotic rather than based on rigorous and scientific analysis. Trial results to strength and support such justifications are missed. Overall, there is an absence of documentation, hence the findings of the EWG 21-05 given above are unaffected.

Table 1f. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **Adriatic**

De minimis	
Exemption	Hake and mullets, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. Only Italy has provided data on discard rates for trawlers. Therefore, the discard ratio of the two combined species can only be estimated in the case of Italy to be 17.3%. Consequently, the de minimis volume is likely to cover only a proportion of the discards if no other measures are put in place by the Member States (e.g. increasing selectivity and/or spatio-

	temporal measures). The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and*

	juvenile specimens of the key commercial species. *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using gillnets and trammel nets in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of

Commission post EWG 21-05	the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-*

	05.
Exemption	Hake and mullets, up to a maximum of 1% of the total annual catches by vessels using rapido in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which*

	replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022. *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
Exemption	Total catches of common sole, up to a maximum of 3% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. Only Italy has provided data on discard rates for common sole in GSA 17, where the estimated discard rate corresponds to 3.3%. Without data from other fleets, the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with

	the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30*

	continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice). *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
Exemption	Total catches of demersal finfish under the Landing Obligation (excluding hake, mullets and pelagic species) and deep-water rose shrimp, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. Only Italy has provided data on discard rates and therefore not even a combined discard rate can be estimated as discard data is not fully provided for all species or GSAs. For four species for which data has been provided, shows the discard ratios are relatively high. However, without data from other fleets, the implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery or the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia

	- Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 3% of the total annual catches by vessels using gillnets and trammel nets in the Adriatic

	Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data*

	analysis will be completed by the beginning of 2022. *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
Exemption	Total catches of demersal finfish under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 1% of the total annual catches by vessels using hooks and lines in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. The implications of the unwanted catch (discards in the absence of the

	Landing Obligation) for the fishery neither the implications for the stock cannot be assessed. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, EWG the limited information provided suggests discards are very low in these fisheries.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation*

	GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice). *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*
Exemption	Total catches of Anchovy, Sardine, Mackerel and Horse Mackerel, up to a maximum of 5% of the total annual catches by vessels using bottom trawls in the Adriatic Sea
Main findings of EWG 21-05	While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. EWG 21-05 notes that only Italy has provided data on discard rates for trawlers, where the estimated combined discard rate corresponds to 57.6%. Consequently, the de minimis volume is likely to cover only a proportion of the discards if no other measures are put in place by the Member States (e.g. increasing selectivity and/or spatio-temporal measures). Without data from other fleets, the implications of the unwanted catch (discards in the absence of the Landing Obligation) for the fishery neither the implications for the stock cannot be evaluated. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. - Annex A. Considerations about the scientific knowledge related to the application of the "landing obligation" and to the continuation of the de minimis exemption for small pelagic and demersal fisheries in the Mediterranean – Italian case - Annex A2. Implemed project. Adriatic Sea - Annex B. Management measures in demersal fishery. Croatia - Annex C. Additional information with regard to Slovenian fisheries

	regarding the necessity of de minimis exemptions in Adriatic in light of disproportionate costs and timeframe or roadmap of the plans of closure areas in the region. - Annex C1. Table by species with information of landings, discards, and No of vessels subject to LO. Countries: SVN. *Reviewer's comments* *Supplementary information was supplied by Italy (Annex A) with further considerations on costs of handing unwanted catches. The supplementary annex, which replaces the previous one, contains information on the fishing activities of OTT, OTB, and TBB in the Italian coasts with temporary fishing closures and areas. It provides useful supplementary information but do not alter the substance of the assessment of EWG 21-05.* *Furthermore, Italy supplied an amended version of the Annex A2, which replaces the previous annex submitted to support the de minimis exemption s in the Adriatic. The document specifies that planned sea trials, delayed due to the pandemic, will be completed in May-June 2021 and the data analysis will be completed by the beginning of 2022.* *Croatia supplied a new Annex B, which replaces the previous one, concerning: (i) permanent and temporal spatio-temporal regime in inner and territorial waters; and (ii) protection of FRA area in the Jabuka/Pomo Pit. The updated Annex B provides information on new project proposal (end of Autumn 2022) for an in-depth analysis of the targeted species and fisheries exploitation patterns. The aim will be the re-assessment of the spatio-temporal management regime and avoidance of the undersized and juvenile specimens of the key commercial species.* *In 2021, Croatia plans to implement the following spatio-temporal regime for demersal fisheries: 1) continue the permanent spatio-temporal regime in inner and territorial waters resulting with approximately 30% of the inner and territorial sea of Croatia prohibited permanently for bottom trawling, with additional 10% prohibited for bottom trawling between 100 and 300 days annually; 2) additional temporal closure in fishing zones C, D and part of zone E in 2021 to protect hake and Norway lobster in the most sensitive part of their reproductive cycles – prohibition of bottom trawling for 30 continuous days in September/October – 67% of Croatian territorial waters (or 52.5% of the area including both - the inner and territorial waters); 3) continue the protection of the FRA pursuant to the Recommendation GFCM/41/2017/3; 4) emergency closures – if needed (time and area to be determined based on scientific advice).* *Slovenia supplied an amended version of the Annex C, which replaces the previous one. The new document provides new information on the timeframe or roadmap of the plans of closure areas in the region.* *The supplementary information is useful in that it details planned measures, studies and trials that may help to reduce unwanted catches in the future but does not materially alter the substance of the assessment of EWG 21-05.*

Table 1g. Main findings of the STECF EWG 21-05, summary of additional information received relating to exemptions presented and Reviewer's Comments: **Black Sea**

High Survivability	
Exemption	Turbot (*Scophthalmus maximus*) caught with bottom-set gillnets (GNS) in the Black Sea (GSA29)
Main findings of EWG 21-05	Survival evidence is provided accordingly to scientific advice from IFR (Bulgaria) and NIMRD (Romania) stating that turbot has a high survivability (around 90%) when released from gillnets and trawls. However, high survivability of this species is not documented with any reference or supporting report, therefore the quality of the information cannot be assessed. Survival evidence is poorly documented and mainly refers to survival of turbot in trawl fisheries, while the exemption concerns only gillnets. Moreover, it is reported that gillnets are hauled at 2-4 days intervals without affecting the survival rate of individuals below MCRS. However, there is no evidence to support this assertion and based on information from similar gillnet fisheries, The supporting information provided is limited and much is unrelated to gillnets. Therefore, additional experiments to obtain survival rates of turbot caught with gillnets are required. A full study following ICES WKMEDS guidelines to directly observe discard survival should ideally be conducted in the gillnet fishery to provide robust survival estimates for turbot.
Supplementary information provided to the Commission post EWG 21-05	The following supplementary information was received from Member States. <u>Bulgaria</u> - Pilot project for assessment of discard in rapana venosa fisheries with beam trawls in the black sea during 2017; evaluation of the impact on juvenile stages of turbot and shark - Bottom trawl surveys in the Bulgarian Black Sea Area (Autumn 2019) - Bottom trawl surveys in the Bulgarian Black Sea Area (Autumn-winter 2020) - Bottom trawl surveys in the Bulgarian Black Sea Area (Spring 2019) - Bottom trawl surveys in the Bulgarian Black Sea Area (Summer 2020) - Assessment of the caught, discarded and landed quantities and biological data collection of fish species and other marine organisms through scientific observations on board of Bulgarian fleet fishing vessels in 2018 - Assessment of the caught, discarded and landed quantities and biological data collection of fish species and other marine organisms through scientific observations on board of Bulgarian fleet fishing vessels in 2019 <u>Romania</u> - Information on the four priority surveys for turbot and sprat in 2019 - Pilot Study 2: Level of fishing and impact of fisheries on biological resources and marine ecosystem - Research on the selectivity of gillnets used in Romanian turbot

	fisheries *Reviewer's comments* *Supplementary information was supplied by Bulgaria. However, the information concerns projects and programmes not related to the fisheries covered by this exemption, these elements are therefore not relevant to this request.* *Romania supplied two documents concerning surveys on the Romanian Black Sea coastline to estimate: (i) demersal and pelagic species biomass, (ii) demographic structure of commercial species, (iii) oceanographic data (temperature and salinity), and environmental fishing impact. This information is unrelated to gillnet fisheries and to the requested survival rates of turbot caught with gillnets. It is therefore not relevant to this exemption. The third document relates to selectivity of Romanian turbot gillnets. It provides useful recommendations aiming at improving gillnet selectivity but does not contain any relevant information on turbot survival rates.* *Therefore, the supplementary information provided by Bulgaria and Romania does not materially alter the substance of the assessment of EWG 21-05. There is still a lack of relevant information on the survival of turbot in gillnet fisheries.*

2. INTRODUCTION

Joint recommendations for discard plans have the purpose to provide the Commission with the agreement among Member States cooperating at sea-basin level on the elements for the preparation of Union law (Commission delegated Act) in accordance with Article 15.6 of the CFP Regulation. The six potential elements that can be contained in a discard plan are the following:

- definitions of fisheries and species
- provisions for survivability exemptions
- provisions on *de minimis* exemptions
- the fixation of minimum conservation reference sizes (MCRS)
- additional technical measures needed to implement the Landing Obligation; and
- the documentation of catches.

To date STECF have evaluated seven sets of Joint Recommendations:

- In 2014 - Discard plans for pelagic species in all sea basins including the Mediterranean and cod and salmon in the Baltic Sea
- In 2015 - Discard plans for demersal species in the NWW, SWW and the North Sea
- In 2016 – Revised discard plans for demersal species in the NWW, SWW and the North Sea and discard plans for demersal species in the Mediterranean and the Black Sea
- In 2017 – Revised discard plans for demersal species in the NWW, SWW and the North Sea and discard plans for demersal species in the Mediterranean and the Black Sea

- In 2018 – Revised discard plans for demersal species in the NWW, SWW and the North Sea and discard plans for demersal species in the Mediterranean.
- In 2019 – Revised discard plans for demersal species in the NWW, SWW and North Sea and discard plans for demersal species in the Mediterranean.
- In 2020 – revised discard plans for pelagic and demersal species in NWW, SWW, North Sea, Baltic Sea and discard plans for pelagic species in the Mediterranean. Separate technical measures proposals were received from the NWW, North Sea, SWW were also assessed.

In addition, 7 STECF Expert Working Groups (EWG) have been convened. These have considered various aspects of the Landing Obligation and provided guidance to Member States and the Advisory Councils on the types of underpinning evidence that should be supplied to support the different elements of discard plans.

EWG 21-05 was convened to review the Joint Recommendations from the Member States regional groups for the implementation of the Landing Obligation in 2022 and beyond. This includes Joint Recommendations for demersal fisheries containing requests for *de minimis* and high survivability exemptions as well as separate Joint Recommendations for technical measures. Since 2019, the implementation of regional technical measures, including changes to MCRS fall under the legal basis of the technical measures framework Regulation (Regulation (EU) 2019/2141), meaning regional groups were requested to submit separate JRs for technical measures. Additionally, in 2021, the EWG has assessed a JR relating to the definition of directed fishing in the SWW.

Since 2020, all species come under the Regulation, and so the Joint Recommendations no longer contain plans for the phasing in of species. It is generally accepted that evaluation of documentation of catches is something which lies outside the remit of the STECF evaluation of Joint recommendations and EWG 21-05 has not considered this.

2.1. Terms of Reference for EWG-21-05

Background provided by the Commission

Joint Recommendations on the Landing Obligation (exemptions)

After consulting the relevant Advisory Councils, Member States cooperating at sea-basin level may provide the Commission with joint recommendations requesting exemptions from the landing obligation. Where the STECF's advice is positive, the Commission adopts delegated acts implementing these joint recommendations into EU law, in accordance with Article 15(6) of the Common Fisheries Policy[5] (CFP). Where there is no multiannual plan for the fishery in question, article 15(6) of the CFP empowers the Commission to adopt delegated acts laying down on a temporary basis specific discard plans containing the exemptions. The six potential elements that can be contained in a discard plan are the following:

- Definitions of fisheries and species
- Provisions for survivability exemptions
- Provisions on de minimis exemptions
- The fixation of minimum conservation reference sizes

[5] Regulation (EU) 1380/2013 of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. OJ L 354, 28.12.2013, p. 22.

- Additional technical measures needed to implement the landing obligation; and
- The documentation of catches.

The temporary discard plans under Article 15(6) with a maximum of 6 years have expired in 2020 or will expire in 2021 and have been or should be replaced by provisions adopted under article 15(5) and specified in multiannual plans. Under the existing multiannual plans, provisions[6] specify that the Commission is empowered to adopt delegated acts following Article 18 of the CFP (Regionalisation procedure). Currently, most of the delegated regulations specifying the details of implementation of the landing obligation have been adopted by the Commission under the existing multiannual plans (Western Waters, the North Sea and Baltic). In 2021, the discard plan for certain demersal fisheries in the Mediterranean Sea will expire. Member States will submit two joint recommendations to request exemptions for beyond 2021: one covering certain demersal fisheries in the western Mediterranean Sea, and one joint recommendation covering certain demersal fisheries in the Adriatic Sea, Central and Eastern Mediterranean Sea on only *de minimis* exemptions[7], due to the absence of a multiannual plan for this area. While the legal basis is different[8], the scientific assessment process is identical to the cases listed above.

Article 15(5) does not stipulate a specific period of validity as was the case with Article 15(6).

STECF has reviewed the Joint Recommendations prepared by the regional groups of Member States annually since 2014-2020 on fisheries subject to the Landing Obligation in the subsequent year. STECF is requested through EWG 21-05 to review and evaluate the Member States' joint recommendations requesting either additional or continued (with additional scientific information as requested by STECF) exemptions for >2022 as well any new requests for exemptions.

Joint Recommendations on Technical Measures (Regulation)

STECF is also asked to evaluate JRs relating to technical measures. All amendments, supplements, repeal or derogations from technical measures will be based upon Article 15 of the Technical Measures Regulation (Regulation (EU) 2019/1241). The entry into force of this Regulation resulted in the introduction of the process of regionalization in numerous fields as far as technical measures are concerned. In this process, the regional

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[6] Article 13, Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008

[6] Article 11, Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008

[6] Article 7, Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007

[6] Article 14, Regulation (EU) 2019/1022 of the European Parliament and of the Council of 20 June 2019 establishing a multiannual plan for the fisheries exploiting demersal stocks in the western Mediterranean Sea and amending Regulation (EU) No 508/2014

[7] Under Article 15(7) CFP, the Commission may adopt delegated act laying down *de minimis* exemptions only. While no joint recommendation is formally required, the MS should however provide the scientific evidence justifying the exemptions.

[8] Under Article 15(7) CFP, the Commission may adopt delegated act laying down *de minimis* exemptions only. While no joint recommendation is formally required, the MS should however provide the scientific evidence justifying the exemptions.

groups should develop joint recommendations are assessed by STECF against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation.

Main elements of the joint recommendations to be considered by STECF

Landing obligation - de Minimis and High Survivability
The main elements that STECF should continue to evaluate are the additional exemptions for *de minimis* or based on high survivability for species subject to the landing obligation.

In addition to any new exemptions, STECF should also review additional information supplied to support several of the exemptions granted for 2021 but with the provision that the Member States concerned should submit further data to the Commission by 1 May 2021 to allow STECF to further assess these exemptions.

Technical measures
Not foreseen currently (February 2021) but submitted joint recommendations on technical measures cover the following:

- Measures modifying the size and characteristics of fishing gear that MS may wish to implement in certain areas to increase selectivity and decrease the negative effects of the activity in the environment
- Minimum Conservation References Sizes for recreational fisheries
- Mitigation measures for bycatch of certain sensitive species, such as cetaceans or sea birds
- Definition of the directed fisheries for each species and sea basin, with a deadline of August 2020.

Terms of Reference

Based on the previous evaluations of the STECF, suggested structure of the next STECF evaluation, the Adhoc contract 19-01 on temporary de minimis exemptions, the joint recommendations that will be submitted by Member States regional groups (see annex), the following draft terms of reference are proposed: STECF is requested to:

3. Review the supporting documentation underpinning exemptions on the basis of high survivability in respect of:

c) Exemptions agreed for 2021 on the basis of high survivability where there was a requirement for further information to be supplied by 1 May 2021. In such cases, STECF should assess the quality of the information supplied and, where possible, provide a qualitative assessment of the ongoing efforts to address the needs for further information identified by STECF last year;

d) New exemptions based on high survivability. In data poor situations, assess what further supporting information may be available and how this could be supplied in the future (e.g. survival studies, tagging experiments).

4. Review the supporting documentation (biological, technical and/or economic) for de minimis exemptions on the basis that either increasing selectivity is very difficult to achieve, or to avoid handling unwanted catches would create disproportionate cost in respect of:

c) The de minimis exemptions agreed for 2021 where there was a requirement for further information to be supplied by 1 May 2021. In such cases, STECF should assess the quality of the information supplied and, where possible, provide a

qualitative assessment of the ongoing efforts to address the needs for further information identified by STECF last year;

d) New de minimis exemptions. In data poor situations, assess what further supporting information may be available and how this could be supplied in the future (e.g. discard data collection, selectivity studies).

As joint recommendations might be submitted on the basis of the Technical Measures Regulation (TMR) and they will be reviewed in this same EWG, STECF is also requested to: Based on the conclusions of STECF PLEN 20-02 and its preparatory ad hoc contract, the STECF is requested to assess whether and to what extent the joint recommendations that are setting out the specifications of Article 27.7 and in Part B of Annexes V to XI of Regulation (EU) 1241/2019:

I. Could lead to a deterioration of selectivity standards and to what extent in particular in terms of an increase in the catches of juveniles, existing on 14 August 2019 (date of entry into force of TMR);
II. Would help achieve the objectives and targets set out in Articles 3 and 4 of TMR;
III. The information provided for each sea basin is sufficient or whether it is possible to identify complementary information allowing for a complete analysis.

If joint recommendations are submitted, the Member States provided the data and information to demonstrate that the three elements listed above (STECF conclusions 20-02) have been taken into account in the definition proposed for 'directed fishing' and the definition can be justified based on such data and information. This also includes providing corresponding datasets of individual logbook and sea-sampling trip data that are needed to assess the robustness and the impact of the catch composition threshold. Where the data provided information is not sufficient, the STECF is requested to identify what information and data should be provided in order for a complete assessment IV.

The STECF should further assess the implications of the joint recommendations for other policies, mainly the compatibility with the landing obligation (Article 15 CFP) and other technical regulations. If joint recommendations on another element of the TMR have been submitted, STECF is requested to: Review whether there is sufficient information to support proposed minimum conservation reference size(s) that deviate from existing minimum landing sizes, and whether they are consistent with the objective of ensuring the protection of juveniles; Review the supporting documentation provided for technical measures aimed at increasing gear selectivity for reducing or, as far as possible, eliminating unwanted catches including reducing fishing mortality on stocks in need of remedial measures for rebuilding biomass. This should include, if relevant, an indication of where further selectivity is currently difficult to achieve in a specific fishery, given the current state of technological developments.

2.2. Main elements of the discard plans

Based on the terms of reference, EWG 21-05 considered a combination of existing exemptions for *de minimis* and high survivability which were granted on a temporary basis for one year for which, the Commission requested additional information from Member States. A limited number of new requests for *de minimis* and high survivability exemptions.

Regulation (EU) 2019/1241 establishes a framework for technical measures for the conservation of fisheries resources and the protection of marine ecosystems. Article 15 of this Regulation and corresponding annexes put in place technical measures at regional level and include an empowerment for the Commission to adopt delegated acts to amend, supplement, repeal or derogate from those technical measures. These delegated acts are based on Joint Recommendations submitted by Member States concerned, in

accordance with the regionalisation procedure described in Article 18 of the CFP. Therefore, EWG 21-05 has considered Joint Recommendations on regional technical measures. Such Joint Recommendations were received from the NWW, North Sea and SWW regional groups. They contained specific proposals on selective gears in NWW and the North Sea as well as proposals in relation to Red Sea Bream (NWW and SWW) and King Scallop in NWW. Additionally, EWG 21-05 assessed a Joint Recommendation from the SWW relating to the definition of directed fishing. This is in the context of Article 27 paragraph 7 of Regulation (EU) 2019/1241.

The number of exemptions proposed in the JRs for evaluation by EWG 21-05 was comparable with the previous submissions in 2020 (EWG 20-02, STECF PLEN 20-02). The number of individual exemptions proposed for introduction or continuation in 2021 was 58 compared with 55 for 2020.

For the Mediterranean, three Joint Recommendations were submitted but the different regional groups (SUDESTMED, PESCAMED and ADRIATICA); submitted additional supporting information relating to *de minimis* exemptions for demersal species and for high survivability in the PESCAMED area. A request for a high survivability exemption for the Black Sea was also submitted by Romania and Bulgaria.

Table 2.2.1 Number of recommendations by type and region evaluated by EWG 21-05

Region	De minimis exemptions	High Survivability exemptions	Technical Measures	Directed Fishing
NWW	3	3	3	
North Sea	2	3	1	
SWW	13	2	1	1
PESCAMED	5	4		
SUDESTMED	8			
ADRIATIC	8			
BLACK SEA		1		
Total	**39**	**14**	**5**	**1**

3. EWG 21-05 OBSERVATIONS

Following from previous EWGs (EWGs 15-10, 16-10, 17-08, 18-06, 19-08 and 20-04 as well as STECF PLEN 14-02 and 19-02) set up to evaluate the Joint Recommendations, STECF has repeatedly made some general observations relating to the Joint Recommendations submitted by the Regional Groups of Member States. Many of these remain valid. EWG 21-05 has split these into general observations; observations relating to *de minimis* exemptions; observations relating to high survivability exemptions; observations on technical measures; and observations on the definition of directed fishing.

3.1. General Observations

- EWG 21-05 acknowledges the continued difficulties experienced by the Member States Groups due to the Covid-19 pandemic in providing comprehensive Joint Recommendations.
- EWG 21-05 reiterates that the role of the EWG and any future STECF EWGs set up to evaluate joint recommendations, should continue to be the evaluation of the scientific rigour and robustness of the underpinning information supplied by Member States. The EWG does not adjudicate on whether exemptions should be accepted or not. This remains the remit of DG MARE.
- EWG 21-05 reiterates that the avoidance of unwanted catch through improved selectivity or other means should be the primary focus in implementing the Landing Obligation. EWG 21-05 recognizes that modifying selectivity can result in some reduction in revenue, but these should be viewed in the broader context of medium-term gains in stocks and the risk of choke events and the utilization of quota to land low value catches.
- EWG 21-05 has identified shortfalls in data and information in the supporting documentation to specific exemption requests. However, it is important to note that responding to that while such information can be useful and fill knowledge gaps, it should not be construed that it will change the observations of the EWG.
- EWG 21-05 recognises the progress made in supplying supporting information to justify exemptions and the volume of work that has been carried out to generate this information. However, EWG 21-05 notes that for the 2021 JR's there are many cases where the information and data supplied is generic with the justifications based on information previously submitted. For some exemptions no supporting information has been provided at all.
- EWG 21-05 reiterates the need to improve the quality and consistency of catch data provided to support exemptions. Such data is important to understand the relationship between the de minimis volume requested and the actual level of unwanted catches to put the proposed exemption in the context of the fishery and also the state of the stock for which the exemption is covering. This will allow an assessment as to whether risk of the exemption to the relevant stocks covered by the exemption is minimal.
- EWG 21-05 observes that there remain weaknesses in the collection of catch documentation data. If the data situation does not improve and the true quantities being caught as reported do not reflect the actual removals, it will likely have a significant impact on the quality of scientific advice and may compromise the achievement of the MSY objective. This potential for this discrepancy is higher for *de minimis* than high survival exemptions because the actual discard amount may be substantially higher than the permitted *de minimis* amount. For high survival exemptions, this risk has been mitigated to some

extent by deducting the estimated dead discards associated with the exemptions from the total allowable quota prior to allocation.

- EWG 21-05 highlights that innovative monitoring measures such as CCTV and Remote Electronic Monitoring (REM) have been applied in pilot studies and could be a more effective way to monitor the Landing Obligation to generate catch evidence for science and compliance.
- EWG 21-05 reiterates it would be timely for the Member States Groups and the Commission to review exemptions that have been in place since the introduction of the Landing Obligation. This review would help to determine whether they need to be amended or are still required given likely changes in catch patterns, gears used, vessels involved and uptake.
- EWG 21-05 acknowledges that the same exemption can impact several fisheries, but without any specific linkage to the stocks and fisheries involved, it is extremely difficult to make any evaluation as to whether the exemption makes sense or not.

3.2. Observations on *de minimis* exemptions

- EWG 21-05 observes under Article 15 of the CFP Basic regulation Member States have a legal requirement to record all catches discarded under de minimis exemptions. However, EWG 21-05 notes that in many cases this information is lacking from the supporting information provided by Member States.
- EWG 21-05 notes in many exemptions the relationship between the *de minimis* volume requested and the level of unwanted catches is unclear from the information provided to support the exemption. In some cases, the *de minimis* volume covers 100% of the unwanted catches, usually in fisheries where the levels of unwanted catch are small. In other cases, the *de minimis* volume covers only a small part of the unwanted catches and the supporting information should contain indications on the measures to be taken to reduce these residual unwanted catches.
- EWG 21-05 observes that for de minimis exemption proposals that are a continuation of existing exemptions that have been in place for several years, estimates for discards provided in support of the proposed extensions should correspond to the permitted de minimis volume granted under each exemption. For many proposed exemptions, particularly in the Mediterranean, this is clearly not the case.
- EWG 21-05 notes that past EWG's have requested additional information to the data provided to support de minimis exemptions based on disproportionate costs. However, it has become increasingly clear to STECF that there is no scientific methodology or reasons available to justify whether a certain level of additional costs is disproportionate or not. Even with very detailed calculations, STECF cannot judge at which level costs are disproportionate because there is no way of assessing objectively what level of costs constitutes disproportionate. For this reason, EWG 21-05 in assessing de minimis exemptions, has attempted to concentrate on the relationship between the de minimis volume, the actual level of unwanted catches and the overall status of the stocks involved.
- EWG 21-05 acknowledges the detailed economic analysis provided by the SWW Member States Group in 2020 on the economic viability of unwanted catches that are subject to the Landing Obligation in SWW and which has been used again in the 2021 JR to justify the extension of specific de minimis exemptions This employs a different methodology than previous studies to measure disproportionate costs of handling unwanted catches based on the loss of opportunity costs arising from the removal of *de minimis* exemptions. EWG 21-05

has evaluated this methodology but observes that more economic information is necessary to judge whether this new methodology on opportunity costs of not granting the exemptions is improving our understanding of the economic impacts of the Landing Obligation.

- EWG 21-05 acknowledges the detailed economic analysis provided by the North Sea Member States Group to support an exemption for whiting below MCRS in the beam trawl fishery. This study provides a comprehensive overview on what economic impacts may occur in case the discarding of undersized whiting is not allowed anymore. EWG 21-05 concludes that the study shows the substantial effort necessary to conduct such a study but stresses it is still a judgement call as to whether it shows the costs associated are disproportionate.
- EWG 21-05 notes that Member States have continued to use a variety of ways to calculate *de minimis* volumes. In most cases for single species *de minimis* exemptions, a percentage (e.g. 5% or 7%) has been applied to the catches of the relevant species. However, for several fisheries where the intention is to discard 100% of the catches (e.g. boarfish in the NWW and whiting bycatch in demersal beam trawl fisheries the North Sea), catches from the entire fishery or for different species have been used as the basis for the calculation. EWG 21-05 has commented on this approach in the relevant exemption requests. However, the EWG cannot adjudicate whether this is a correct interpretation of Article 15 of the CFP Basic Regulation.
- EWG 21-05 reiterates that in some cases where the unwanted catch of species subject to the Landing Obligation are substantial, granting a *de minimis* of 5-7% of the catches of such species will have little, most likely an unmeasurable effect on their overall fishing mortality and only a marginal effect on the ability of the vessels concerned to continue fishing legally. It is likely that granting an exemption to discard 5%, will achieve little in terms of mitigating the costs of landing the other 95% of the unwanted catch.
- EWG 21-05 reiterates that *de minimis* exemptions can provide an incentive for vessel operators to continue discarding unwanted catches at sea and only retain unwanted catches on board if they are inspected on hauling, or to bring only permitted *de minimis* quantities ashore on landing.
- EWG 21-05 has identified areas where there are limitations in the information presented or the methodologies used and, in some cases, where there are inconsistences. In these cases, further clarification may be required. Where evidence is presented and shows that for example increasing selectivity results in losses of marketable fish, then this is noted, but whether this constitutes a technical difficulty is not something that can be readily answered by the EWG. Inevitably, improvements in selectivity result in some degree of loss, and therefore some reduction in revenue. However, these should be viewed in the broader context of medium term gains in stocks and in the absence of improvements in selectivity, would the fishery be worse of in comparison due to choke effects and utilization of quota for fish that have little or no value.
- EWG 21-05 notes that for many de minimis exemptions, particularly in SWW and NWW, the number of vessels that potentially could avail of this exemption is large, meaning that the monitoring of discards under the exemption is potentially challenging given that in these cases the volume of discards is very low.
- EWG 21-05 notes that the discard rates in the South-eastern Mediterranean vary by species, area and gear type. In some cases, the observed discards are higher than the estimated de minimis volume, while for others the volume of discards is lower. Therefore, while the discard proportions of all MCRS species combined (as

a portion of the total catch) do not exceed the requested de minimis volume, for some specific species, the discards far exceed the de minimis requested. The transition from these currently high discard rates for these species to the de minimis level will be challenging without changes in the fishing pattern, either through improvements in selectivity or by avoiding areas of unwanted catches of these species.

3.3. Observations on high survivability exemptions

- EWG 21-05 recognises the challenges for Member States in presenting appropriate information to support survival exemptions. STECF has previously published a template for the provision of supporting evidence to assist the regional groups (STECF EWG 13-23 and EWG 16-10). These have been further refined and expanded here (Annex I), alongside a description of the critical review process that is applied to assess the quality of the discard survival estimates based on the ICES best practices guidance (Annex II).
- EWG 21-05 reiterates that assessing what constitutes high survivability is problematic, which is made more complex by the limited information available and the variability in the available survival estimates. What is clear is that there are a wide range of factors that can affect survival, and these are likely to be the primary cause of the high variability observed across the various studies. However, identifying and quantifying these is difficult due to the relatively limited species-specific information and differences between experiments including timing, season, gear handling, observation period. This means that passing judgment on the representativeness of individual or limited studies as an indicator of discard survival across an entire fishery is difficult given the range of factors that can influence survival and how they may vary in time even within a fishery.
- EWG 21-05 observe that trends are emerging from the evidence provided to support survivability exemptions. Most of the exemptions in the demersal fisheries have continued to focus on a few species, Norway lobster, plaice, sole and skates and rays. Studies on these species are indicating general differences in overall discard survival between gear types, whereby otter trawl fisheries have higher survival levels compared with beam (including pulse) trawl fisheries. The species most studied to date is plaice. Several studies on plaice have shown that discard survival is lower when more Norway lobster are caught. Also, season has been identified as an influencing factor in several studies, with higher plaice survival observed in winter months when seawater temperatures are lower. For rays, there is emerging evidence to suggest that the survival of cuckoo rays is less than other ray species.
- EWG 21-05 observes that vitality data is increasingly being used to support high survival proposals because of calls for additional supporting information. This is due to the relative ease and low cost of collecting this evidence compared with direct discard survival observations. Information on the health condition of fish at the point of release provides useful information on the survival potential of discards. However, the proportion of fish alive at the point of release does not constitute a valid survival estimate due to the mortalities that are known to occur post-release. The relationship between health condition and survival probability can be established by collecting survival estimates and vitality data in combination. Studies have demonstrated, within a fishery, fish assessed at different vitalities have significantly different survival probabilities, and therefore vitality from a wider sample can be used as a proxy for survival. However, the relationship between assessed vitality and survival probability varies between fisheries and studies for the same species. There is still insufficient evidence to

use vitality as a proxy for survival, outside of the fisheries from which these relationships have been generated, to provide discard survival estimates with meaningful levels of confidence.

- EWG 21-05 observes that to date, survival and discard evidence and fleet information is reported in a rather incoherent way that hindered assessment by the EWG. Most information is Member State specific within regions and there is very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catch data for all Member States to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps.
- EWG 21-05 notes that several existing exemptions for plaice and sole continue to be linked to conditions such as restricting the exemption to fishing to certain depths, tow durations and to specific groups of vessels or specified selective gears. A further condition linked to a catch threshold for plaice to differentiate whitefish from *Nephrops* fisheries has been assessed by EWG 21-05. While these factors may influence survival, there is no evidence of these conditionalities being applied by Member States. In practice controlling and enforcing such measures to any degree will be challenging. A balance is needed between extrapolating the survival evidence from the conditions observed in the studies, and the practical considerations of enforcing and complying with the regulated measures.
- EWG 21-05 notes that several survivability exemptions – plaice and rays and skates – are linked to a roadmap setting out work planned to develop survival estimates and accompanying measures to increase survivability. There has been a positive response to the roadmaps and most of the new research provided is related to the roadmaps. However, EWG 21-05 observes that further clarity on the objectives for the roadmap is needed in order to facilitate an evaluation along with a timetable for the completion of the roadmap. EWG 21-05 would also encourage Member States to use their joint scientific capacity to compile and analyse previous and new data in a more systematic way to assist future EWGs assess the exemptions covered under the roadmap.
- EWG 21-05 re-emphasises the need to consider survivability in the context of the discard rate for the fishery seeking an exemption (STECF 17-02), highlighting that medium survival rates in high discarding fisheries still lead to high discard mortality rates. STECF has also previously concluded (STECF 19-02) that unless surviving discards are accounted for in stock assessments when dead discards are accounted for in TAC setting, where survivability exemptions are in place, the actual fishing mortality will not match the agreed catch level. EWG 21-05 reiterates the need for this to continue to be discussed in the assessment forums for stocks with survival exemptions.

3.4. Observations on technical measures

- EWG 21-05 notes despite many experiments to test selective gears, there are still relatively few examples of such gears being incorporated into the JRs submitted. Where there is no specific legislation making the use of selective gears mandatory, uptake of selective gears remains extremely low even in fisheries where unwanted catches remain high.

- EWG 21-05 reiterates that while extensive work has been carried out on selectivity, for some regions, this work has been uncoordinated and not necessarily targeted at the right fisheries. A review of the work completed to identify what works and what does not, along with detailing the gaps in knowledge would help to channel further experiments into the appropriate fisheries.
- EWG 21-05 notes that while in previous years some exemptions were predicated on the use of selective gears, no such exemptions have been proposed for 2020 or 2021, where there was such a requirement included in the exemption.
- EWG 21-05 observes that it is challenging to assess Joint Recommendations for technical measures against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation. Generally, the data provided is not sufficient to quantifiably assess such JRs and therefore, any assessment is qualitative and based on expert judgement.
- EWG 21-05 the separate JRs relating to Red Sea Bream (NWW and SWW) and King Scallop in ICES division 7d contain positive elements that will improve the management of the stocks. But due to lack of supporting data it is not possible to assess fully whether the impacts of these measures on the respective stocks.

3.5. Observations on the definition of directed fishing

- EWG 21-05 observes that the data provided to support the JR on defining directed fishing in SWW allowed for an evaluation of the suitability of the use of a catch threshold to define directed fisheries. However, the analysis suggests that the thresholds defined may not be suitable for the metiers present in SWW, given the variability in the catch compositions in the fisheries in SWW.
- EWG 21-05 is unable to evaluate if catch thresholds it will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. It is not possible to assess whether it would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241. In any case EWG 21-05 notes that the derogations are already contained in the TMR 2019/1241, and since they refer to smaller mesh sizes compared to the baseline, they are unlikely to help reaching the objectives and targets contained in Articles 3 and 4.
- EWG 21-05 reiterates the PLEN 20-03 conclusion that as no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries. W
- EWG 21-05 reiterates the conclusion of PLEN 20-03 that it is unclear how such catch thresholds would apply in the context of the landing obligation, under which all catches must be landed. If no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

4. EVALUATION OF REGIONAL JOINT RECOMMENDATIONS

4.1. Structure of Advice – *de minimis* exemptions

In assessing each of the *de minimis* exemptions requested, EWG 21-05 has based their evaluation on the following three elements as described in STECF PLEN 20-04 as well as the following:

1. Information based on the STECF template that defines the fisheries involved. This should include the number of vessels; relevant catch data; indicative discard rates; and estimated volumes of *de minimis* requested.

2. Explanation why the *de minimis* exemption is needed, putting it in the context of the level of unwanted catches in the fishery. This demonstrates whether the exemption is required to cover residual unwanted catches following improvements in selectivity, as a "stop-gap" while further selectivity or avoidance measures are developed or to reduce disproportionate costs from handling and sorting unwanted catches on board.

3. Provide the scientific evidence that underpins the exemption. Include a summary of the relevant supporting studies and experiments in the JR.

EWG 16-06 provided a template for provision of information relating to the fisheries for *de minimis* exemptions and for survivability exemptions (See Annex I). EWG 21-05 notes that very few Member States have used these templates in their JRs.

Regarding the underpinning information for *de minimis* exemptions EWG 21-05 has based their observations on the approaches of previous STECF evaluations of the JRs as well as the general principles described by STECF PLEN 19-01 on the development of criteria for reviewing *de minimis* requests. Additionally, in relation to disproportionate costs, EWG 21-05 has considered the observations and conclusions of STECF PLEN 21-01 that highlighted that regional groups should support requests for exemptions considering the following:

- Description of the problem – Why are the costs considered disproportionate.
- Why is selectivity hard to improve?
- The fleets and fishery involved – needs to include information for all Member States and include best available catch (landings plus discards) data
- Justification and supporting information – summary of relevant studies carried out
- Impact/risk of the exemption in the context of the fishery – showing the risk of granting the exemption in the overall context of the fishery regarding by catch species is low.

PLEN 21-01 also highlighted that a reasonable estimate where possible backed by available economic data would be beneficial. The types of data needed ideally would include:

- Characteristics of the vessels involved in the fishery,
- EstimateS of working time per day for handling the bycatch or necessary storage capacity,
- Necessity for an extra person on board to handle the bycatch (may be not possible due to safety regulations),
- information on cost structure and revenues (specified for the respective fisheries or specific information about seasonality of the activities of the fleet involved in case exemptions are requested for specific times of the year) of involved fleet segments (e.g. personal costs compared to revenue, etc.).

4.2. Structure of Advice – *high survivability*

In the case of high survivability exemptions, EWG 21-05 has provided advice based on the following elements (see also Annex I):

1. Exemption status
2. Survival evidence

3. Fishery context
4. Survival and fishery compatability
5. Additional evidence

Where possible, EWG 21-05 used the critical review framework developed by ICES Workshop on Methods for Estimating Discard Survival (WKMEDS) on how to conduct discard survival assessments to assess the survival data provided to support the exemptions. This review consists of a series of 'Yes'/'No' phrased questions. Positive responses ('Y') meant that the guidance was followed, and negative responses ('N') were given when it was not followed, or there was no evidence that it was followed. The most important criteria are captured in five 'key guidance questions', which are considered the most useful in assessing the quality of the study, both in terms of how robust the estimate is and how representative the derived discard estimates are of the defined fishery. The template used is shown in Annex II. There are more details on the critical review process available in the ICES WKMEDS meeting reports (ICES, 2016).

4.3. Survivability of skates and rays – General considerations

EWG 21-05 observes that the new information provided for 2021, in combination with the further studies planned will greatly increase the knowledge on the survival of skates and rays across species, gears and regions.

EWG 21-05 notes that the high survivability exemptions for skates and rays included in the 2021 discard plans, have been retained in the proposals for 2022. EWG 21-05 reiterates the general concerns over the exploitation of skates and rays, it is important that any exemptions are based on the most relevant and sound science. This underlines the requirement for continuing focussed studies designed to be representative of the fisheries seeking exemptions. EWG 21-05 restates the need for close monitoring and continued research to ensure these survival exemptions do not lead to over exploitation of skate and ray species.

EWG 21-05 notes that survival experiments carried out has shown that for several ray species (e.g. cuckoo ray), mortalities are protracted suggesting that keeping rays in captivity may risk to underestimate survival in captive trials. This requires further investigation to confirm this is the case.

EWG 21-05 reiterates that assessing what constitutes high survivability is complicated by the limited information available and the variability in survival estimates. This is particularly relevant for the skate and ray survival exemptions covering many species and fisheries. STECF 18-06 observed that the scope of the exemption for skates and rays was not consistent with other survivability exemptions and highlighted the risks in extrapolating survival evidence between species, fisheries and seasons and this remains valid.

EWG 21-05 reiterates that there is a range of factors that can affect survival but identifying and quantifying these is difficult due to the limited species-specific information and differences in the conditions between experiments. This means that assessing the representativeness of studies within an entire fishery is difficult, given the range of factors that can influence survival. Moreover, EWG 21-05 highlights that in the absence of complete fishery information on the catches and discards of the skate and rays species covered under this inclusive exemption, and the fishing conditions by all vessels to which these exemptions apply, the representativeness of survival evidence and the implications for these stocks cannot be assessed.

EWG 21-05 noted that skate and ray survival rates can be highly variable between species and fisheries. EWG 21-05 noted there is a trend for smaller individuals of studied species and smaller species to have lower survival, inshore static nets are associated with higher survival and shorter tow durations are associated with higher survival. In this

regard, based on the information provided to EWG 21-05 and previous experiments, it is becoming apparent that the survival rate for cuckoo rays is much lower (range between 14-23%) than other larger ray species. This is of particular concern, given that the limited discard data provided to EWG 21-05 suggests that discards are quite high (range between 27-39%).

EWG 21-05 reiterates that to enable more efficient evaluations and ensure that all new evidence is utilised fully, regional groups should report in the context of the agreed roadmap. This should detail progress against the three main tasks: i) quantifying catches and discards per species and métier; ii) generating new discard survival evidence; and iii) stakeholder led adoption of codes of best practice to maximize discard survival.

4.4. Survivability of plaice – General considerations

EWG 21-05 reiterates the observations of EWG 18-06, 19-08 and 20-04 that the evidence submitted to support survival exemptions for plaice highlights that survivability in most of the fisheries for which exemptions are in place is affected by many factors and is highly variable. STECF has previously noted that given the relatively high estimated discard rates and relatively low survival rates in some fisheries, it is likely that significant quantities of plaice discarded may not survive.

EWG 21-05 notes that substantial research projects are ongoing in Belgium, the Netherlands and Ireland on plaice which have help to address some of the gaps in knowledge identified by STECF in previous assessments. However, EWG 21-05 observes that to evaluate the outputs from the roadmap, future submissions should include scientific evidence of the changes in discard survival that have been achieved in experimental trials. It is also important to comply with the objective of the roadmap and to systematically synthesise all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps.

For the latest JRs assessed by EWG 21-05, Member States have proposed one new plaice exemption (i.e. Scottish seines in 7a-k) and extensions to the existing ones. With these exemptions granted, it effectively means that almost all plaice catches in otter trawl, seine net and beam trawl fisheries in NWW and the North Sea are covered by a high survivability exemption. EWG 21-05 restates that the motivation for the proposed work is to mitigate against the economic costs of landing high volumes of unwanted plaice. It is noted that for beam trawlers, the justification for survivability exemption for plaice continues to be based on the potential for improving survival and selectivity, but on variable estimates of survival.

STECF PLEN 19-01 collated relevant plaice discard survival evidence from the North Sea and North-Western Waters that has been used to support the proposed exemptions. There are both survival estimates derived from direct observation, and those based on a proxy, using relationships from other studies between health condition and survival probability. PLEN 19-01 mapped the most relevant discard estimate to the fleet catch estimates for each North-Western Waters plaice stock. EWG 21-05 observes that the new plaice survival evidence and new proposed exemptions do not notably change the estimated % total catches which are of dead discards as that reported by PLEN 19-01. For example, of the total catch of Irish Sea plaice (7a), 21-30% (by weight) is made up of dead discards from the beam trawl fleet.

Table 4.4.1 Estimated dead discards as a % of the total catch from each gear type per plaice stock in the North-Western Waters region (from PLEN 19-01).

Stock	Gear	Estimated % of total catch from the stock that is of dead discards

7.a	beam	21-30%
	otter	14-15%
7.e	beam	9-12%
	otter	4-6%
7.f,g	beam	18-25%
	otter	5-22%
7.h,j,k	beam	?
	otter	8-13%

For the 7.h,j,k stock, a conditional bycatch TAC has been agreed due to the assessed poor status of the stock for 2021 (ICES advised zero catches). Discard estimates are available only for otter trawls. While beam trawls account for most landings, there is no estimate of discard rate for this fleet. There is also no reliable estimate for discards from seine nets. EWG 21-05 also reiterates that avoidance of unwanted catch through improved selectivity or other means should be the primary focus in implementing the Landing Obligation, and the role of the survival exemptions should be made explicit within the bycatch reduction plans required for all stocks with zero catch advice.

EWG 21-05 also note that ICES have stated there is no distinct geographic separation between plaice catches in the different ICES subdivisions in the Celtic Sea and no obvious association between plaice caught in 7j and k with those caught in 7h. The several hundred miles between the inshore 7j fishery and the offshore 7h fishery supports the view that the 7h stock is more likely to be a continuation of the 7e stock (ICES, 2019). STECF FDI landings data show that beam trawl catches from the 7h-k stock are concentrated in 7h. Therefore, EWG 21-05 reiterates that a review of the geographical distribution of the plaice 7h, j, k stock would be important to provide further context to the implications of this exemption. If it were confirmed that the 7h component was part of the 7e stock, which is fished at sustainable levels, this may reduce the risk to stock sustainability associated with maintaining this exemption.

Equivalent estimates were generated by ICES WGMEDS for the North Sea plaice stock (Table 4.4.2), whereby of the total catch from the stock, an estimated 23% (by weight) is made up of dead discards from the beam trawl fleet.

Table 4.4.2 Estimated dead discards as a % of the total catch from each gear type for the North Sea plaice stock (from PLEN 19-01).

Stock	Gear	Estimated % of total catch from the stock that is of dead discards
North Sea (Subarea 4 and Subdivision 20)	beam (BT2)	23%
	otter (TR2)	13%
	otter (TR1)	1%
	trammel (GT1)	<1%

	gill (GN1)	<1%

For high survivability recommendations, STECF has previously emphasised the need to consider estimates of survivability in the context of the discard rate for the fishery seeking an exemption (STECF 17-02). It has been highlighted that medium survival rates in high discarding fisheries still lead to high discard mortality rates. STECF note that unless surviving discards are accounted for in stock assessments and dead discards are accounted for in TAC setting when survivability exemptions are in place, the actual fishing mortality will not match the agreed catch level. EWG 21-05 reiterates that introducing discard survival estimates is something which should continue to be discussed in the assessment forums for more stocks and especially plaice, given the proliferation of exemptions.

5. NORTH SEA – OVERVIEW OF JOINT RECOMMENDATIONS

Commission Delegated Regulation (EU) 2015/2440 established a discard plan for certain demersal fisheries in the North Sea and in Union waters of ICES Division 2a. Based on new Joint Recommendations for the North Sea submitted by the regional group of Member States this plan has been updated several times, most recently by Commission Delegated Regulation (EU) 2020/2014.

Additionally, Commission Delegated Regulation (EU) No 1395/2014 (2) established a discard plan for certain small pelagic fisheries and fisheries for industrial purposes in the North Sea. This was amended by Commission Delegated Regulation (EU) 2018/189, which extended the exemptions established under the original discard plan, while also adding some additional exemptions. As there is no requirement for Member States to submit new Joint Recommendations in respect of pelagic fisheries, none of these exemptions relating to pelagic fisheries were assessed by EWG 21-05.

In 2021, a Joint Recommendation has been submitted by the Member States. This consolidates the main elements of Regulation (EU) 2020/2014. It provides additional information on several of the existing exemptions, both de minimis and high survivability. No new requests for exemptions are included. A separate JR has also been submitted for technical measures relating to the demersal fisheries in the Skagerrak.

The main elements of these JR's and which of these have been assessed by EWG 21-05 are summarised in table 5.1.

Table 5.1 Main elements of the Joint Recommendations submitted for the North Sea

Elements	***Pelagic or Demersal discard plan***	***Status and relevant Article in current discard plan***	***Assessment by EWG 20-04 with relevant Annexes in JR***
De minimis			
Common sole caught with gillnets and trammel nets in in Union waters of ICES divisions 2a and 3a, and ICES subarea 4	Demersal	Existing and unchanged Article 11(1)	Not assessed
Common sole caught	Demersal	Existing and	Not assessed

by beam trawls with a mesh size of 80-119mm with increased mesh sizes in the extension of the beam trawl in ICES subarea 4		unchanged Article 11(2)	
Sole, cod, haddock, saithe, whiting and hake caught in the *Nephrops* fishery using bottom trawls with a mesh size equal to or larger than 70 mm equipped with a species-selective grid in Union waters of ICES division 3a	Demersal	Existing and unchanged Article 11(3)	Not assessed
Sole, haddock, whiting, cod, plaice, saithe, herring, Norway pout, greater silver smelt and blue whiting below MCRS caught in the *Pandalus* fishery using bottom trawls with a mesh size equal to or larger than 35 mm equipped with a species selective grid, and with unblocked fish outlet, in Union waters of ICES division 3a	Demersal	Existing and unchanged Article 11(4)	Not assessed
Whiting caught in bottom trawls 90-119mm with SELTRA panels and bottom trawls with a mesh size of 120mm and above in Union waters of ICES division in 3a	Demersal	Existing and unchanged Article 11(5)	Not assessed
Bycatch of plaice in fisheries caught in the *Nephrops* trawl fishery with a mesh size ≥ 80-99mm with a SEPNEP in ICES subarea 4	Demersal	Existing and unchanged Article 11(6)	Not assessed
All fish species caught	Demersal	Existing and	Not assessed

in the Brown shrimp fishery using beam trawls in Union waters of ICES divisions 4b and 4c:		unchanged Article 11(7)	
Ling below MCRS caught using bottom trawls with a mesh size equal to or greater than 120 mm in Union waters of ICES subarea 4	Demersal	Existing and unchanged Article 11(8)	Not assessed
Whiting and cod below MCRS caught in mixed demersal fisheries by vessels using bottom trawls or seines with a mesh size of 70-99 mm in Union waters of ICES divisions 4a and 4b	Demersal	Existing and unchanged Article 11(10)	Not assessed
Mackerel, horse mackerel, herring and whiting in the pelagic fishery carried out by pelagic trawlers up to 25 meters in ICES area 4b and c south of 54 degrees north	Pelagic	Existing and unchanged Article 11(12)	Not assessed
Bycatch of industrial species caught using bottom trawls, seines and beam trawls in ICES subarea 4	Demersal	Existing and unchanged Article 11(13)	Not assessed
Ling below MCRS caught using longlines in ICES subarea 4	Demersal	Existing and unchanged Article 11(14)	Not assessed
Horse mackerel caught using bottom trawls, seines and beam trawls with a mesh size between 80 and 99 mm in ICES subarea 4	Demersal	Existing and unchanged Article 11(15)	Not assessed
Mackerel caught using bottom trawls, seines and beam trawls with a	Demersal	Existing and unchanged	Not assessed

mesh size between 80 and 99 mm in ICES subarea 4		Article 11(16)	
Blue whiting caught by industrial pelagic trawlers in ICES subarea 4	Pelagic	Existing and unchanged Article 11(17)	Not assessed
Whiting below MCRS in demersal mixed fisheries using beam trawls with a mesh size of 80-119 mm in Union waters of ICES subarea 4	Demersal	Temporary until end of 2021 Article 11(9)	Re-assessed based on new information
Cod and whiting below MCRS caught in the mixed demersal fishery using bottom trawls or seines of mesh size 70-99 mm in Union waters of ICES division 4c	Demersal	Temporary until end of 2021 Article 11(11)	Not assessed
High Survivability			
Nephrops caught with *pots; bottom* trawls with a cod-end larger than 80 mm or a cod-end with a mesh size of at least 70 mm equipped with a species selective grid; or a cod-end of at least 35 mm equipped with a species selective grid in Union waters of ICES divisions 2a, 3a and subarea 4	Demersal	Existing Article 3	Not assessed
Common sole below MCRS caught with bottom trawls with a cod end mesh size of 80-99 mm in ICES division 4c	Demersal	Existing Article 4	Not assessed
Fish bycatch in pots and fyke nets in Union waters of ICES division 3a and ICES subarea 4	Demersal	Existing Article 5	Not assessed

Plaice caught with nets; Danish seines; bottom trawls with a mesh size of at least 120 mm in winter months (from 1 November to 30 April) in Union waters of ICES division 3a and subarea 4	Demersal	Existing Article 6	Not assessed
Mackerel and herring caught with purse seines under certain conditions in ICES division 3a and subarea 4	Pelagic	Existing Article 10	Not assessed
Plaice below MCRS caught with beam trawls with a mesh of 80-119mm in Union waters of ICES division 2a and ICES subarea 4	Demersal	Annual based on information provided by 31 May every year Article 7	Re-assessed based on existing and new information
Turbot caught with trawls with a cod end larger than 80mm in ICES subarea 4	Demersal	Temporary for cuckoo ray until end of 2022 Article 8	Assessed based on existing and new information
Skates and rays (*Rajiformes*) caught with all gears in in Union waters of ICES divisions 2a, 3a and subarea 4)	Demersal	Temporary for cuckoo ray until end of 2021 Article 9	Re-assessed based on existing and new information

5.1. North Sea – Proposals for *de minimis* exemptions

A description the main elements of the exemptions and EWG 21-05 are provided in table 5.1.1. Only exemptions where an evaluation has been carried out are included.

Table 5.1.1 Summary of *de minimis* exemptions submitted as part of the North Sea Joint Recommendations (restricted to new or revised exemptions)

Exemption	Main Findings of EWG 21-05
Combined de minimis exemption for **whiting and cod** below the minimum conservation reference size in mixed demersal	**1. Exemption status** Existing temporary exemption granted until 31 December of 2021 (Article 11(9) of Delegated Regulation (EU) No 2020/2014). **2. Definition of the fishery**

fisheries by vessels using bottom trawls or seines (TR2) with a mesh size of 70-99 mm (TR2) caught with bottom trawls or seines in ICES division 4c (Article 11(9) of Regulation (EU) No 2020/2014)	The exemption applies to the respective Belgian, German, French and Dutch fisheries. No new information on the structure, catches or discards of the fleets concerned was provided to EWG 21-05. Partial information on catches and fleets in the fishery were provided to EWG 20-04 in support of a similar exemption for ICES divisions 4b and 4c. The information supplied referred mainly to the French fleet of 114 vessels. It remains unclear how representative this information is to the other fleets availing of this exemption. **3. Basis for the exemption** The justification for the exemption is on the grounds of disproportionate costs caused for bottom trawlers and seiners of handling undersized cod and whiting catches onboard. In previous submissions, arguments that further improvements in selectivity are difficult to achieve in the fishery have also been put forward. The JR states that supporting scientific evidence to this exemption has already been provided and reviewed by STECF earlier. The JR also states that STECF concluded in its report (PLEN-18-02) that the documents submitted by the Scheveningen Group contained reasoned arguments demonstrating that further improvements in selectivity are difficult to achieve or imply disproportionate costs in handling unwanted catches. The Scheveningen Group therefore considers that since the circumstances have not changed, it is appropriate to continue this de minimis exemption for 2022 and 2023. The only new document provided is a 2020 report of the French OBSMER program (Annex B). This program analyses the catches of vessels under 18m using bottom trawls (OTB, OTT, PTB) and targeting demersal species in the Eastern Channel and the Southern North Sea. According to this document, the total number of vessels was 108 in 2018 and 114 in 2019. In 2019, discards under this exemption in the French fleet of 15 vessels, during 96 trips accounted for 18.3 tonnes (2.30% of the catches). No discards of cod were declared. In 2020, discards of whiting and cod under this exemption in the French fleet account to 3.2%. Discard volumes amounted to 18,2 tonnes of whiting for the exemption, with no records of cod discarded. Total catches of cod and whiting combined amounted to 566 tonnes, including 4,2 tonnes of cod. Total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) account for 3568 tonnes. No information is provided for other fleets. **4. EWG 21-05 Observations** EWG 21-05 observes that very limited new information has been supplied to support the request to extend this exemption

	past the end of 2021. Therefore, the previous STECF comments remain valid. The conclusions made by STECF 20-04 regarding the exemption for similar fisheries in ICES Divisions 4a and 4b are also relevant. Specifically, based on the information provided it would seem the de minimis catch requested covers only a part of the unwanted catches in the fisheries and improving selectivity in the fisheries should remain the priority. No technical measures for these fisheries have been proposed by the Member States to the knowledge of the EWG, noting that improving selectivity for whiting has been well researched and solutions are readily available. The supporting document reports that 56% of whiting caught are discarded, so the discard rate for whiting remains high in the fishery. The additional evidence provided (French OBSMER program report) for 2021 suggests that the discard volumes relevant to this exemption are below the 5% de minimis volume (for undersized cod and whiting) and the 2% limit for cod. For cod, no discards and only very limited cod catches are reported for 2019 and 2020. However, EWG 21-05 notes that the catch information provided is based only on sampling of the French fleet. No respective information was available for the other Member Stated involved in the fishery as was the case for previous assessments. Moreover, the sampling of catches and discards during the OBSMER program took place in the Eastern Channel (ICES Division 7d), not in the 4c. EWG 21-05 understands that the fishery in 4c and in 7d are essentially the same fisheries based on previous assessments, but it is not clear whether there are significant differences in levels of unwanted catches of whiting and cod between the two areas. Catch information taken from the FDI database is reported in the supporting annex, but it is not clear how this relates to the OBSMER data. Data for the fishery in 4c is needed to assess the full impact of the exemption, particularly given the very low cod catches observed, accepting that the volumes reported to be discarded under the exemption (i.e. 18 tonnes of whiting in 2020) are relatively low compared to overall catches in the fishery.
Exemption	Main Findings of EWG 21-05
Whiting below the minimum conservation reference size by vessels using beam trawls with mesh size 80-119mm in ICES subarea 4 which shall not exceed 2 % of the total annual catches of plaice and sole.	**1) Exemption status** Existing temporary exemption granted until 31 December of 2021 (Article 11(11) of Delegated Regulation (EU) No 2020/2014). **2) Definition of the fishery** The exemption applies for the Belgian, German and Dutch beam trawl (BT2) fleets. The catch information for the Belgian and German fleets (2015-2019) was provided in the JR (Annexes C2 and C3). The number of vessels involved was also provided, showing the Dutch fleet to be the most significant

	number of vessels wise. The respective information is provided for the Dutch fleet (Annex C1). Additionally, catch and discard information for 2020 data for those three fleets was provided in the JR. For 2020 the estimated whiting discards ranged from 1.7 t in Dutch fleet to 60 t in German fleet. The total discard estimate was 84 tons (0.8 % of ICES estimate of total whiting discards (incl. MCRS landings) of all gears in the Sub-area 4 in 2020). Discard rate of whiting as % of total catch of plaice and sole ranged from 2.2% in the German fleet to 4.9% in Dutch fleet (2.3% on average). **3) Basis for the exemption** This exemption has been previously assessed by STECF 17-08, 18-06, 19-08 and 20-04 with similar justifications for the exemption on the grounds of disproportionate costs caused by handling of undersized whiting catches onboard beam trawlers. The Scheveningen Group has responded to the observations raised by STECF in previous assessments in the JR. The supporting evidence provided to EWG 21-05 is partially the same as in previous years. However, the results of a new (2021) study (Oostenbrugg et al. 2021) quantifying the volumes and economic effects of handling and landing of undersized whiting in the Dutch BT2 fleet have been made available. A summary of this study is provided in section 5.1.1. The objective of this project was to provide information about the extent of the catches of undersized whiting and to estimate the costs of handling and landing undersized whiting. These costs are then related to the total costs and revenues of the fishery concerned (BT2). The information was collected during the Dutch discard monitoring Programme (within DCF) from logbook data and onboard observations. The results indicate that, the average net economic effect of handling and landing the undersized whiting was 60.000 euro for the euro cutters and 828.000 euro for the large cutters for the Dutch BT2 fleet. This is 18% and 4% of their average net profit over the same period. The average costs of handling and landing undersized whiting was estimated at 0.87 and 0.73 euro/kg for euro cutters and large cutters, respectively. In cases of high volumes, the total volume of whiting can be a factor 12-14 higher than on average. For euro cutters this means that the net profit of the trip becomes negative, and for large cutters the net profit is halved. For a euro cutter the extra time in case of high undersized volumes of whiting can be around 14 hours more per trip and for large cutters it is estimated to 45 hours, around 19-25% of the total sorting time per trip and around 1.5-2 hours per crewmember per day at sea. **4) EWG 21-05 Observations**

	EWG 21-05 acknowledges that the Joint Recommendation addresses to a large degree the issues brought up by STECF-in previous assessments with respect to the de minimis request for undersized whiting in the BT2 fishery in the North Sea. The new (2021) information from the Dutch study (Oostenbrugg et al. 2021) provided as support to the request indicates that the estimated costs of landing unwanted catches of whiting are significant and would require substantial additional labour on board, particularly in the situation of high volumes of bycatch of undersized whiting. EWG 21-05 is not able to fully assess the robustness of the study provided but based on the results presented observes that the estimated costs involved are significant. However, as identified previously by STECF for this and other exemptions, given the de minimis volume covers only a part of the overall unwanted catches, the costs for handling the residual unwanted catches not discarded under the exemption would remain regardless of whether the exception is in place or not. EWG 20-04 noted that there is no evidence of attempts to increase selectivity to reduce unwanted catches, accepting this is difficult in beam trawl fisheries targeting sole. As a response, the present JR provides an overview of the studies conducted to improve selectivity in the BT2 fishery. EWG 21-05, this provides a useful summary and clearly indicates the issues and challenges involved in improving selectivity in this fishery. There are also indications for future work planned without any detail provided. As indicated last year by STECF 20-04, calculating the de minimis based on catches of sole and plaice, means 100% of unwanted catches below MCRS can be potentially discarded. EWG 21-05 observes that the JR has acknowledged this and argues that as the Commission will calculate the volume of the exemption and deducts that amount from the total allowable catch (TAC), the impact on the stock is considered. EWG 21-05 considers it is the role of managers to decide whether this justifies the calculation method used.

References

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5.1.1. Dutch study on disproportionate costs

Description and discussion of the contend of the study

In 2020 STECF requested additional information on the de minimis exemptions for the bycatch of undersized whiting in the North Sea BT 2 flatfish fishery. Within the fishery six metiers were identified but for the economic assessment basically two types of vessels are distinguished: Vessels with maximum 221 kw (to be able to fish in the plaice box) and usually a length up to 24 m, so-called euro cutter, and vessels with a length above 40 m.

The main target species is sole with additional flatfish catches of especially plaice and turbot which are also subject to a quota. In the BT 2 fishery, whiting is a regular bycatch species with huge variations in percentage per haul during the year. The Dutch government issued a study from Wageningen University (a combined effort of Wageningen Marine Research (WMR) and Wageningen Economic Research (WEcR)) to provide additional information on the level of whiting bycatch in the BT 2 fishery. In addition, an economic impact assessment of landing all whiting bycatches was conducted.

The study is basically divided in three parts with the following contents:

1. Methods for estimation of the amount of discard, the handling time, estimation of costs and revenues for the BT2 fleet and estimated costs for handling the bycatch
2. Amount of handling times
3. Costs and revenues

The discard data stems from a discard monitoring programme of the Dutch bottom-trawl fishery. In addition, some of the vessels were part of a discard self-sampling programme as participants in a project to assess the impacts of the pulse trawls on the ecosystem. For some trips, the skippers just recorded the whiting bycatch.

Due to the COVID restrictions it was not possible to sample the handling time of the bycatch on many trips. Therefore, extra data was used from vessels participating in fully documented fishery trials and had cameras on board so that videos could be reviewed from the handling of the bycatch.

Approximately 30% of the vessels participating in the BT 2 fishery are part of the Dutch 'Farm Accounting Data Network (FADN)' and the data is part of the Dutch economic data delivered under the Data Collection Framework (DCF). Therefore, detailed economic data is available which also goes back some time. It must be noted that due to the ban of the pulse trawl starting July 1st, 2021, and the necessity to switch back to a standard beam trawl the economic situation will change or has already changed.

The following tables show the bycatch of whiting between 2011 and 2019 divided in the four quarters of the year.

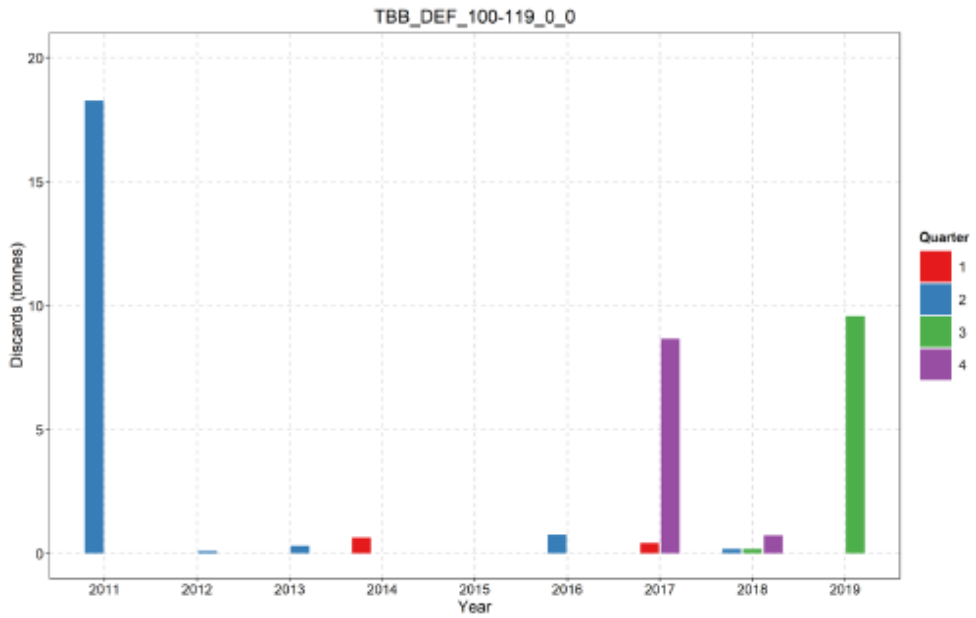

Fig. 5.1.1.1: Whiting discards (tonnes) per year and quarter for TBB_DEF_100-119_0_0 (Oostenbrugge et al. 2021, p. 18)

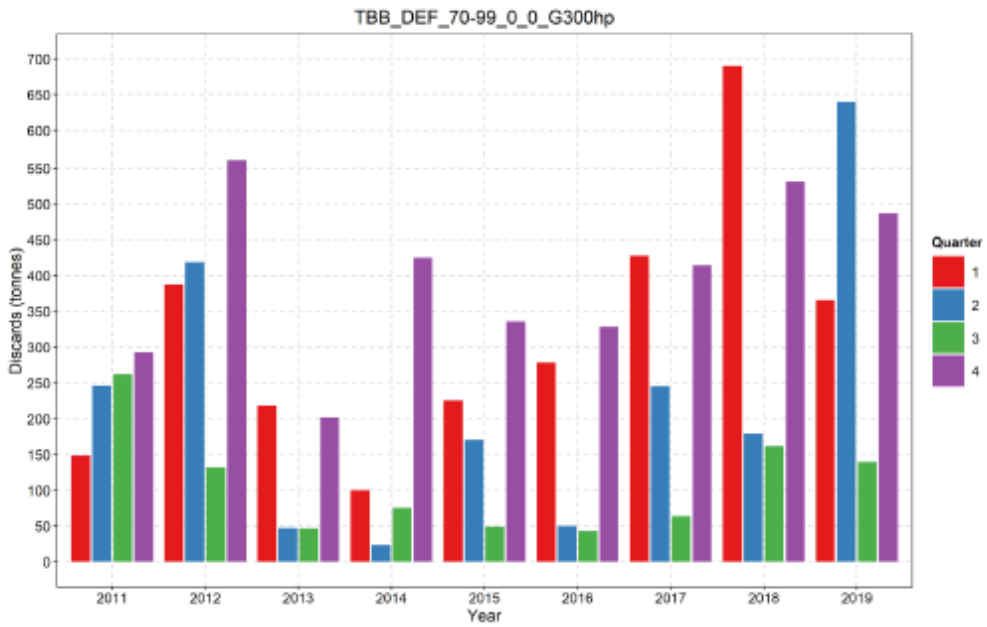

Fig. 5.1.1.2: Whiting discards (tonnes) per year and quarter for TBB_DEF_70-99_0_0_G300hp (beam trawls with engine power >300 hp) (Oostenbrugge et al. 2021, p. 18).

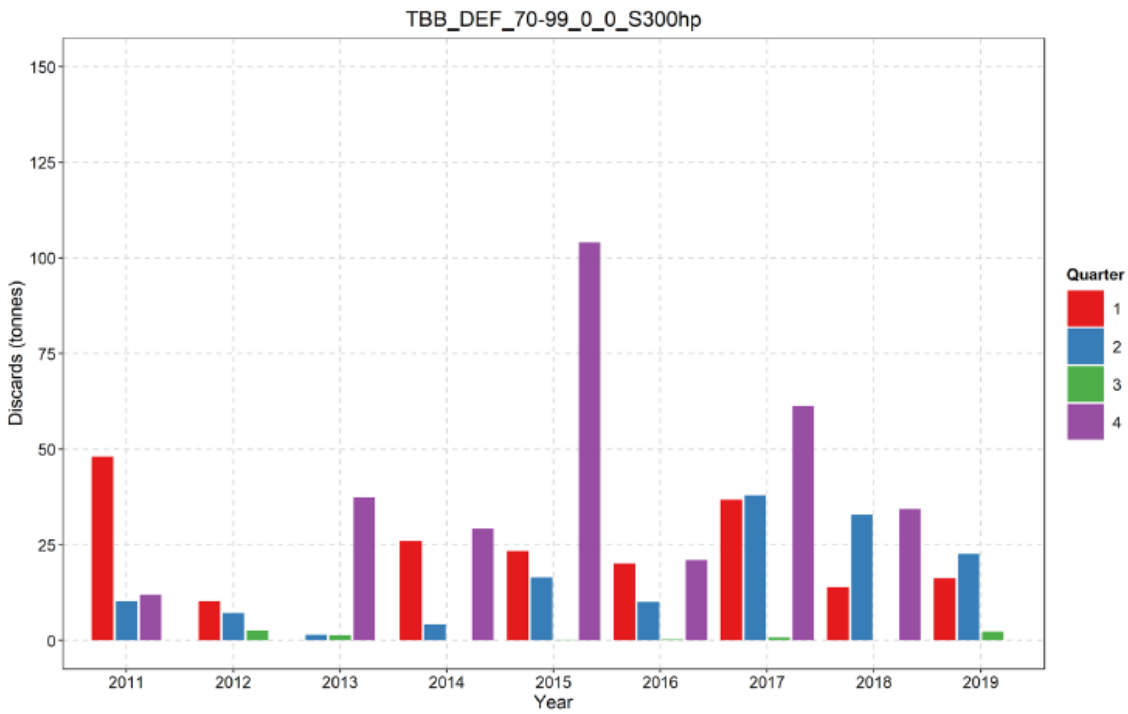

Fig. 5.1.1.3: Whiting discards (tonnes) per year and quarter for TBB_DEF_70-99_0_0_S300hp (beam trawls with engine power <300 hp) (Oostenbrugge et al. 2021, p. 19).

The numbers are estimated using the limited available discard information from sampled fishing trips during the year. From the discard information available the authors developed 2 scenarios, one with discard rates from the lowest five trips and one with discard rates from the highest five trips. The approach of the study is to estimate discards per effort (kwdays) as this would allow an estimate of the handling time of the unwanted catches (they also estimate length distribution of the unwanted catch for the handling time).

Gear	Whiting discards	Sorting	Processing	Fish sorted excl. whiting	Fish sorted incl. whiting	Whiting sorted
		minutes	minutes	kg	kg	kg
Square chain mat	No	32	46	146.4	146.4	
Square chain mat	Yes	51	66	152.5	325.0	172.5
Regular chain mat	No	24	44	171.6	171.6	
Regular chain mat	Yes	37	53	141.6	268.7	127.1

Fig. 5.1.1.4: Analysis of basic gear effect under both scenarios (Oostenbrugge et al. 2021, p. 23)

	Parameter	Undersized whiting	Other species
estimate regression parameter	B	0.13	0.25
	Std. Error	0.02	0.01
handling labour	min/kg	0.65	1.26
	Average landings (kg/haul)	135	151
Total sorting time	minutes/haul	88	191
	% total sorting time	31%	69%

Fig. 5.1.1.5: Results of the regression analysis of the sorting time for undersized whiting and other species combined

Add 3) In the third part the study estimated changes in costs and earnings calculated following the methodology described in 1 and 2 above. The following table shows the results of the economic analysis.

Quarter	Revenue	Crew Cost	Non-variable Cost	Variable Cost	Net economic effect
Euro cutter					
1	1,124	15,638	299	2,570	-17,382
2	1,022	11,575	214	2,256	-13,023
3	65	857	19	162	-974
4	1,952	25,275	531	4,883	-28,737
Total	4,162	53,345	1,063	9,871	-60,116
Large cutter					
1	18,744	179,284	2,936	68,505	-231,981
2	15,939	141,524	2,599	55,437	-183,621
3	7,831	68,976	1,123	27,662	-89,929
4	25,208	251,427	3,996	92,309	-322,523
Total	67,723	641,211	10,653	243,913	-828,054

Fig. 5.1.1.4: Total costs and benefits of landing undersized whiting based on average discard rates for the period 2011-2019 and average costs for 2018 and 2019 (in €) (Oostenbrugge et al. 2021, p. 27).

The authors then describe in more detail the economic impacts on the different fleet segments before discussing the probability of storage problems. Here the authors state that in most trips the storage capacity is not fully utilized which leaves enough room for storing the unwanted bycatch.

EWG 21-05 observations

EWG 21-05 acknowledges the substantial effort by the conductors of the study. The study provides a comprehensive overview of the available data, the methodology for the calculations, the applied assumptions and the results.

EWG 21-05 observes that the estimated amounts of whiting to be sorted out varies substantially between quarters and the different fleet segments (e.g. ranging from 0 to 1.4 kg per kw day).

EWG 21-05 observes that the study is comprehensive, the methodology clearly explained, the assumptions and estimated inputs in the calculations clearly identified and discussed. Therefore, the study gives a good overview on what happens in the fleet regarding the costs of having to sort the bycatch of whiting and what this overall mean to the vessels.

EWG 21-05 observes that having to land undersized whiting will increase handling time and costs in the BT 2 fleet. On the first look the costs seem not that high (<1% see Oostenbrugge et al. 2021, p. 33) but as the author state the effect on the net results is higher: 4% for large trawlers and 18% for euro cutters.

EWG 21-05 conclusions

EWG 21-05 concludes that the provided study gives a comprehensive overview on what economic impacts may occur in case the discarding of undersized whiting is not allowed anymore.

EWG 21-05 concludes that the study shows the substantial effort necessary to conduct such a study.

References

Oostenbrugge, H. v., Klok, A., Deetman, B., Bastleer, J. Bleeker, K. and A. M. Winter. Undersized whiting in the BT 2 fishery. Wageningen Economic Research, The Hague. ISBN 978-94-6395-804-2

5.2. North Sea – Proposals for high survivability exemptions

A summary of the proposed high survivability exemptions is given in Table 5.2.1.

Table 5.2.1. Summary of high survivability submitted as part of the North Sea Joint Recommendations

High Survivability	
Fishery	Main Findings of EWG 21-05
Plaice below the minimum conservation reference size caught with 80-119 mm beam trawl gears (BT2) in ICES subarea 4 (beam trawl – Article 7 of Regulation (EU) No 2019/2238)	**1. Exemption status** Existing temporary exemption with request for additional information. Member States having a direct management interest shall submit every year, as soon as possible and not later than by 1 May, additional scientific information supporting the exemption. The existing exemption applies to beam trawlers equipped with (7.1.a) the flip-up rope or benthos release panel (BRP) and with an engine power of more than 221 kW; or by vessels implementing the roadmap for Fully Documented Fisheries (FDF). (7.1.b) The exemption applies to vessels with an engine power of not more than 221 kw or less than 24 m in length overall, which are constructed to fish in the twelve-mile zone, if the average trawl duration is less than ninety minutes. **2. Survival evidence** New evidence was provided for the Belgian beam trawl fleet that operates in both North-Western waters and in the North Sea. This information was briefly summarised in Annex D1, the Belgian "roadmap to gather additional survival data and to carry out further analyses on existing and new data, for plaice" and is presented in more detail in an ILVO-report by Uhlmann et a. (2020). The new survival estimates were based on sampling of undersized plaice from two trips in the Celtic Sea and the Eastern Channel. Estimated long-term survival (Kaplan-Meier asymptote) of 268 discarded undersized plaice ranged between 13% (9%-19%, 95% CI) from the summer trip (July 2020, Celtic Sea), with conventional trawl and 51% (41%-64%, 95% CI) from the winter trip (December 2020, Eastern Channel) with a flip-up trawl, and 44%, (35-56%, 95% CI) with a conventional trawl. No statistically significant difference in survival was found between conventional and flip-up rope trawls. EWG 21-05 considers the study to be scientifically robust, provides representative estimates of the fisheries investigated and was generally consistent with ICES guidance. However, the study was limited in scope (two trips) and no captivity controls were used, so potential impact of the conditions during captivity on the results could not be evaluated. For 3195

	individual undersized plaice assessed just after being heaved on board, immediate survival was found to vary between 60-90% from 8 trips (mean 75%, 66–83%, 95% CI). Variability among plaice surviving capture-and-handling aboard a vessel was influenced by an interaction between total catch weights, weights of stones and proportion of injury-inducing elements with wave height. Important to note is that these estimates of immediate survival shall not be confused with overall long-term discard survival, which is what is needed to evaluate exemptions from the landing obligation. It was concluded that the use of a flip-up rope contributed slightly to an improved immediate survival of beam-trawled-and-discarded plaice, but the difference was not significant. Previous estimates of plaice survival relevant for the exemption in studies previously assessed by STECF (EWG 20-04 and references therein) are provided by Uhlmann et al. (2021) who reported that survival of plaice discarded from Belgian beam trawlers representing the three fleet segments was estimated to range between 41–58%, 11–28%, 2–4% (95 % confidence interval; Kaplan-Meier models) for trips of the coastal (≤221 kW), Eurocutter (≤221 kW) and >221 kW vessel, respectively. The mean discard survival rate across all sampled trips and vessel segments was 21% (EWG 20-04). For pulse trawlers, the discard survival estimates previously assessed by STECF were 14% (95% CI 11-18%). Annex D2 to the JR was an annual report on the progress on the roadmap for plaice by the Netherlands, which was presented in a well-structured manner. The report was structured as follows: 1. Progress report of work to improve the knowledge base of fishing mortality (catch registration, full documentation-FDF), and 2. Progress report of work to reduce fishing mortality (a. improved selectivity, b. increased survival). The Netherlands has committed to implement FDF as part of the plaice roadmap (assessed by PLEN 18-03). The report contained updated information for the period Q2 2020 to Q1 2021. Covid-19 was reported to delay the progress for many of the sub-projects. However, 8 vessels are now contracted to participate (6 vessels last year). The focus so far has been on securing participation from vessels, technology installations, developing protocols for skippers and scientists to generate data and providing training. The aim is to use FDF to estimate catch weight and composition as well as discard weight and composition. EWG 21-05 notes that progress has been made compared to last year in terms of estimation of catch volumes and composition, by development of systems and protocols for self-reporting and automated video analysis. Similarly, the Belgian progress report (Annex D1) describes that the work has been on developing species identification software under laboratory conditions, to analyse video footage from EM systems. The Dutch reported on sub projects on selectivity describe ongoing scientific projects, but no results are presented. A focus of these projects is to develop more selective beam trawl designs. At the time of last year's progress report, five different gear innovations to improve selectivity were under development. Since then, three have been discontinued (brush footrope, wing rakes and rotating brush). The two remaining (selection and escape panel- speed bump panel and the Tiaki codend) are planned for further development and tests during 2021. The speed bump panel is more of a traditional adaptation to better separate plaice from sole whereas the Tiaki codend work focuses on the creation of a gentler catching process in order to increase probability of discards to survive. Given that the Tiaki cod

	end development will be continued after adaptation and initial tests in the BT2 fishery, discard survival measurements will be estimated for this cod end. These two remaining projects will run until Jan 2023. No new survival estimates were provided in the Dutch annual report. **3. Fishery context** Updated information about the BT2 fleets and plaice catches in subarea 2a for 2020 was provided by Belgium and the Netherlands. Reported discard rates were 75% and 70% for Belgium and the Netherlands, respectively. The Netherlands accounts for almost 98% of reported total catches. **4. Survival and fishery compatibility** The representativeness of the new survival estimates (sampled in the Celtic Sea and Eastern channel) for the North Sea fisheries is not discussed by Uhlmann et al (2020) and is not clear to EWG 21-05. However, the results are in line with earlier observations and with large variability between trips, likely due to varying conditions (season, vessel size, catch size and composition, gear characteristics and area). The new survival estimates add to the overall knowledge about undersized plaice survival for larger beam trawlers (>221 kW, i.e. to exemption 7.1.a and not 7.1.b). A first indication about the effect of the use of a flip-up rope is also provided but the study was too limited in scope to draw any conclusions. **5. Additional evidence** To date, survival and discard evidence and fleet information is reported in a too incoherent way to make sensible use of all information. Most information is Member State specific within regions and there are very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catches incl. discards per species and métier for all Member States to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. Further clarity on the objectives for the roadmap is needed in order to facilitate an evaluation. EWG 21-05 notes that there is currently no timetable for the completion of the roadmap. EWG 21-05 considers that measurements of turbot survival for the Tiaki codend would be highly relevant (and not just plaice as currently planned) as this codend design has the potential to improve survival.
Fishery	Main Findings of EWG 20-04
Skates and rays caught by all fishing gears in the North Sea in ICES division	**1. Exemption status** Existing temporary exemption. This exemption is provisionally applicable until 31 December 2022. Additional scientific information, in particular for cuckoo ray, supporting the exemption shall be submitted every year, as

3a and ICES subarea 4 (Article 9 of Regulation (EU) No 2019/2238)	soon as possible and not later than 1 May. **2. Survival evidence** EWG 21-05 could not identify any new survival estimates for skates and rays in the information provided. The JR this year was clearly structured in terms of reporting of initiated and planned actions for the three steps of the roadmap from 2018: (1) Improve knowledge on stocks and survivability (Annexes F1-F7). (2) AC measures to minimize discards and improve survivability (Annex F8). (3) Coordination of work by regional group chair. An overview of previous and on-going projects was provided in Annex F1-F4, describing both projects and results that have been assessed previously (for example the Sumaris project; van Bogaert et al. 2020 - see EWG 20-04) and future deliveries. Among these is a planned report of survival estimates for thornback ray, spotted ray and blonde ray in area 4 and 7d in spring 2023 by the Netherlands. The roadmap overview also reports on work about stock identity, other biological variables and improved data collection with planned reports in 2022-2023. A coordinated effort to improve the knowledge base for the different species is a common theme among the roadmap partners. This effort focuses on species identification guidelines and improved resolution in the data collection for both science and industry (for example project Raywatch in Belgium). Annex F5 includes a paper by Morfin et al. (2019) that estimates discard survival for undulate ray for small French otter trawlers in 8a. This paper was reviewed as part of last year's JR from the Southwestern waters group (EWG 20-04). The direct relevance of the results for North Sea fisheries is unclear given the type of fishery studied. Annexes F6 and F7 presented analyses of distribution and abundance of skates and rays in the wider North Sea region. Both these reports have been reviewed by STECF previously. The North Sea Advisory Council report (Annex F8) was clear and well-structured and reported on previous and newly implemented measures and initiatives in line with the roadmap. Many of these naturally overlap with the measures in the Member State reports but worth highlighting among the new are the EMFF-funded projects "InnoRays" and "Bridging knowledge gaps for sharks and rays in the North Sea" led by a Dutch industry organisation. The information provided suggests these projects will contribute to improved knowledge for some of the species under the current exemption. **3. Fishery context** France provided data from 2020 on catches and discards for various fleets in the southern North Sea and the Eastern Channel. The reported overall French discard rate for all skates and rays combined was 1.6%. Also detailed information about French discards of skates and rays by fleets and species (Thornback ray, Blonde ray, Undulate ray, Spinetail ray and Cuckoo ray) was provided but is too substantial to be summarized here. This information can be found in Annex F2. The other affected Member States did not provide any information about fleets or catches. **4. Survival and fishery compatibility** No new survival estimates or substantial new information about fleets and fisheries for all affected Member States have been provided.

	5. Additional evidence To date, survival and discard evidence and fleet information is reported in a too incoherent way to make sensible use of all information. Most information is Member State specific within regions and there are very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catches incl. discards per species and métier for all member states to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. The special condition regarding scientific information about cuckoo ray as specified in the current exemption (article 9 of Regulation (EU) No 2020/2014) is not reflected in the on-going and planned work presented in the JR. There is also no timetable for the completion of the roadmap. EWG 21-05 notes that a MSc thesis (Amelot & Poos) may provide relevant additional information about thornback ray and stock assessment. While EWG 21-05 also highlights the outputs of two recent ICES workshops on incorporating discards into the assessments and advice of elasmobranch stocks (WKSHARK5) and WKSURVIVE can provide some useful context for this exemption.
Plaice caught with trawls with a mesh size of at least 90-99 mm equipped with Seltra panel targeting flatfish or roundfish in ICES division 3a, — plaice caught with trawls with a mesh size of at least 80-99 mm targeting flatfish or roundfish in ICES subarea 4 (Article 6(2) and Article 6(4) of Regulation (EU) No 2019/2238)	**1. Exemption status** The request refers to a request to define a fishery targeting round and flatfish. Therefore, the Scheveningen Group requested to implement a rule stipulating that when there is more than 33% (in weight) of *Nephrops* in the catch, the high survival derogation for plaice does not apply and all plaice has to be landed. **2. Survival evidence** One annex (Annex A) with supporting information accompanied this request. No other discard survival estimates were provided. Annex A is a paper by Savina et al. (2019) that reports on discard survival estimates for plaice in otter trawls (90 mm) in 3a targeting plaice or *Nephrops* during summer and winter separately. This report, in an earlier version, has been assessed by EWG 19-08 (and PLEN 19-02), which considered the method to generate robust survival estimates. The study reported an estimated discard survival of 73% (95% CI 63-83%) for plaice when targeting plaice and 40% (95% CI 14-59%) when targeting *Nephrops* during winter. In summer, survival was lower (44%; 95% CI 34-64%) when targeting plaice. The study did not assess plaice survival when targeting *Nephrops* during summer. The choice of estimating survival in 90 mm trawls instead of a trawl with a more typical mesh size (TR1) for targeting fish was to produce a worst-case scenario estimate according to

	the authors of the study. **3. Fishery context** No additional fishery data was provided. A reference was made that these were submitted previously. EWG 20-4 concluded that all relevant countries except France have provided individual fishery data. Annual plaice discard rates by Member State are reported at 33-53% in 3a and 37-68% in area 4. The proposed exemption is limited to TR2-vessels targeting flatfish and roundfish and not vessels targeting other species like *Nephrops*. However, from the provided information EWG 20-04 noted that also fleets targeting other species are included in the fishery data provided which means that not all of these vessels will be eligible for the exemption. It is noted that part of the fleet operates on the boundary between NWW and NS regions so there is utility in having consistency in these two regions. **4. Survival and fishery compatibility** The supporting study with survival estimates (Annex A) is based on fish caught using a 90mm cod end mesh (i.e. the same mesh size as the request). According to the underlying studies, apart from season, two other factors that were shown to influence plaice survival was air exposure time and whether fish or *Nephrops* was targeted. Air exposure influenced a reported drop in survival to 8% after 60 min air exposure in the summer experiments. A large difference in the average sorting time depending on whether plaice of *Nephrops* is targeted (36 vs. 126 min) was reported (Annex 6.3.2b). A major target species for the 80-99 mm fleet in the northern North Sea and 3a is *Nephrops.* As this request relates to the part of the fleet that targets fish, a definition of vessels targeting flatfish and roundfish would be needed to manage the implementation of this exemption. **5. Additional evidence** This is an amendment to an existing exemption. It refers to a request for additional information to define a bottom-trawl fishery targeting round-and flatfish in the Union waters of ICES division 3a and subarea 4 with mesh sizes of 90 to 119 mm. The Scheveningen Group proposed to define a fishery targeting round and flatfish when <33% (in weight) of *Nephrops* is present in the catch. Otherwise, it can be considered a *Nephrops* targeted fishery for which the high survival derogation for plaice should not apply, and consequently all plaice must be landed. No further justification on this arbitrary threshold was provided, and how catches will be registered on-board in compliance to such a rule. Without any measures in place to register catches and monitor the discarding of (exempt) unwanted catches, EWG 21-05 observes there is a risk of allowing discarding. No specific provision was included in the JR to accompany the catch composition rule with measures to improve the documentation of catches, such as a provision for CCTV. Furthermore, no justification or evidence was provided to support the proposal to expand this exemption also to bottom trawls used in the Kattegat, using a square mesh panel of at least 120 mm fitted on trawls in the period from 1 October to 31 December. The Scheveningen group suggested when there is more than 33% (in weight) of *Nephrops* in the catch, the high survival derogation for plaice should not apply and all plaice must be landed, based on the reasoning that more *Nephrops* in the catch reduces the survival of discarded plaice. EWG 21-05 observes that based on

	the available survival information that this assumption is correct. However, no further justification was provided to support the threshold proposed. It is an arbitrary rule. It is not clear how the catch would be registered on-board to determine its composition, and in a way to facilitate enforcement and this is a concern.
Turbot caught with beam trawls (TBB) with a cod-end equal to or larger than 80mm in ICES subarea 4 (Article 8(1) and 8(2) of Regulation (EU) No 2019/2238)	**1. Exemption status** This exemption is provisionally applicable until 31 December 2022. Member States with a direct management interest shall submit every year, as soon as possible and not later than 1 May, additional scientific information supporting the exemption. In the first submission in 2018, no data on fisheries were provided and it was unclear if the exemption would apply to all trawl fisheries or just to beam trawlers and/or pulse trawlers. The 2019 and 2020 submissions included fisheries information, but no new discard survival estimates on beam trawls. **2. Survival evidence** Some new, but limited evidence was provided, for the Belgian beam trawl fleet, in a supplemented ILVO report (Annex E). The report was based on the project Survival Monitoring - Overleving Monitoren' during 2019-2021. During the plaice study (see above), a total of 18 undersized turbots were monitored from two trips. One of the two trips was a separate trial with a dedicated catch comparison trial, with and without a flip-up rope, to assess how the gear modification affected survival rate. The ICES critical review was applied. There were a limited number of observations, but the study was considered robust for first indications of survival estimates. The main drawback of the study is the limited number of survivability observations for turbot: 18 individuals for immediate survival and 17 for long-term captive survival (>9 days) from two of the eight trips. Estimated long term survival was 75% (3 out of 4 individuals) from the first trip and 38% (21-81% c.i., 5 out of 13). None of the 3 individuals caught with a trawl without a flip-up rope survived compared to 56% in the flip-up trawl. The sample sizes were insufficient for further analyses into contributing factors. Previously submitted and reviewed documents based on pulse-trawls reported a survival rate of 20-43% (EWG 20-04). **3. Fishery context** Updated information about the >80 mm beam trawl fleets and their turbot catches in subarea 4 for 2020 was provided by Belgium, Germany and the Netherlands. Reported discard rates varied greatly between the Member States - Netherlands- 32%, Germany and Belgium- 2%). Last year´s JR contained similar information. The discard rates by country and year varied between 10-19% for 2017-2019. The Dutch fleet caught most of the turbot in 2020 (346 tonnes), Germany (192 tonnes) whereas Belgium reports the smallest total catches (26 tonnes). **4. Survival and fishery compatibility** The new survival estimates from beam trawl catches are valuable as previous estimates where from pulse trawls. However, the estimated survival is based on very few observations (17 individuals from two trips), which makes it difficult to draw any conclusions about both likely survival rate and the compatibility compared to current fishing practises as the conditions in the wider fishery is not put into context with the estimated

	survival rate. **5. Additional evidence** A synthesis of available survival estimates, and characteristics of all relevant fisheries is needed to assess the consequences of the exemption (see plaice exemption). It would be valuable to expand the Dutch proposal to study survival of plaice for the Tiaki codend to also estimate survival of turbot (does not seem to be planned now) as the Dutch fisheries are a major source of turbot discards. This codend design has the potential to improve turbot survival.

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5.3. North Sea – Proposals for technical measures

Up until the end of 2020, regional technical measures for the North Sea were spread across Delegated Regulations (EU) No 2019/2238, Regulation (EU) No 1395/2014 and Regulation (EU) No 2020/123. These Regulations expired at the end of 2020. Therefore, a new delegated act, Regulation (EU) 2020/2013 was adopted for the North Sea technical measures, including those proposed by the Scheveningen Group in 2020 and assessed by EWG 20-04. In 2021, a new JR has been submitted by the Scheveningen Group relating to technical measures in the Skagerrak. This has been assessed by EWG 21-05 as follows:

Technical Measures	Main Findings of EWG 21-05
Specific technical measures in the Skagerrak (See Annex 3.1 for supporting information)	**1. Exemption status** Existing technical measures that will expire at the end of 2020. (Article 11 and relevant definitions of article 2 of Regulation (EU) No 2019/2238). Additional supporting information was provided in Annex 3.1 to the JR. **2. EWG 21-05 Observations**

	The Scheveningen Group submitted a Joint Recommendation concerning the implementation of the agreement between EU and Norway from 2011 for technical measures for demersal fisheries in the Skagerrak and Kattegat, as set out in the Agreed Record between the parties from 2 December 2011. This agreement is based on an EU/Norway Working Group report from 2011. This JR equates to an amendment to the mesh sizes for the North Sea contained in point 1.1, Part B (Mesh Sizes), Annex V (North Sea) of Regulation (EU) 2019/1241 where a derogation from the baseline mesh size for towed gears of 120 mm to 90 mm is provided for vessels operating in the Skagerrak and Kattegat under specified conditions. According to the JR, the amendment is required to align the mesh size regulations specific to the Skagerrak contained in Annex V to the existing EU-Norway agreement on technical measures in Skagerrak. This specifies that the derogation for the use of a 90 mm codend (with defined selective gears) should only apply to otter trawlers and not for other towed gears such as seine nets and beam trawls. According to the JR, the 90 mm derogation, was to ensure retention of Norway lobster in the mixed demersal trawl fisheries in the Skagerrak, in which Norway lobster are an important part of the catch, while reducing the catches of juveniles through the use of selective devices (e.g. SELTRA panel) The remainder of the text in the JR is identical to that of point 1.1, Part B (Mesh Sizes), Annex V (North Sea) of Regulation (EU) 2019/1241 including mesh size, orientation and the provision to use a 120mm square mesh panel mesh size during the period October to December in the Kattegat (footnote to paragraph 1.1). The JR states that the proposed text removes the footnotes that were previously included and instead includes this information under paragraph 1.1. This provides clarity. EWG 21-05 concludes that the proposed amendment consolidates existing measures contained in Annex V of Regulation (EU) 2019/1241. It achieves its main aim of removing any ambiguity in the current regulations and confirms that vessels using seine nets or beam trawls cannot use the 90mm mesh size in the Skagerrak. The reduction in scope (i.e. the derogation applies only otter trawls) will offer higher protection for juveniles, thereby improving the exploitation pattern due to the fact that the 90mm derogation is no longer available to beam trawls and seine nets. EWG 21-05 observes that this was the intention of the agreement with Norway as evidenced by the EU/Norway Working Report referenced in the JR. Further, EWG 21-05 concludes that the removal of this ambiguity contributes to the optimisation of exploitation patterns in the demersal fisheries in the Skagerrak and Kattegat and provides better protection for juveniles and spawning aggregations of marine biological resources in these fisheries. Therefore, the JR is in line with the objectives in Article 3 and the target in Article 4 that, "catches of marine species below the minimum conservation reference size are reduced as far as possible in accordance with Article 2(2) of Regulation (EU) No 1380/2013".

References

Agreed Record of conclusions of fisheries consultations between Norway and the European Union on the Regulation of fisheries in Skagerrak and Kattegat for 2011, para 5 and Annex II

Anon., 2011. Skagerrak Working Group - Report of Sub-Group on Technical Measures, 2011

6. NWW – OVERVIEW OF JOINT RECOMMENDATIONS

Commission Delegated Regulation (EU) 2015/2438 established a discard plan for certain demersal fisheries in North-Western Waters (i.e., in Union waters of ICES Areas 5b, 6 and 7). Based on new Joint Recommendations for the North-Western Waters submitted by the regional group of Member States, this plan has been updated several times, most recently by Commission Delegated Regulation (EU) 2020/2015. In 2021, a further set of Joint Recommendations has been submitted by the Member States. The main elements of these JR's and which have been assessed by EWG 21-05 are summarised in table 6.1.

Table 6.1 Main elements of the Joint Recommendations submitted for the NWW

Elements	***Contained currently in pelagic or demersal discard plan***	***Status with relevant Article in current discard plan***	***Assessment by EWG 20-04 with relevant Annexes in JR***
De minimis			
Common sole caught in gillnets and trammel nets in ICES divisions 7d, 7e, 7f and 7g	Demersal	Existing Article 13(1b)	Not Assessed
Common sole caught with beam trawls with a mesh size of 80-119mm with increased mesh sizes in the extension of the beam trawl in ICES divisions 7d, 7e, 7f, 7g and 7h	Demersal	Existing Article 13(1c)	Not Assessed
Haddock caught using bottom trawls, seines greater than 100m; with catches comprising not more than 30 % Norway lobster and excluding beam trawls; with mesh sizes greater than or equal to 80 mm in 7b, 7c and 7e to	Demersal	Existing Article 13(1d)	New information submitted assessed

7k with catchescomprising more than 30 % of Norway lobster; beam trawls using mesh sizes greater than or equal to 80 mm in 7b, 7c and 7e to 7k in conjunction with the use of a Flemish panel;			
Fish bycatch below MCRS in the Brown shrimp fishery caught using beam trawls of mesh size <31mm in ICES division 7a	Demersal	Existing Article 13(1e)	Not Assessed
Boarfish caught using bottom trawls in ICES divisions 7b-c & 7f-k	Demersal	Existing Article 13(1f)	Not assessed (except for proposed wording change)
Megrim below MCRS caught using bottom trawls with a mesh size of 70-99mm and beam trawls with a mesh size of 80-119mm in ICES subarea 7	Demersal	Existing Article 13(1g)	Not assessed
Common sole caught using beam trawls with mesh size of 80-119mm with a large mesh panel in ICES divisions 7a	Demersal	Existing Article 13(1h)	Not assessed
Greater silver smelt caught using bottom trawls with a mesh size greater or equal to 100mm in ICES division 5b (EU waters) and subarea 6	Demersal	Existing Article 13(1i)	Not assessed
Horse mackerel caught using bottom trawls, seines and beam trawls in ICES subarea 6 and ICES divisions 7b-7k	Demersal	Existing Article 13(1j)	Not assessed
Mackerel caught using bottom trawls, seines	Demersal	Existing	Not assessed

and beam trawls in ICES subarea 6 and ICES divisions 7b-7k		Article 13(1k)	
Blue whiting caught in the industrial pelagic trawler fishery in ICES division 5b and subareas 6 and 7	Pelagic	Existing Article 13(1l)	Not Assessed
Albacore tuna caught using midwater pair trawls in ICES subarea 7	Pelagic	Existing Article 13(1m)	Not assessed
Mackerel, horse mackerel, herring and whiting caught by pelagic trawlers up to 25 metres in length overall, using mid-water trawls targeting mackerel, horse mackerel and herring in ICES division 7d	Pelagic	Existing Article 13(1n)	Not assessed
Whiting caught with bottom trawls and seines with a mesh size equal to or greater than 80 mm, pelagic trawls and beam trawls with a mesh size of 80-119 mm in ICES division 7b-c and 7e-k	Demersal	Temporary until end of 2021 Article 11(1a)	Not Assessed
High Survivability			
Nephrops caught using pots, traps or creels in ICES subareas 6 and 7;	Demersal	Existing Article 3(1a)	Not assessed
Nephrops caught with bottom trawls with a mesh size equal to or larger than 100mm in ICES subarea 7	Demersal	Existing Article 3(1b)	Not assessed
Nephrops caught using bottom trawls with a mesh size of 70-99mm in combination with highly selective gears in ICES subarea 7	Demersal	Existing Article 3(1c)	Not assessed

Nephrops caught using bottom trawls with a mesh size of 80-119mm within 12 miles of coasts in ICES division 6a	Demersal	Existing Article 3(1d)	Not assessed
Common sole below MCRS caught using bottom trawls with cod end mesh size of 80-99 mm in ICES division VIId	Demersal	Existing Article 4	Not assessed
Plaice caught with trammel nets in ICES divisions 7d, 7e, 7f, 7g	Demersal	Existing Article 6(1a)	Not assessed
Plaice caught using bottom trawls in ICES divisions 7d, 7e, 7f, 7g	Demersal	Existing Article 61(b)	Not assessed
Plaice caught using seines in ICES division VIId	Demersal	Existing Article 6(1e)	Not assessed
Fish caught with pots, traps and creels in ICES subareas 6 and 7	Demersal	Existing Article 7	Not assessed
Mackerel and herring caught with purse seines under certain conditions in ICES subarea 6	Pelagic	Existing Article 8	Not assessed
Mackerel and herring caught using ring nets in the fishery targeting pelagic species not subject to quotas in ICES divisions 7e and 7f	Pelagic	Existing Article 8	Not assessed
Skates and ray species caught by any gear in ICES subareas VI and VII	Demersal	Annual information for cuckoo ray provided by 1 May every year Article 5	Re-assessed on basis of new information
Plaice caught with beam trawls by	Demersal	Temporary until end	Re-assessed on basis of new and

vessels of the >221kW segment fleet which use the flip-up rope or benthic release panel; or vessels, with an engine power of not more than 221kW; or less than 24m in length overall in ICES subarea 7		of 2021 Article 6(1d)	existing information
Plaice caught using Scottish seines in ICES divisions 7b-k	Demersal	New	Assessed

6.1. NWW – Proposals for *de minimis* exemptions

A summary of the fishery information applicable to the proposed new or revised *de minimis* exemptions is provided in Table 6.1.1.

Table 6.1.1 Summary of *de minimis* exemptions submitted as part of the NWW Joint Recommendations (restricted to new or revised exemptions)

Exemption	Main Findings of EWG 21-05
Whiting caught by vessels using bottom trawls and seines with a mesh size equal to or greater than 80 mm (OTB, OTT, OT, PTB, PT, SSC, SDN, SPR, SX, SV, TBN, TBS, TB, TX), pelagic trawls (OTM, PTM) and beam trawls (BT2) with a mesh size of 80 to 119 mm in ICES divisions 7b to 7k	**1. Exemption status** Existing temporary exemption applicable until 31 December of 2021 (Article 13(2) of Delegated Regulation (EU) No 2020/2015). **2. Definition of the fishery** The exemption applies for vessels using bottom trawls and seines with a mesh size equal to or greater than 80 mm (OTB, OTT, OT, PTB, PT, SSC, SDN, SPR, SX, SV, TBN, TBS, TB, TX), pelagic trawls (OTM, PTM) and beam trawls (BT2) with a mesh size of 80 to 119 mm in ICES divisions 7b to 7k. In ICES divisions 7b to 7k areas the whiting catches are taken by Ireland, France, Belgium and the Netherlands, with the fleets of France and Ireland having the highest catches. Updated catch information for the French fleet is presented. In 2020, discards of whiting under the exemption in the French fleet accounted to 3.4%. The volume of whiting discarded under the exemption was 137 tonnes, with total of whiting of 3958 tonnes in the specified fisheries. The total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) amounted to 37,943 tonnes. The supporting Annex provides an overview of the discard rates by different fleet segments, reported from the French Obsmer program. Discard rates of whiting (calculated as percentage of discarded whiting to total whiting catch) fluctuated from 0.9% to 12.5% depending on fleet segment. The lower value was observed in fleet segment under 18 m operating with bottom trawls (OTB, OTT, PTB), targeting demersal species and Cephalopods, the highest – in fleet segment

	operating with bottom trawls (OTB, OTT) targeting crustaceans (particularly grey shrimps), but the most significant (whiting consisted 23 % of total catch) observed fleet segment in terms of discards was fleet segment over 18 m, operating with bottom trawls (OTB, OTT, PTB) and targeting demersal species and Cephalopods with 5.7 % discards of whiting. No catch information is provided for the fleets of Ireland, Belgium and Netherlands. **3. Basis for the exemption** This exemption has been previously assessed by STECF 17-08, 18-06, 19-08 and 20-04 with similar justifications for the exemption, principally on the grounds of increases in selectivity being very difficult to achieve. New information has been provided by Ireland of 3 selectivity studies in Irish Sea and Celtic Sea on demersal bottom trawlers and seine net vessels as well as trials to improve selectivity for whiting in the *Nephrops* fishery. According to the supporting annex, the technical measures currently in place under previous discard plans have virtually eliminated catches of whiting below MCRS and substantially reduce catches of whiting above MCRS in many fisheries. By way of demonstration of the selectivity of the current gear Ireland reports on two trials of T90 codends in the Celtic Sea and one in the Irish Sea. The information provided shows that this gear effectively eliminated unwanted catches of whiting, compared with an 80 mm codend with a 120 mm square mesh panel. The 100 mm T90 codend was tested by BIM in both the Celtic Sea and Irish Sea using a demersal seine and trawls, respectively. The JR states that STECF PLEN 20-01 carried out an analysis of the selectivity characteristics (e.g. L50 and SR) of the gear options included under Article 9(1) of the discard plan and Article 13(1a) of the Fishing Opportunities Regulation - (i) 100 mm T90 cod-ends; (ii) 110 mm cod-end with 120 square mesh panel; (iii) 120 mm cod-ends and; (iv) 100 mm with 160 square mesh panel - with and without the raised fishing line for a range of species including haddock. The analysis demonstrates that all the gears used in the mixed demersal fisheries are selective for whiting, giving L50s substantially greater than the current MCRS for whiting (27 cm). It also shows that when used in combination with the raised fishing line there are reductions in the marketable catches of a range of species caught in this fishery including megrim and anglerfish. Based on the provided analysis carried out by STECF PLEN 20-02, the JR concludes that selectivity in the demersal trawl fisheries has been increased substantially for whiting. **4. EWG 21-05 Observations** EWG 21-05 observes that the implications of granting the proposed exemption to the fishery and species concerned cannot be quantified with the information provided with the JR. Updated catch data is provided only for the relevant French fleets. EWG 21-05 acknowledges that a lot of work seeking to improve fishing gear selectivity for whiting has been carried out in many of the

	relevant fisheries implemented in the Celtic Sea. Future work is also planned. Analysis carried out by STECF PLEN 20-01 and 20-02 has shown that the regulated gears in the whitefish and *Nephrops* fisheries are selective for whiting. However, the overall impact of these gears on reducing unwanted catches of whiting in these fisheries cannot be fully evaluated in the absence of catch data. Additionally, due to the absence of catch data, EWG 21-05 cannot evaluate the relationship between the de minimis volume and the actual level of unwanted catches.
Exemption	Main Findings of EWG 21-05
De minimis exemptions for **haddock** in the TR1 and TR2 trawl and seine fisheries in ICES divisions 7b, 7c and 7e to 7k	**1. Exemption status** Existing temporary exemption applicable until 31 December of 2022 based on Article 13(7) of the Delegated Regulation (EU) No 2020/2015. **2. Definition of the fishery** Detailed information on the main fisheries concerned was provided to EWG 21-05. This was based on 2019 data. Haddock is caught in a variety of trawl, seine and beam trawl fisheries in the ICES divisions 7b to 7k. 87 % of catches and discards of haddock were reported by otter trawls in ICES divisions 7b to 7k. Total Irish catches in 2019 were recorded as 3,836 tonnes (2,412 tonnes landings and 1,424 tonnes unwanted catches), giving a rate of unwanted catches of 37%. Demersal trawlers accounted for 1,417 tonnes (59%) of total landings of haddock with *Nephrop*s trawlers, seiners and beam trawlers accounting for 220 tonnes (9%), 610 tonnes (25%) and 180 tonnes (7%) respectively. Unwanted catches for the demersal trawlers amounted to 577 tonnes, 40% of the total haddock unwanted catches. The *Nephrops* trawlers, seiners and beam trawlers accounted for 100 tonnes (7%), 336 tonnes (24%) and 411 tonnes (29%) respectively. The demersal trawl fleet overall had a rate of unwanted catches of 31%. This was highest in the demersal fisheries with mesh sizes below 100mm. The *Nephrops* trawl fleet had a rate of unwanted catches of 37% The beam trawl and seine net fleets had the highest rate of unwanted catches at 69% and 36% respectively. Based on that data the *de minimis* volumes was calculated and consist of 192 tonnes (5 % of total haddock catch in 2019). **3. Basis for the exemption** This exemption is based on the first condition under Article 15(4.c) of the Basic Regulation of the CFP, "*where scientific evidence indicates that increases in selectivity are very difficult to achieve*". Information previously provided in the supporting annexes (Annex G and H) to the Joint Recommendations of 2018 (updated in 2020) was included in the JR submitted to EWG 21-05. The supporting information provides a review of selectivity trials carried out by Ireland and provide estimations of the reductions in unwanted catches of haddock with these gear modifications as well as the associated losses in marketable catches. The JR highlights the analysis carried out by STECF PLEN 20-01 analysis that concluded that selectivity in the demersal trawl fisheries has been increased significantly for haddock. The requirement to use

	the raised fishing line from the second half of 2020 would not necessarily increase selectivity of haddock further but it will lead to losses of marketable catch of other species caught with haddock in the demersal trawl fisheries in the Celtic Sea. The JR concludes that the de minimis is needed to offset any residual unwanted catches and allow time for the segment to adapt fishing operations to improve profitability closer to the situation before the introduction of the new Regulations. This analysis has only been carried out for Irish vessels. **4. EWG 21-05 Observations** EWG 21-05 observes that the implications of granting the proposed exemption to the fishery and species concerned cannot be quantified with the information provided with the JR. EWG 21-05 acknowledges that a lot of work seeking to improve fishing gears selectivity for haddock has been carried out in many of the relevant fisheries implemented in the Celtic Sea. Analysis carried out by STECF PLEN 20-01 and 20-02 has shown that the regulated gears in the whitefish and *Nephrops* fisheries are selective for haddock. However, the overall impact of these gears on reducing unwanted catches of haddock in these fisheries cannot be fully evaluated in the absence of catch data. Additionally, due to the absence of catch data, EWG 21-05 cannot evaluate the relationship between the de minimis volume and the actual level of unwanted catches.
Exemption	Main Findings of EWG 21-05
Boarfish caught by vessels using bottom trawls in ICES divisions 7b-c and 7f-k.	**1. Exemption status** Existing exemption granted until 31 December 2023 (Article 13.1.f of regulation (EU) 2020/2015). The request relates to a rephrasing of article 13.1.f as follows: **Current text -** "for boarfish (Caproidae), up to a maximum of **0,5 % of the total annual catches of that species by vessels using bottom trawls** (OTT, OTB, TBS, TBN, TB, PTB, OT, PT, TX) in ICES divisions 7b, 7c and 7f to 7k". **Proposed text** - "for boarfish (Caproidae), caught by vessels using bottom trawls (OTT, OTB, TBS, TBN, TB, PTB, OT, PT, TX) in ICES divisions 7b, 7c and 7f to 7k, up to a maximum of **0,5 % of the total annual catches of that species for all gears** in those areas." **2. Definition of the fishery** The supporting information is the same as last year. It provides an overview of the fisheries to which the exemption is to apply. Information is only provided for the French fleet. It is not clear whether the intention is for the exemption to apply to the fleets of other Member States. The total catch of boarfish in ICES subareas 7b, c, f-k in 2019 was 7,136 tonnes (ICES WGWIDE, 2021). According to the information presented, it is not clear what portion of the total catch was discarded but the supporting information states that 100 % of the boarfish catch

	was discarded by the French fleet. The estimated weight that corresponds to the proposed *de minimis* exemption of 0.5 % of boarfish is 168 tonnes, based on the data for 2013-2016 held in the FDI database. This represents about 0.8 % of the 2020 Union TAC for boarfish in the areas concerned. **3. Basis for the exemption** The justification for the exemption is the same as last year. It states that improvements in selectivity, over and above the measures already to be introduced in the Celtic Sea Protection Zone, to avoid the catches of boarfish will be hard to achieve without severe economic impacts on the revenue of the boats concerned. A review of recent French selectivity experiments is provided, which describes trials carried out with several different selective gears as evidence. However, these do not specifically refer to boarfish. **4. EWG 21-05 Observations** This exemption is due to remain in place until the end of 2023. The requested rewording of the exemption has implications in terms of the permitted potential *de minimis* discard volume. Using data for 2018 submitted by Member States to the STECF FDI database, the total catch of boarfish by all gears in 7b, c, f-k was 4220 t (discards 187 tonnes), whereas the total catch using bottom trawls was 179 tonnes (discards 178 tonnes). The implied discard volume for a 0.5% *de minimis* is small in each case (21 tonnes based on catches by all gears and < 1 tonne based on catches by bottom trawls. Almost all reported discards for 2018 (187 tonnes) were attributed to bottom trawls (178 t). Therefore, the current 0.5% *de minimis* based on bottom trawl catches only would not have been sufficient to account for the unwanted catches of boarfish reported for 2018 for the French fleet. This is based only on the French data provided and the levels of unwanted catches of boarfish from other fleets operating in the same fisheries is unknown. Catch data and a description of the fisheries of other Member States availing of this exemption would be helpful but would not materially change the observation that under both the current wording and the new wording, the exemption covers only a small portion of the total unwanted catches. It is not clear from the supporting information what steps are planned to deal with the residual unwanted catches over and above the de minimis volume. In this regard, EWG 21-05 reiterates the conclusions of STECF PLEN 20-02 in respect of this exemption. While the supporting information concludes that selectivity improvement by regulatory measures to avoid the catches of boarfish will be hard to achieve without severe economic impacts on the revenue of the boats concerned, this is not supported by quantitative information. The arguments presented are generic and do not relate to the unwanted catches of boarfish. The priority should be to improve selectivity to reduce the unwanted catches and therefore, the costs for handling such catches, accepting that this should be balanced against the costs of sorting small quantities of boarfish from the other marketable catch.

	EWG 21-05 also notes that according to Annex XI of the control regulation (Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011) the gear codes specified as bottom trawls in the delegated act (Regulation (EU) 2239/2019) are incorrect. In the control regulation the codes OT, PT and TX are not defined.

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6.2. NWW – Proposals for high survivability exemptions

A summary of the proposed high survivability exemptions is given in Table 6.2.1.

Table 6.2.1. Summary of high survivability submitted as part of the NWW Joint Recommendations

Exemption	Main Findings of EWG 21-05
Skates and rays (*Rajiformes*) caught by any fishing gear in the North-Western Waters (ICES subareas 6	**1. Exemption status** Existing exemption. Member States having a direct management interest shall submit, every year as soon as possible and not later than by 1 May, additional scientific information supporting the exemption. The exemption shall also apply to Cuckoo ray. Member States having a direct management interest shall submit, every year as soon as possible and not later than by 1 May, additional scientific information supporting that

and 7). (Article 5 of Regulation (EU) 2020/2015)	exemption including provisional information on Cuckoo ray catches, Cuckoo ray discards and the progress of Cuckoo ray vitality or survival research in relevant fisheries **2. Survival evidence** One new study was identified in the provided information. EWG 21-05 found it difficult to separate new from old information among the annexes provided with the JR. The main reasons for this difficulty are that some annexes were short summaries of various scientific studies. These were all identified as studies that had been previously assessed by STECF (see EWG 20-04 for an overview), or that the same project results are reported with different titles and/or references. An example is the results from the Sumaris project which was assessed as van Bogaert et al. 2019 in the EWG 20-04 report and submitted as van Bogaert et al. (2020) with this year's JR from the regional group. EWG 21-05 could not identify important differences between the survival results presented in these two versions of the report. The new survival evidence identified by EWG 21-05 was a French study on cuckoo ray from the border between areas 7e/7h and 8a with bottom otter trawls (SURF project; Baulier et al. 2021). The study involved extensive vitality scoring (164 trips) coupled to captive survival monitoring of a stratified subsample (based on a vitality index) during summer 2020. The relationship between the vitality index and captive long-term survival (monitored 21 days) together with the vitality scores from the wider fishery was then used to estimate seasonal and overall survival. The ICES critical review was applied, and the estimates are considered robust. The overall survival probability across seasons and vessels varied between 14-23% (95% CI). There was some indication of captivity related effects (20% of controls died in the summer, and up to 80% in the winter). The observations from winter were therefore not used for estimating the relationship between vitality index and long-term survival. A slightly lower survival rate was observed during winter but variability between vessels was larger than between seasons. The most important factor identified to affect survival rate was haul duration but also wave height, fishing depth, air temperature and duration of air exposure displayed significant effects. **3. Fishery context** Annex A4 provided a description French discard rates (and in some cases catches) of skates and rays under the exemption by species, area and fishery for 2019. For cuckoo ray, a discard rate of 27% is reported for the particular fishery studied by Baulier et al. 2021, while 39% discards are reported for French bottom trawls in the Celtic Sea, western channel and west of Ireland as a whole. Based on the survival estimates presented in Baulier et al. (2021), Annex 4 reported that between 128 and 202 tonnes of cuckoo ray had survived after being discarded by French trawlers in 2019. This implies total French catches of cuckoo ray by this fleet of around 1000 tonnes annually (catches are not explicitly reported in the annex). The remaining information about French discards of skates and rays by fleets and species (Shagreen ray, Blonde ray, Undulate ray and Small-eyed ray) is too long to be summarized here but can be found in Annex A4. **4. Survival and fishery compatibility**

	The new survival evidence for cuckoo ray is relevant for the French otter trawl fishery in the border zone between area 7e, 7h and 8a. Additional information and analysis of other participating fleets could help the assessment of how representative survival estimates are for these fisheries. **5. Additional evidence** To date, survival and discard evidence and fleet information is reported in a too incoherent way to make sensible use of all information. Most information is member state specific within regions and there are very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catches incl. discards per species and métier for all member states to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. EWG 21-05 notes that in Annex A3, Ireland reports on a planned survival experiment 2021 for cuckoo ray for otter trawls in the Irish Sea. EWG 21-05 considers that the project plan indicates a scientifically robust experiment that will add to the knowledge about cuckoo ray survivability in North-Western waters.
Exemption	Main Findings of EWG 21-05
Plaice caught in ICES divisions 7a to 7g using beam trawls (TBB). (Article 6.1.c and 6.1.d of Regulation (EU) 2020/2015)	**1. Exemption status** Existing temporary exemption with request for additional information. Member States having a direct management interest shall submit every year, as soon as possible and not later than by 1 May, additional scientific information supporting the exemption, including provisional information on plaice catches, discards and the progress of vitality or survival research in the relevant fisheries. Member States shall also submit a timetable for the completion of the agreed roadmap by 1 May 2021. The existing exemption applies to beam trawlers: (6.1.c) equipped with a flip-up rope or benthos release panel (BRP) and with an engine power of more than 221 kW. (6.1.d) with an engine power of not more than 221 kw or less than 24 m in length overall, which are constructed to fish in the twelve-mile zone, if the average trawl duration is less than ninety minutes. **2. Survival evidence** New evidence was provided for the Belgian beam trawl fleet that operates in Northwestern waters and in the North Sea. Information about the project (named "Overleving monitoren") was briefly summarised in Annex 4.2, a Belgian compilation of project information "Survivability exemption for plaice caught in ICES divisions 7a to 7g by vessels using beam trawls (TBB)" and in Annex B. More central details about plaice survivability results of this project were however found in a report that was made available to

	EWG 21-05 after the JR submission (Uhlmann et al. (2020). The new survival estimates were based on sampling and captive monitoring of undersized plaice on two trips in the Celtic Sea and the Eastern Channel 2020. Estimated long-term survival (Kaplan-Meier asymptote) of 268 discarded undersized plaice ranged between 13% (9%-19%, 95% CI) from the summer trip (July 2020, Celtic Sea), with conventional trawl and 51% (41%-64%, 95% CI) from the winter trip (December 2020, Eastern Channel) with a flip-up rope, and 44%, (35-56%, 95% CI) without a flip up rope. No statistically significant difference in survival was found between conventional and flip-up rope trawls. EWG 21-05 considers the study to be scientifically robust, provides representative estimates of the fisheries investigated and was generally consistent with ICES guidance. However, the replication was limited and as no captivity controls were used potential impact of the conditions during captivity on the results could not be evaluated. In addition to the captive survival results Uhlmann et al. (2020) also reported on immediate mortality for 3195 undersized plaice, assessed just after being heaved on board. Immediate survival was found to vary between 60-90 % from 8 trips (mean 75%, 66–83%, 95% CI). Variability in immediate survival rate among plaice was influenced by an interaction between total catch weights, weights of stones and proportion of injury-inducing elements with wave height. Important to note is that these estimates of immediate survival shall not be confused with overall long-term discard survival, which is what is needed to evaluate exemptions from the landing obligation. It was concluded that the use of a flip-up rope seemed to contribute slightly to an improved survival of beam-trawled-and-discarded plaice, but the difference was not significant. Previous estimates of plaice survival relevant for the exemption in the Celtic Sea and previously assessed by STECF (EWG 17-08, 19-08, 20-04) showed directly observed survival estimates of 4-15% (Catchpole et al, 2015), and inferred survival of 68% (47-76%) in 7f (inshore), 38% (24-47%) in 7e and 27% (16-41%) in 7h (Smith and Catchpole, 2017). EWG 20-04 also assessed a manuscript version of Uhlmann et al. (2021), who reported that survival of plaice discarded from Belgian beam trawlers representing the three fleet segments operating in the Celtic Sea and North Sea was estimated to range between 41–58 %, 11–28 %, 2–4 % (95 % confidence interval; Kaplan-Meier models) for trips of the coastal (≤221 kW), Eurocutter (≤221 kW) and >221 kW vessels, respectively. Annex B and Annex 4.2 to the JR was an annual report and a work plan respectively on the progress of projects related to plaice survival work by Belgium. Very similar information about time plans and deliveries for three projects (ongoing and finished) related to survival of plaice: "Overleving monitoren" (2019-2021), "Afzetmarkten" (2015-2018) and "Combituig" (2017-2021) was provided in both annexes. Earlier work from these projects have been summarised and assessed by STECF based on previous JR submissions (and Uhlmann et al. 2020 reports on all survival trials of "Overleving monitoren"). The projects are either finished or will finish during 2021. Based on the project time plans new information on the relationship between vitality indicators and survival for plaice can be expected 2022. **3. Fishery context** Updated information about the Belgian fleet for 2019-2020 was provided

	but not for the other countries (effort, landings, discards by area). The area based Belgian discard rates for plaice in 2019 and 2020 respectively was reported to be 7a, 7d and 7e- 51% and 40%, 7g, 7h- 29% and 33%. No discard rate was reported for 7h, 7j (or 8a and 8b). Last year´s JR also contained Belgian information but none from other relevant countries. **4. Survival and fishery compatibility** The new survival estimates add to the overall knowledge about undersized plaice survival for larger beam trawlers (>221 kW, i.e. to exemption 7.1.a and not 7.1.b). A first indication about the effect of the use of a flip-up rope is also provided but the study was too limited in scope to draw any conclusions. More information and analysis of representativeness and transferability of survival evidence is needed. **5. Additional evidence** To date, survival and discard evidence and fleet information is reported in a too incoherent way to make sensible use of all information. Most information is member state specific within regions and there are very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries. There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catches incl. discards per species and métier for all member states to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks. To comply with the objective of the roadmap and to systematically synthesize all relevant evidence in a useful way, regional groups are encouraged to focus on a comprehensive collective effort of all information in line with the observed knowledge gaps. Further clarity on the objectives for the roadmap is needed in order to facilitate an evaluation. EWG 21-05 notes that there is currently no timetable for the completion of the roadmap. EWG 21-05 also notes the selectivity projects planned by the Netherlands in the North Sea may also be relevant to the beam trawl fishery in the North-Western waters.
Exemption	Main Findings of EWG 21-05
Plaice (*Pleuronectes platessa*) caught in ICES divisions 7a, 7b, 7c, 7f, 7g, 7h, 7j and 7k with seine nets (Gear code: SCC).	**1. Exemption status** This is a new exemption. It would apply to the mixed demersal fishery conducted using Scottish seine (SCC) (also referred to as flyshooters) with 100 mm mesh turned 90 degrees (T90) or 120 mm diamond mesh (T0) in ICES divisions 7.a-k. This exemption is relevant to existing exemptions for plaice caught with Danish seines (Anchor seines) in ICES division 7d and in the North Sea. **2. Survival evidence** New survival evidence (Oliver et al., 2021) was presented for the Irish Scottish seine fishery which followed up from an earlier study (Oliver et al., 2020; evaluated by EWG 20-04) where plaice were evaluated for vitality aboard, but not monitored in captivity. The experiments took place in ICES 7j. This new captive survival study was assessed to be consistent with ICES guidelines but was limited in scope by using one vessel over four days to sample 9 gear deployments. In total, 249 seine-caught-and-discarded

	plaice were assessed for vitality and 136 randomly picked alive plaice were monitored in captivity for 15 days. Protracted mortality occurred up until day 13. Overall, 71% of plaice survived, which was comparable to a captivity study of Danish-seine caught plaice (Noack et al., 2020). Most plaice were in excellent condition and all still alive when landed on deck. While survival was modelled by parametric survival analyses, contributing factors that could influence survival were listed and discussed, but not modelled. Other studies have shown that if other factors are being considered alongside vitality, a model fit can be improved. However, the survival estimate can be considered robust for the conditions of the fishing trial (e.g. season, air exposure, catch composition, ger construction). Air exposures were twice as long and bottom seawater temperatures were 5°C cooler on average when compared with the Danish seine study by Noack et al., 2020. As noted, the Scottish seine method is likely to be associated with relatively good survival levels due to the relatively low stress experience during the capture process. **3. Fishery context** An updated overview of Scottish seine fisheries in the area covered was not provided for 2020. Detailed statistics were provided as part of last year's submission of the Irish fleet which included number of vessels, landings, discards and catch, for different plaice stocks (together with ICES stock advice), caught by Scottish seiners in ICES divisions 7a, 7bc, 7fg and 7hjk, including % discard rates. Equivalent data from other relevant countries were not provided but may not be applicable. In the study area, plaice are a bycatch, the main target are sole. About 7% of plaice catches are discarded (6t were landed in 2019 by seiners in 7.h,j,k; Annex 1, submitted for NWW in 2020). Total landings of plaice from this area are small, 97 t reported for 2018 (ICES, 2019). Unwanted catch estimates are highly variable and uncertain. ICES advises that a precautionary approach is applied (ICES, 2019). **4. Survival and fishery compatibility** Irish Scottish seine net vessels mainly operate off Ireland's south-west coast in ICES divisions 7. f,g and 7 h,j,k. The plaice stock in 7hjk is assessed to be in a highly depleted state. The study was therefore conducted in one of the main fishing areas for Irish vessels and conducted under representative commercial conditions. However, the scope of the study was limited and is unlikely to have captured the variability in survival levels for this fishery. Additionally, in the absence of information on the Scottish seine fisheries of other Member States, the compatibility between the studied fishery and all the Scottish seine fisheries in 7a, b, c, f, g, h, j and k cannot be fully evaluated. However, the supporting study des provided some information relating to the environmental conditions between areas. EWG 19-08 identified that air exposure during sorting has a strong influence on survival for this gear type, therefore data on sorting times from those vessels which would come under exemption would enable a more complete evaluation. The report states that the survival estimates from the studied mesh of 100mm T90 cod end has equivalent selectivity to 120mm conventional codend, which is used by some Scottish seiners. PLEN 20-02 concluded that this conclusion is only valid for roundfish, but not flatfish.

	5. Additional evidence Understanding the catches and discards of plaice generated by the proposed fleets is needed, along with the operational and technical methods of the fishery. This will enable an assessment of the representativeness of the existing evidence for all potentially affected fleets. Also, modelling analyses to understand factors influencing plaice discard survival from existing studies would inform on the implications of extrapolating the current evidence. More details on the fishery, from all relevant member states, including vessel numbers, catches and catch composition, as well as technical aspects of the fishing operation such as sorting times, are needed for a full evaluation.

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6.3. NWW – Proposals for technical measures

In 2020, the NWW Member States Group submitted a JR for technical measures in Celtic Sea, Irish Sea and the West of Scotland. This was assessed by STECF during PLEN 20-02. However, due largely to the uncertainty over the UK's withdrawal from the EU, this JR was not enacted into a Delegated Act. Instead, the measures were incorporated, in article 15, 16 and 17 of Council Regulation (EU) 2021/92 (Fishing Opportunities Regulation) for a period of 1 year until the end of 2021. Therefore, the NWW Group has re-submitted a new Joint Recommendation containing largely the same measures to apply for 2022. Additionally, the NWW has submitted separate JRs for technical measures applying to King Scallop fisheries in the Channel (ICES Division 7d) and for Red Sea Bream in ICES subareas 6 and 7. Table 6.3.1 summarises the technical measures JRs submitted as follows:

Table 6.3.1 Main elements of the Joint Recommendations included under the current delegated act

Elements	***Status with relevant Article in current discard plan***	***Assessment by EWG 21-05 with relevant Annexes in JR***
Technical rules in the Celtic Sea protection zone - 7f, 7g and part of 7j	Existing	Not assessed (previously assessed by STECF PLEN 20-02)
Technical rules in the West of Scotland – ICES Division 6a	Existing	Not assessed (previously assessed by STECF PLEN 20-02)
Technical rules in the Irish Sea – ICES division 7a	Existing	Previously assessed by STECF PLEN 20-02 but new information submitted on 100mm T90 assessed
King Scallop in ICES Division 7d	New	Assessed based on JR submitted
Red Sea Bream in ICES subareas 6 and 7	New	Assessed based on JR submitted (earlier version assessed by STECF PLEN 19-01 and 19-03)

6.3.1. NWW – Technical measures in the Celtic Sea, Irish Sea and West of Scotland

The NWW Member States submitted a JR covering technical measures for the Celtic Sea, Irish Sea and West of Scotland, containing measures for commercial and recreational

fisheries. This JR was largely the same as the JR submitted in 2020 and assessed by STECF PLEN 19-02. EWG 21-05 did not re-assess this JR but reiterates the conclusions from STECF PLEN 20-02 as follows:

STECF PLEN 20-02 conclusions

General conclusions

The Member States of the North-Western Waters (NWW) Regional Group provided a Joint Recommendation for the continuation, modification and addition of technical measures in the Celtic Sea, Irish Sea and West of Scotland to commence in January 2021. STECF was requested to review the proposed changes to mesh and gear prescriptions for various fisheries and compare them to existing legislation. The alternative measures should as a minimum lead to benefits for the conservation of marine biological resources (by reducing the catches of juveniles) that are at least equivalent to the ones provided by the baseline standards, in particular in terms of exploitation patterns and the level of protection provided for sensitive species and habitats. STECF evaluation depends on the combined effects of two elements: i) the selectivity of the gears proposed for the directed fishery compared to the baseline gear in the TMR, both for the targeted species and for the species to be avoided; ii) the conditions for granting the derogation to use the proposed gear(s), and the proportion of the fleet that will be entitled to use them depending on catch threshold.

STECF stresses that these questions are complex to comprehend and to assess, especially when several conditions are nested. STECF notes that only one limited selectivity study, and no individual catch data per trip, had been provided in support of the JR to justify the selectivity and catch threshold proposals. STECF evaluation is thus only qualitative, and largely based on the outcomes of PLEN 20-01 ToR 3.1. STECF refers to the guidelines and suggestions provided in PLEN 20-02 ToR 6.3 for a comprehensive overview on which data and information would be useful to properly conduct such an evaluation. STECF concludes that setting thresholds on stocks that are severely depleted is inappropriate as this undermines the objective to minimise catches and improve exploitation patterns. STECF concludes that if thresholds are required, these should be applied on the targeted stocks and not on the protected ones.

Regarding the NWW JR, STECF concludes the following:

Celtic Sea

Comparison between the proposals in the 22 May 2020 JR and the provisions of the TMR (2019/1241)

STECF concludes that the gears set out in the JR can be considered to be more selective for gadoids than those in TMR (Reg. (EU) 2019/1241). For the Nephrops fishery, STECF concludes that the gears proposed in the JR for the Nephrops fisheries are no less selective than the TMR baseline and could even provide an improvement in the overall exploitation pattern of gadoids if a large proportion of the fishery would fall into the category of >30% Nephrops. However, in the absence of detailed catch composition data by trip, STECF cannot assess fully the expected impact of this 30% threshold compared to the initial 5%. Comparison between the proposals in the 22 May 2020 JR and the remedial measures prescribed in 2020/123 STECF assesses that the range of gear codend options are essentially similar between the remedial measures 2020/123 and the JR, both within and outside the Celtic Sea protection zone. The only major difference is the introduction of the D100-100SMP in the JR, which was not available as an option in the remedial measures.

STECF was not provided with elements to compare the selectivity of this option with the four other codends evaluated by PLEN 20-01 and cannot fully assess whether this option is more or less selective than 100-T90. However, for the trips catching >20% haddock,

STECF concludes that the JR is likely to offer a worse exploitation pattern at population level of cod and whiting than the remedial measures, particularly in the Celtic Sea protection zone, due to the introduction of the 1.5% threshold for cod which will imply that substantially fewer vessels would be required to use the raised fishing line in comparison to the current provisions set out in 2020/123.

Regarding the 55% combined hake, megrim and monkfish threshold: while STECF considers that the relatively high catch composition threshold has a potential for discriminating a directed fishery with limited cod bycatch in the shelf area outside the Celtic Sea protection zone, STECF concludes that there is no guarantee in the current formulation of the JR that cod will not be caught in the Celtic Sea protection zone with the gears specified. Further quantitative analysis and spatial maps of individual trip data of the fisheries concerned and including more recent years would be necessary for a better assessment of the implication of this measure. Additionally, given the observed prevalence of cod bycatch in French 2019 OTB trips with low-medium proportions of monkfish, STECF concludes that consideration should be given to include a minimum threshold of e.g. >40% specifically for monkfish (assuming that the French 2019 OTB data are representative of catches of all Member States in the area). Regarding the 55% whiting threshold, STECF concludes that this would imply a deterioration of selectivity compared to the remedial measures 2020/123.

Additionally, STECF notes that suggesting a derogation to use a less selective gear to perform a directed fishery on the stock for which remedial measures have been implemented appears largely counterproductive and likely not in line with the CFP and 2019/1241 objectives.

Irish Sea

STECF concludes that the T90_100mm gear configuration offers better selection for cod, whiting and other small gadoids than the 100mm mesh that may be used until August 2021. It still remains uncertain whether the T90_100 gear configuration may be of equivalent selectivity for cod and whiting than the 120 mm baseline gear prescribed in the TM regulation (Regulation (EU). 2019/1241). A more robust selectivity trial would be needed to fully conclude on the outcomes of the supporting study compared to the STECF PLEN 20-01 assessment. For the *Nephrops fishery*, STECF concludes that the gears proposed in the JR for the *Nephrops* fisheries are no less selective than the TMR baseline and could even provide an improvement in the overall exploitation pattern of gadoids if a large proportion of the fishery would fall into the category of >30% Nephrops. However, in the absence of detailed catch composition data by trip, STECF cannot assess fully the expected impact of this 30% threshold compared to the initial 5%.

West of Scotland

For West of Scotland, STECF concludes that the JR proposal is likely to be an improvement in the selectivity of cod, haddock and whiting as required by TMR Annex VI Part B 1.2.i

Recreational fisheries in NWW

The JR proposes to apply the same species-specific MCRS for recreational fisheries in the entire NWW as those prescribed for commercial fisheries in Annex IV Part A of Reg. 2019/1241. STECF concludes that this could reinforce the protection of juvenile marine fish species as defined by Art. 18 of the Technical Measures Regulation. STECF observes that the JR does not provide supporting studies to assess how significant the impact of recreational fishing on the stocks covered, while the NWW plan requires such a justification.

New request assessed by EWG 21-05

One new request was made by the NWW Member States in respect of the NWW technical measures JR. This was a request for re-instatement of the 100mm T90 gear option in the Irish Sea based on information submitted. This was evaluated by EWG 21-05 as follows:

Technical Measures	Main Findings of EWG 21-05
Joint Recommendation to include T90 100 mm on the basis of equivalent selectivity with T0 120 mm (Supporting Annex from Ireland)	**1. Exemption status** Following the assessment by STECF PLEN 20-02 of the NWW technical measures JR, the use of a 100mm T90 codend was removed as a gear option for the Irish Sea because: - The number of hauls was low and the study did not use the more robust twin-rig catch comparison method nor a covered codend to measure the absolute selectivity. - There was little detail on the analysis and no information on the variation between hauls. - It was not possible to discern whether there is a disproportionate dependence on any particular haul. **2. EWG 21-05 Observations** EWG-21-05 recognises that the catch comparison approach is a standard and well-established method, which has been used in many studies of the catching performance of fishing gears. Therefore, EWG 21-05 observes that the use of the catch comparison method in this study was a reasonable approach, given the objective of the trials were to assess the differences in catches between the test (100mm T90) and control (120mm T0) gears. EWG 21-05 observes that the analysis carried out shows that the abundance was highly variable between hauls, with low abundance evident in numerous hauls for cod, haddock and whiting. Ireland tried to account for this variability using generalised additive models (GAM) and bootstrapping. This resulted in a high level of uncertainty within the model. A further analysis attempted to reduce such uncertainty by grouping hauls based on spatial proximity and matched all possible valid combinations from within these groups. EWG-21-05 notes that both methods resulted in a similar mean modelled overall proportions retained in T90 100 mm and suggest regardless of the higher variability, the use of the first model based on GAM and bootstrapping because has less bias due to arbitrary combinations of control and test hauls. EWG 21-05 observes that the additional analysis provided indicates that the 100mm T90 has similar selectivity characteristics for whiting and haddock as a 120mm T0 codend, noting the data provided is still limited in terms of the number of hauls and the variability in the data. Further trials to confirm this would be beneficial.

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6.3.2. NWW – King Scallop in ICES division 7d

Background

The High-Level Group of the North-Western waters has submitted a JR to introduce technical measures for the King scallop fishery framework in the English Channel (ICES subarea 7d). This is in the context of articles 8 paragraph 2 and 18 paragraph 7 of the CFP Basic Regulation (Regulation (EU) 1380/2013).

The Eastern Channel King scallop fishery is a valuable fishing resource that is of major economic and social importance to France and the UK as well as to a lesser extent Irelamd and Belgium. It includes an area designated as the intermediate zone of the Eastern Channel (the area within the French exclusive economic zone in ICES division 7d between latitude 49°42' N and the limit of French territorial waters) and the rest of ICES division 7d.

The JR proposes to introduce:

- A fish stock recovery area in the intermediate zone of the Eastern Channel South of Latitude 49°42' N;
- Management of the King scallop stock in the rest of ICES subarea 7 through the introduction of a closed season; and
- A commitment to investiage alterbative management measures.

Currently there are limited EU measures in place specific to scallop. There is a minimum conservation reference size of 100 mm in European waters, except in the Irish Sea (ICES Division VIIa) and in the Eastern Channel (ICES Division VIId) where it is fixed at 110 mm as defined in Annex V of egulation (EU) 2019/1241.

There are also effort limitations implemented under Council Regulation (EC) No 1954/2003 (the Western Waters regime). This regulation sets a limit in the kw days for fishing scallop for Member States in western waters.

Additionally, a number of spatial and technical control measures have been adopted by French national legislation. These measures only apply to French vessels. There is also French national legislation relating to minimum sizes that prescribe more stringent rules:

- a minimum size of 102mm in area 7e (where St-Brieuc is located) and for the areas of South Bretagne (Concarneau, Les Glénan, Lorient, Groix-Quiberon).
- a minimum size of 105mm for Brest and in the "Pertuis charentais" area.

There is also French national legislation regarding the ring size. The national legislation sets a minimum ring size of 92mm for dredges

- Raised to 97mm in area VIId from the 31st of December 2020
- To be raised to 97mm in area VIIa from the 1st of October 2021.

UK national legislation for Scallop fishery management for UK vessels consists of licence conditions (for vessels over 10m) and gear restrictions, with some spatial differentiation in vessel access in inshore (<6 nautical miles) areas.

A Memorandum of Understanding (MoU) has been in place since 2013 between France and the UK, the two main King Scallop fishing Member States in the English Channel. The MoU allows for a transfer of a part of the King scallop fishing effort quota, not used by France to the United Kingdom, in exchange for compliance with an existing summer closure of this fishery by UK fishing vessels.

Request to the EWG 21-05

EWG 21-05 is asked to evaluate the JR for King Scallop and assess against the objectives set out in Article 8 of Regulation (EU) 1380/2013.

Summary of the information provided to EWG 21-05

The supporting information consists of:

- A report by CEFAS (Bell et al, 2018) in the UK on "Initial assessment of Scallop stock status for selected waters within the Channel (VIId-VIIe)" (Annex 3)
- Four reports from Ifremer (Fournier., 2015, 2016, 2017 and 2019) on the annual evaluation of the scallop stock in the Baie de Seine (2015-2018) (Annexes 4-6)

Sock assessment information for the entire area is divided between the UK and French data and described in the Annexes. Biomass and exploitation rates of the Northern part of 7d and the whole of 7e are based on UK data and evaluations from the CEFAS study. The Southern part of 7d (e.g. the intermediate zone of the Baie de Seine South of latitude 49°42' N and the Baie de Seine within French territorial waters) is based on French data and evaluations. These are outlined below:

Stock assessment in the intermediate zone of the Eastern Channel

Up to 2017, Ifremer concluded that the King scallop stock in the Baie de Seine was in good but fragile condition. However, the 2018 report estimated a drastic decrease in stock biomass of the intermediate zone South of latitude 49°42' N, declining from 18,800 tonnes in 2017 to 7,800 tonnes in 2018. This compared to a record increase of the biomass over the last 3 years (2016-2018) from around 20 000 tonnes in 2016 to around 63 000 tonnes in 2018 reported for the Baie de Seine area within French 12 nm, where national measures had been in place.

Stock assessment in the wider ICES subarea 7

Although the CEFAS report specifies that "the estimates of current harvest rate obtained from both the survey data and the commercial catch compositions are both subject to high uncertainty due to the limited data available so far", there is no historical evidence to indicate that the current exploitation of this fishery may be unsustainable.

The indicators from the stock assessment data forms the basis for the management measures proposed under the JR.

EWG 21-05 observations

EWG 21-05 observes that in 2016 STECF PLEN 16-02 evaluated a similar request from France for the scallop fishery in the Baie de Seine area. This plan included a change of ring size from 85 mm to 92 mm to improve selectivity in the fishery as well as a closed season. EWG 21-05 considers this evaluation is relevant to the latest JR submitted. The main conclusions from STECF PLEN 16-02 were:

- A change from an 85 mm ring size to an 92 mm ring size in the scallop fishery may result in a substantial reduction of catches of undersized scallops (< MCRS), but corresponding losses of commercial scallop catches (≥ MCRS). Further information on the mortality of discards and escapees is required to assess whether this measure has benefits for the stock.
- A longer closure would allow for more summer growth of scallops, but STECF could not assess quantitatively the effects with regards to yield, discards and SSB. Nevertheless, STECF acknowledged that strong year classes in the fishery was likely to incentivise fishing effort for unregulated fleets, therefore the closed season would be beneficial if it applied to all fleets.

- A management plan should be developed for all countries involved where various management options and trade-offs could be explored to achieve the MSY objective.

EWG 21-05 observes that the new Joint Recommendation proposes a fish stock recovery area that prohibits fishing by all fleets during a specified time period. EWG 21-05 considers this is a major step forward, following from the conclusions of STECF PLEN 16-02 that noted for the closure to be effective it needed to apply to all vessels.

Measures for Baie de Seine

EWG 21-05 observes that the introduction of an extended timeframe (15th May-15th October) of the fish stock recovery area in the intermediate zone of the Eastern Channel South of latitude 49°42' N is likely to be beneficial for stock biomass. The supporting information shows that biomass has been decreasing in this intermediate zone.

Further, EWG 21-05 notes that postponing the opening of the fishing season for all fleets to mid-October will allow a greater proportion of the incoming recruitment (age 2) to grow and attain MCRS, thereby reducing the unwanted catch of undersized individuals.

Measures for the rest of 7d and 7e

Although it is not clear why the proposed closure period for dredges in the rest of ICES subarea 7d and 7e (15th May-30th September) is shorter than that for the Baie de Seine (15th May-15th October), EWG 21-05 recognises that the measure follow the precautionary approach and are to be implemented for all fleets. Reducing fishing effort in this wider area should be beneficial for the scallop stock.

The selection of the North Finistère area within ICES division 7e and within a perimeter of one nautical mile to the northern boundary is in line with the successive Memorandum of Understanding signed between the United Kingdom and France on Scallop fishing activity in the Channel for the years 2015, 2016, 2017, 2018 and 2019.

EWG 21-05 observes that the JR encourages Member States to improve existing management measures (e.g. selectivity) and, if trials are conclusive, all Member States would commit to enforcing these new management measures and the JR should be updated accordingly.

While the JR does not specify any particular selectivity measures or trials, EWG 21-05 notes that in order to quantify the potential impacts of changes in selectivity on the stock and the fishery, reliable data and information on mortality of discards and escapees will be needed. To this end, it might be prudent to collect such data during any relevant selectivity trials.

EWG 21-05 observes that the negotiations with the UK under the Trade and Cooperation Agreement between the EU and the UK may have implications for the measures proposed. However, EWG 21-05 has not addressed these issues and focusedon the impacts of the JR on the scallop stock.

EWG 21-05 conclusions

EWG 21-05 concludes that the prohibition on scallop fishing applies to all fleets during a specified time period represents a major step forward and follows the conclusions of STECF PLEN 16-02.

EWG 21-05 concludes that the introduction of an extended timeframe (15th May-15th October) for the closure in the intermediate zone of the Eastern Channel South of latitude 49°42' N is likely to be beneficial for stock biomass.

EWG 21-05 concludes that while the closure in the rest of area 7d and 7e is shorter than that for the Baie de Seine (15th May-15th October), EWG 21-05 recognises that the measure is still likely to be beneficial given it applies to all fleets.

EWG 21-05 concludes that efforts to improve existing management measures (e.g. selectivity) through trials is a positive step.

References

Bell, E., Lawler, A., Masefield, R., McIntyre, R., Vanstaen, K.R**.** 2018. Initial assessment of Scallop stock status for selected waters within the Channel 2016/2017. ENG1402 European Maritime and Fisheries Fund & Defra CoFunded Project.

Foucher., E. 2015. Evaluation annuelle du stock de coquilles Saint-Jacques (Pecten maximus) de la baie de Seine: résultats de la campagne COMOR 2015.

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6.3.3. NWW – Joint Recommendation of the North-Western Waters Member States Establishing Management Measures for the Red Seabream in ICES subareas 6 and 7

Background

The status of the stock of red seabream (*Pagellus boragaveo*) in ICES subareas 6-8 (Celtic Seas and the English Channel, Bay of Biscay) is very little known (category 5) and is assessed every two years following the precautionary approach. The lack of consolidated data constitutes an important hindrance to a robust stock assessment.

Due to the stock status, zero-catch advice has been issued by ICES repeatedly for 2019-2020 and for 2021-2022. In line with the commitment undertaken at the Council of Fisheries Minister in November 2018, the European Commission asked the North-Western Waters Member States Group to consider and propose additional conservation measures to improve the status of the stock. The measures are based on two scientific assessments carried by the STECF Plenary in 2019 (PLEN-19-03, PLEN-19-01). This joint recommendation aims to align the management plans formerly put forward by France and Spain and to make them more effective at European regional level.

STECF EWG 21-05 notes that the stock of red seabream in ICES 6-8 straddles North-Western Waters (ICES 6 and 7) and South-Western Waters (ICES 8). Since 2019 France and Spain have implemented national plans for red seabream in ICES 6-8. These plans were evaluated by STECF PLEN 19-01 and 19-03.

Since 2014 ICES has advised that mortality be reduced by all means and that a recovery plan be established for the stock.

Request to the EWG 21-05

STECF is requested to assess the content of the national plans to ensure that the plans are comprehensive and effective to help improve the state of the stock.

Summary of the information provided to EWG 21-05
STECF EWG 21-05 notes that the provided supporting information comprises legislative documents, correspondence between the French Authorities and the European Commission and new scientific data in the form of the 2020 WGDEEP report on the progress of the PANDORA project.

Additional documents supplied:

- Arrêté du X octobre 2019 modifiant l'arrêté du 16 janvier 2019 portant limitation des débarquements de dorade rose (Pagellus bogaraveo) et interdiction d'utiliser la senne tournante pour capturer cette espèce dans les zones CIEM VI, VII et VIII
- Note des Autorités Françaises à la Commission Europeenne, le 11 juillet 2019. Mesures nationales de gestion du quota de dorade rose pour les années 2019-2020 – réponse de la France au courrier en date du 16 avril 2019.
- ICES. 2020. Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP). ICES Scientific Reports. 2:38. 928pp. http://doi.org/10.17895/ices.pub.6015

STECF EWG 21-05 also reviewed the findings of:

- STECF PLEN 19-01, section 6.10 – Assessment of national plans, established by France and Spain for red seabream in subareas 6-8, in order to ensure that the plans are comprehensive and effective.
- STECF PLEN 19-03, section 6.2 – red seabream (ICES 6-8) additional conservation measures by France and Spain.

EWG 21-05 observations

Context of the joint recommendation

ICES advice is that the seabream stock in ICES 6-8 is seriously depleted (1–2% of the historical levels of the 1960s and 1970s) and that under the precautionary approach there should be zero catch in 2021 and 2022.

The European Union (EU) TAC for red seabream in ICES 6, 7 and 8 for 2020 was 105 Tonnes. The EU TAC in 2021 and 2022 is 24 Tonnes representing a 77 % decrease in fishing opportunities and increasing the risk of a "choke" situation given that catches of this TAC amounted to 98 tonnes in 2019. Spain receives 88 % of the Union quota with France and Ireland receiving 4 % each. The TAC is exclusively for bycatch and no directed fishery is allowed.

According to the Joint Recommendation its aim is to: align the existing national management plans for red seabream formerly put forward by France and Spain (evaluated in STECF PLEN 19-01 and 19-03); and to make them more effective at European Regional level. The JR is the result of technical meetings held between Member States of the North-Western Waters group during the 2nd half of 2020. The Joint Recommendation includes existing national measures established by France and Spain with the inclusion of some new measures.

The North-Western waters Joint Recommendation applies to fisheries catching red seabream in ICES sub-areas 6 and 7 only. The JR includes spatio-temporal closures for commercial and recreational fisheries, increases to MCRS and details ongoing and planned research work.

Spatio-temporal closures

EWG 21-05 acknowledges that the French national closure for red seabream in ICES divisions 6, 7 and 8, which prohibits fishing from 1st January to 30th of June, each year is meant to dissuade fishers from targeting red seabream or continuing to fish in areas where red seabream catches are prevalent. However, as noted by STECF 19-01 and 19-03 this TAC is for bycatch only. As the closure area remains open to fishing for other species bycatch of red seabream is likely inevitable and the landing obligation necessitates that catches of red seabream must be landed and counted against the quota regardless of the spatio-temporal closure to targeted fishing. Therefore, this measure while beneficial, is unlikely to reduce fishing mortality on red sea bream significantly as bycatch will still occur.

Minimum conservation reference size

EWG 21-05 observes that an MCRS for commercial fisheries of 36cm is proposed but reiterates the findings of STECF PLEN 19-01 and 19-03 that an MCRS of 40 cm or more is required to adequately protect adult females. EWG 21-05 notes that no additional size selectivity measures have been established to reduce unwanted catches below MCRS as suggested by STECF PLEN 19-01 and 19-03.

EWG 21-05 reiterates the findings of STECF PLEN 19-01 and 19-03 and considers that an MCRS of 40 cm is appropriate for recreational fisheries and that catch and release for recreational fishers is likely to be viable in the case of undersized/ unwanted catches.

Research work

STECF PLEN 19-01 and 19-03 suggested that research should also aim to improve the biological knowledge on species reproduction and maturity stages and that updating the estimates of size/age at maturity as male and female, the size-as sex-change and the proportion of gonochoric individuals would also be beneficial.

EWG 21-05 acknowledges that further research programs are underway by North-Western waters Member States to provide additional biological information although this information is not included in the JR. In separate correspondence with the Commission, French authorities have indicated their intention to initiate a more in-depth investigation into the management of this stock. This includes:

- Ongoing work on an analysis of the current spatial distribution based on commercial data, catches during surveys and onboard observations (Obsmer program).
- Use of an environmental DNA method in 2020 to obtain an indicator of abundance. The initial results suggest that this method is more relevant than acoustics for obtaining an indicator of the abundance of a rare species such as red seabream and monitoring its reconstitution.
- Use of acoustics to estimate biomass of red seabream under the EU PANDORA project.

EWG 21-05 observes that preliminary results were provided only for the work that took place under the PANDORA project. According to the 2020 WGDEEP report a six-day acoustic survey was carried out to the west of Brittany during 2019. An age-structured stock assessment model was developed based on previous modelling to accommodate the integration of acoustic biomass estimates.

EWG 21-05 notes that a Spanish on board observer program has likewise been running since 2019 but no details of its findings were provided with the JR.

EWG 21-05 conclusions

EWG 21-05 concludes that the management measures presented in the Joint Recommendation of the North-Western Waters represent an improvement on the measures presented in 2019. They have the potential to reduce catches of red seabream but due to lack of supporting data it is not possible to assess fully whether catches will be reduced to the level of the 2021 TAC.

EWG 21-05 concludes that the French national spatio-temporal closure coincides with the spawning period for this species. However, the closure only prohibits targeted fishing for red seabream and should bycatch occur when fishing for other species the landing obligation necessitates that red seabream be landed and counted against quota.

EWG 21-05 concludes that the increased MCRS for commercial of 36cm is below the MCRS of 40cm proposed by STECF PLEN 19-01 and 19-03 necessary to protect adult females and is necessary to rebuild the stock.

EWG 21-05 concludes that no additional size selectivity measures have been established to reduce unwanted catches below MCRS as was also highlighted in STECF PLEN 19-01 and 19-03. Without an increase in size selectivity catches are likely to remain at similar levels while the unwanted portion of the catch is likely to increase.

EWG 21-05 concludes that the MCRS of 40cm proposed for recreational fisheries is appropriate.

EWG 21-05 concludes that significant research work is planned by NWW Member States which will contribute to the biological knowledge of the red sea bream stock.

References

ICES. 2020. Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP). ICES Scientific Reports. 2:38. 928 pp. http://doi.org/10.17895/ices.pub.6015

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Report (PLEN-19-01). Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-02904-5, doi:10.2760/56785, JRC116423

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7. SWW – OVERVIEW OF JOINT RECOMMENDATIONS

Commission Delegated Regulation (EU) 2015/2439 established a discard plan for certain demersal fisheries in South-Western waters (i.e., in Union waters of ICES divisions VIII, IX, X and CECAF areas 34.1.1, 34.1.2, 34.2.0). Based on Joint Recommendations for the South-Western waters submitted by the regional group of Member States this plan has been updated several times, most recently by Commission Delegated Regulation (EU) 2020/2015 under the Western Waters Multiannual Plan (2019/472). This included

exemptions for pelagic fisheries following from Commission Delegated Regulation (EU) 1394/2014 that established a discard plan for certain pelagic fisheries in the SWW.

Some of the exemptions included in this Regulation EU) 2020/2015 were time limited, while others were granted based on additional information being submitted annually. For 2021, Member States have provided additional scientific information for the relevant exemptions which have been assessed by EWG 21-05.

The main elements of the new JR and which of these have been assessed by EWG 21-05 are summarised in table 7.1.

Table 7.1 Main elements of the Joint Recommendations submitted for the SWW

Elements	***Contained currently in pelagic or demersal discard plan***	***Status with relevant Article in current discard plan***	***Assessment by EWG 20-04 with relevant Annexes in JR***
De minimis			
Hake caught with trawls and seines in directed fisheries in ICES subareas 8 and 9	Demersal	Existing and unchanged Article 14(1a)	Not assessed
Common sole caught with beam trawls and bottom trawls in directed fishery in ICES subareas 8 a,b	Demersal	Existing and unchanged Article 14(1b)	Not assessed
Common sole caught in gillnets and trammel nets in ICES subareas 8 a,b	Demersal	Existing and unchanged Article 14(1c)	Not assessed
Alfonsinos caught by hooks and lines in division 10	Demersal	Existing and unchanged Article 14(1d)	Not assessed
Blue whiting caught in the industrial pelagic trawler fishery in ICES subarea 8	Pelagic	Existing and unchanged Article 14(1r)	Not assessed
Albacore tuna caught using midwater pair trawls in ICES subarea 7	Pelagic	Existing and unchanged Article 14(1s)	Not assessed
Anchovy, mackerel and horse mackerel caught using midwater trawls in the pelagic trawl fishery which targets anchovy, mackerel and horse mackerel in ICES division 8	Pelagic	Existing and unchanged Article 14(1t)	Not assessed
Horse mackerel, jack mackerel and	Pelagic	Existing and unchanged	Not assessed

mackerel caught using purse seines in the fishery which targets horse mackerel, jack mackerel, mackerel and anchovy in ICES subareas 8,9, 10 VIII, IX, X and CECAF divisions 34.1.1, 34.1.2, 34.2.0		Article 14(1u)	
Horse mackerel caught with bottom trawls, seines and beam trawls in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1e)	Re-assessed based on new information
Horse mackerel caught with gillnets in ICES subareas 8, 9 & 10 and CECAF 34.1.1, 34.1.2, 34.2.0	Demersal	Annual information by 1 May Article 14(1f)	Re-assessed based on new information
Mackerel caught with bottom trawls, seines and beam trawls in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1g)	Re-assessed based on new information
Mackerel caught with gillnets in ICES subareas 8, 9 & 10 and CECAF 34.1.1, 34.1.2, 34.2.0	Demersal	Annual information by 1 May Article 14(1h)	Re-assessed based on new information
Megrim caught with bottom trawls, seines and beam trawls in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1i)	Re-assessed based on new information
Megrim caught with gillnets in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1j)	Re-assessed based on new information
Anglerfish caught with bottom trawls, seines and beam trawls in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1k)	Re-assessed based on new information
Anglerfish caught with gillnets in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1l)	Re-assessed based on new information

Whiting caught with bottom trawls, seines and beam trawls in ICES subarea 8	Demersal	Annual information by 1 May Article 14(1m)	Re-assessed based on new information
Whiting caught with gillnets in ICES subarea 8 and 9	Demersal	Annual information by 1 May Article 14(1n)	Re-assessed based on new information
Anchovy caught with bottom trawls, seines and beam trawls in ICES subareas 8 and 9	Demersal	Annual information by 1 May Article 14(1o)	Re-assessed based on new information
Red Sea Bream caught with bottom trawls, seines and beam trawls in ICES Division 9a	Demersal	Annual information by 1 May Article 14(1p)	Re-assessed based on new information
Sole caught with bottom trawls, seines and beam trawls in ICES Division 9a	Demersal	Annual information by 1 May Article 14(1pq	Re-assessed based on new information
High survivability			
Nephrops caught with trawls in ICES subareas 8 and 9	Demersal	Existing and unchanged Article 9	Not assessed
Anchovy, horse mackerel, jack mackerel and mackerel caught using purse seines in artisanal purse seine fisheries in ICES subareas 8 and 9	Pelagic	Existing and unchanged Article 12	Re- assessed based on new information
Red seabream caught with "voracera" gear in ICES division 9a	Demersal	Temporary until end of 2022 Article 11	No new information requested or provided for 2021 so not assessed
Red sea bream caught with hooks and lines in ICES subarea 10 as well as division 9a	Demersal	Temporary until end of 2022 Article 11	No new information requested or provided for 2021 so not assessed
Red seabream caught with hooks and lines in ICES subareas 8 and 9a	Demersal	Temporary until end of 2022 Article 11	No new information requested for 2021 but new information has been provided

			and assessed
Skates and rays (*Rajiformes*) caught with all gears in ICES subareas 8 and 9	Demersal	Temporary until end of 2022 Article 4	Not assessed. New information to be supplied by 1 May 2022
Cuckoo rays caught with trammel nets in ICES subareas 8 and 9	Demersal	Temporary until end of 2022 Article 10(4a)	Not assessed. New information to be supplied by 1 May 2022
Cuckoo rays caught with bottom trawls in ICES subareas 8 and 9	Demersal	Temporary until end of 2021 Article 10(4b)	Assessed based on new information

7.1. SWW – Proposals for *de minimis* exemptions

The SWW Member States submitted a JR with 13 separate de minimis exemptions. Most of these exemptions were supported by a Spanish study on disproportionate costs that was provided as supporting information in 2020. At that time, EWG 20-04 lacked the expertise to analyse the new methodology which was developed for the assessment of the economic impacts. In its evaluation of the JR's for 2021, EWG 21-05 has considered this study further and a review of the study is provided in section 7.1.1.

7.1.1. Spanish study on disproportionate costs

Overview and discussion of content of the study

In 2020 the SWW regional group sent STECF additional information regarding the economic impacts per métier for the de minimis exemptions in the sea basin. This information explained why not granting the exemptions may lead to disproportionate costs. EWG 20-04 lacked the expertise to analyse the new methodology which was developed for the assessment of the economic impacts. In 2021 France again provided the economic information to EWG 21-05 as an argument for disproportionate costs arising from not granting the exemptions.

The following information is included in the document (Annex 20 on disproportionate costs):

Annex 1: Data collection in samples of commercial fishing vessels
Annex 2: Processing companies
Annex 3: Generation of types of ports
Annex 4: Estimation of the economic impacts per métier

In Annex 1 data collected for 2017 on fishing vessels (bottom trawls and gillnets) in Spain are presented together with some results of the answers from questionnaires sent to fishing companies.

Annex 2 provides a list of a limited number of processing companies in Spain, France and Portugal and additionally information on Spanish fishmeal and fish oil manufacturers which were interviewed regarding the collection of fish in harbours. Those companies collect fish which cannot be sold for human consumption (e.g. fish under the MCRS).

Annex 3 describes the number of ports which may be affected by the landing obligation. The objective of this chapter is to estimate what additional costs ports may face by

dealing with the fish not allowed to be discarded anymore or which has to be landed and cannot be sold for human consumption. The economic costs per port are estimated differentiating between ports where landings of unwanted catch would be low (and who operate often only parts of the year) and ports who would have to deal with large portions of unwanted catches. As fishmeal and fish oil manufactures pay a low price per tonnes (150 €) some additional costs occur which, for the largest group of harbours, amount to about 52.000 € per year (including handling, storage boxes and management).

These three Annexes have not been considered further by EWG 21-05.

In Annex 4 the economic impacts per métier are estimated. This part is divided in three sections:

1. Estimation of the additional labour time required for handling the unwanted catch
2. Calculation of costs per hour
3. Financial impact by métier.

There is, unfortunately, no description of the methodology for the calculations or where the data comes from.

In section one detailed estimates are provided for the handling time of the total catch and the handling of unwanted catch, but an explanation of where and how the data from the tables where collected would have been beneficial in order to understand the magnitude of the economic impact per métier. For example, in table 1 (page 37) the time for handling of the total catch is 2,386 minutes. For the unwanted catches, the time required for handling is 2,304 minutes (which would mean that most of the time is necessary for the unwanted catches). There is no information on the species included in the total catch as for some of the unwanted catches, fishers may receive a quite high ex-vessel price and sorting out of those species may be economical beneficial. In a second calculation the time for the unwanted catches is calculated for the Bay of Biscay with 633 minutes, this is where the vessel is probably only spending part of the overall time in this fishery.

Section two includes the calculation of the costs per hour. This information is provided for the fleet segments from different countries involved in the fisheries covered by the JR. Although the information in the tables and results are comprehensible, some explanation of the methodology would have been helpful - Where does the information come from, and is it again, for example, part of the data collection exercise described earlier.

The third section includes calculations on the opportunity costs between the baseline (business as usual) and a scenario where the exemptions are not granted. The reasoning is that a rejection of the exemption decreases the landings value as now the unwanted catch is counted against the quota. It is, however, not really explained how this is calculated. As the production value will be lower it can be assumed that the unwanted catch needs to be sold with a lower value and this decreases the value of landings of the vessels. This would also explain the elaborations in Annexs 1, 2 and 3 regarding the handling of unwanted catches on board and in harbours.

The document then provides tables for each métier employed in the SWW (e.g. North Western Cantabrian Sea or Bay of Biscay) with calculations of the opportunity costs. The following two examples show two cases with relatively low and relatively high opportunity costs. An additional calculation was added by the EWG to calculate the

difference between costs and earnings (could be profit if all earnings and costs are listed).

Table 7.1.1. Opportunity costs for Belgian beam trawler

Belgium	TBB_DEF_70-99_0_0				
Category	Variable name	Unit	BAU	No de minimis	Dif %
Income	Income from landings	€	3913080,05	3881253,84	-0,81
	Other income	€	100224,77	99409,61	-0,81
	Direct income subsidies	€	16550,66	16416,05	-0,81
	Income from leasing fishing rights	€	0	0	0
Expenditure	Wages and saleries of crew	€	1322876,31	1312116,97	-0,81
	Unpaid labour value	€	19902	19740,13	0,81
	Energy costs	€	413442,78	410080,14	-0,81
	Repair & maintenance	€	251975,43	249926,04	-0,81
	Other variable costs	€	516146,47	511948,5	-0,81
	Other non variable costs	€	414714,14	414714,14	0
	Rights costs	€	0	0	0
	Annual depreciation costs	€	274297,19	274297,19	0
	Difference (Profit?)		816501,16	804256,39	-1,50

Table 7.1.2: Opportunity costs for Spanish trawlers in the North Western Cantabrian Sea

Spain	OTB_MPD_>55_0_				
Category	Variable name	Unit	BAU	No de minim	Dif %
Income	Income from landings	€	14130319,8	13144642,5	-6,98
	Other income	€	387413,69	360389,19	-6,98
	Direct income subsidies	€	229924,13	213885,5	-6,98
	Income from leasing fishing rights	€	68408,73	63636,8	-6,98
Expenditure	Wages and saleries of crew	€	4645710,47	4321643,41	-6,98
	Unpaid labour value	€	79977,76	74398,82	-6,98
	Energy costs	€	3133229,06	2914666,94	-6,98
	Repair & maintenance	€	1112789,72	1035165,74	-6,98
	Other variable costs	€	1736932,33	1615770,55	-6,98
	Other non variable costs	€	1340129,94	1340129,94	0,00
	Rights costs	€	107965,22	107965,22	0,00
	Annual depreciation costs	€	688207,69	688207,69	0,00
	Difference (Profit?)		1971124,16	1684605,71	-14,54

The authors of the study included three categories of variables in the table: income, variable, and fixed costs. Fixed costs (other non-variable costs, rights costs and depreciation) are constant as companies have to pay them regardless of the vessel activity over the year. Variable costs depend on the activity of the vessel and, therefore, should be different with or without an exemption.

All income and variable costs variables are decreasing with the same factor. Without an explanation it is not clear how the authors came to these results in each country. From the explanation that not granting the exemptions means lower production value, it does not automatically follow that all income categories and all variable cost categories are affected in the same proportion.

The explanation also states that "the estimated variation in production is transferred to variable costs of the production function by means of technical coefficients." Usually this means that a decrease in activity is leading to a proportionate change in the variables, for example, 10% less effort would reduce fuel costs by 10%. However, it is not reasonable that all variable cost categories are affected in the same way.

It is reasonable to assume that only the landings value decrease and potentially some of the costs categories as extra sorting time is necessary or, what is assumed to be meant here by the reduction of the costs, that the vessel fishes less hours or days due to the necessity to keep catch on board they usually discard and have to go back to port earlier. However, that still does not explain why all income and variable costs categories decrease with the same percentage (see for example Table 13, page 47). Crew costs, for example, are often divided between a fixed salary and a share of the value of landings. Therefore, there could be vessels where a reduction in value of landings reduces the crew share but not the overall salaries by the same amount.

Table 1 and 2 show different levels of impacts on economic variables. As calculated in table 2, a loss in profit by 14% could be a substantial decrease. However, as fishing is an activity where every year there could be huge variation due to the development of fishing opportunities also a decrease by 14% may still result in reaching a sufficient level of profits.

EWG 21-05 observations

EWG 21-05 acknowledges the substantial effort the authors put in to provide the information on the economic impacts of not granting the exemptions (opportunity costs between granting and not granting the exemption).

EWG 21-05 sees this as a promising approach to judge the economic impacts of the landing obligation on the different fishing fleets.

EWG 21-05 observes that lack of any background information on methodologies, data sources, data collection background etc. makes it impossible to understand the calculation. How the information is presented is not reasonable from an economic standpoint as not all variable costs or income categories would decrease with the same percentage in case of lower landings value. There could be changes in economic variables due to lower income from landing the bycatch of small specimen of the target species when they also count against the quota (undersized bycatch is not allowed to be sold for human consumption). Bycatch to be landed can also require storage space and may force the vessel to go back to port earlier. However, these two possible economic impacts would not affect variable costs and income always in the same way.

EWG 21-05 conclusions

EWG 21-05 concludes that more economic information is necessary to judge whether this new methodology on opportunity costs of not granting the exemptions is improving our understanding of the economic impacts of the LO.

EWG 21-05 concludes that it is always a value judgement whether an increase in costs is classified as 'disproportionate' or not. There is no scientific argumentation allowing us to judge whether a level of increase of 7% compared to 0.8% is disproportionate or not. Therefore, STECF has decided that very detailed economic studies are not necessarily required to demonstrate disproportionate costs although the information could be very useful. STECF sees it as sufficient to provide reasonable estimates for the JR of the LO together with detailed information on, for example, the volume of discards compared to the overall landings of a species (see STECF 2021 – PLEN 21-01 report). That should not hinder the assessment of the economic impacts of the landing obligation as only very limited information is available. It should be provided in a different setting to have a better insight how the JR influences the incentive to improve selectivity to reduce unwanted catches – which is the main objective of the landing obligation.

References

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7.1.2. Summary of de minimis proposals

A summary of the fishery information applicable to the proposed continuation of the *de minimis* exemptions (Article 14 points 1(e) to 1 (q)) is provided in Table 7.1.2.1.

Table 7.1.2.1 Summary of *de minimis* exemptions submitted as part of the SWW Joint Recommendations (restricted to new or revised exemptions).

Exemption	Main Findings of EWG 21-05
Horse mackerel caught by vessels using beam trawls, bottom trawls and seiners in ICES subareas 8 and 9. A maximum of 5 % of the total annual catches of horse mackerel in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(e) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 6) on discard rates of horse mackerel in fisheries employing beam trawls, bottom trawls and seines in ICES subareas 8 and 9. This was collected under the Obsmer programme. The discard rate was 5.24% in 2019 but vary substantially between the different gears. For example, for bottom trawls (OTB) targeting crustaceans the average rate was 1.2% while for Danish seines the rate was 8.7%. A total of 42 French vessels are reported to have availed of this exemption. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of horse mackerel by Portuguese bottom trawlers averaged 9,527 tonnes over the 2017-2019 period. In the Portuguese bottom-trawl demersal fish fleet horse mackerel is the main target species, accounting for 54% of the catches. The supporting annex from Portugal reports that the frequency of occurrence of discards is too low (considered zero discards because such low frequency will result in highly biased estimates) or non-existent. The two relevant metiers - OTB_DEF and OTB_CRU- involve 58 and 24 vessels, respectively. Spain provided catch data by metier for the period 2017-2020 which includes four metiers using bottom trawls with catches of horse mackerel - OTB_DEF_>=55; OTB_MPD_>=55; PTB_MPD_>=55; OTB_MCD_>=55

	(Annex 2). There was a total of 40, 38, 29 and 126 vessels involved in these metiers, respectively. In OTB_DEF_>=55, landings of horse mackerel averaged 522 tonnes between 2017-2020 (range from 16–1016 tonnes). Average unwanted catches were 40 tonnes (range from 0-114 tonnes). In the OTB_MPD_>=55 metier, landings of horse mackerel averaged 5118 tonnes between 2017-2020 (range from 82–8012 tonnes. Average unwanted catches were 28 tonnes (range from 3-66 tonnes). This is a directed fishery for horse mackerel and mackerel. In the PTB_MPD_>=55 landings of horse mackerel averaged 286 tonnes between 2017-2020 (range from 0 - 699 tonnes. Average unwanted catches were 20 tonnes (range from 0- 59 tonnes). In the OTB_MCD_>=55 landings of horse mackerel averaged 96 tonnes between 2017-2020 (range from 0.4 -148 tonnes). Average unwanted catches were 138 tonnes (range from 2.3 - 286 tonnes). No data is provided for Belgium. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. Specifically, to horse mackerel, the study indicates that in terms of lost opportunity costs, bottom trawlers in subareas 8 and 9 are estimated to experience losses amounting to €2.065.795 if the requested de minimis exemption for horse mackerel is not granted. This equates to 22.48% of the total losses estimated for fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. France provided a summary of a study (REDRESS) on improving selectivity which concluded that the losses in commercial catches and value of landings is too high, when using any of the selectivity devices tested. The reduction of unwanted catches would be between 13 and 24.4% depending on the gear type. In another French study an analysis is presented on the length of time unwanted catches could be stored on board before rotting. The study found after 7 days such catches were not in compliance with hygiene regulations. The French authorities conclude that it would be too costly to store the fish on board. Spain has provided a review of selectivity experiments carried out by Instituto Español de Oceanografia (IEO) over the last decade. Pilot projects have considered theoretical selectivity measures and selectivity trials have been conducted focusing on square mesh, mesh netting geometry and mesh size to balance roundfish by-catch avoidance with maintaining economic viability. Limited data specific to horse

	mackerel is provided. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be fully quantified due to a lack of catch data at gear level for all Member States. However, based on the catch data for 2019[9], the total volume discarded was 423 tonnes, against total catches in areas 8 and 9 with all gears of around 60,000 tonnes, around 0.7% of total catches. Therefore, EWG 21-05 observes in the context of the overall stock of horse mackerel, the impact of the exemption is likely to be limited from a stock perspective. EWG 21-05 notes that the additional information provided by France, Spain and Portugal shows relatively low rate of discards (i.e. Spanish OTB_MPD_>=55 metier targeting horse mackerel had a discard rate of 1.8% in 2019) for some fisheries but quite high discard rates in others (i.e. Spanish OTB_MCD_>=55 metier has a discard rate of 66% in 2019). EWG 21-05 acknowledges that reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, EWG 21-05 observes that implementing the most promising of these gears may help to address the issue of reducing discard rates for horse mackerel in the longer term. EWG 21-05 notes Spain has further selectivity work planned that may help to develop suitable gears. The other documentation provided by the French authorities

[9] Catches for 2019 was used as the data for 2020 shows catches from several of the Spanish metiers were very low or zero due to Covid-19.

	assessing fish quality of unwanted catches stored on board over time is interesting, but EWG 21-05 considers this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption
Exemption	Main Findings of EWG 21-05
Horse mackerel caught by vessels using gillnets in ICES subareas 8 and 9 and CECAF zones 34.1.1. A maximum of 5 % of the total annual catches of horse mackerel in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(f) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 9) on discard rates of horse mackerel in fisheries employing gillnets in ICES subareas 8 and 9. This was collected under the Obsmer programme. France reports that the volumes of unwanted catch of horse mackerel accounted for 2.48% of the total catches, with 2.06 tonnes. Information is provided for three metiers deploying gillnets. France provided a summary of a study (REDRESS) that showed that unwanted catches of horse mackerel ranged from 2% of discards for gillnet vessels targeting sole to 9% in gillnetters targeting mixed demersal species. A total of 9 French gillnet vessels are reported to have availed of this exemption. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of horse mackerel by Portuguese vessels with gillnets and trammel nets was 634 tonnes. The supporting annex from Portugal reports that discards ranged from 21% for gillnets to 30% for trammel nets. The Annex reports that discards in these fisheries are high and are mainly related to catches of damaged individuals rather than commercial or regulation reasons. The number of vessels involved in the fisheries is estimated at 1632 vessels. Spain provides catch data by metier for the period 2017-2020 which includes two metiers using gillnets and trammel nets - GNS_DEF_80-99; GNS_DEF_>=100 (Annex 2). There was a total of 40 and 28 vessels involved in these metiers, respectively. In GNS_DEF_80-99, landings of horse mackerel averaged 62 tonnes over the period 2017-2020 (range 9.6 -107.6 tonnes) with average unwanted catches of 5 tonnes (range 0.2-13.4 tonnes). In the GNS_DEF_>=100 metier, total landings in 2020 were 26 tonnes with 4.7 tonnes of unwanted no catches of horse mackerel are reported. Belgium has no gillnet fisheries in subareas 8 and 9.

	3. Basis for (the maintenance of) the exemptions The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. According to estimates generated from the Spanish study, in terms of lost opportunity costs, gillnetters in subareas 8 and 9 are estimated to experience losses amounting to €13,573 if the requested de minimis exemption for horse mackerel is not granted. This equates to 0.15 % of the total losses estimated for the fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. A summary of a French study is provided which analysed the length of time unwanted catches could be stored on board before rotting. The study found after 7 days such catches were not in compliance with hygiene regulations. The French authorities conclude that it would be too costly to store the fish on board. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. For France and Spain this is relatively low. Portugal does not provide data for total discards but reports a relatively high discard rate of 20-30% in the relevant fisheries. EWG 21-05 cannot fully assess the implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for Portugal. The data provided indicates the impact of the exemption on the horse mackerel stock will be low for Spain and France (less than 10 tonnes) but may be higher for Portugal. The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but EWG 21-05 considers this is a separate argument, outside the conditionalities included

	under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption
Exemption	Main Findings of EWG 21-05
Mackerel caught by vessels using beam trawls, bottom trawls and seiners in ICES subareas 8 and 9. A maximum of 5 % of the total annual catches of mackerel in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(g) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 7) on discard rates of mackerel in a range of fisheries employing bottom trawls and seines in ICES subareas 8 and 9. In 2020, discards of mackerel under this exemption in the French fleet were 0.6% of total catches with the volume discarded under the exemption amounting to 7.6 tonnes. Overall catches of mackerel by these gears in the area amount to 1,370 tonnes out of total catches of all gears of 9,169 tonnes. The number of vessels availing of this exemption is not specified. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of mackerel by Portuguese bottom trawlers averaged 540 tonnes over the 2017-2019 period. The supporting annex from Portugal reports that discards are negligible when compared to its annual landings volume. The two relevant metiers - OTB_DEF and OTB_CRU - involve 58 and 24 vessels, respectively. Spain provided catch data by metier for the period 2017-2020 which includes four metiers using bottom trawls with catches of mackerel - OTB_DEF_>=55; OTB_MPD_>=55; PTB_MPD_>=55; OTB_MCD_>=55 (Annex 2). There were a total of 40, 38, 29 and 126 vessels involved in these metiers, respectively. In OTB_DEF_>=55, landings of mackerel have averaged 235 tonnes between 2017-2020 (range from 2–579 tonnes). Average unwanted catches were 51 tonnes (range from 11-94 tonnes). In the OTB_MPD_>=55 metier, landings of mackerel have averaged 5118 tonnes between 2017-2020 (range from 83–8012 tonnes). Average unwanted catches were 584 tonnes (range from 12-1750 tonnes). This is a directed fishery for mackerel and horse mackerel. In the PTB_MPD_>=55 landings of mackerel have averaged 1172 tonnes between 2017-2020 (range from 0 - 4567 tonnes). Average unwanted catches were 4 tonnes (range from 0 - 2 tonnes). In the OTB_MCD_>=55 landings of mackerel have averaged 11 tonnes between 2017-2020 (range from 6 - 17 tonnes). Average unwanted catches were 80 tonnes (range from 60 –

	91 tonnes). No data is provided for Belgium. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. According to estimates generated from the Spanish study, in terms of lost opportunity costs, bottom trawlers in subareas 8 and 9 are estimated to experience losses amounting to €1.296.237 if the requested de minimis exemption for mackerel is not granted. This equates to 14.11% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. In addition, results for two French segments are presented for all the exemptions in sub-areas 8 and 9. For mackerel the estimated changes in the value of landings are €3,073 (OTB_OTT_CRU_VIII) and €53,165.7 (OTB_OTT_DEF_CEP_VIII) if the requested de minimis exemption for mackerel is not granted. This equates to 2.8% of the total losses from the value of landings estimated for all the requested exemptions for all species in the JR, if all such exemptions are not granted. Information is also provided on handling costs of the unwanted catch on board. Here no specific information on handling of mackerel is given. For the two French fleet segments the overall handling costs of all unwanted catch is €41,757.86 (OTB_OTT_CRU_VIII) and €81,080,38 (OTB_OTT_DEF_CEP_VIII). In another French study an analysis is presented on the length of time unwanted catches could be stored on board before rotting. The study found after 7 days such catches were not in compliance with hygiene regulations. The French authorities conclude that it will be too costly to store the fish on board. Spain has provided a review of selectivity experiments carried out by Instituto Español de Oceanografia (IEO) over the last decade. Pilot projects have considered theoretical selectivity measures and selectivity trials have been conducted focusing on square mesh, mesh netting geometry and mesh size to balance roundfish by-catch avoidance with maintaining economic viability. This review includes some data on mackerel catches. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and

	methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of mackerel discarded under this exemption. Based on the average catch data provided, the average total volume discarded was 727 tonnes, against average total catches in areas 8 and 9 with bottom trawls, beam trawls and seines of around 8,500 tonnes, around 8.7% of total catches. Therefore, EWG 21-05 observes that the percentage level of mackerel being discarded under the exemption is likely to exceed the de minimis percentage of 5%. The additional information provided by France, Spain and Portugal shows relatively low rate of discards (i.e. Spanish OTB_MPD_>=55 metier targeting mackerel had an average discard rate of 6.6% in 2019) for some fisheries but quite high discard rates in others (i.e. Spanish OTB_MCD_>=55 metier has an average discard rate of 83% in the period 2017-2020). EWG 21-05 acknowledges that reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, EWG 21-05 observes that implementing the most promising of these gears may help to address the issue of reducing discard rates for mackerel in the longer term. Focus should be on those fisheries with the highest volumes of macerel discards. The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but EWG 21-05 considers this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.
Exemption	Main Findings of EWG 21-05
Mackerel caught by vessels using gillnets in ICES subareas 8 and 9.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(h) of

A maximum of 3 % of the total annual catches of mackerel in the specified fisheries.	Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 10) on discard rates of mackerel in four metiers employing gillnets in ICES subareas 8 and 9. In 2020, discard of mackerel under this exemption in the French fleet account to 4.5%. Volumes discarded under the exemption amount to 4.9 tonnes compared to overall catches of mackerel by these gears in the area amount to 108.8 tonnes. Total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) amounted to 1471 tonnes. The number of vessels availing of this exemption is not specified. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of mackerel by Portuguese gillnet and trammel net vessels averaged 123 tonnes over the 2017-2019 period. The supporting annex from Portugal reports that discards ranged from 2% for gillnetters to 28% in trammel net vessels. No catch data is presented. The two relevant metiers involved 1632 vessels in total. Spain provides catch data by metier for the period 2017-2020 which includes two metiers using gillnets and trammel nets - GNS_DEF_80-99; GNS_DEF_>=100 (Annex 2). There was a total of 40 and 28 vessels involved in these metiers, respectively. In GNS_DEF_80-99, landings of mackerel averaged 100 tonnes over the period 2017-2020 (range 1-209 tonnes) with average unwanted catches of 7 tonnes (range 0- 24 tonnes). In the GNS_DEF_>=100 metier, no catch data for mackerel is provided but it is reported that any mackerel caught is discarded. Belgium has no gillnet fisheries in subareas 8 and 9. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. Based on the Spanish study, in terms of lost opportunity costs, gillnetters in subareas 8 and 9 and CECAF areas are estimated to experience losses amounting to €11,485 if the requested de minimis exemption for mackerel is not granted. This equates to 0.12% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. In another French study an analysis is presented on the length of time unwanted catches could be stored on board before rotting. The study found after 7 days such catches were not in compliance with hygiene regulations. The French authorities conclude that it will be too costly to store the fish

	on board. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of horse mackerel discarded under this exemption. For France and Spain this is relatively low. Portugal does not provide data for total discards but reports a relatively high discard rate of 30% in the trammel net fishery. EWG 21-05 cannot fully assess the implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for Portugal. The data provided indicates the impact of the exemption on the mackerel stock will be low for Spain and France (less than 10 tonnes). For Portugal even though the discard rate is high for the trammel net fishery based on the supporting information the actual volume discarded is low. Therefore, overall, the impact of the exemption on the overall horse mackerel stock is likely to be low. The other documentation provided by the French authorities assessing fish quality of unwanted catches stored on board over time is interesting, but EWG 21-05 considers this is a separate argument, outside the conditionalities included under Article 15(5) of the Basic CFP Regulation relating to selectivity and disproportionate costs. Therefore, EWG 21-05 cannot comment on whether this is a justifiable argument to support the exemption.
Exemption	Main Findings of EWG 21-05
Megrim caught by vessels using beam trawls, bottom trawls and seiner in ICES subareas 8 and 9. A maximum of 5% of the total annual catches of megrim in	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(i) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 12) on

the specified fisheries.	discard volumes and rates of megrim in a range of fisheries employing bottom trawls and seines in ICES subareas 8 and 9. In 2019, discards under this exemption in accounted for 0.70% of megrim catches, with 8.85 tonnes discarded under the exemption. In 2020, this increased to 12.39 tonnes. Total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) amounted to 17,001tonnes. The number of French vessels availing of this exemption across three metiers was 39. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of megrim by Portuguese bottom trawlers averaged 117 tonnes. The supporting annex from Portugal reports that discards were negligible (1-1.3kg per trip sampled) when compared to annual landings volume. The two relevant metiers - OTB_DEF and OTB_CRU - involve 58 and 24 vessels, respectively. Most landings came from OTB_DEF. Spain provided catch data (Annex 2) by metier for the period 2017-2020 which includes four metiers using bottom trawls with catches of megrim - OTB_DEF_>=55; OTB_MPD_>=55; PTB_MPD_>=55; OTB_MCD_>=55 (Annex 2). There was a total of 40, 38, 29 and 126 vessels involved in these metiers, respectively. In OTB_DEF_>=55, landings of megrim averaged 705 tonnes between 2017-2020 (range from 57–917 tonnes) with average unwanted catches of 177 tonnes (range from 56-276 tonnes). In the OTB_MPD_>=55 metier, landings of megrim averaged 15 tonnes between 2017-2020 (range from 0–32 tonnes) with average unwanted catches of 6 tonnes (range from 0-19 tonnes). There were no catches of megrim reported for the PTB_MPD_>=55. Belgium provided catch information for beam trawlers operating in subarea 8 (Annex 3). They reported total landings of megrim of 47 tonnes with unwanted catches of 0.26 tonnes. A discard rate of 0.56% is estimated. Seven beam trawlers operated in the fishery. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study indicates that in terms of lost opportunity costs, Bottom trawlers in subareas 8 and 9 are estimated to experience losses amounting to €726.228 if the requested de minimis exemption for megrim is not granted. This equates to 7.9% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. In addition, results for two French segments are presented for all the exemptions in sub-areas 8 and 9. For megrim the

	estimated changes in the value of landings are €68,394.80 (OTB_OTT_CRU_VIII) and €220,983 (OTB_OTT_DEF_CEP_VIII) if the requested de minimis exemption is not granted. This equates to 14.4% of the total losses from the value of landings estimated for all the requested exemptions for all species in the JR, if all such exemptions are not granted. Information is provided on handling costs of the unwanted catch on board. Here no specific information on handling of megrim is given. For the two French fleet segments the overall handling costs of all unwanted catch is €41,757.86 (OTB_OTT_CRU_VIII) and €81,080,38 (OTB_OTT_DEF_CEP_VIII). France provided a summary of a study (REDRESS) on improving selectivity which concluded that the losses in commercial catches in terms of value of landings is too high, when using any of the selectivity devices tested. The reduction of unwanted catches would be between 13 and 22% depending on the fishery, with corresponding losses of marketable catch of between 6-12%. It is not clear whether this relates solely to megrim or total catches in the fisheries. Additionally, France references a socio-economic analysis carried out based upon the least and the most impacting scenarios from an economic point of view on trawl fisheries. The study concluded that the landing obligation has a strong social impact that affects fishermen's incomes. The least impacting scenario was for vessels not to use selectivity devices. Spain has provided a review of selectivity experiments carried out by Instituto Español de Oceanografia (IEO) over the last decade. Pilot projects have considered theoretical selectivity measures and selectivity trials have been conducted focusing on square mesh, mesh netting geometry and mesh size to balance roundfish by-catch avoidance with maintaining economic viability. This review includes some data on megrim catches. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been

	provided by France, Spain, Portugal and Belgium which provides an indication of the volumes of megrim discarded under this exemption. Based on the average catch data provided, the total volume discarded in 2019 was ~260 tonnes. However, without overall catch data, EWG 21-05 cannot estimate the impact of the exemption on the overall megrim stock in subareas 8 and 9. The additional information provided by France, Spain, Portugal and Belgium shows relatively low rate of discards for most trawl fisheries except for the Spanish OTB_DEF_>=55 metier where discard volumes are quite high (accounted for approximately 80% of all discards reported) with a discard rate of 27% in 2020. EWG 21-05 acknowledges that reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. Nonetheless, EWG 21-05 observes that implementing the most promising of these gears may help to address the issue of reducing discard rates for megrim in the longer term, particularly in the Spanish OTB_DEF>=55 metier.
Exemption	Main Findings of EWG 21-05
Megrim caught by vessels using gillnets in ICES subareas 8 and 9. A maximum of 4 % of the total annual catches of megrim in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(i) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 1) on discard rates of megrim in fisheries employing gillnets in ICES subareas 8 and 9. This was collected under the Obsmer programme. France reports that in 2019, discards under this exemption accounted for 0.02% of the total megrim catches, with 0.01 tonnes of megrim discarded under the exemption. Only 1 French gillnet vessel is reported to have availed of this exemption. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of megrim by Portuguese vessels with gillnets and trammel nets was 5 tonnes. The supporting annex from Portugal reports that discards ranged from 8% for gillnets to 2% for trammel nets. Volumes of discards were negligible. The number of vessels involved in the fisheries is estimated at 1632 vessels. Spain provides catch data by metier for the period 2017-2020 which includes two metiers using gillnets and trammel nets - GNS_DEF_80-99; GNS_DEF_>=100 (Annex 2). There was a total of 40 and 28 vessels involved in these metiers,

	respectively. In GNS_DEF_80-99, landings of megrim averaged 1.25 tonnes over the period 2017-2020 (range 0 - 2 tonnes) with no unwanted catches reported. In the GNS_DEF_>=100 metier, there were no catches of megrim reported. Belgium has no gillnet fisheries in subareas 8 and 9. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study indicates that in terms of lost opportunity costs, gillnetters in subareas 8 and 9 are estimated to experience losses amounting to €8.808 if the requested de minimis exemption for megrim is not granted. This equates to 0.1% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. In addition, results for the French segment are presented for all the exemptions in sub-areas 8 and 9. For megrim the estimated changes in the value of landings are €4,178 if the requested de minimis exemption is not granted. This equates to 1.6% of the total losses from the value of landings estimated for all the requested exemptions for all species in the JR, if all such exemptions are not granted. The third economic information provided is on handling costs of the unwanted catch on board. Here no specific information on handling of megrim is given. For the French fleet segment, the overall handling costs of all unwanted catch is 52,019.62 €. No other supporting information is provided. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been provided by France, Spain and Portugal, which provides an indication of the volumes of megrim discarded under this exemption. For the three countries this is very low (less than

	1.5 tonnes) and in many of the metiers for which data has been provided no discards are reported. EWG 21-05 cannot fully assess the implications of granting the proposed exemption with regard to the fishery and species due to a lack of catch data at gear level for all countries. However, the data provided indicates the impact of the exemption on the megrim stock will be low as the volume of discards reported is extremely low across the different metiers.
Exemption	Main Findings of EWG 21-05
Anglerfish caught by vessels using pelagic trawls, beam trawls, bottom trawls and seiners in ICES subareas 8 and 9. A maximum of 5 % of the total annual catches of anglerfish in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(k) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 7) on discard rates of anglerfish in a range of fisheries employing bottom trawls and seines in ICES subareas 8 and 9. The discard rates of anglerfish in French fisheries were 0.13% in 2019 and 3.1% in 2020 with little variation across the relevant metiers. The volume of anglerfish discarded under the exemption was 7.2 tonnes against total catches by these gears in the area were 2,304 tonnes. Total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) totalled 19,694 tonnes. A total of 42 French vessels are reported to have availed of this exemption. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of anglerfish by Portuguese bottom trawlers averaged 74 tonnes over the 2017-2019 period. The supporting annex from Portugal reports that discards are negligible when compared to its annual landings volume. The two relevant metiers - OTB_DEF and OTB_CRU - involve 58 and 24 vessels, respectively. Spain provided catch data by metier for the period 2017-2020 which includes four metiers using bottom trawls with catches of mackerel - OTB_DEF_>=55; OTB_MPD_>=55; PTB_MPD_>=55; OTB_MCD_>=55 (Annex 2). There was a total of 40, 38, 29 and 126 vessels involved in these metiers, respectively. In OTB_DEF_>=55, landings of anglerfish averaged 363 tonnes (range from 147–436 tonnes) with average unwanted catches of 1.8 tonnes (range from 0-6 tonnes). In the OTB_MPD_>=55 metier, landings of anglerfish averaged 9 tonnes (range from 0–27 tonnes). No unwanted caches were reported. In the PTB_MPD_>=55 landings of anglerfish averaged 56 tonnes between 2017-2020 (range from 5 - 99 tonnes. No

	unwanted catches were reported. In the OTB_MCD_>=55 landings of anglerfish averaged 36 tonnes (range from 5 - 76 tonnes) with average unwanted catches of 6 tonnes (range from 4 – 12 tonnes). Updated information is provided by Belgium on discard rates of anglerfish in the beam trawl fishery in areas 8a and 8b. The discard rate was 0.43% of the total landings of anglerfish in 2020 with a discard volume of 0.35 tonnes. Seven beam trawlers operated in the fishery. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study indicates that in terms of lost opportunity costs, trawlers in subareas 8 and 9 are estimated to experience losses amounting to €1,578,774 if the requested de minimis exemption for anglerfish is not granted. This equates to 17.18% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. In addition, results for two French segments are presented for all the exemptions in sub-areas 8 and 9. For anglerfish the estimated changes in the value of landings are €3,073 (OTB_OTT_CRU_VIII) and €53,166 (OTB_OTT_DEF_CEP_VIII) if the requested de minimis exemption for anglerfish is not granted. This equates to 2.8% of the total losses from the value of landings estimated for all the requested exemptions for all species in the JR, if all such exemptions are not granted. Information is also provided on handling costs of the unwanted catch on board. No specific information on handling of anglerfish is given. For the two French fleet segments the overall handling costs of all unwanted catch is €41,758 (OTB_OTT_CRU_VIII) and €81,080 (OTB_OTT_DEF_CEP_VIII). France also reported on several selectivity studies that were conducted (REDRESS and OPTISEL). These trials showed that there is a bycatch of small anglerfish but the information on reductions possible with the selectivity devices tested was not usable due to very low sample sizes. Spain has provided a review of selectivity experiments carried out by Instituto Español de Oceanografia (IEO) over the last decade. Pilot projects have considered theoretical selectivity measures and selectivity trials have been conducted focusing on square mesh, mesh netting geometry and mesh size to balance roundfish by-catch avoidance with maintaining economic viability. This review includes some limited data on anglerfish catches.

	4. EWG 21-05 observations The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. EWG 21-05 observes that updated catch data has been provided by France, Spain, Portugal and Belgium which provides an indication of the volumes of anglerfish discarded under this exemption. Based on the average catch data provided, the total volume discarded in 2019 was ~12 tonnes, against total catches of anglerfish in trawl fisheries estimated at 2650 tonnes, around 0.45%. The discard rate across the fisheries is low, typically less than 5%. Therefore, the impact on the anglerfish stock of the exemption is likely to be low. EWG 21-05 acknowledges that reducing the discard rates through improvements in selectivity is difficult in these fisheries given many are mixed fisheries and notes the results from the French and Spanish studies carried out in these fisheries which show quite high losses of commercial catch. However, the French selectivity work did show some promising, if inconclusive results and it would be beneficial to follow-up on this work.
Exemption	Main Findings of EWG 21-05
Anglerfish caught by vessels using gillnets in ICES subareas 8 and 9. A maximum of 4 % of the total annual catches of anglerfish in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(l) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 5) on discard rates of anglerfish in fisheries employing gillnets in ICES subareas 8 and 9. The discard rates were 0.8% in 2019 and 0.3% in 2020 of the total landings of anglerfish in 2019 and 2020, respectively. In the Obsmer observers program the discard rate was 0.9% in 2019 for nets targeting demersal species, cephalopods and crustaceans by vessels below 15 m employing GTR. A rate of 0% was reported for two other segments of the fleet. As the data comes from on board observers it is seen as more reliable. A

	total of 99 French gillnet vessels are reported to have availed of this exemption. Information for Portugal (Annex 1) is provided for the period 2017-2019 which indicates that overall landings of anglerfish by Portuguese vessels was 304 tonnes but no data for landings by gillnets were reported. The supporting annex from Portugal reports that discards can be considered negligible or zero from gillnets. No information on the number of vessels involved is provided. Spain provides catch data by metier for the period 2017-2020 which includes two metiers using gillnets and trammel nets - GNS_DEF_80-99; GNS_DEF_>=100 (Annex 2). There was a total of 40 and 28 vessels involved in these metiers, respectively. In GNS_DEF_80-99, landings of anglerfish were zero in 2020 and between 0.8-3 tonnes for the period 2017-2019. No unwanted catches are reported. In the GNS_DEF_>=100 metier, total landings in 2020 were 26 tonnes with 4.7 tonnes of unwanted catch. However, in the period 2017-2019 catches ranged from 157 to 233 tonnes with unwanted catches on average of 23 tonnes. Belgium has no gillnet fisheries in subareas 8 and 9. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study indicates that in terms of lost opportunity costs, gillnetters in subareas 8 and 9 are estimated to experience losses amounting to €384,132 if the requested de minimis exemption for anglerfish is not granted. This equates to 4.2% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. The additional information provided gives indications of the scale of discarding under this exemption. The information from France shows discard of anglerfish under this exemption in the French fleet account to 0.3%, in 2020. Discard volumes discarded under the exemption amounted to 2.8 tonnes out of total catches of anglerfish by gillnets of 917 tonnes, around 0.3% of total catches. For Spain, volumes discarded under the exemption were around 18% of total catches with a total volume of 4.7 tonnes, noting that 2020 was an atypical year due the Covid-a9 pandemic and catches were lower than average. Total volumes amounted to 4.7 tonnes. For Portugal, no data was provided although the supporting information indicates discards were negligible. **4. EWG 21-05 observations** The supporting information on economic impacts was

	already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively high level of losses for the vessels involved in this fishery. However, EWG 21-05 requests more information on the methodology of the calculation and the data used as the opportunity costs cannot be put into context of the overall economic performance of the fleet segments. The additional information provided by France, Spain and Portugal indicate a relatively low rate of discards for France (0.3%) and Portugal (close to zero) are well below the maximum 4% de minimis for anglerfish in the fisheries covered by the exemption. The discard rate for Spain is much higher in their directed anglerfish fishery averaging around 11% of total anglerfish catches. However, EWG 21-05 acknowledges that reducing these discards through improvements in selectivity would not be possible, given the vessels operating in this fishery already operate with gillnets with a mesh size of 280mm. EWG 21-05 observes that the overall volumes between the three countries combined seem to be relatively small when put in the context of the anglerfish stocks in areas 8 and 9. Therefore, while EWG 21-05 cannot fully assess the volume of de minimis that could be discarded under the exemption due to incomplete catch data, it is unlikely that discards under this exemption will have a significant impact on the anglerfish stock, given the volumes are indicted are very low.
Exemption	Main Findings of EWG 21-05
Whiting caught by vessels using pelagic trawls, beam trawls, bottom trawls and seiner in ICES subareas 8. A maximum of 5% of the total annual catches of whiting in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(m) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France (Annex 13) on discard rates of whiting in fisheries using trawls in ICES subareas 8 and 9. In 2019, discards under this exemption amounted for 0.21% of the catches, with 1.38 tonnes. In 2020, discard of whiting under this exemption in the French fleet account to 0.85%. Discard volumes amount to 4 tonnes for the exemption. Catches of whiting by these gears in the area amounted to 560 tonnes. Total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) amounted to 11,867 tonnes. A total of 10 French trawlers are reported to have

	availed of this exemption. No catch data for whiting is provided for Portugal and Spain. Updated information is provided by Belgium on discard rates of whiting in the beam trawl fishery in areas 8a and 8b. Total landings of whiting of 0.53 tonnes with no discards reported. Seven beam trawlers operated in the fishery. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study does not provide any specific information relating to whiting. France provided a summary of a study (REDRESS) on improving selectivity which concluded that the losses in commercial catches and value of landings is too high, when using any of the selectivity devices tested. The reduction of unwanted catches would be between 13 and 24% depending on the fishery, with corresponding losses of marketable catch of between 6-12%. It is not clear whether this relates solely to whiting or total catches in the fisheries. Additionally, France references a socio-economic analysis carried out based upon the least and the most impacting scenarios from an economic point of view on trawl fisheries. The study concluded that the landing obligation has a strong social impact that affects fishermen's incomes. The least impacting scenario was for vessels not to use selectivity devices. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that no economic information specific to whiting is provided and therefore cannot make any evaluation in relation to disproportionate costs. EWG 21-05 observes that only France and Belgium report catches of whiting in trawl fisheries. France reports very low volumes of discards (4 tonnes in 2020) and Belgium reports no discards at all with very low catches. Therefore, based on total catches of around 565 tonnes, the estimated volume of discards is less than 1% of total catches. The impact of the exemption on the overall whiting stock is likely to be low.
Exemption	Main Findings of EWG 21-05
Whiting caught by vessels using gillnets	**1. Exemption Status**

in ICES subareas 8. A maximum of 4% of the total annual catches of whiting in the specified fisheries.	Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(n) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information is provided by France on discard rates of whiting in fisheries employing gillnets in ICES subareas 8. In 2019, discards under this exemption amounted to 1.03% of the total whiting catches, totalling 2.59 tonnes. In 2020, this increased to 1.4% with a total volume of discards of 2.68 tonnes for the exemption. Total catches of whiting by these gears amounted to 181 tonnes out of total catches for the vessels operating in the area, with the gears covered by the exemption (all species included) of 4,313 tonnes. 21 French vessels reported discards under this exemption. No catch data is reported for Spain and Portugal. Belgium has no gillnetters operating in subareas 8 and 9 **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study does not provide any specific information relating to whiting. No other supporting information was provided. **4. EWG 21-05 observations** The supporting information on economic impacts was already provided in 2020. EWG 21-05 has re-examined the Spanish study and comments on the approach and methodology are provided in Section 7.1.1. EWG 21-05 observes that no economic information specific to whiting is provided and therefore cannot make any evaluation in relation to disproportionate costs. The catch information provided by France indicates that the volume discarded under the exemption was 2.7 tonnes in 2020 out of total catches of 184 tonnes, around 1.4%. Therefore, EWG 21-05 the likely impact of the exemption on the whiting stock is likely to be low.
Exemption	Main Findings of EWG 21-05
Anchovy caught by vessels using beam trawls, bottom trawls and seines in ICES subareas 8 and 9. A maximum of 5 % of	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(o) of Regulation (EU) No 2020/2015).

the total annual catches of anchovy in the specified fisheries.	**2. Definition of the fisheries** Updated information is provided by France on discard rates of anchovy in fisheries employing beam trawls, bottom trawls and seines in ICES subareas 8 and 9. The discard rate was 0.44% of the total landings of anchovy in 2020. Information for Portugal is also provided which indicates small landings of anchovy by bottom trawls targeting mixed demersal fish (OTB_DEF) as well as targeting horse mackerel, cephalopods and other finfish as well as in the bottom otter trawl for crustaceans (OTB_CRU) that targets deep-water rose shrimp, Norway lobster and blue whiting. There are no reported discards in the OTB-CRU fishery and no estimates from the OTB_DEF metier. Information on the fleets involved is provided for France (Annex 4) and Portugal (Annex 1). No information for Spain can be found. Additional data is provided from 4 French vessels during 11 trips fishing in area 8 and 9 in 2019. The discards under this exemption in the French fleet accounted for 0.44% of the catches, with a total of 0.75 tonnes. Discard information for Portugal shows very low levels of landings and discards of anchovy. **3. Basis for (the maintenance of) the exemptions** The justification for the exemption is largely the same as assessed by STECF 20-04. The same information from a detailed economic analysis of disproportionate costs (General Secretariat for Fisheries, in cooperation with: Tragsatec, the University of Santiago de Compostela and AZTI Tecnalia, November 2019) resulting from the additional time required for handling and sorting unwanted catches on board vessels is presented. The study indicates that in terms of lost opportunity costs, the not granting of all de minimis exemptions in the SWW amounting to € 9.2 million €. For anchovy opportunity costs of 2,803 € or 0.03% of the total opportunity costs are estimated. In addition, results for two French segments are presented for all the exemptions in sub-areas 8 and 9. For anchovy the estimated changes in the value of landings are 1.3 € (OTB_OTT_CRU_VIII) and 342.5 € (OTB_OTT_DEF_CEP_VIII) if the requested de minimis exemption for anchovy is not granted. This equates to 0.02% of the total losses from the value of landings estimated for all the requested exemptions for all species in the JR, if all such exemptions are not granted. Information is also provided on handling costs of the unwanted catch on board. Here no specific information on handling of anchovy is given. For the two French fleet segments the overall handling costs of all unwanted catch is 41,758 € (OTB_OTT_CRU_VIII) and 81,080 € (OTB_OTT_DEF_CEP_VIII). **4. EWG 21-05 observations**

	EWG 21-05 observes that only limited new information has been provided. The information on economic impacts was provided already in 2020. EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. EWG 21-05 comments on this study are contained in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the French vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be. The additional information provided by France indicate a low rate of discards well below the maximum 5% de minimis for anchovy in the fisheries covered by the exemption. The information provided by Portugal indicates similarly low levels of discards < 1 tonnes in the relevant bottom trawl fisheries. No information is provided for Spain, and it is felt highly unlikely that the Belgium beam trawl fleet operating in the northern part of the Bay of Biscay would encounter anchovy. Therefore, while EWG 21-05 cannot assess the volume of de minimis that could be discarded under the exemption due to a lack of catch data (no data from Spain), it is unlikely that discards under this exemption will have any significant impact on the anchovy stock, given the volumes of unwanted catch reported are very low.
Exemption	Main Findings of EWG 21-05
Red Sea Bream caught by vessels using bottom trawls, seines & beam trawls in 9a A maximum of 5 % of the total annual catches of red sea bream in the specified fisheries. (See Annex 24)	**1. Exemption status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(p) of Regulation (EU) No 2020/2015). **2. Definition of the fishery** No new information was provided. **3. Basis for the exemption** Even though, not referred to in the SWW JR, EWG 21-05 assumes that the justification for the exemption is the same as assessed by STECF 20-04 and based on the detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels. The study indicates that in terms of lost opportunity costs, Bottom trawlers in division 9a are estimated to experience losses amounting to of €20,400 for Spain €154,500 for Portugal if the requested

	de minimis exemption for red sea bream is not granted. This equates to 2.7% of the total losses estimated for the fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. No other supporting information is provided **4. EWG 21-05 Observations** EWG 21-05 observes that no new information has been provided so no evaluation can be made and the conclusions of EWG 20-04 are still relevant. The information on economic impacts was provided already in 2020. EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. EWG 21-05 comments on this study are contained in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be.
Exemption	Main Findings of EWG 21-05
Sole caught by vessels using bottom -trawls, seines and beam trawls in 9a A maximun of 5 % of the total annual catches of sole in the specified fisheries.	**1. Exemption Status** Existing temporary exemption granted until the end of 2023 but with a requirement for additional information to be provided by the 1st May every year (Article 14 point 1(q) of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** Updated information was provided for Portugal (Annex 1) for the period 2017-2019 which indicates that overall landings of sole by Portuguese vessels was 50 tonnes. The supporting annex from Portugal reports that no discards were reported. No information on the number of vessels involved is provided. The two relevant metiers - OTB_DEF and OTB_CRU - involve 58 and 24 vessels, respectively. Spain provided catch data by metier for the period 2017-2020 which includes four metiers using bottom trawls - OTB_DEF_>=55; OTB_MPD_>=55; PTB_MPD_>=55; OTB_MCD_>=55 (Annex 2). Only the OTB_MCD_>=55 metier reported landings of sole which averaged 6 tonnes (range from 1 -8 tonnes) with negligible unwanted catches. No catch data was reported for France. Belgian vessels do not fish in division 9a.

	3. Basis for (the maintenance of) the exemptions Even though, not referred to in the SWW JR, EWG 21-05 assumes that the justification for the exemption is the same as assessed by STECF 20-04 and based on the detailed economic analysis of disproportionate costs resulting from the additional time required for handling and sorting unwanted catches on board vessels. The study indicates that in terms of lost opportunity costs, bottom trawlers in division 9a are estimated to experience losses amounting to of €25,400 for Spain €55,300 for Portugal if the requested de minimis exemption for sole is not granted. This equates to 1% of the total losses estimated for all fleets subject to all the requested exemptions for all species in the JR, if all such exemptions are not granted. No other supporting information is provided. **4. EWG 21-05 observations** EWG 21-05 observes that no new information has been provided and the conclusions of EWG 20-04 are still relevant. The information on economic impacts was provided already in 2020. EWG 20-04 commented that it lacked the economic expertise to judge the new methodology for assessing disproportionate costs by calculating the opportunity costs of not granting the exemption. EWG 21-05 comments on this study are contained in Section 7.1.1. EWG 21-05 observes that the economic information provided on impacts of not granting the exemption indicates a comparatively low level of losses for the vessels involved in this fishery. However, only overall results are presented for all exemptions of possible impacts on the value of landings or increased costs for handling unwanted catches on board. Without additional information on the overall cost structure of those fleet segments it is not clear how severe such an increase might be. EWG 21-05 observes that based on the limited catch data provided, the level of discards of sole in the relevant fisheries is negligible. Therefore, the impact of the exemption on the sole stock is likely to be low.

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7.2. SWW – Proposals for high survivability exemptions

A summary of the proposed high survivability exemptions is given in Table 7.2.1.

Table 7.2.1. Summary of high survivability submitted as part of the SWW Joint Recommendations

Exemption	Main Findings of EWG 20-04
Cuckoo Ray caught caught by trammel nets in ICES subareas 8 and 9; caught by bottom trawls in ICES subarea 8	**1. Exemption status** This is an existing exemption (until 2022) for Cuckoo ray caught by trammel nets in ICES subareas 8 and 9, and 2021 for Cuckoo ray caught with bottom trawls in ICES subarea 8). A request is made in the JR to extend the exemption for another two years based on the available scientific evidence. **2. Survival evidence** A new study from France was provided by EWG 21-05. The new survival evidence identified by EWG 21-05 was a French study on cuckoo ray from the border between areas 7e/7h and 8a with bottom otter trawlS (SURF project; Baulier et al. 2021). The study involved extensive vitality scoring (164 trips) coupled to captive survival monitoring of a stratified subsample (based on a vitality index) during summer 2020. The relationship between vitality index and captive long-term survival (monitored 21 days) together with the vitality scores from the wider fishery was then used to estimate seasonal and overall survival. The ICES critical review was applied, and the estimates were considered robust. The overall survival probability across seasons and vessels ranged between 14-23% (95% CI). There was some indication of captivity related effects (20% of controls died in the summer, and up to 80% in the winter). The observations from winter were excluded. A slightly lower survival rate was observed during winter but variability between vessels was larger than between seasons. The most important factor identified to affect survival rate was haul duration but also wave height, fishing depth, air temperature and duration of air exposure displayed significant effects. There was also additional information referred to in the JR. Previous evidence from Portugal in area 9 for cuckoo ray was evaluated in EWG 19-08, based on vitality data that do not constitute discard survival estimates but indicate survival potential. Survival information from Spain in area 9a with bottom otter trawls was evaluated in EWG 20-04 (Barragán-Méndez et al. 2019). The survival rate was underestimated (ranging between 59% and 93%) and no controls were used and there was no observation to asymptote (only up to 48h). The total number of monitored individuals were not reported. The study did not find an effect of air exposure (30 and 60 min). Another Cuckoo ray discard survival study was evaluated by EWG 19-08 for Spanish bottom otter trawls. A total of 503 cuckoo rays caught with otter bottom trawl in ICES 9a were assessed for vitality, and 141 held for survival monitoring. 66.8% of cuckoo rays were alive at the point of release, 7.6% in excellent condition, 24% in good condition, 35% in poor condition and 33% were dead. All cuckoo rays died within 8 days of monitoring (survival was 0%) regardless of initial vitality. No controls were used to determine

	experimental induced mortality. This study indicates that the survival rate of discarded cuckoo ray could be zero in some fisheries. Annex 2 provided additional figures (poster presentation, Valeiras et al. 2019) from this study of bottom otter-trawls in ICES area 9a, indicating that cuckoo rays 17% (range between 10.1%-27.4%) survived a month-long period in captivity. Further field work is planned in 2021 (third quarter) as part of a PhD thesis (Universidad do Algarve) in Portugal to quantify survival of cuckoo ray discarded from a Southern Portuguese crustacean trawl-fishery. This study will combine on-board vitality observations with monitoring observations in captivity. So far, EWG 21-05 observes that the various evidence from different regions corroborates the notion that cuckoo rays display lower survival than other, larger ray species and that there could be zero survival in some fisheries. **3. Fishery context** No detailed or updated landings and discard statistics were provided. These were submitted for the French otter-trawl fleet for NWW, but not for SWW. Information on the Portuguese and Spanish fleets was evaluated in EWG 19-08, concluding that further details about discard quantities and discard rates were needed on all fishery-gear-area combinations to which the exemption applied. **4. Survival and fishery compatibility** Additional information on the fishing characteristics of other otter trawler fleets in the Gulf of Biscay could help assess how representative the new French cuckoo ray survival evidence is for the fishery, especially regarding seasons and deployment durations of fishing gears. **5. Additional evidence** A new study is planned to obtain scientific evidence of the survivability of cuckoo ray in the Portuguese otter-trawl fisheries. There was no explicit reporting against the road map, which is recommended in the future. Future submissions should report against the three main tasks in the road map.
Exemption	Main Findings of EWG 21-05
Red seabream caught by vessels using the artisanal gear voracera in ICES division 9a and with hooks and lines in ICES subareas 8 and 10 and ICES division 9a	**1. Exemption Status** Existing high survivability exemption granted until 31 December 2022. Member States having a direct management interest should submit as soon as possible, but not later than by 1 May 2022 additional scientific information supporting the exemption. (Article 11 point 1 of Regulation (EU) No 2020/2015). **2. Definition of the fisheries** A Roadmap of Portuguese survival studies to support this exemption was provided. This roadmap refers to the results from survival experiments detailed in a report dated May 2019 ("Blackspot seabream (*Pagellus bogaraveo*) in Portugal mainland (ICES Division 27.9.a): fisheries characterization and survivability experiments". Most of the specimens were

	found to be in Excellent (85- 89%) or Good (8-12%) conditions, and the at-vessel-mortality observed in the sampled trips was 0.6-2.6%. The observed survival rate in captive conditions after 36 hours was 86%. **3. Basis for (the maintenance of) the exemptions** No new information was supplied to EWG 21-05 for assessment as due to the COVID-19 pandemic, additional experiments planned to occur in 2020 were postponed to late 2021/early 2022. New survivability experiments with red seabream caught by demersal longlines are planned to be conducted under the project PPCENTRO. Those experiments aim to estimate the survival rates based on captive observations and during a longer observation period as suggested by the STECF PLEN 19-01 and 19-03 review in 2019. Captivity observations will be conducted for periods of three-weeks in IPMA's facilities in Peniche (located near the fishing harbour). Vitality, RAMP and lesions of the specimens and water quality parameters will be monitored daily. Additional vitality data after capture, RAMP and lesions will be recorded onboard for all the captured specimens **4. EWG 21-05 observations** Limited new information has been provided but new studies are planned to address issues raised by STECF EWG 19-08. The new experiments aim to estimate the survival rates based on captive observations and during a longer observation period in line with recommendations from ICES WKMEDS.
Exemption	Main Findings of EWG 21-05
Skates and rays (except cuckoo ray) (Rajiformes) caught with all gears in ICES subareas 8 and 9 Art. 3 - 2 (a) (d)	**1. Exemption status** This is an existing exemption until 2022. **2. Survival evidence** No new evidence was provided. Therefore, EWG 21-05 reiterates the conclusions from EWG 19-08 and 20-04 on previous work carried out. Previous evidence from Portugal in area 9 for thornback, spotted, blonde and undulate rays was evaluated in EWG 19-08, based on vitality data that do not constitute discard survival estimates but indicate survival potential, and tagged undulate rays caught by trammel nets with a return rate of 11%. Previous evidence was evaluated by EWG 18-06 for rays discarded from Spanish otter trawls and trammel nets in ICES areas 8c and 9a and was provided in Annex 2 (Valeiras and Álvarez 2018). Survival of thornback ray (after 1 month of captive observation) was estimated at 17% (10-27%, 95% CI) when discarded from otter trawls. The observations from trammel nets were not reported by species. Previous evidence was provided from Spain (EWG 20-04) provided for thornback ray in area 9a with bottom otter trawl. Estimated survival of thornback ray at medium term was 58% (47.7%-69.9%). The study did not use control individuals, and there was no observation to asymptote (up to 48h), therefore survival may have been overestimated. Also, there was no mention of the number of individuals assessed. The study did not find an effect of air exposure (30 and 60 min). Vitality evidence from two scientific trawls surveys was evaluated by EWG

	19-08. Most of rays were found in Excellent or Good conditions (60-72%), however, these data are not representative of commercial fishing conditions due to the short tow duration of 30 mins. A tagging experiment on undulate ray in area 8a was presented to EWG 19-08 but could not be evaluated without the full report, is provided (Morfin et al., 2019). The ICES critical review was applied, and the estimates were considered robust. After capture under commercial conditions (small otter trawl), 144 undulate rays were tagged with an acoustic transmitter, and at least 49% (95% CI 42-57%) were found to have survived the first 14 days after released. Smaller individuals had a lower chance of survival. **3. Fishery context** No updated information about fleet composition, landings, and discard statistics was provided. Information was evaluated previously in EWG 19-08 for the Portuguese fleet including gear type, number of vessels and estimated landings and discards. Morfin et al. (2019) provided a description of the French fleet. In the territorial waters of the division 8.a, undulate rays were mostly discarded by small (< 12 m) otter trawlers (29%), trammel netters (32%) and large set longliners (30%) in 2017 (source DPMA and Ifremer SIH). The French catches of all species were 515.7 t with 484 t discards in 2017. There was no additional information regarding the Spanish fleet. Additional information was provided by the regional group to EWG 18-06 about number of Spanish vessels per gear type operating in ICES area 8, but only a lumped discard rate was provided for all species and gears (29%). **4. Survival and fishery compatibility** As evaluated in EWG 19-08, the vitality data appeared to adequately cover the fishing activity, characteristics and conditions of the Portuguese trammel net and trawl fisheries, but do not constitute survival evidence. Survival evidence was relevant for the French small otter trawl fishery, which contribute to 29% of the French discards in area 8a for the undulate ray (of concern given high discard rate in coastal fisheries for the areas of interest) (Morfin et al., 2019). Additional information on the Spanish fleet could help assess how representative the survival evidence is for the fishery, especially regarding seasons. Indeed, even though evidence was collected in the Mediterranean Sea with expected different environmental conditions than in area 9a, it was shown that survival of thornback ray is negatively affected by warmer waters. The trial in area 9a was conducted in March, which based on available information would suggest a lower chance for survival in the summer when water temperature is higher. **5. Additional evidence** Previously, there was significant effort in addressing data gaps. An upcoming Portuguese study (delayed) will estimate the survival rates for the most important species based on captive observations (higher priority given to thornback ray caught in the net fisheries). A Spanish study (DESCARSEL) will continue once COVID restriction allow further on-board sampling, to estimate the survivability of skates and rays in Spanish bottom otter-trawls.

	There is another Spanish study to estimate the survivability of skates and rays in the artisanal Galician fleet discards using acoustic telemetry in the environment of a marine protected area, identify technical improvements to reduce the impact of discarding. A new survival study is planned (third quarter 2021) for Portuguese trammel net fisheries, combining on-board vitality observations with monitoring of post-release survival in captivity (PPCENTRO project) which will add to the knowledge on ray survivable. All relevant reports were appended as annexes, but it was difficult to tease out whether anything new was provided or any information updated. A summary table with all studies and fisheries would be helpful for further reporting indicating new information. The outputs of two recent ICES workshops on incorporating discards into the assessments and advice of elasmobranch stocks (WKSHARK5) and WKSURVIVE can provide some useful context for this exemption.

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7.3. SWW – Proposals for technical measures

Currently, regional technical measures for the SWW are mostly contained in Annex VII technical measures framework. However, a specific derogation relating to the MCRS of

anchovy that was included under Commission Delegated Regulation (EU) No 1394/2014 (SWW pelagic discard plan), is incorporated as a footnote to the mesh size table in Annex VII of Regulation 2019/1241. This measure was first assessed by STECF in 2014 (PLEN 14-02).

A derogation to the MCRS for horse mackerel in certain fisheries in ICES division 8c and ICES subarea 9 that was also included in Article 4 of THE SWW pelagic discard plan has been incorporated into the technical measures regulation through an amendment included in Commission Delegated Regulation (EU) 2020/2013. This measure was assessed by STECF in 2016 (EWG 16-10 and PLEN 16-02).

Additionally, Article 2 of the technical measures gives an empowerment to the Commission to extend technical measures to recreational fisheries in cases where recreational fishing has a significant impact in a regional sea basin. In this regard, the SWW Member States proposed MCRS for recreational fisheries for sea bass, red sea bream and cod in 2020. These have also been incorporated into Regulation (EU) 2019/1241 through Commission Delegated Regulation (EU) 2020/2013.

For 2021, the SWW Member States group has submitted a separate JRs for technical measures applying to Red Sea Bream in ICES subareas 8 and 9. This was previously assessed by STECF PLEN 19-01 and 19-03 but has been re-submitted with additional elements.

7.3.1. SWW - Joint Recommendation of the South-Western Waters Member States Establishing Management Measures for the Red Seabream In The Bay Of Biscay

Background

The status of the stock of red seabream (*Pagellus boragaveo*) in ICES subareas 6-8 (Celtic Seas and the English Channel, Bay of Biscay) is very little known (category 5) and is assessed every two years following the precautionary approach. The lack of consolidated data constitutes an important hindrance to a robust stock assessment.

Due to current status of the stock, zero-catch advice has been issued by ICES repeatedly for 2019-2020 and for 2021-2022. In line with the commitment undertaken at the Council of Fisheries Minister in November 2018, the European Commission asked the South- Western waters Member States group to consider and propose conservation additional measures to improve the status of the stock. The measures are based on two scientific assessments carried by the STECF Plenary in 2019 (PLEN-19-03, PLEN-19-01). This Joint Recommendation aims to align the management plans formerly put forward by France and Spain and to make them more effective at European regional level.

Request to the EWG 21-05

STECF is requested to assess the content of the national plans to ensure that the plans are comprehensive and effective to help improve the state of the stock.

Summary of the information provided to EWG 21-05

STECF EWG 21-05 notes that the provided supporting information comprises legislative documents, correspondence between the French Authorities and the European Commission and new scientific data in the form of the 2020 WGDEEP report on the progress of the PANDORA project.

Additional documents supplied:

- Resolución de 11 de marzo de 2019, de la Secretaría General de Pesca, por la que se distribuye la cuota de España de besugo (Pagellus bogaraveo), SBR-678; alfonsino (Beryx spp), ALF/3X14; y sable negro (Aphanopus carbo), BSF/8910, entre las flotas del Caladero Nacional (zonas VIIIc y IXa) y las flotas que operan en aguas de la NEAFC, y se establecen medidas de ordenación de la pesquería.
- Resolución de 10 de mayo de 2019, de la Secretaría General de Pesca, por la que se modifica la de 11 de marzo de 2019, por la que se distribuye la cuota de España de besugo (Pagellus bogaraveo), SBR-678; alfonsino (Beryx spp), ALF/3X14; y sable negro (Aphanopus carbo), BSF/8910, entre las flotas del Caladero Nacional (zonas VIIIc y IXa) y las flotas que operan en aguas de la NEAFC, y se establecen medidas de ordenación de la pesquería.
- Resolución de la de la Secretaría General de Pesca de 2 de Octobre de 2019, por la que se modifica la resolución de 11 de marzo de 2019, por la que se distribuye la cuota de España de besugo (Pagellus bogaraveo), SBR-678; alfonsino (Beryx spp), ALF/3X14; y sable negro (Aphanopus carbo), BSF/8910, entre las flotas del Caladero Nacional (zonas 8c y 9a) y las flotas que operan en aguas de la NEAFC, y se establecen medidas de ordenación de la pesquería.
- Arrêté du X octobre 2019 modifiant l'arrêté du 16 janvier 2019 portant limitation des débarquements de dorade rose (Pagellus bogaraveo) et interdiction d'utiliser la senne tournante pour capturer cette espèce dans les zones CIEM VI, VII et VIII
- Note des Autorités Françaises à la Commission Europeenne, le 11 juillet 2019. Mesures nationales de gestion du quota de dorade rose pour les années 2019-2020 – réponse de la France au courrier en date du 16 avril 2019.
- ICES. 2020. Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP). ICES Scientific Reports. 2:38. 928pp. http://doi.org/10.17895/ices.pub.6015

STECF EWG 21-05 also reviewed the findings of:

- STECF PLEN 19-01, section 6.10 – Assessment of national plans, established by France and Spain for red seabream in subareas 6-8, in order to ensure that the plans are comprehensive and effective.
- STECF PLEN 19-03, section 6.2 – red seabream (ICES 6-8) additional conservation measures by France and Spain

EWG 21-05 observations

Context of the Joint Recommendation

According to the Joint Recommendation the main aim is to align the existing national management plans for red seabream formerly put forward by France and Spain (evaluated in STECF PLEN 19-01 and 19-03), and to make them more effective at European Regional level. The JR is the result of technical meetings held between Member States of the South- Western waters group during the 2nd half of 2020. The Joint Recommendation includes existing national measures established by France and Spain with the inclusion of some new measures.

The Joint Recommendation applies to fisheries catching red seabream in ICES sub-area 8 only and in combination of the JR from the North-Western Waters Member States between them cover the area covered by the red seabream TAC (i.e. ICES sub-areas 6, 7 and 8). The JR includes spatio-temporal closures for commercial and recreational fisheries, increases to MCRS and details of ongoing and planned research work.

Spatio-temporal closures

EWG 21-05 observes that the Spanish national closures (7 areas) for longliners (LLS) and bottom trawlers (OTB) aim to protect spawning red sea bream. The closure areas are within the western area of the Cantabrian Sea (ICES 8c) and STECF 19-01 acknowledged that red seabream spawning occurs over the offshore shelf and/or at the shelf break and current spawning areas are assumed to be primarily in the Cantabrian Sea. Spatially, the closures are broadly appropriate, but no information is presented on habitat type, depth or catches of red seabream within the closure areas. Therefore, it is not possible to assess if these closures will provide protection to spawning red seabream as supporting evidence is not provided.

EWG 21-05 observes that the proposed closure period is between 1st February and 30th September. No scientific evidence is supplied to justify the temporal extent of the closures and it is not possible to evaluate their effectiveness. The area closures start in February whereas STECF 19-01 considered that in ICES 8c and 9a, that the spawning of red seabream takes place in winter months (January-March). Therefore, the closures do not cover the entire spawning period but extended beyond the end of the spawning period.

EWG 21-05 observes that the Spanish national closures (8 areas) for recreational fisheries aim to protect juveniles. STECF 19-01 noted that catches in recreational fisheries contribute to a significant proportion of the mortality of juveniles owing to their coastal distribution. Therefore, in addition to managing the commercial fishery, recreational fishing of red seabream should also be included in the management plans. However, as no information on catches from these areas was provided it is not possible to assess their effectiveness in protecting juveniles accepting that they are in Spanish ports and estuaries, which STECF PLEN 19-01 identified as the preferred areas for juvenile red sea bream.

EWG 21-05 observes that the areas are proposed to be closed year-round. A year-round closure to recreational anglers in these areas is likely to provide significant protection for red seabream. However, it is not clear if commercial fishers may fish within the closed areas which would to some degree negate the effect of the closures

EWG 21-05 acknowledges that the French national closure for red seabream in ICES divisions 6, 7 and 8 which prohibits fishing from 1st January to 30th of June each year is meant to dissuade fishers from targeting red seabream or continuing to fish in areas where red seabream catches are prevalent. However, as noted by STECF 19-01 and 19-03 this TAC is for bycatch only. As the closure area remains open to fishing for other species, bycatch of red seabream is likely inevitable and the landing obligation necessitates that catches of red seabream must be landed and counted against the quota regardless of the spatio-temporal closure to targeted fishing. Therefore, this measure is unlikely to reduce fishing mortality on red sea bream significantly as bycatch will still occur.

Minimum conservation reference size

EWG 21-05 observes that an MCRS for commercial fisheries of 36cm is proposed but reiterates the findings of STECF PLEN 19-01 and 19-03 that an MCRS of 40 cm or more is required to adequately protect adult females. EWG 21-05 notes that no additional size selectivity measures have been established to reduce unwanted catches below MCRS as suggested by STECF PLEN 19-01 and 19-03.

EWG 21-05 reiterates the findings of STECF PLEN 19-01 and 19-03 and considers that an MCRS of 40 cm is appropriate for recreational fisheries and that catch and release for anglers is likely to be viable in the case of undersized/ unwanted catches. The Spanish

national catch limit of one fish/per year for licensed recreational fishers has potential to substantially decrease catches of red seabream in Spanish coastal areas providing it is observed by recreational fishers. STECF PLEN 19-01 estimated that more than 8 tonnes of red seabream could be landed by recreational fishers in the region of Galicia alone.

Research work

STECF PLEN 19-01 and 19-03 suggested that research should also aim to improve the biological knowledge on species reproduction and maturity stages and that updating the estimates of size/age at maturity as male and female, the size-as sex-change and the proportion of gonochoric individuals would also be beneficial.

EWG 21-05 acknowledges that further research programs are underway by South-Western Waters Member States to provide additional biological information. In their correspondence with the Commission, French authorities have indicated their intention to initiate a more in-depth investigation into the management of this stock. This includes:

- Ongoing work on an analysis of the current spatial distribution based on commercial data, catches during surveys and onboard observations (Obsmer program).
- Use of an environmental DNA method in 2020 to obtain an indicator of abundance. The initial results suggest that this method is more relevant than acoustics for obtaining an indicator of the abundance of a rare species such as red seabream and monitoring its reconstitution.
- Use of acoustics to estimate biomass of red seabream under the EU PANDORA project.

EWG 21-05 observes that preliminary results were provided only for the work that took place under the PANDORA project. While this research took place in North-Western Waters it is relevant in South-Western Waters as the stock straddles both. According to the 2020 WGDEEP report a six-day acoustic survey was carried out to the west of Brittany during 2019. An age-structured stock assessment model was developed based on previous modelling to accommodate the integration of acoustic biomass estimates.

EWG 21-05 notes that a Spanish on board observer program has likewise been running since 2019 but no details of its findings were provided with the JR.

EWG 21-05 conclusions

EWG 21-05 concludes that the management measures presented in the Joint Recommendation of the South-Western Waters represent an improvement on the measures presented in 2019. They have the potential to reduce catches of red seabream but due to lack of supporting data it is not possible to assess fully whether catches will be reduced to the level of the 2021 TAC.

EWG 21-05 concludes that the Spanish national closures for commercial fisheries are in the general area where spawning is likely to take place, but it is not possible to evaluate how effective they will be due to lack of supporting evidence.

EWG 21-05 concludes that the introduction of the Spanish national measures of closed areas to recreational fishers appear to be in areas (estuaries and around ports) where juvenile red seabream aggregate. However, it is not possible to evaluate how effective they will be due to lack of supporting evidence.

EWG 21-05 concludes that the additional Spanish national catch limit of one fish per licensed recreational fisher per year has potential to substantially reduce catches of red seabream in coastal areas.

EWG 21-05 concludes that the French national spatio-temporal closure coincides with the spawning period for this species. However, the closure only prohibits targeted fishing for red seabream and should bycatch occur when fishing for other species the landing obligation necessitates that red seabream be landed and counted against quota.

EWG 21-05 concludes that the increased MCRS for commercial of 36cm is below the MCRS of 40cm proposed by STECF PLEN 19-01 and 19-03 necessary to protect adult females and is necessary to rebuild the stock.

EWG 21-05 concludes that no additional size selectivity measures have been established to reduce unwanted catches below MCRS as was also highlighted in STECF PLEN 19-01 and 19-03. Without an increase in size selectivity catches are likely to remain the same while the unwanted portion of the catch is likely to increase.

EWG 21-05 concludes that the MCRS of 40cm proposed for recreational fisheries is appropriate.

EWG 21-05 concludes that significant research work is planned by SWW Member States which will contribute to the biological knowledge of the red sea bream stock.

References

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7.4. SWW – Definition of Directed Fishing

Background

All amendments, supplements, repeal or derogations from technical measures will be based upon Article 15 of the Technical Measures Regulation (Regulation (EU) 2019/1241). The entry into force of this Regulation resulted in the introduction of the process of regionalization in numerous fields as far as technical measures are concerned. In this process, the regional groups should develop joint recommendations that would need to be evaluated by STECF in order to assess to what extent the joint recommendation proposed is in line with achieving the objectives set out in Article 3 and the targets in Article 4 of the Regulation.

Request to the EWG 21-05

No specific request was made to WG 21-05 and therefore the EWG response has followed the original request to STECF on directed fisheries as follows:

Based on the conclusions of STECF PLEN 20-02 and its preparatory ad hoc contract, STECF is requested to assess whether and to what extent the joint recommendations that are setting out the specifications of Article 27.7 and in Part B of Annexes V to XI of Regulation (EU) 1241/2019:

I. Could lead to a deterioration of selectivity standards and to what extent in particular in terms of an increase in the catches of juveniles, existing on 14 August 2019 (date of entry into force of TMR);
II. Would help achieve the objectives and targets set out in Articles 3 and 4 of the TMR;
III. The information provided for each sea basin is sufficient or whether it is possible to identify complementary information allowing for a complete analysis.

If joint recommendations are submitted, the Member States provided the data and information to demonstrate that the three elements listed above (STECF conclusions 20-02) have been considered in the definition proposed for 'directed fishing' and the definition can be justified based on such data and information. This also includes providing corresponding datasets of individual logbook and sea-sampling trip data that are needed to assess the robustness and the impact of the catch composition threshold. Where the data provided information is not sufficient, the STECF is requested to identify what information and data should be provided in order for a complete assessment IV.

IV. The STECF should further assess the implications of the joint recommendations for other policies, mainly the compatibility with the landing obligation (Article 15 CFP) and other technical regulations.

Summary of the information provided to EWG 21-05

EWG 20-03 was provided with:

a) A document from the South-Western Waters Member States Group including a list of the supporting annexes (excel files) with a brief explanation of what each excel file provided refers; and
b) Some 12 numbered excel files with 2020 catch data from logbooks per vessel and trip for specific métiers included in the JR Annex I & II, except for the excel file n. 3 that refers to sales notes. The excel file n. 7 includes data for the Portuguese fishing fleet by species per pre-defined gear and mesh size, but the criteria for the definition of metiers was not provided, and it was not specified to which métier in the JR Annex I & II it refers to.

EWG 21-05 observations

EWG 20-03 was not provided with the past or with an updated Joint Recommendation of the South-Western Waters High-Level Group (SWW JR). However, the document provided by the SWW Member States does refer to the SWW JR of 11 August 2020 and its corresponding tables in JR Annex I & II.

EWG 20-03 also notes that in the document provided by the SWW Member States it is stated that the aim of the SWW JR "*is to define what is directed fisheries, using the mesh size regulation established in Regulation EU 2019/1241*". However, PLEN 20-03 already noted that the SWW JR does not represent new derogations from the baseline mesh sizes established in the TMR, except in the case of sandeel with towed gears, where the metier and its catch thresholds are deleted. PLEN 20-03 also noted that most

of the thresholds proposed in the JR are not new thresholds, but rather derived from the thresholds prevailing in technical regulations in place before the implementation of Regulation (EU) 2019/1241, namely in Annex II of Regulation (EC) 850/98. EWG 21-05 understands these were based around catch composition rules applying to a long list of species contained in Annex II. It is therefore unclear to the EWG 21-05 the requirement for a definition of directed fisheries based on the catch thresholds when these derogations already exist in Regulation (EU) 2019/1241. It is also unclear to EWG 21-05 the consequences for vessels if they do not meet the catch thresholds at the end of a fishing trip (i.e. what is the penalty for a vessel for not complying with these catch thresholds).

EWG 21-05 summarised the data provided for the metiers established in the SWW JR Annex I & II (Table 1, except for excel file n. 7). This includes catch composition information from logbooks per trip and vessel, the total numbers of vessels within each metier and the vessels that will avail of the derogation. The data provided to the EWG 21-05 does show the multispecies catch composition in many of the metiers analysed, and the high catch variability in terms of species composition and volumes, between different trips, vessels, but also years. Annual changes are only illustrated in the excel file n. 7 that has catch data from the Portuguese fisheries between 2018 and 2020 (not shown in the table as it is not divided by catch thresholds or by trip), which also shows that some thresholds may not be applicable to certain fisheries in a given year. For example, in 2019 the proportion of catch for all the vessels fishing for rose shrimp with at least 55 mm mesh size does not reach the 50% catch threshold defined, but it does in 2018 and 2020.

The data provided to the EWG 21-05 and summarised in Table 1 also shows that the vessels that meet the catch thresholds corresponds to between 23.5% and 75.5% of the total vessels of that metier, with an average of 44.1% for towed gears; and between 33.8 and 96.6%, average of 58.2% for static gears. Furthermore, the vessels that have less than 10 trips within the vessels that reach the threshold can vary between 11.8 % to 100% for towed gears, 42.3% and 61.4% (i.e. there are a significant proportion of vessels in some metiers where only a few trips meet the catch threshold). This may not necessarily be an issue for the vessels involved but will make control, and enforcement of the catch threshold rules challenging.

EWG 21-05 notes that the data provided does allow for an evaluation of the suitability of the use of a catch threshold to define directed fisheries for the SWWs. However, the data shows the high catch variability between trips, vessels, and years in these metiers; but also, that on average only 44% and 58% of the vessels using towed and static gears, respectively, meet the catch thresholds and of these a high proportion only reaches it in a few trips.

These results lead the EWG 21-05 to note that thresholds based on catch to defined directed fisheries may not be suitable for the metiers present in the SWWs, due to high catch variability in terms of number of species and volumes. Furthermore, the catch thresholds as defined in the SWW JR exclude a high proportion of vessels already derogated from the TMR baseline mesh sizes because, as the data shows, many vessels fail to reach the thresholds. The impact of a vessel not reaching a catch threshold, namely if it falls back to the baseline mesh size or not, is unclear. Additionally, it is not clear what are the consequences for a vessel for consistently not meeting the catch threshold but continuing to use the derogated gear.

Table 7.4.1. - The first 4 columns of both tables (Annexes I & II) are derived from STECF PLEN 20-03. Data was provided on the number of vessels and their respective fishing trips that apply to the thresholds in the table. The provided data was further analyzed to assess the relation of the vessels and trips that comply with these thresholds to the total number of vessels and trips within this fleet/métier.

Towed gears

Mesh size[6]	**Geographical areas**	**Conditions**	**Definitions of "directed fishing" included in the JR**	**Area**	**Total vessels[1]**	**Total trips**	**Vessels within thresholds and % from total in brackets[2]**	**Total trips from these vessels**	**Trips within thresholds and % from total in brackets**	**Number of vessels with < 10 trips and %**	**Trips total of vessels with < 10 trips**
At least 55 mm	Whole area excluding ICES division 9a East of longitude 7°23'48"W	Directed fishing for species not subject to catch limits and which are not covered elsewhere in the table	Minimum 60%	8 and 9, except 9A	12	329	6 (50)	201	36 (17.9)	4 (66.7)	12
		Directed fisheries for red sea bream	Minimum 30%	8 and 9, except 9A	12	329	0	0	0	0	0
		Directed fishing for mackerel, horse mackerel and blue whiting with bottom trawls	Minimum 30%	9A	148	21919	112 (75.7)	17461	3380 (19.4)	58 (51.8)	214
				8 and 9	12	328	3 (25)	133	8 (6.0)	3 (100)	8
At least 35 mm	Whole area	Directed fishing for wedge sole	Minimum 30%	9A	69	2036	26 (37.7)	1047	928 (88.6)	8 (30.8)	38
At least 55 mm	ICES division 9a East of longitude 7°23'48"W	Directed fishing for crustaceans, included rose shrimp (*Parapenaeus longirostris*)	Minimum 30%	9A	148	21919	110 (74.3)	17825	10719 (60.1)	13 (11.8)	43
At least	Whole area	Directed fishing for	Minimum 80%	8 and 9	149	5173	34 (22.8)	2097	1722 (82.1)	6 (17.6)	13

16 mm		small pelagic species which are not covered elsewhere in the table									
		Directed fishing for shrimps (*Palaemon serratus*, *Crangon crangon*), and crab (*Polybius henslowi*)	Minimum 30%	8 and 9	149	5173	35 (23.5)	1762	923 (52.4)	12 (34.2)	71
Less than 16 mm	Whole area	Directed fishing for sandeel	Minimum 90%								

[1] Total vessel is assumed as the total number of vessels in this fleet/métier.

[2] The percentage is calculated using the number of vessels or trips that are within the thresholds and the total number of vessels and trips that comply with the thresholds.

[6] The mesh sizes, geographical areas and conditions are taken directly from Annex VII Part B of Regulation (EU) 2019/1241.

Static gears

Mesh size	Geographical areas	Conditions	Definitions of "directed fishing" included in the JR	Area	Total vessels	Total trips	Vessels with these conditions	Total trips from these vessels	Trips with these conditions	Number of vessels with < 10 trips	Trips total of vessels with < 10 trips
At least 80 mm	Whole area except ICES division 8c and ICES subarea 9	Directed fishing for sea bass, whiting, turbot, flounder and pollack	Minimum 50%								
At least 60 mm	Whole area	Directed fishing for species not subject to catch limits and which are not covered elsewhere in the table	Minimum 30%	8 and 9	169	5052	115 (68.0)	4425	2553 (57.7)	56 (48.7)	214
At least 50 mm	Whole area	Directed fishing for small pelagic species (except sardine) which are not covered elsewhere in the table	Minimum 70%								
At least 40 mm	Whole area	Directed fishing for red mullet, shrimps (*Penaeus* spp.), mantis shrimp, wedge sole and wrasse	Minimum 40%	9	61	2665	21 (34.4)	1485	407 (27.4)	11 (52.4)	31
				8 and 9	299	10806	101 (33.8)	5867	1432 (24.4)	62 (61.4)	194
Less than 40 mm	ICES subarea 9a	Directed fishing for sardine (*Sardina pilchardus*)	Minimum 50%	9a	147	4277	142 (96.6)	4202	266 (6.3)	60 (42.3)	210

In relation to whether the SWW JR would help achieve the objectives and targets set out in Articles 3 and 4 of the TMR, namely on an improvement of selectivity standards and a reduction in juveniles catches. EWG 21-05 notes that if the vessels that fallout from the derogation revert back to the TMR baseline mesh size, then they would be required to operate with higher mesh sizes and in theory, they may be a reduction of juvenile catch. However, these are fisheries that are already legally operating with derogated smaller mesh sizes, and the impact of reducing mesh size and what is the legal requirement is, as stated above, unclear.

Finally, PLEN 20-03 already noted that no means to monitor and control these thresholds are specified in the JR and it is unclear how these thresholds would apply in the context of the landing obligation, under which all catches must be landed. There is no indication of the measures to be taken to prevent the thresholds not being reached on a regular basis by an individual vessel or multiple vessels. EWG 21-05 notes that if no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

EWG 21-05 conclusions

EWG 21-05 concludes that the data provided allows for an evaluation of the suitability of the use of a catch threshold to define directed fisheries for the SWWs.

EWG 21-05 concludes that the thresholds based on catch to defined directed fisheries may not be suitable for the metiers present in the SWW. Furthermore, the catch thresholds as defined in the SWW JR exclude a high proportion of the vessels already derogated from the TMR baseline mesh sizes. The impact of a vessel not reaching a catch threshold, namely if it will be required to operate within the baseline mesh size or not, is unknown.

EWG 21-05 is unable to evaluate if it will lead or not to a deterioration of selectivity standards as the impact of the catch threshold on derogated vessels is unknown. It is not possible to assess whether it would lead to an increase in juveniles catches or not, and thus to evaluate the consequences of the thresholds proposed in the SWW JR on the objectives and targets set out in Articles 3 and 4 of the TMR 2019/1241. In any case EWG 21-05 notes that the derogations are already contained in the TMR 2019/1241, and since they refer to smaller mesh sizes compared to the baseline, they are unlikely to help reaching the objectives and targets contained in Articles 3 and 4.

Regarding the implications of the SWW JR for other policies, mainly the compatibility with the landing obligation, EWG 21-05 reiterates the PLEN 20-03 conclusion that as no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries.

EWG 21-05 reiterates the PLEN 20-03 conclusion that it is also unclear as to how these thresholds would apply in the context of the landing obligation, under which all catches must be landed. EWG 21-05 concludes that if no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

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8. MEDITERRANEAN – OVERVIEW OF JOINT RECOMMENDATIONS

Commission Delegated Regulation (EU) 2018/2036 that amended Delegated Regulation (EU) 2017/86 established a discard plan for certain demersal fisheries in the in the Adriatic Sea, the South-Eastern Mediterranean Sea and the Western Mediterranean Sea. It principally covers demersal fisheries for sole, hake, scallop, Venus shells, carpet shells, red mullet and deep-water rose shrimp using a range of fishing gears. The *de minimis* exemptions included under this amended discard plan are valid until 31 December 2021, having been re-assessed in 2019 by EWG 18-06 and STECF PLEN 19-02. Given these *de minimis* exemptions are due to expire at the end of 2021, the Member States Regional Groups (PESCAMED, ADRIATIC and SUDESTMED) submitted additional information and updated data to support the continuation of these exemptions. The main elements of the existing discard plans which have been assessed by EWG 21-05 are summarised in table 8.1.

Table 8.1 Main elements of the Joint Recommendations submitted for the Mediterranean

Elements	***Contained currently in pelagic or demersal discard plan***	***Status with relevant Article in current discard plan***	***Assessment by EWG 21-05 with relevant Annexes in JR***
De minimis			
Hake and mullets caught by bottom trawls all areas	Demersal	Temporary until end of 2021 Article 4(1a(i)), 4(1b(i)) & 4(1c(i))	Re-assessed based on supporting information supplied by ADRIATICA, PESCAMED & SUDESTMED
Hake and mullets caught by gillnets and trammel nets all areas	Demersal	Temporary until end of 2021 Article 4(1a(ii)), 4(1b(ii)) & 4(1c(ii))	Re-assessed based on supporting information supplied by ADRIATICA, PESCAMED & SUDESTMED
Demersal finfish[1] under the landing obligation (excluding hake, mullets and pelagic species) and deep-water rose shrimp caught with bottom trawls, Adriatic Sea and Western Mediterranean	Demersal	Temporary until end of 2021 Article 4(1a(iii)), 4(1b(v)) & 4(1c(iv))	Re-assessed based on supporting information supplied by ADRIATICA & PESCAMED
Demersal species under the landing obligation excluding hake, mullets, deep water rose shrimp and pelagic species caught with bottom trawls, South-Eastern Mediterranean	Demersal	Temporary until end of 2021 Article 4(1a(iii)), 4(1b(v)) & 4(1c(iv))	Re-assessed based on supporting information supplied by SUDESTMED
Demersal finfish[1] under the landing obligation excluding hake, mullets and pelagic species caught with gillnets and trammel nets, all areas	Demersal	Temporary until end of 2021 Article 4(1a(iv)), 4(1b(vi)) & 4(1c(v))	Re-assessed based on supporting information supplied by ADRIATICA, PESCAMED & SUDESTMED
Common sole caught by bottom trawls, Adriatic	Demersal	Temporary until end of 2021	Re-assessed based on supporting

Sea		Article 4(1b(iv))	information supplied by ADRIATICA
Demersal finfish[1] under the landing obligation excluding hake, mullets and pelagic species caught with hooks and lines, all areas	Demersal	Temporary until end of 2021 Article 4(1a(v)), 4(1b(vii)) & 4(1c(vi))	Re-assessed based on supporting information supplied by ADRIATICA, PESCAMED & SUDESTMED
Bycatches of Anchovy, Sardine, Mackerel and Horse mackerel caught by bottom trawls, Adriatic Sea & South-Eastern Mediterranean	Demersal	Temporary until end of 2021 Article 4(1a(vi)), 4(1b(viii)) & 4(1c(vii))	Re-assessed based on supporting information supplied by ADRIATICA & SUDESTMED
Hake and mullets caught by rapido, Adriatic Sea	Demersal	Temporary until end of 2021 Article 4(1b(iii))	Re-assessed based on supporting information supplied by ADRIATICA
Deep-water rose shrimp caught by bottom trawls, South-Eastern Mediterranean	Demersal	Temporary until end of 2021 Article 4(1c(iii))	Re-assessed based on supporting information supplied by SUDESTMED
Lobster and crawfish caught by pots and traps, South-Eastern Mediterranean	Demersal	Temporary until end of 2021 Article 3(1h,i)	Re-assessed based on supporting information supplied by SUDESTMED
High survivability			
Scallop, Carpet clams, and Venus shells caught with mechanised dredges, Western Mediterranean	Demersal	Temporary until end of 2021 Article 1(1b), 1(1c) & 1(1d)	Re-assessed based on supporting information supplied by PESCAMED
Norway lobster caught with bottom trawls, Western Mediterranean	Demersal	Temporary until end of 2021 Article 1(1e)	Re-assessed based on supporting information supplied by PESCAMED
Norway lobster caught with pots and traps, Western Mediterranean	Demersal	Temporary until end of 2021 Article 1(1f)	Re-assessed based on supporting information supplied by PESCAMED
Red seabream caught with hooks and lines, Western Mediterranean	Demersal	Temporary until end of 2021 Article 1(1g)	Re-assessed based on supporting information supplied by PESCAMED
Lobster and Crawfish caught with nets and with pots and traps, Western Mediterranean	Demersal	Temporary until end of 2021 Article 1(1h) & 1(1i)	Re-assessed based on supporting information supplied by PESCAMED

[1]Demersal finfish refers to European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus* spp.), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), red seabream (*Pagellus bogaraveo*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (*Polyprion americanus*) and gilthead seabream (*Sparus aurata*)

8.1. Proposals for *de minimis* exemptions

A summary of the information provided to support the *de minimis* exemptions for demersal species in the Western Mediterranean, South-Eastern Mediterranean and Adriatic Sea is provided in tables 8.1.1.1, 8.1.2.1 and 8.1.3.1, respectively.

8.1.1. Western Mediterranean Sea

General observations

The Joint Recommendation for a discard plan for the Western Mediterranean presented by the PESCAMED high level group includes proposals to extend several de minimis exemptions granted under Commission Delegated Regulation (EU) 2017/86 and amended by Commission Delegated Regulations (EU) 2018/2036 and 2020/4 and which expire at the end of 2021. The proposals are accompanied by supporting documentation from France, Italy and Spain.

The supporting information includes:

- From SPAIN: A document "Informe IEO sobre excepciones OD en MED (30 abr 21).pdf" and a courtesy translation into English – "EO report JR LO MED courtesy translation (30 abr 21).docx" present arguments in support of the proposed exemptions based on costs of handling unwanted catches together with average (2015-2019) landings (t) and discards (t) of hake (*Merluccius merluccius*), red mullet (*Mullus surmuletus* and *Mullus barbatus*) and red sea bream (*Pagellus Bogaraveo*) for bottom otter trawl (Arrastre) and gill nets (Enmalle) and for *Pagellus bogaraveo* by bottom long-line (Palangre de fondo) by Spanish vessels.
- FROM ITALY: A document "Italy - consideration on landing obligation for small pelagic and demersal fisheries_2021.docx" containing arguments in support of the proposed exemptions based on costs of handling unwanted catches together with a table of data listing landings and discards of demersal species by gear group.
- From FRANCE: A document "Annexe FR.docx" which provides a brief overview of the project Gallion which addressed inter alia, aspects of selectivity for trawlers and which was reported on in 2017 andto the IMPLEMED project
- A document "IMPLEMED project west med.docx" providing an overview of a project "Improving the selectivity of trawl gears in the Mediterranean Sea to advance the sustainable exploitation pattern of trawl fisheries", funded by the European Commission (Contract EASME/EMFF/2019/1.3.2.6/01/SI2.818717-SC04), which commenced on 20th December 2019 and is still in progress.

EWG 21-05 considers, as a general observation, that the data and information provided in support of the proposed de minimis exemptions are largely uninformative in justifying why the continuation of the exemptions are proposed, the impacts that such exemptions have had to date and the likely consequences to the fisheries and stocks concerned if the exemptions are granted or declined.

Table 8.1.1.1 Summary of *de minimis* exemptions submitted for the Western Mediterranean exemptions relating to demersal species

Exemption	Main Findings of EWG 21-05
Hake and mullets, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the Western Mediterranean Sea	**1. Exemption status** Existing temporary exemption granted until the end of 2021 under Commission Delegated Regulation (EU) 2020/4. There is no specific request for supporting information in the Delegated Act. This exemption was introduced in the approximate same format as it is currently sought, already in 2016. It was then a request for 7%, later reduced to 6% and then further reduced to 5% in 2018. The following recitals published in Delegated Regulation (EU) 2020/4 are also relevant: (*23) Member States renewed their commitment to increase the selectivity of the fishing gears in accordance with the results of current*

	research programmes in order to reduce and limit unwanted catches and particularly catches below minimum conservation reference sizes. *(24) Furthermore, Member States commit to identify further nursery areas in order to reduce juvenile mortality.* *(25) In line with the joint recommendation for the western Mediterranean Sea, the concerned Member States encourage the use of codend trawls or extension fitted with a T90 50mm mesh size and the continuation of real time closures trials.* **2. Definition of the fishery** In the review of the initial exemption request in 2016, the EWG 16-06 noted the following: "*EWG 16-06 notes that discards data in the Mediterranean is only collected for a very limited number of fisheries, and that the number of fishing trips for which discards are monitored in line with DCF requirements is generally low. As such the information presented on discard rates may not in fact represent the true situation in the Western* [Mediterranean]". It was also noted that the discards were variable and particularly high, far exceeding the 6% then requested. Since 2017, the derogation was not reassessed, as no new information was provided. New data on the number of vessels involved, catches and discards has been provided to EWG 21-05 for France, Italy and Spain. There are 60 French trawlers with catches of hake and red mullets. Discards of the former represent 0.5% of the catches (1.7 tonnes) and of the latter they represent 0.6% (2.4 tonnes). Italy has a total of 272 vessels (2 TBB + 270 OTB/OTM) operating in the Western Mediterranean. OTB account for a hake discard rate of 26,1% (157 tonnes) and a mullet discard rate of 8.6% (*Mullus barbatus* only – 91.4 tonnes). No data on the Spanish trawler fleet is provided, but data on catches and discards show that 4.65% of hake are discarded (107.3 tonnes), whereas 2% of *Mullus barbatus* (32.2 tonnes) and 0.59% of *Mullus surmuletus* (2.2 tonnes) are also discarded. The data shows that: 1) discards of hake vary between 0.5% and 26.1%, to a total of 266t, or 8.2% of the corresponding catches for the Western Mediterranean region; 2) discards of mullets vary between 0.6% and 8.6%, to a total of 128t, or 3.5% of the corresponding catches for the Western Mediterranean region. 3) The combined discards for all taxa in this request are 5.6%. **3. Basis for the exemption** Evidence presented consists of landing and discard data, extracted from the fishery for which the exemption is requested. Generic arguments based on disproportionate costs, justified by a lack of infrastructure in small ports to process these catches, including no processing industry and no refrigerated storage facilities are also presented. These are not new and have been used in previous JRs. Selectivity studies have been conducted by France, assessing catches of fish under MCRS, of 40mm square mesh versus 50mm diamond mesh, without any significant improvements being observed. Further studies

	will be conducted in future with other rotated mesh sizes, but no timeframes or details were presented. **4. EWG 21-05 Observations** The evidence is reasonable in terms of the catch and discard data but, the supporting information to justify the exemptions is scant. Arguments in favour of the exemption are based on the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) of around €3000 euro per year. This represents about 7.5% of the gross profit of the "average" vessel. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. EWG 21-05 observes that the level of the exemption sought is close to 100% of the volume of discards. Improving selectivity should be the priority and in this regard, it is desirable that, as committed by the concerned Member States, additional selectivity studies are conducted on further mesh size / mesh orientation combinations, in order to assess whether improvements are possible. The use of MPAs which was not included in previous JRs as an alternative to selectivity improvements, is not mentioned in any of the deliverables submitted in support of the JR (e.g. on additional areas or seasons with fisheries restrictions), even though it is also a part of the commitments reflected under recital (24) of Delegated Regulation (EU) 2020/4. However, EWG 21-05 notes that according to the provision established in the MAP of Western Mediterranean, the Italian government was tasked with the introduction of specific area closures, in order to pursue the objective of reducing at least 20% of catches of juveniles of European hake. Ten Fishery Restricted Areas (FRAs) to protect EFH for recruitment of hake were thus implemented in the Ligurian and the Tyrrhenian Seas covered by Reg. EU 1022/2019 in GSA 9, 10 and 11. These FRAs, in which the use of any towed gear, such as "divergent trawls", "rapid trawls", "divergent twin nets", "pelagic trawls with pairs", "divergent pelagic trawls" and "dredges pulled by vessels", is prohibited, have been identified in the Annex 1 of the Decree of the General Director of Fisheries (MiPAAF) Prot. No 9045689 of 6 August 2020. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Hake and mullets,	Arguments in favour of the exemption are based on the potential cost

up to a maximum of **1%** of the total annual catches by vessels using **gillnets and trammel nets** in the Western Mediterranean Sea	for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) of around €3000 euro per year. This represents about 7.5% of the gross profit of the "average" vessel. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. EWG 21-05 observes that the level of the exemption sought is close to 100% of the volume of discards. Improving selectivity should be the priority and in this regard, it is desirable that, as committed by the concerned Member States, additional selectivity studies are conducted on further mesh size / mesh orientation combinations, in order to assess whether improvements are possible. The use of MPAs which was not included in previous JRs as an alternative to selectivity improvements, is not mentioned in any of the deliverables submitted in support of the JR (e.g. on additional areas or seasons with fisheries restrictions), even though it is also a part of the commitments reflected under recital (24) of Delegated Regulation (EU) 2020/4. However, EWG 21-05 notes that according to the provision established in the MAP of Western Mediterranean, the Italian government was tasked with the introduction of specific area closures, in order to pursue the objective of reducing at least 20% of catches of juveniles of European hake. Ten Fishery Restricted Areas (FRAs) to protect EFH for recruitment of hake were thus implemented in the Ligurian and the Tyrrhenian Seas covered by Reg. EU 1022/2019 in GSA 9, 10 and 11. These FRAs, in which the use of any towed gear, such as "divergent trawls", "rapid trawls", "divergent twin nets", "pelagic trawls with pairs", "divergent pelagic trawls" and "dredges pulled by vessels", is prohibited, have been identified in the Annex 1 of the Decree of the General Director of Fisheries (MiPAAF) Prot. No 9045689 of 6 August 2020. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal finfish**[1] under the Landing Obligation (excluding hake, mullets and pelagic species) and **deep-water rose shrimp**, up to a	**1. Exemption status** Existing temporary exemption granted until the end of 2021 under Commission Delegated Regulation (EU) 2020/4. There is no specific request for supporting information in the Delegated Act. **2. Definition of the fishery** The exemption relates vessels using bottom trawls in the Western Mediterranean Sea. A more-detailed definition of the fishery is not

maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the Western Mediterranean Sea	provided. Average (2015-2019) landings and discards by species and gear categories (Arrastre - bottom trawling (OTB), enmale – gill net and palangre de fondo – bottom long line) provided by Spain. Vessel Numbers by gear type and associated species' landings (assumed average 2017-2019 but not explicit in the documentation) were provided by Italy. Discard estimates for *P. bogaraveo*, *P. erythrinus, P. acarne* from trawl catches and *D. vulgaris and D. annularis* from trammel net catches were also provided by Italy. Limited information on landings and discards by gear type were provided by France. The limited discard information provided indicates that the combined species (not including *Parapenaeus longirostris*) discard rate for French bottom trawlers is 0.06% of the total catch of such species and varies between <1% and >85% for Italian bottom trawlers depending on species and GSA. Of the species concerned, the only discard estimate for the Spanish bottom trawl fleet relates to *Pagellus bogaroveo* which indicates that 60% of the catch is discarded. **3. Basis for the exemption** A continuation of the exemption is sought on the basis of disproportionate costs and that the research being carried out on improving selectivity that is still on-going. Regarding selectivity improvements, reference is made to the Galion report of 2017 (Soulat et al., 2017) and the IMPLEMED project (European Commission Contract EASME/EMFF/2019/1.3.2.6/01/SI2.818717-SC04) which commenced in December 2019 and is on-going. The case for disproportionate costs is argued with reference to three projects; Sartor et al (2016), Project Minouw (http://minouw-project.eu) and DISCARDLESS (http://www.discardless.eu/). The crux of the arguments in favour of the exemption appears to be that the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount to about 7.5% of the gross profit of the "average" vessel. The supporting information also argues that the lack of infrastructure in small ports to process unwanted catches where there is no discard processing industry and, in many cases, there are also no refrigerated storage places in the ports, since the sale is made fresh daily. Transporting the catches obtained in small quantities and in small ports, separated by great distances, would imply a disproportionate cost. Furthermore, investing in the infrastructure necessary to process these catches could not be justified as it would contradict the landing obligation's objective of reducing discard quantities. **4. EWG 21-05 Observations** STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. While an estimate of the potential increase in costs of handling unwanted catches are provided, the estimate is generic to the "average" bottom trawler. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG

	considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. STECF 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. The EWG 21-05 notes that no reference is made to such areas in the documentation in support of the continuation of the current exemption. The limited information from France, Spain and Italy provided with the JR, indicates that with the exception of trawl caught *Pagellus bogaraveo*, the estimated discards are less than the catch corresponding to the maximum *de minimis* percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue unrestricted, as was the case before the landing obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the landing obligation was introduced. Furthermore, because the proportion of the catches discarded are small, the costs of handling unwanted catches are unlikely to be disproportionate. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal finfish**[1] under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of **3%** of the total annual catches by vessels using **gillnets and trammel nets** in the Western Mediterranean Sea	**1. Exemption status** Existing temporary exemption granted until the end of 2021 under Commission Delegated Regulation (EU) 2020/4. **2. Definition of the fishery** The exemption relates to vessels using gill nets and trammel nets. A more-detailed definition of the fishery is not provided, and it is unclear whether the proposal relates to the Western Mediterranean only or to the entire Mediterranean basin. Average (2015-2019) landings and discards by species and gear category "enmale" – gill net (not trammel net "trasmallo") was provided by Spain. Vessel Numbers by gill (GTN) and trammel (GTR) nets (and associated species' landings (assumed average 2017-2019 but not explicit in the documentation) were provided by Italy. The only discard estimates for gill and trammel nets provided with the proposed exemption for gill and trammel nets are as follows: - French netters - 6 kg of mixed demersal species discard from a

	total mixed demersal species catch of 636 t (0.01%). - Italian trammel netters – 492 t of *D. annularis* discarded from a total catch of 504 t (97%) and 0.4 t *D. vulgaris* from a total catch of 2.8 t (12.6%). - For Spanish netters the only discard estimate is zero discards *for Pagellus bogaraveo.* **3. Basis for the exemption** A continuation of the exemption is sought primarily on the basis of disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Previous supporting information reviewed in STECF 19-08 related to potential selectivity improvements for gillnets and other avoidance measures is relevant, stressing that further research is needed. The current JR makes no reference to research on gill net selectivity or other avoidance measures. The supporting information also argues that the lack of infrastructure in small ports to process unwanted catches where there is no discard processing industry and, in many cases, there are also no refrigerated storage places in the ports, since the sale is made fresh daily. Transporting the catches obtained in small quantities and in small ports, separated by great distances, would imply a disproportionate cost. Furthermore, investing in the infrastructure necessary to process these catches could not be justified as it would contradict the landing obligation's objective of reducing discard quantities. **4. EWG 21-05 Observations** STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. While an estimate of the potential increase in costs of handling unwanted catches are provided, the estimate is generic to the "average" bottom trawler. While the realised cost implications on specific trawl fisheries in different GSAs are likely to vary, the EWG considers that the estimated costs of handling unwanted catches by the average bottom trawler is currently the only basis on which to judge whether such costs can be considered disproportionate. EWG 21-05 cannot assess whether this represents a disproportionate cost. Further, more detailed fishery-specific data and analyses are unlikely to add value to such a judgement. STECF 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. The EWG 21-05 notes that no reference is made to such areas in the documentation in support of the continuation of the current exemption. The limited information on landings and discards indicates that for gill and trammel nets, the proportion of the catches discarded are less than the requested maximum de minimis percentage of 3% of the total

	catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue unrestricted, as was the case before the landing obligation was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the LO was introduced. Furthermore, because the proportion of the catches discarded are small, the costs of handling unwanted catches are unlikely to be disproportionate. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal finfish**[1] under the Landing Obligation excluding hake, mullets and pelagic species, up to a maximum of 1**%** of the total annual catches by vessels using **hooks and lines** in the Western Mediterranean Sea	**1. Exemption status** Existing temporary exemption granted until the end of 2021 under Commission delegated regulation 2020/4. **2. Definition of the fishery** The exemption relates to vessels using hooks and lines. A more-detailed definition of the fishery is not provided, and it is unclear whether the proposal relates to the Western Mediterranean only or to the entire Mediterranean basin. Only limited information was provided. Average landings of *Pagellus bogaraveo* for hooks and lines were provided by Spain and France. And average landings of all mixed demersal species caught using hooks and lines were provided for Italian vessels. No discard estimates were provided. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on the disproportionate costs by analogy with the estimated costs for the "average" trawler. The supporting information also argues that the lack of infrastructure in small ports to process unwanted catches where there is no discard processing industry and, in many cases, there are also no refrigerated storage places in the ports, since the sale is made fresh daily. Transporting the catches obtained in small quantities and in small ports, separated by great distances, would imply a disproportionate cost. Furthermore, investing in the infrastructure necessary to process these catches could not be justified as it would contradict the objective of the landing obligation of reducing unwanted catches. Previous supporting information reviewed in EWG 19-08 referred to selectivity studies carried out by Spain showing that these gears are size selective, and selectivity can be influenced by hook size. The current JR makes no reference to other potential selectivity improvements. **4. EWG 21-05 Observations**

	STECF 19-08 noted that arguments in support of the current exemption relating to improvements in selectivity being difficult to achieve were reasonable but rather generic and not specific to any fishery and that therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. The information presented in support of the continuation of the exemption does not alter that opinion. No estimates of discards are provided in support of the proposed exemptions although it is unclear whether this implies that there are no discards from bottom long line gears in the Western Mediterranean, but discards are likely to be only a small proportion of the total catch as such gears are generally highly selective and generate few discards. Hence, granting the exemption implies that discarding of the species concerned is likely to continue unrestricted, as was the case before the LO was introduced. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards will be negated. The impacts on the fisheries and the stocks concerned will remain unchanged from the situations occurring before the landing obligation was introduced. Furthermore, because the proportion of the catches discarded is zero or likely to be small, the costs of handling unwanted catches are unlikely to be disproportionate. EWG 19-08 noted that the 2019 JR indicated the possibility of introducing Marine Protected Areas and Fish Recovery Areas as a measure to avoid unwanted catches of undersized fish. The EWG 21-05 notes that no reference is made to such areas in the documentation in support of the continuation of the current exemption. Considering that the current proposal relates to a continuation of an exemption that has been granted since 2017, it would seem appropriate that an evaluation of the impacts of the exemption be undertaken. To date, no such evaluation has been undertaken. Of particular importance is the assessment of whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of the exemption would be to ensure appropriate fishery monitoring and data collection.

[1]Demersal finfish refers to European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus* spp.), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), red seabream (*Pagellus bogaraveo*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (*Polyprion americanus*), gilthead seabream (*Sparus aurata*) and common sole (*Solea solea)*

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8.1.2. South-Eastern Mediterranean Sea

General observations

The extension of *de minimis* exemptions requested by the SUDESTMED High-Level Group (HLG) are supported with an updated version for 2022 onwards of the discard plan for demersal fisheries in the South-Eastern Mediterranean Sea. Members of the Group are Cyprus, Greece, Italy and Malta.

The updated version of the SUDESTMED Joint Recommendation advised the extension of the definition of the South-Eastern Mediterranean Sea for the purposes of this discard plan by including the General Fisheries Commission of the Mediterranean (GFCM) Geographical Sub-Area (GSAs) 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27.

The information includes:

- Description of fisheries (Annex A) for which *de minimis* exemptions are requested in SUDESTMED area at national level by Cyprus (bottom trawl, trammel net, gillnet, and hooks and line fisheries), Greece (bottom trawl, trammel net, gillnet, longline, and traps fisheries), Italy (bottom and pelagic trawl, trammel net, gillnet, longline, pots and traps fisheries) and Malta (bottom trawl, trammel net, gillnet and longline fisheries);
- Supporting evidence (Annex B) on the request of *de minimis* exemptions under the disproportionate costs condition (only by Cyprus and Greece);
- Specific analyses of spatio-temporal closures (Annex C) for avoiding unwanted catches provided by only Greece for the Saronic Gulf).
- Catch data; and
- Review of gear selectivity.

The following de minimis exceptions are requested:

- a combined de minimis *for Merluccius merluccius* and *Mullus spp* of 1% for trammel and gillnets and 5% for bottom trawls;
- a 5% de minimis for deep-water rose shrimp (*Parapenaeus longirostris*) for bottom trawls;
- a combined de minimis for demersal finfish species: European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus spp.*), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), red seabream (*Pagellus bogaraveo*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (*Polyprion americanus*), gilthead seabream (*Sparus aurata*) and common sole (*Solea solea*) of 1% for hooks and lines, 3% for trammel and gillnets and 5% for bottom trawls;
- a 1% de minimis for lobster (*Homarus gammarus*) and crawfish (*Palinuridae*) for pots and traps;
- a combined de minimis for pelagic species (Anchovy, sardine, mackerel, horse mackerel) of 5% for bottom trawls.

The SUDESTMED HLG requests the prolongation of the *de minimis* exemptions for certain demersal fisheries in the Mediterranean Sea, with its relevant amendments. In addition, it is proposed the inclusion of 5% de minimis for deep-water rose shrimp *(Parapenaeus longirostris)* for bottom trawls and a combined *de minimis* exemption for Hake (*Merluccius merluccius*) and mullets (*Mullus spp*) caught by bottom trawls, trammel and gillnets, hooks and lines based on additional data provided.

Finally, considering the absence of a legal basis for applying high survivability exemptions from 2022 onwards, the SUDESTMED HLG requests for the period 2022-2024 the inclusion of *de minimis* exemption for the lobster and crawfish caught by pots and traps species that until the end of 2021 are under survivability exemption.

EWG 21-05 highlights that

- Not all catch and economic data are available for all GSA areas and fleets (e.g., data not homogeneous);
- There are many assumptions made of the representativeness of data between GSAs; and
- There are indications from preliminary data from projects that will need to be further explored in the future with new studies in the field (e.g. T90, grid, etc).
- There are several inconsistencies in the units used in the tables. For example in Table 4, Greece reported aggregated discards in tonnes but in the caption, it was stated kilograms. However, assuming that landings in Table 3 are in tonnes, EWG 21-05 assumes that aggregated discards have been reported in tonnes as well.

Regarding the biological data provided, the assessment is complicated by the fact that the exemptions are to allow the discarding of fish under MCRS, but data on the proportion of discards below MCRS is not provided.

EWG 21-05 notes that the discard rates vary by species, area and gear type. In some cases, the observed discards are higher than the estimated *de minimis* volume, while for others the volume of discards is lower. Therefore, while the discard proportions of all MCRS species combined (as a portion of the total catch) do not exceed the requested *de minimis* volume, for some specific species, the discards far exceed the *de minimis* requested. The transition from these currently high discard rates for these species to the *de minimis* level will be challenging without changes in the fishing pattern, either through improvements in selectivity or by avoiding areas of unwanted catches of these species.

EWG 21-05 recognizes the effort of the SUDESTMED HLG aimed to provide information on catches, discard rate and nominal effort related to the macro-areas, fisheries and species, even though data on the catches referred to in the different gears have been often aggregated.

EWG 21-05 reiterates that the combined *de minimis* approach modifies the proportions of each species that can be discarded compared to a single species *de minimis*. The differences in catch and discard rate between species means that with a combined *de minimis*, there will potentially be less *de minimis* available for certain species and more for others, compared with the single species approach. EWG 21-05 reiterates the conclusions of STECF 18-06 and 19-08 that the combined *de minimis* approach alters the composition of discards rather than increasing flexibility.

EWG 21-05 notes that an analysis of the economic and social impacts of the landing obligation, as well as an analysis of the selection patterns of fishing gears, have been completed as part of the EU projects MINOUW, DISCARDLESS and DISCATCH). The findings are reported in the scientific papers of Sartor et al. 2016; Accadia et al., 2018; Sola and Maynou 2018.

EWG 21-05 considers that a full-integrated analysis in all areas is not yet available to demonstrate the impact on fishing income per annum under the landing obligation; the increase in fishing costs (e.g., crew, onshore costs) relative to income; potential reduction economic productivity and/or a potential reduction of profitability. However, with the available results and analyses provided, EWG 21-05 considers that the information demonstrates that without the *de minimis* exemptions, the fleets would incur significant costs because of increased crew time and costs and/or shortening of fishing trips or increasing costs and logistic difficulties for handling and managing the unwanted catches ashore.

EWG 21-05 also notes that the supporting information provided shows the use of selective gears is expected to yield significant loss in earnings due to reduction in catches of some of the main commercially species in the order of 15%-20% (Sola and Maynou, 2018). The studies concluded that, at present, the lack of facilities to handle unwanted catches once landed would result in the classification of discards as "special waste", and the costs for disposal of catches would range from 0.45 €/kg up to 0.65 €/kg (Sartor et al., 2016).

EWG 21-05 considers the analysis provided on handling unwanted catches ashore is representative of the three regions as the problems of unwanted catches storage on board of

small vessels is reported throughout the Mediterranean. Storage at landing ports to comply with food sanitary standard rules before transport is complicated by the large number of small landing ports and lack of refrigerated containers for storing unwanted catches. The long distances to reach the processing industries or incinerators is exacerbated in countries where a significant percentage of landing ports are on islands. In most cases, the low and irregular quantities of discards landed in each port make the processing of unwanted catches for companies economically unviable.

EWG 21-05 considers that while the problems faced in the Mediterranean in complying with the landing obligation are not unique, the nature of the fisheries, the number of ports and the proliferation of small boats make addressing the handling of unwanted catches particularly difficult compared to other sea basins.

EWG 21-05 considers that the establishment of spatio-temporal closures for excluding fishing activities in areas and time with high probabilities of unwanted catches is a positive step. Overall, the extent of the areas impacted by seasonal or permanent MPAs and FRAs is already quite significant, as demonstrated by maps showing their coverage. EWG 21-05 encourages Member States to document their timelines for introducing MPAs and FRAs with the *de minimis* exemptions used as a temporary measure while the network of closures is developed.

SUDESTMED HLG advice for the granting of *de minimis* exemption should be considered complementary to the management proposals aimed to reduce the catch of undersized specimens through spatio-temporal closures of nursery/spawning areas of the species associated with the highest percentages of discards and landings ("Strategy for not reaching the *de minimis* threshold").

Although SUDESTMED HLG recommends that vessels below 10 m overall length should not subject to landing obligation because these vessels area are engaged in passive gear multispecies fisheries with relatively very low catches, and no obligation in submitting logbooks, EWG 21-05 considers that it is not in the position to make a judgement to this general request that would have consequences for the whole artisanal fishing fleet.

EWG 21-05 acknowledges, however, that the Implementation of the landing obligation in Small-Scale Fisheries (SSF) of Southern European Union Countries is particularly challenging as it has been demonstrated in several studies (see e.g. Villasante et al., 2018) and that given the high importance of SSF in the southern countries of Europe, the impacts of the LO on SSF, and the barriers for its implementation should be specifically addressed.

Table 8.1.2.1 Summary of *de minimis* exemptions submitted for the South-Eastern Mediterranean exemptions relating to demersal species.

Exemption	Main Findings of EWG 21-05
Hake and mullets, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the South-Eastern Mediterranean Sea	**1. Exemption status** Extension of an existing temporary exemption for the period 2022-2024 with the inclusion of a combined 5% de minimis for hake (*Merluccius merluccius*) and mullets (*Mullus spp*). **2. Definition of the fishery** New biological and economic data have been submitted by Cyprus, Greece, Malta, and Italy. Quantified data on catches below MCRS is lacking for all Member States. Fleet descriptions are provided for all Member States, but not all report discard proportion estimates or discard rates by gear. Greece for example reported declared discards (e.g., Electronic Reporting System, ERS) for all aggregated gears. Cyprus reported catch data by GSA (GSA24 and GSA25). By aggregating the values (GSA24 + GSA25) a combined discard ratio for hake and mullets of around 0.1% was reported. Greece did not present discard data by gear but in aggregated figures, it was therefore not possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data.

	According to the STECF data presented by Greece in the Annex A, it was possible to calculate the relevant discard ratios. EWG 21-05 calculated a combined discard ratio for hake and mullets of around 6.3%. Italy reported catch data by GSA (GSA16,18,19). By aggregating the values, EWG 21-05 calculated a combined discard ratio for hake and mullets of around 6.9%. Malta report that their net fisheries operate in GSA09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards are reported for any species and gears. **3. Basis for the exemption** The JR states that the justification for an extension of the exemption is based on improvements in selectivity. However, it states that an optimal solution has still to be developed and further research is needed to develop appropriate gear modifications or other technical measures (e.g. spatio-temporal closures, nursery protection areas). The *de minimis* is needed as a temporary solution to offset some of the unwanted catches while research to test selective gears is carried out. The SUDESTMED HLG indicates research that into improvements in selectivity from the use of new trawl designs and materials is planned. The justification is also supported by an analysis of disproportionate costs. This is based on economic analyses carried out under several projects (e.g. MINOUW and DISCARDLESS) which show costs of landing unwanted catches are expected to exceed 0.65 €/kg, whereas returns from sale of raw materials for silage or fishmeal would not exceed 0,25 €/kg. Additional fixed costs of 300 €/vessel/day for the maintenance of equipment and facilities are also reported. **4. EWG 21-05 observations** The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, EWG 21-05 note that there is a weakness in the combined *de minimis* approach. While it is accepted that the combined discards ratio for all species covered under the exemption is low, for some species the proportion of the catch that is discarded may be high. Italy and Greece present discard values slightly higher values (6-7%) than the de minimis (5%) The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a

	measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, the EWG 21-05 notes that suggestions for technical measures, in particular spatial approaches, are provided in Annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Exemption	Main Findings of EWG 21-05
Deep-water rose shrimp, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the South-Eastern Mediterranean Sea	**1. Exemption status** Extension of an existing temporary exemption for the period 2022-2024 with the inclusion of 5% de minimis for deep-water rose shrimp. **2. Definition of the fishery** New biological and economic data have been submitted by Cyprus, Greece, Malta, and Italy. Quantified data on catches below MCRS is lacking for all Member States. Fleet descriptions are provided for all Member States, but not all report discard proportion estimates or discard rates by gear. Greece for example reported declared discards (e.g., Electronic Reporting System, ERS) for all gears aggregated. Cyprus reported catch data by GSA (GSA24 and GSA25). By aggregating the values (GSA24 + GSA25). No discards for deep-water rose shrimp are reported. Greece did not present discard data by gear but in aggregated form, it was therefore not possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data provided. According to the STECF data presented by Greece in Annex A, it was possible to calculate the relevant discard ratios. EWG 21-05 calculated a combined discard ratio of around 4.8% for deep-water rose shrimp. Italy reported catch data by GSA (GSA16,18,19). By aggregating the values. Based on this data EWG 21-05 calculated a combined discard ratio of around 2.8% for deep-water rose shrimp. Malta net fisheries operate in GSA 09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards of rose shrimp are reported for any species or gear. **3. Basis for the exemption** The JR states that the justification for an extension of the exemption is based on improvements in selectivity. However, it states that an optimal solution has still to be developed and further research is needed to develop appropriate gear modifications or other technical measures (e.g. spatio-temporal closures, nursery protection areas). The *de minimis* is needed as a temporary solution to offset some of the unwanted catches while research to test selective gears is carried out. The SUDESTMED HLG indicates research that into improvements in selectivity from the use of new trawl designs and materials is planned.

	The justification is also supported by an analysis of disproportionate costs. This is based on economic analyses carried out under several projects (e.g. MINOUW and DISCARDLESS) which show costs of landing unwanted catches are expected to exceed 0.65 €/kg, whereas returns from sale of raw materials for silage or fishmeal would not exceed 0,25 €/kg. Additional fixed costs of 300 €/vessel/day for the maintenance of equipment and facilities are also reported. **4. EWG 21-05 observations** The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, EWG 21-05 note that there is a weakness in the combined *de minimis* approach. While it is accepted that the combined discards ratio for all species covered under the exemption is low, for some species the proportion of the catch that is discarded may be high. Italy and Greece present discard rates in the range of 3%-5% below the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. The outcome will mean that any incentive to avoid unwanted catches and reduce or eliminate discards is likely to be negated. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, the EWG 21-05 notes that suggestions for technical measures, in particular spatial approaches, are provided in Annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Exemption	Main Findings of EWG 21-05
Hake and mullets, up to a maximum of **1%** of the total annual catches by vessels using **gillnets and**	**1. Exemption status** Request for an extension to a combined 1% de minimis exemptions for hake and mullets for the period 2022-2024 for vessels using trammel and gillnets.

trammel nets in the South-Eastern Mediterranean Sea	**2. Definition of the fishery** Fisheries information has been submitted by Cyprus, Greece, Italy and Malta. Cyprus net fisheries by artisanal vessels below 12m in length operate in GSA25. New biological data has been submitted by Cyprus, including landings, discards and discards rates. The fishery has a high diversity of catches and discard rates. Discards are estimated to be relatively low. Cyprus reported catch data for only GSA25. No discards for the combination of hake and mullets are reported. Greece net fisheries by artisanal fisheries below 12m in length (average length 7m) operate in GSA20, 22 and 23 areas by artisanal vessels. New catch data has been submitted by Greece, including landings, discards and discards rates. Greece did not present discard data by gear but in aggregated form. Therefore, it was not possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data provided, although EWG 21-05 managed to calculate a combined discard ratio for hake and mullets of around 1.2% based on STECF data presented by Greece in Annex A. Greece also reported the establishment of a management plan which includes a fishing prohibition for static nets and bottom set longlines targeting hake in February. Additional spatial closures maybe proposed in Saronikos Gulf area, after the consideration of the results of a relevant case study, for the protection of nursery areas of hake (Mytilineou et al 2020). Italy reported catch data by GSA (GSA16,18,19). Aggregating the values, shows no discards of hake and mullets. Malta net fisheries operates in GSA09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards are reported for any species or gear. Quantified data on catches below MCRS is missing for all countries. **3. Basis for the exemption** The JR states that the justification for an extension of the exemption is based on improvements in selectivity. However, it states that an optimal solution has still to be developed and further research is needed to develop appropriate gear modifications or other technical measures (e.g. spatio-temporal closures, nursery protection areas). The *de minimis* is needed as a temporary solution to offset some of the unwanted catches while research to test selective gears is carried out. The SUDESTMED HLG indicates research that into improvements in selectivity from the use of new trawl designs and materials is planned. The justification is also supported by an analysis of disproportionate costs. This is based on economic analyses carried out under several projects (e.g. MINOUW and DISCARDLESS) which show costs of landing unwanted catches are expected to exceed 0.65 €/kg, whereas returns from sale of raw materials for silage or fishmeal would not exceed 0,25 €/kg. Additional fixed costs of 300 €/vessel/day for the maintenance of equipment and facilities are also reported. A 'Multi-criteria Performance Matrix for the Economic Analysis of the disproportionate cost and the effect of de minimis proposals was also presented for Cyprus and Greece. This analysis includes three different potential scenarios: status quo fisheries; implementing the landing obligation without de minimis exemptions; improvement of selectivity

	and application of de minimis exemptions. The matrix presents economic estimates for each scenario vs a reference case with 2016 data before implementation of the landing obligation (Fishing Costs, Fishing Revenues and Profit) and fishery data (otter trawl, and small-scale fisheries). Cyprus presented data for small-scale nets and small-scale hooks and lines separated. For small-scale fisheries in Greece (nets and hooks). The best scenario is the de minimis application. landing obligation implementation without exemptions would have less profit and moderate costs. No data is provided for more selectivity gear scenario. This analysis shows, for trammel and gillnets in Cyprus, the best scenario is the de minimis application. Other scenarios would have less profit and moderately higher costs. **4. EWG 21-05 observations** Based on the supporting data provided by Cyprus, Greece, Italy and Malta, EWG 21-05 notes that the discard rates reported in gillnet fisheries are very low. Given that gillnets are relatively selective gears and most of the vessels are small size artisanal boats, it is likely that the volume of discards is low, noting there is no conclusive evidence that improvements in selectivity in these fisheries are difficult to achieve. The data provided identifies several métiers, which have larger discard rates and are particularly impacting species, and where improvements of selectivity could mitigate the bycatch. Currently discard values are lower than the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. The supporting information on disproportionate costs for Cyprus and Greece indicate high costs associated with handling and sorting time onboard. It is not clear how representative these analyses are for all the fleets operating in the SUDESTMED area (GSA14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27). The EWG notes that the introduction of technical measures on spatial closures of nursery areas in Greece, may lead to reductions in unwanted catches of juveniles in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal species**[1] under the Landing Obligation excluding hake, mullets, deep-water rose shrimp and pelagic species, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls**	**1. Exemption status** Extension of an existing temporary exemption for the period 2022-2024. **2. Definition of the fishery** New biological and economic data have been submitted by Cyprus, Greece, Malta, and Italy. Quantified data on catches below MCRS is lacking for all Member States. Fleet descriptions are provided for all Member States, but not all report discard proportion estimates or discard rates by gear. Greece for example reported declared discards

in the South-Eastern Mediterranean Sea	(e.g., Electronic Reporting System, ERS) for all aggregated gears. Cyprus reported catch data by GSA (GSA24 and GSA25). By aggregating the values (GSA24 + GSA25), a combined discard ratio of 3.1% for the other demersal species is reported. Greece did not present discard data by gear but in aggregated form, it was therefore not possible to distinguish discard ratios for each gear using the Electronic Reporting System (ERS) data provided. Therefore, it was not possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data provided, although EWG 21-05 managed to calculate a combined discard ratio of 14.7% for the other demersal species under the landing obligation in Annex A. Italy reported catch data by GSA (GSA16,18,19). A combined discard ratio of 7.8% for the other demersal species under landing obligation is calculated. Malta net fisheries operates in GSA 09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards are reported for any species or gear. **3. Basis for the exemption** The JR states that the justification for an extension of the exemption is based on improvements in selectivity. However, it states that an optimal solution has still to be developed and further research is needed to develop appropriate gear modifications or other technical measures (e.g. spatio-temporal closures, nursery protection areas). The *de minimis* is needed as a temporary solution to offset some of the unwanted catches while research to test selective gears is carried out. The SUDESTMED HLG indicates research that into improvements in selectivity from the use of new trawl designs and materials is planned. The justification is also supported by an analysis of disproportionate costs. This is based on economic analyses carried out under several projects (e.g. MINOUW and DISCARDLESS) which show costs of landing unwanted catches are expected to exceed 0.65 €/kg, whereas returns from sale of raw materials for silage or fishmeal would not exceed 0,25 €/kg. Additional fixed costs of 300 €/vessel/day for the maintenance of equipment and facilities are also reported. **4. EWG 21-05 observations** The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, EWG 21-05 notes that there is a weakness in the combined *de minimis* approach. Accepting that the combined discards ratio for all species covered by the exemption is low, for some species the proportions of the catch that is discarded may be high. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and

	FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, the EWG 21-05 notes that suggestions for technical measures, in particular spatial approaches, are provided in annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Italy and Greece present discard values in the range 8-15%, which is higher than the de minimis (5%). The limited information from Greece, Italy, Cyprus and Malta provided with the JR, indicates that the estimated discards are higher than the catch corresponding to the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that potential selectivity improvements and other avoidance measures are needed. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Total catches of **Anchovy, Sardine, Mackerel and Horse Mackerel**, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the South-Eastern Mediterranean Sea	**1. Exemption status** Extension of an existing temporary exemption for the period 2022-2024. **2. Definition of the fishery** New biological and economic data have been submitted by Cyprus, Greece, Malta, and Italy. Quantified data on catches below MCRS is lacking for all Member States. Fleet descriptions are provided for all Member States, but not all report discard proportion estimates or discard rates by gear. Greece for example reported declared discards (e.g., Electronic Reporting System, ERS) for all aggregated gears. Cyprus reported catch data by GSA (GSA24 and GSA25). By aggregating the values (GSA24+GSA25) a combined discard ratio of 0.1%, for the pelagic species under landing obligation is reported. Greece did not present discard data by gear but in aggregated figures, it was therefore not possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. Based on the STECF data presented by Greece in the Annex A, EWG 21-05 calculated a combined discard ratio of 3.3% for the pelagic species under landing obligation. Italy reported catch data by GSA (GSA16,18,19). By aggregating the values, a combined discard ratio of 58.3% for pelagic species is

	calculated, which is mainly due to the high discard rates for horse mackerel. Malta net fisheries operate in GSA09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards are reported for any species or gear. **3. Basis for the exemption** The JR states that the justification for an extension of the exemption is based on improvements in selectivity. However, it states that an optimal solution has still to be developed and further research is needed to develop appropriate gear modifications or other technical measures (e.g. spatio-temporal closures, nursery protection areas). The *de minimis* is needed as a temporary solution to offset some of the unwanted catches while research to test selective gears is carried out. The SUDESTMED HLG indicates research that into improvements in selectivity from the use of new trawl designs and materials is planned. The justification is also supported by an analysis of disproportionate costs. This is based on economic analyses carried out under several projects (e.g. MINOUW and DISCARDLESS) which show costs of landing unwanted catches are expected to exceed 0.65 €/kg, whereas returns from sale of raw materials for silage or fishmeal would not exceed 0,25 €/kg. Additional fixed costs of 300 €/vessel/day for the maintenance of equipment and facilities are also reported. **4. EWG 21-05 observations** The arguments presented regarding technical and social barriers to improve selectivity appear plausible, but they are rather generic and not specific to any fishery. Therefore, it is not possible to assess the impacts on fisheries within the different areas of the Mediterranean. Furthermore, EWG 21-05 note that there is a weakness in the combined *de minimis* approach. Accepting that the combined discards ratio for all species covered by the exemption is low, for some species the proportions of the catch that is discarded may be high. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Italy presents discard values close to 60% well above the de minimis (5%). The limited information from Greece, Italy, Cyprus and Malta provided with the JR, indicates that the estimated discards in Italy are higher than the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that potential selectivity improvements and other avoidance measures are needed. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation

	of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal species**[1] under the Landing Obligation excluding hake and mullets, up to a maximum of **3%** of the total annual catches by vessels using **gillnets and trammel nets** in the South-Eastern Mediterranean Sea. Up to maximum of 5% in the case annual landing of the relevant species of these fisheries are less than 25% of the total landings of the fisheries.	**1. Exemption status** Request for an extension to a combined 3% de minimis of the total annual catches for the other demersal finfish species under the landing obligation, increased to 5% in case their annual landings are less than 25% of the total landing of the fisheries for the period 2022-2024 for vessels using trammel and gillnets. **2. Definition of the fishery** Fisheries information has been submitted by Cyprus, Greece, Italy and Malta. Cyprus net fisheries by artisanal vessels below 12 m length operate in GSA25. New biological data has been submitted by Cyprus, including landings, discards and discards rates. The fishery has a high diversity of catches and discard rates (with relatively low estimated discards). Cyprus reported catch data for only GSA25. A combined discard ratio of 1.7% for the other demersal species under landing obligation is reported. Greece net fisheries by artisanal vessels below 12 m length (average length less than 7m) operate in GSA20, 22 and 23 areas. New catch data has been submitted by Greece, including landings, discards and discards rates. Greece did not present discard data by gear but in aggregated form, it was therefore not possible to calculate discard ratios for each gear using the Electronic Reporting System (ERS) data. Based on STECF data. presented by Greece in Annex A, EWG 21-05 calculated a combined discard ratio of around 31.6% for the other demersal species under the landing obligation. Greece has also established a management plan which includes a fishing prohibition for static nets and bottom set longlines targeting hake in February. Italy reported catch data by GSA (GSA16,18,19). By aggregating the values, it showed no discards for all the other than hake and mullets demersal species. Malta net fisheries operate in GSA09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards are reported for any species or gears. Quantified data on catches below MCRS is missing for all countries. **3. Basis for the exemption** The JR states that the justification for an extension of the exemption is based on improvements in selectivity. However, it states that an optimal solution has still to be developed and further research is needed to develop appropriate gear modifications or other technical measures (e.g. spatio-temporal closures, nursery protection areas). The *de minimis* is needed as a temporary solution to offset some of the unwanted catches while research to test selective gears is carried out. The SUDESTMED HLG indicates research that into improvements

	in selectivity from the use of new trawl designs and materials is planned. The justification is also supported by an analysis of disproportionate costs. This is based on economic analyses carried out under several projects (e.g. MINOUW and DISCARDLESS) which show costs of landing unwanted catches are expected to exceed 0.65 €/kg, whereas returns from sale of raw materials for silage or fishmeal would not exceed 0,25 €/kg. Additional fixed costs of 300 €/vessel/day for the maintenance of equipment and facilities are also reported. A 'Multi-criteria Performance Matrix for the Economic Analysis of the disproportionate cost and the effect of de minimis proposals was also presented for Cyprus and Greece. This analysis includes three different potential scenarios: status quo fisheries; implementing the landing obligation without de minimis exemptions; improvement of selectivity and application of de minimis exemptions. The matrix presents economic estimates for each scenario vs a reference case with 2016 data before implementation of the landing obligation (Fishing Costs, Fishing Revenues and Profit) and fishery data (otter trawl, and small-scale fisheries). For small scale fisheries in Greece (nets and hooks), the best scenario is the de minimis application. landing obligation implementation without exemptions would have less profit and moderately higher costs. No data is provided for the more selectivity gear scenario. For trammel and gillnets in Cyprus the best scenario is the de minimis application. Other scenarios would have less profit and moderately higher costs. **4. EWG 21-05 observations** Based on the supporting data provided by Cyprus, Greece, Italy and Malta, EWG 21-05 notes that the discard rates reported in gillnet fisheries are very low. Given that gillnets are relatively selective gears and most of the vessels are small size artisanal boats, it is likely that the volume of discards is low, noting there is no conclusive evidence that improvements in selectivity in these fisheries are difficult to achieve. The data provided identifies several métiers, which have larger discard rates and are particularly impacting species, and where improvements of selectivity could mitigate the bycatch. While estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. The SUDESTMED HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should lead to reductions in unwanted catches across the whole Mediterranean basin. In particular, the EWG 21-05 notes that suggestions for technical measures, in particular spatial approaches, are provided in annex C of the SUDESTMED for Greece only (SARONIC GULF) which if implemented may help to address the issue of reducing discard rates in the longer term. EWG 21-05 cannot evaluate the implications of the unwanted catch

	(discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Currently discard values are lower than the de minimis (5%). The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same as the catch corresponding to the maximum de minimis percentage of 5% combined for the total catches of the species concerned. Hence, granting the exemption implies that discarding will continue more or less as currently is the case. Considering that the current proposal relates to a continuation of an exemption that has been granted, it is appropriate that an evaluation of the impacts of the exemption be undertaken before a continuation is granted. To date, no evaluation has been undertaken. Of particular importance is whether unwanted catches have been reduced and whether the quality and reliability of fishery-dependent catch data have been affected. Such an analysis will require relevant fishery-specific data, and it would seem appropriate that a condition of granting an exemption would be to ensure appropriate fishery monitoring and data collection.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal finfish**[1] under the Landing Obligation, up to a maximum of **1%** of the total annual catches by vessels using **hooks and lines** in the South-Eastern Mediterranean Sea. Up to maximum of 3% in the case annual landing of the relevant species of these fisheries are less than 25% of the total landings of the fisheries.	**1. Exemption status** The de minimis exemptions from the landing obligation applies for the period 2022-2024 for vessels using hooks and lines. Extension of the existing temporary exemption from 2022 to 2024. **2. Definition of the fishery** Information on description of fisheries has been submitted by Cyprus, Greece, Italy and Malta. Other Member States have not provided such data. Cyprus hook fisheries operates in GSA25 by artisanal vessels below 12 m length. New biological data has been submitted by Cyprus, including landings, discards and discards rates. The fishery has a high diversity of catches and there are not discard proportion estimates or discard rates for these relevant fisheries. Greece hook fisheries operates in GSA20, 22 and 23 areas by artisanal vessels below 12m length (average length less than 7m). New biological data has been submitted by Greece, including landings, discards and discards rates. The fishery has a high diversity of catches and there are no discard proportion estimates or discard rates for these relevant fisheries (mostly discard rates of 0%). Larger discard rates are for *Diplodus sargus* (20.63%) in GSA Greece set up a management plan, which includes a fishing prohibition for static nets, and bottom set longlines targeting hake in February. Greece did not present discard data by gear but in aggregated figures, it was therefore not possible to distinguish discard ratio for each gear using the Electronic Reporting System (ERS) data. According to STECF, data presented by Greece in the Annex A, it was possible to calculate the relevant discard ratios. EWG 21-05 calculated a combined discard ratio of 1.3% for demersal species under LO. Italy reported catch data by GSA (GSA16,18,19). By aggregating the

	values, no discards have been reported for this gear group. Malta net fisheries operates in GSA09,12,13,14,15,16,19,20,21 areas. Logbook catch data have been presented for vessels with LOA>10 m. No discards are reported for all species and gears. Quantified data on catches below MCRS is missing for all countries. **3. Basis for the exemption** Justification is based on scientific evidence that indicates that increases in selectivity are very difficult to achieve in the short term and no exemptions will results in disproportionate costs of handling unwanted catches. No new data on selectivity projects has been submitted. There are not references to selectivity studies carried out by any member state. No estimates of impacts on catch volume or economic performance of the gears is provided. The justification is mainly supported by the "Disproportionate costs of handling unwanted catches" issue. Due to most of the vessels are artisanal or medium size making daily trips, with sort handling times and reduced on board facilities for sorting, managing and storing the unwanted catch separately. Several projects studied the economic costs in such small vessels (MIPAAF, MINOUW, DISCARDLESS. A 'Multi-criteria Performance Matrix for the Economic Analysis of the disproportionate cost and the effect of de minimis proposals is presented for Cyprus and Greece. This analysis includes three different potential scenarios: status quo fisheries implementing LO with no de minimis exemptions, improvement of selectivity and application of de minimis exemptions. The matrix present economic estimates for each scenario vs a reference case with 2016 data before implementation of LO (Fishing Costs, Fishing Revenues and Profit) and fishery (otter trawl, and small scale fisheries). Cyprus presents data for small-scale nets, small-scale hooks, and lines separated. For small-scale fisheries in Greece (nets and hooks). The best scenario is the de minimis application. LO implementation without exemptions would have less profit and moderate costs. No data is provided for more selectivity gear scenario. **4. EWG 21-05 observations** The supporting information provided is valuable and includes supporting data for 4 countries (Cyprus, Greece, Italy and Malta). There are no information on selectivity studies. The discard rates indicates that arguments presented are reasonable as hooks (mainly longlines) are selective gears and most of the vessels are small size artisanal boats. However, there are not conclusively evidence that improvements in selectivity in these fisheries are difficult to be achieved. The supporting information on disproportionate costs analyses for Cyprus shows that there will be not high cost. It is not clear how representative this analysis are for all the fleets operating in the SUDESTMED area (GSA14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26 and 27). Additionally, the introduction of technical measures on Spatial management of nursery areas in Greece seems a reasonable approach that should lead to reductions in unwanted catches, but this seems include mainly trawl fisheries. EWG 21-05 cannot evaluate the implications of the unwanted catch

	(discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. Currently discard values are lower than the de minimis (5%) The limited information from Italy, Greece, Cyprus and Malta provided with the JR, indicates that the estimated discards are more or less the same than the catch corresponding to the maximum de minimis percentage of 5% of the total catches of the species concerned. Hence, granting the exemption implies that discarding of the species concerned will continue more or less the same.
Exemption	Main Findings of EWG 21-05
Total catches of **lobster and crawfish**, up to a maximum of **1%** of the total annual catches by vessels using **pots and traps** in the South-Eastern Mediterranean Sea.	**1. Exemption status** SUDESTMED HLG now requests the inclusion of lobster and crawfish under de minimis exemption for the period 2022-2024 for vessels above 10 meters long. The HLG argues an absence of legal basis for applying high survivability exemptions from 2022 onwards. The HLG requests that vessels below 10 meters overall length should not be subject to landing obligation because these vessels are engaged in passive gear multispecies fisheries with relatively low catches. A high survivability exemption for lobster and crawfish until the end of 2021 was considered by EWG 19-08. However, it was acknowledged that the quality of the survivability estimates was questionable as it was based on a few individuals from one specific fishery in the western Mediterranean. Therefore, it was not possible to determine whether this fishery was comparable to other Mediterranean fisheries and the representativeness of the evidence could not be established. **1. Definition of fishery** There is no catch data provided for crawfish catches by pots and traps. There is some information by Greek small-scale vessels regarding catches of *Palinurus elephas* with trammel net (GTR), set gillnet (GNS) and longline (LLS), and total landings and discards of "other gears" in 2019. The number of small-scale vessels affected and discard rates for fisheries with bycatch of *P. elephas* is provided. For Malta there is only some information of landings and discards of *P. elephas* by trammel nets. Similarly, limited data on landings and discard rates is provided for lobster (*Homarus Gammarus)* by Cyprus, Italy and Greece, but for trammel nets and gillnets, and not for pots and traps. **2. Basis for exemption** The justification is principally based on the analysis of disproportionate costs presented for other gears. Concerning the Cyprus small-scale fishery operating with nets, it is expected that only the scenario based on the application of de minimis exemptions would result in no economic impairment for the small-scale fleet. This is not specific to the pot and trap fisheries. **3. EWG 21-05 observations** EWG 21-05 cannot assess whether this exemption is justified or not as the information provided is largely uninformative and unrelated to the relevant fisheries. Any arguments presented are generic and not backed up with any relevant data.

[1] Demersal finfish species refers to: European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus spp.*), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), red seabream (*Pagellus bogaraveo*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (*Polyprion americanus*), gilthead seabream (*Sparus aurata*) and common sole (*Solea solea)*

References

Mytilineou, C., Herrmann, B., Kavadas, S., Smith, C.J. Megalofonou, P. 2020. Combining selection models and population structures to inform fisheries management: a case study on hake in the Mediterranean bottom trawl fishery. Mediterranean Marine Science. DOI: http://dx.doi.org/10.12681/mms.22191

8.1.3. Adriatic Sea

General observations

The recommendation for a discard plan for GSA 17 and GSA18 presented by the ADRIATICA High Level Group includes proposals to extend several de minimis exemptions granted under COMMISSION DELEGATED REGULATION (EU) 2017/86 of 20 October 2016 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea, amended by: Commission Delegated Regulation (EU) 2018/153 of 23 October 2017; Commission Delegated Regulation (EU) 2018/542 of 22 January 2018; Commission Delegated Regulation (EU) 2018/2036 of 18 October 2018; Commission Delegated Regulation (EU) 2020/4 of 29 August 2019 and which expire at the end of 2021.

The following de minimis exemptions from the landing obligation are requested for the period 2022-2024:

i. 5% of total annual catches of Hake and Mullets caught by bottom trawls;

ii. 1% of total annual catches of Hake and Mullets caught by trammel and gill nets;

iii. 1% of total annual catches of Hake and Mullets caught by rapido (beam trawlers);

iv. 3% of total annual catches of Common sole caught by bottom trawls;

v. 5% of total annual catches of European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus spp*.), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), red seabream (*Pagellus bogaraveo*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (Polyprion americanus), gilthead seabream (*Sparus aurata*) and deep-water rose shrimp (*Parapenaeus longirostris*) caught by bottom trawls.

vi. 3% of total annual catches of European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus spp.*), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), red seabream (*Pagellus bogaraveo*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (*Polyprion americanus*), common sole (*Solea solea*) and gilthead seabream (*Sparus aurata*) caught by trammel and gill nets.

vii. 1% of total annual catches of European seabass (*Dicentrarchus labrax*), annular seabream (*Diplodus annularis*), sharpsnout seabream (*Diplodus puntazzo*), white seabream (*Diplodus sargus*), two-banded seabream (*Diplodus vulgaris*), groupers (*Epinephelus spp*.), stripped seabream (*Lithognathus mormyrus*), Spanish seabream (*Pagellus acarne*), common pandora (*Pagellus erythrinus*), common seabream (*Pagrus pagrus*), wreckfish (*Polyprion americanus*), common sole (*Solea solea*) and gilthead seabream (*Sparus aurata*) caught by hooks and lines.

viii. 5% of total annual by-catches of pelagic species (anchovy (*Engraulis encrasicolus*), sardine (*Sardina pilchardus*), mackerel (*Scomber spp*.) and horse mackerel (*Trachurus spp*.) caught by bottom trawls.

The proposals are accompanied by supporting documentation from Croatia, Italy and Slovenia. More specifically:

- *Annex A - consideration by Italy on landing obligation for small pelagic and demersal fisheries_2021.*
- *Annex A1 - Table de minimis exemption_LO_GSA17-18_species MCRS-ITA.*
- *Annex A2 - IMPLEMED project ADR-ITA.*
- *Annex B - Management measures_HR.*
- *Annex B1_2020_HRV.*
- *Annex B2_HR_costs_clear.*
- *Annex C - Additional information de minimis Slovenia 2020.*
- *Annex C1 - Poizvedba SLO 2020.*

For the three Member States participating in the Adriatic subgroup (Adriatica), the basis for justifying the exemption is in relation to disproportionate costs, in the absence of infrastructure to handle unwanted catches once landed. This is the same argument that has been presented previously to STECF.

The justification is based on qualitative and limited quantitative economic data information and catch information gathered mainly from documents already presented during EWG 19_08 in 2019. On this basis, the proposal from the ADRIATICA High Level Group is to rollover the existing exemptions which are due to expire at the end of this year for a further three years (2022-2024).

EWG 21-05 highlights that:

- Not all information (all gears and species) according to the format outlined in STECF PLEN-17-02 for the provision of information that defines the fisheries has been provided by ADRIATICA Member States. In several cases no information on catch and discards is provided.
- Disproportionality of costs is not supported by any new documentation or information. Italy refers to two HORIZON 2020 projects (MINOUW and DISCARDLESS) and the work of Sartor et al. (2016) as previously referred to in 2019. These works demonstrate the need of additional work on board to handle the discards, provided useful indications on the costs related to the management of discards from the catch to the final destination. Maynou et al. (2018) (Deliverable 2.19 of MINOUW) estimated the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel.
- The information provided by Croatia and Slovenia is largely the same as in 2019.

Table 8.1.3.1 Summary of *de minimis* exemptions submitted for the Adriatic Sea exemptions relating to demersal species

Exemption	Main Findings of EWG 21-05
Hake and mullets, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery**

	Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1) there is available data regarding the structure of the bottom trawl fleet as well as the catcper species. Discards are almost absent from the Slovenia data. However, this seems in contrast with what is stated in document C: "*Slovenia implements the following measures for monitoring the exemption with respect to the Slovenian fishing fleet:* *- in accordance with Slovenian national legislation (Regulation on the traceability of catches), all quantities of all species of fish caught and discarded have to be recorded in the fishing logbooks*". In the case of Italy, discards are absent for several species. It is important to highlight the fact that in some case the discards related to a single species are very high. However, the incidence of the species in the total landings and discards is very low. In some case there is no data because the metier was not selected for discard sampling (Italian Work Plan for data collection in the fisheries and aquaculture sectors 2017-2019) or because the species is not present in the biological samples for that metier (same comment as EWG 19_08). In the case of Croatia (Annex B1), no data is available regarding the structure of the bottom trawl fleet. Available data regard the aggregated landings per harbour are provided but, there is specific data for rose shrimp, sole, hake *Nephrops* and Red mullet. For the rest of the species in Annex III (Annex IX of the Regulation (EU) 2019/1241) the data is aggregated. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity. Specific information provided by Member States is as follows: *Croatia* **-** Croatia (see Annex B1 and B2), presents a table describing the factors for increased costs arising from unwanted catches. There is also an analysis of the potential revenues that unwanted landings may offer when the landing obligation is implemented. Even in a scenario where an optimistic price of 0.5 €/kg for the discards is adopted, the analysis indicates that the numerous landing places that are spread around the country (146 landing sites) result in very low volumes of discards per week that are not enough to create economic benefits. This is highlighted by the fact that the transportation costs outweigh the potential revenues from the exploitation of unwanted catches. No data is presented regarding estimated discard rates other than two hypothetical discard ratios (3% and 5%). In addition, a horizontal discard ratio for all landing sites is assumed, but the rationale for this discard ratio is not explained.

	Croatia has indicated that there is an on-going organised effort to rationalise the number of landing sites by significantly eliminating some and modernising others. Croatia argues on this basis it could be possible to re-evaluate the disproportionate costs. Croatia (Annex B) also presented management measures of permanent and temporary spatio-temporal regimes as well as the establishment of FRA areas as measures to avoid unwanted catches of undersized fish. *Slovenia* **–** Slovenia justifies the extension of the exemption on disproportionate handling costs of handling small volumes of discards. This is the same arguments put forward to EWG 19-08. According to Slovenian (Annex C), the construction of storage and cooling facilities will be costly and disproportionate. No such facilities exist currently. *Italy* **-** As for the disproportionate costs, the same arguments are used as in the previous request (EWG 19-08) for the trawl fleet. Supporting information on selectivity is contained in Annex A2. This describes the project "Implemed": Improving the selectivity of trawl gears in the Mediterranean Sea to advance the sustainable exploitation pattern of trawl fisheries". The main objective of the study is to test selectivity devices aimed at improving the exploitation pattern and reducing discard rates of regulated species, as well as other commercial and non-commercial species, in trawl fisheries. The devices to be tested are T90 mesh on the extension piece of the trawl net (west side and east side of GSA 17) and the grids also in GSA 17 (west side). The main target species are *M. merluccius*, *N. norvegicus*, *P. longirostris* on the east side whilst *M. merluccius* and *M. barbatus* on the western. Trials, using grids, will be conducting on fisheries targeting *N. norvegicus* and *M. merluccius*. The project is still ongoing and the results are expected for the end of year. **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. EWG 21-05 notes that only Italy has provided data on discard rates for trawlers. Therefore, the discard ratio of the two combined species can only be estimated in the case of Italy to be 17.3%. Consequently, the de minimis volume is likely to cover only a proportion of the discards if no other measures are put in place by the Member States (e.g. increasing selectivity and/or spatio-temporal measures). The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.

	EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR.
Exemption	Main Findings of EWG 21-05
Hake and mullets, up to a maximum of **1%** of the total annual catches by vessels using **gillnets and trammel nets** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1), there are available data regarding the structure of the fleets fishing with trammel nets and gillnets as well as the catch per species. Discards are only available for very few cases in Italy and Slovenia (the majority of discards are reported as n.a.). In the case of Croatia (Annex B1), no useful data is provided. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity. Croatia and Italy also presented some information on temporary spatio-temporal measures in territorial waters and protection of FRAs (Annex B). **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole

	Mediterranean basin. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, EWG 21-05 does acknowledge that the limited information provided suggests discards are very low in these fisheries.
Exemption	Main Findings of EWG 21-05
Hake and mullets, up to a maximum of **1%** of the total annual catches by vessels using **rapido** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy (Annex A1), data regarding the rapidos fleet as well as the catch per species has been provided. However, information on discards is not provided (in each case discards are reported as n.a.). For the rest of the countries, there is no information on the catches from vessels using rapidos (Annex B1 and C1) or any indication whether any vessels use this gear. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity. Croatia and Italy also presented some information on temporary spatio-temporal measures in territorial waters and protection of FRAs (Annex B). **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and

	FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, EWG 21-05 does acknowledge that the limited information provided suggests discards are very low in these fisheries.
Exemption	Main Findings of EWG 21-05
Total catches of **common sole**, up to a maximum of **3%** of the total annual catches by vessels using **bottom trawls** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1) data on the bottom trawl fleet as well as the catch per species has been provided. Discards are almost absent from the Slovenia data. However, this seems in contrast with what is stated in document C: "*Slovenia implements the following measures for monitoring the exemption with respect to the Slovenian fishing fleet:* *- in accordance with Slovenian national legislation (Regulation on the traceability of catches), all quantities of all species of fish caught and discarded have to be recorded in the fishing logbooks*". In the case of Italy, discards are absent for several species. It is important to highlight the fact that in some case the discards related to a single species are very high. However, the incidence of the species in the total landings and discards is very low. In some case there is no data because the metier was not selected for discard sampling (Italian Work Plan for data collection in the fisheries and aquaculture sectors 2017-2019) or because the species is not present in the biological samples for that metier (same comment as EWG 19_08). In the case of Croatia (Annex B1), no data is available regarding the structure of the bottom trawl fleet. Available data regard the aggregated landings per harbour are provided but, there is specific data for rose shrimp, sole, hake *Nephrops* and Red mullet. For the rest of the species in Annex III (Annex IX of the Regulation (EU) 2019/1241) the data is aggregated. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other

	technical measures to increase selectivity. Specific information provided by Member States is as follows: *Croatia* **-** Croatia (see Annex B1 and B2), presents a table describing the factors for increased costs arising from unwanted catches. There is also an analysis of the potential revenues that unwanted landings may offer when the landing obligation is implemented. Even in a scenario where an optimistic price of 0.5 €/kg for the discards is adopted, the analysis indicates that the numerous landing places that are spread around the country (146 landing sites) result in very low volumes of discards per week that are not enough to create economic benefits. This is highlighted by the fact that the transportation costs outweigh the potential revenues from the exploitation of unwanted catches. No data is presented regarding estimated discard rates other than two hypothetical discard ratios (3% and 5%). In addition, a horizontal discard ratio for all landing sites is assumed, but the rationale for this discard ratio is not explained. Croatia has indicated that there is an on-going organised effort to rationalise the number of landing sites by significantly eliminating some and modernising others. Croatia argues on this basis it could be possible to re-evaluate the disproportionate costs. Croatia (Annex B) also presented management measures of permanent and temporary spatio-temporal regimes as well as the establishment of FRA areas as measures to avoid unwanted catches of undersized fish. *Slovenia* **–** Slovenia justifies the extension of the exemption on disproportionate handling costs of handling small volumes of discards. This is the same arguments put forward to EWG 19-08. According to Slovenian (Annex C), the construction of storage and cooling facilities will be costly and disproportionate. No such facilities exist currently. *Italy* **-** As for the disproportionate costs, the same arguments are used as in the previous request (EWG 19-08) for the trawl fleet. Supporting information on selectivity is contained in Annex A2. This describes the project "Implemed": Improving the selectivity of trawl gears in the Mediterranean Sea to advance the sustainable exploitation pattern of trawl fisheries". The main objective of the study is to test selectivity devices aimed at improving the exploitation pattern and reducing discard rates of regulated species, as well as other commercial and non-commercial species, in trawl fisheries. The devices to be tested are T90 mesh on the extension piece of the trawl net (west side and east side of GSA 17) and the grids also in GSA 17 (west side). The main target species are *M. merluccius*, *N. norvegicus*, *P. longirostris* on the east side whilst *M. merluccius* and *M. barbatus* on the western. Trials, using grids, will be conducting on fisheries targeting *N. norvegicus* and *M. merluccius*. The project is still ongoing, and the results are expected for the end of year. **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting

	unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. EWG 21-05 notes that only Italy has provided data on discard rates for common sole in GSA 17, where the estimated discard rate corresponds to 3.3%. Without data from other fleets, EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Exemption	Main Findings of EWG 21-05
Total catches of **demersal finfish**[1] under the Landing Obligation (excluding hake, mullets and pelagic species) and **deep-water rose shrimp**, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1) there are available data regarding the structure of the bottom trawlers fleet as well as the catch per species. Discards are almost absent from Slovenia data. However, this seems in contrast with what is stated in document C: "Slovenia implements the following measures for monitoring the exemption with respect to the Slovenian fishing fleet: - in accordance with Slovenian national legislation (Regulation on the traceability of catches), all quantities of all species of fish caught and discarded have to be recorded in the fishing logbooks". In the case of Italy, discards are absent in several species. It is important to highlight the fact that in some case the discards related to a single species present value very high; however, the incidence of the species on total landing and discards is very low. In some case there are no data because the metier was not selected for discard sampling (Italian Work Plan for data collection in the fisheries and aquaculture sectors 2017-2019) or because species is not present in the biological samples for the metier (same comment as EWG 19-08). In the case for Croatia (Annex B1), no data is available regarding the structure of the bottom trawlers. Available data regard the landings per landing place. But even in this case, there is specific data for Rose shrimp, Sole, Hake and Norwegian lobster and Red mullet while the rest species of Annex III (Annex IX of the Regulation (EU) 2019/1241) are aggregated. **3. Basis for the exemption** For all the MSs, justification is supported by an analysis of the A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around

	140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity. Specific information provided by Member States is as follows: *Croatia* **-** Croatia (see Annex B1 and B2), presents a table describing the factors for increased costs arising from unwanted catches. There is also an analysis of the potential revenues that unwanted landings may offer when the landing obligation is implemented. Even in a scenario where an optimistic price of 0.5 €/kg for the discards is adopted, the analysis indicates that the numerous landing places that are spread around the country (146 landing sites) result in very low volumes of discards per week that are not enough to create economic benefits. This is highlighted by the fact that the transportation costs outweigh the potential revenues from the exploitation of unwanted catches. No data is presented regarding estimated discard rates other than two hypothetical discard ratios (3% and 5%). In addition, a horizontal discard ratio for all landing sites is assumed, but the rationale for this discard ratio is not explained. Croatia has indicated that there is an on-going organised effort to rationalise the number of landing sites by significantly eliminating some and modernising others. Croatia argues on this basis it could be possible to re-evaluate the disproportionate costs. Croatia (Annex B) also presented management measures of permanent and temporary spatio-temporal regimes as well as the establishment of FRA areas as measures to avoid unwanted catches of undersized fish. *Slovenia* **–** Slovenia justifies the extension of the exemption on disproportionate handling costs of handling small volumes of discards. This is the same arguments put forward to EWG 19-08. According to Slovenian (Annex C), the construction of storage and cooling facilities will be costly and disproportionate. No such facilities exist currently. *Italy* **-** As for the disproportionate costs, the same arguments are used as in the previous request (EWG 19-08) for the trawl fleet. Supporting information on selectivity is contained in Annex A2. This describes the project "Implemed": Improving the selectivity of trawl gears in the Mediterranean Sea to advance the sustainable exploitation pattern of trawl fisheries". The main objective of the study is to test selectivity devices aimed at improving the exploitation pattern and reducing discard rates of regulated species, as well as other commercial and non-commercial species, in trawl fisheries. The devices to be tested are T90 mesh on the extension piece of the trawl net (west side and east side of GSA 17) and the grids also in GSA 17 (west side). The main target species are *M. merluccius*, *N. norvegicus*, *P. longirostris* on the east side whilst *M. merluccius* and *M. barbatus* on the western. Trials, using grids, will be conducting on fisheries targeting *N. norvegicus* and *M. merluccius*. The project is still ongoing, and the results are expected for the end of year. **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no

	way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. EWG 21-05 notes that only Italy has provided data on discard rates and therefore not even a combined discard rate can be estimated as discard data is not fully provided for all species or GSAs. For four species for which data has been provided, shows the discard ratios are relatively high. However, without data from other fleets, EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery or the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.
Total catches of **demersal finfish**[1] under the landing obligation excluding hake, mullets and pelagic species, up to a maximum of **3%** of the total annual catches by vessels using **gillnets and trammel nets** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1), there are available data regarding the structure of the fleets fishing with trammel nets and gillnets as well as the catch per species. Discards are only available for very few cases in Italy and Slovenia (the majority of discards are reported as n.a.). In the case of Croatia (Annex B1), no useful data is provided. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity. Croatia and Italy also presented some information on temporary spatio-temporal measures in territorial waters and protection of FRAs

	(Annex B). **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, EWG 21-05 does acknowledge that the limited information provided suggests discards are very low in these fisheries.
Total catches of **demersal finfish**[1] under the landing obligation excluding hake, mullets and pelagic species, up to a maximum of **1%** of the total annual catches by vessels using **hooks and lines** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1), there are available data regarding the structure of the fleets fishing with hooks and lines as well as the catch per species. Discards are only available for very few cases in Italy and Slovenia (the majority of discards are reported as n.a.). In the case of Croatia (Annex B1), no useful data is provided. **3. Basis for the exemption** A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity.

	Croatia and Italy also presented some information on temporary spatio-temporal measures in territorial waters and protection of FRAs (Annex B). **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin. EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the landing obligation) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. However, EWG 21-05 does acknowledge that the limited information provided suggests discards are very low in these fisheries.
Total catches of **Anchovy, Sardine, Mackerel and Horse Mackerel**, up to a maximum of **5%** of the total annual catches by vessels using **bottom trawls** in the Adriatic Sea	**1. Exemption status** Extension for the period 2022-2024 to an existing temporary exemption granted until the end of 2021. **2. Definition of the fishery** Fishery information has been partially provided by the ADRIATICA Member States. For Italy and Slovenia (Annex A1 and C1) there are available data regarding the structure of the bottom trawlers fleet as well as the catch per species. Discards are almost absent from Slovenia data. However, this seems in contrast with what is stated in document C: "Slovenia implements the following measures for monitoring the exemption with respect to the Slovenian fishing fleet: - in accordance with Slovenian national legislation (Regulation on the traceability of catches), all quantities of all species of fish caught and discarded have to be recorded in the fishing logbooks". In the case of Italy, discards are absent in several species. It is important to highlight the fact that in some case the discards related to a single species present value very high; however, the incidence of the species on total landing and discards is very low. In some case there are no data because the metier was not selected for discard sampling (Italian Work Plan for data collection in the fisheries and aquaculture sectors 2017-2019) or because species is not present in the biological samples for the metier (same comment as EWG 19_08).

	In the case for Croatia (Annex B1), no data is available regarding the structure of the bottom trawlers. Available data regard the landings per landing place. But even in this case, there is specific data for Rose shrimp, Sole, Hake and Norwegian lobster and Red mullet while the rest species of Annex III (Annex IX of the Regulation (EU) 2019/1241) are aggregated. **3. Basis for the exemption** For all the MSs, justification is supported by an analysis of the A continuation of the exemption is sought primarily based on disproportionate costs by analogy with the potential cost for an "average" trawl vessel (producing around 40 kg/day of discard of species in the Annex III of the EU Reg. 1967/2006 and working around 140 days/year) in around 3000 euro per year. This amount is about 7.5% of the gross profit of the "average" vessel. Additionally, it is argued there are disproportionate costs in the absence of infrastructure to handle unwanted catches once landed. The de minimis exemption is seen as a "stop-gap" that offsets some of the unwanted catches while research and testing of selective gears is carried out. The conclusions are expected to guide the Member States to adopt gear or other technical measures to increase selectivity. Specific information provided by Member States is as follows: *Croatia* **-** Croatia (see Annex B1 and B2), presents a table describing the factors for increased costs arising from unwanted catches. There is also an analysis of the potential revenues that unwanted landings may offer when the landing obligation is implemented. Even in a scenario where an optimistic price of 0.5 €/kg for the discards is adopted, the analysis indicates that the numerous landing places that are spread around the country (146 landing sites) result in very low volumes of discards per week that are not enough to create economic benefits. This is highlighted by the fact that the transportation costs outweigh the potential revenues from the exploitation of unwanted catches. No data is presented regarding estimated discard rates other than two hypothetical discard ratios (3% and 5%). In addition, a horizontal discard ratio for all landing sites is assumed, but the rationale for this discard ratio is not explained. Croatia has indicated that there is an on-going organised effort to rationalise the number of landing sites by significantly eliminating some and modernising others. Croatia argues on this basis it could be possible to re-evaluate the disproportionate costs. Croatia (Annex B) also presented management measures of permanent and temporary spatio-temporal regimes as well as the establishment of FRA areas as measures to avoid unwanted catches of undersized fish. *Slovenia* **–** Slovenia justifies the extension of the exemption on disproportionate handling costs of handling small volumes of discards. This is the same arguments put forward to EWG 19-08. According to Slovenian (Annex C), the construction of storage and cooling facilities will be costly and disproportionate. No such facilities exist currently. *Italy* **-** As for the disproportionate costs, the same arguments are used as in the previous request (EWG 19-08) for the trawl fleet. Supporting information on selectivity is contained in Annex A2. This describes the project "Implemed": Improving the selectivity of trawl gears in the Mediterranean Sea to advance the sustainable exploitation pattern of trawl fisheries". The main objective of the study is to test selectivity devices aimed at improving the exploitation pattern and reducing

	discard rates of regulated species, as well as other commercial and non-commercial species, in trawl fisheries. The devices to be tested are T90 mesh on the extension piece of the trawl net (west side and east side of GSA 17) and the grids also in GSA 17 (west side). The main target species are *M. merluccius*, *N. norvegicus*, *P. longirostris* on the east side whilst *M. merluccius* and *M. barbatus* on the western. Trials, using grids, will be conducting on fisheries targeting *N. norvegicus* and *M. merluccius*. The project is still ongoing, and the results are expected for the end of year. **4. EWG 21-05 observations** EWG 21-05 observes that while estimates of the potential increase in costs of handling unwanted catches ashore are provided, there is no way to objectively judge whether such estimates amount to disproportionate costs. The arguments are generic, and no attempt has been made to identify fisheries, which are particularly impacted. In most cases, the factors that increased the cost of production are not quantitative, and therefore the total cost increase cannot be estimated. However, EWG 21-05 acknowledges the information provided by Croatia that shows the costs for handling and transporting unwanted catches far outweighs the revenues that would ensue from the sale of those unwanted catches. EWG 21-05 notes that only Italy has provided data on discard rates for trawlers, where the estimated combined discard rate corresponds to 57.6%. Consequently, the de minimis volume is likely to cover only a proportion of the discards if no other measures are put in place by the Member States (e.g. increasing selectivity and/or spatio-temporal measures). Without data from other fleets, EWG 21-05 cannot evaluate the implications of the unwanted catch (discards in the absence of the LO) for the fishery neither the implications for the stock. The implications of granting the proposed exemption with regard to the fishery and species concerned cannot be quantified with the information provided with the JR. The ADRIATIC HLG indicates the possibility of introducing 'Marine Protected Areas' and 'Fish Recovery Areas/Fisheries Reserves' as a measure to avoid unwanted catches of undersized fish. In this regard, using the *de minimis* as a "stop-gap" while the network of MPAs and FRAs is being introduced seems a reasonable approach that should, over time, lead to reductions in unwanted catches across the whole Mediterranean basin.

References

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Scientific, Technical and Economic Committee for Fisheries (STECF) – Evaluation of Landing Obligation Joint Recommendations (STECF-19-08). Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-09523-1, doi:10.2760/227428, JRC117511

8.2. Proposals for high survivability exemptions – Western Mediterranean

A summary of the information provided to support the high survivability exemptions for demersal species in the Western Mediterranean is provided in table 8.2.1.

High Survivability	
Fishery	Main Findings of EWG 21-05
Scallop (*Pecten jacobaeus*), **Carpet clams** (*Venerupis* spp.), and **Venus shells** (*Venus* spp.) below the minimum conservation reference size caught with mechanised dredges (HMD) in the Western Mediterranean	**1. Exemption status** Extension of an existing exemption expiring the 31/12/2021 (Commission Delegated Regulation (EU) 2018/2036). Exemption is requested for the period 01/01/2022 to 31/12/2024. **2. Survival evidence** No evidence supporting high survivability for the three bivalves subject of this exemption request is provided. High probability of survival (94-95%) is only deduced from discards of other bivalve species (*Donax trunculus* and *Chamelea gallina*) caught by mechanized dredges. **3. Fishery context** Only the number of French vessels (9) using dredges are reported, but, in this case, the target specie is the gastropod Murex. It is not clear if all of these vessels' fish for the species covered by the exemption. No catch data has been provided. **4. Survival and fishery compatibility** As the survivability is inferred from discards of other bivalve species, it is not possible to assess the representativeness of this information to discarded scallops, carpet clams and Venus shells with mechanised dredges. **5. Additional evidence** To assist the PESCAMED group, EWG 21-05 reiterates the observations of EWG 17-03. EWG 17-03 identified two studies/publications that could be useful as supporting information as follows: a) A study by Moschino et al. (2003) provides some information on survivability of Venus clams; b) A review of the survival of discard survival rates completed for the Commission in 2012 contains some information on the survivability of Atlantic scallop (*Pecten maximus*) which would be similar to Mediterranean scallop. EWG 21-05 suggests the PESCAMED group consider whether the survival information within these reports that is representative of the fisheries in the western Mediterranean.
Norway lobster (*Nephrops norvegicus*) below the minimum conservation reference size caught with all bottom trawls (OTB, OTT, PTB, TBN, TBS, TB, OT, PT, TX) in the Western Mediterranean	**1. Exemption status** Extension of an existing exemption expiring the 31/12/2021 (Commission Delegated Regulation (EU) 2018/2036). Exemption is requested for the period 01/01/2022 to 31/12/2024. **2. Survival evidence** Survival evidence is based on the results of the Minouw project, where survivability experiments on Norway lobster in bottom trawl fisheries have been conducted (Garcia de Vinuesa et al., 2020). The survival rate of Norway lobsters discarded from trawl catches in the western Mediterranean showed seasonal differences, varying between 6% in summer and 74% in winter, with values of 36% in spring (García de Vinuesa et al., 2020). These seasonal differences were also observed in the Gulf of Cádiz, with a higher survivability rate in spring (68%) than in autumn (34%) for bottom trawl fishery (Barragán-Méndez et al., 2020). **3. Fishery context** For Italy, the number of vessels (270), landings (200 tonnes), and discard

	(0.6 tonnes) were provided for the GSA 9 in 2019. For France, landing data (20.5 tonnes) and number of vessels (35) targeting Norway lobster with bottom trawl were provided for 2019, but no discard rates were reported. No data on the Spanish fishery was provided. **4. Survival and fishery compatibility** The study of García de Vinuesa et al. (2020) pointed out that the differences in the survivability rates could be due to higher levels of physiological stress to which individuals are subjected when they are captured in summer versus winter and suggest that the air temperature may play an important role in survivability. However, such results confirm what had been already observed by EWG 18-06, concerning the very low survivability of Norway lobster during June, July and August. **5. Additional evidence** To improve an understanding of the thermal stress physiology, temperature records along the trajectory of fishing and handling should be presented. This could indicate whether higher environmental (acclimated) temperatures in summer or the temperature shock (when exiting bottom water; being pulled through the water column during hauling; and being exposed to (warm) air during sorting) are relevant predictors of discard survival.
Norway lobster (*Nephrops norvegicus*) below the minimum conservation reference size caught with pots and traps (FPO, FIX) in the Western Mediterranean	**1. Exemption status** Extension of an exemption expired the 31/12/2019 (Commission Delegated Regulation (EU) 2018/2036). Exemption is requested for the period 01/01/2022 to 31/12/2024. **2. Survival evidence** Limited information is provided by France, which does not include estimated survival rates. **3. Fishery context** Limited information on the French fleet with pots and traps has been provided. The reported catches are very small, 339 Kg for 2 vessels. There is no information provided for volume of discards or the survival rate. **4. Survival and fishery compatibility** Survival rates of *Nephrops* caught by pots are known to be high based (> 80%) on information from similar fisheries in the NWW and North Sea. However, it is not possible to make direct inference as to the applicability of the results obtained in other areas to the Mediterranean. The Mediterranean is generally warmer than the Atlantic, even at the same latitudes, and the eastern most ranges of the Mediterranean are considerably warmer than the western region. **5. Additional evidence** The information provided is limited and to make any assessment of the exemption in the context of the Norway lobster stock, additional data should be provided indicating the scale of the fishery and level of catches. Given the minimal catches indicated and the absence of a targeted fishery, EWG 21-05 questions whether this exemption is required at all.
Red seabream (*Pagellus*	**1. Exemption status**

bogaraveo) below the minimum conservation reference size caught with hooks and lines (LHP, LHM, LLS, LLD, LL, LTL, LX) in the Western Mediterranean	Extension of an existing exemption expiring the 31/12/2021 (Commission Delegated Regulation (EU) 2020/4). Exemption is requested for the period 01/01/2022 to 31/12/2024. **2. Survival evidence** Survival evidence is provided by Italy based on a survivability experiment carried out in the DiscardLess Project. This study was already reviewed in EWG 19-08. In particular, a report concerning vitality and survivability of *P. bogaraveo* caught with bottom longlines and handlines in the Azores (ICES subarea 10) shows that the direct at-vessel mortality, including both dead and moribund individuals, represented 16.5% and 12.7% for bottom longlines and handlines, respectively. In the same report, a study on red seabreams smaller than MCRS showed that long term survivability (21 days) is very high (90%) on specimens caught with hooks and lines in shallow waters (10 m depth). In addition, the survivability of *P. bogaraveo* caught with handlines was estimated by telemetry and it was observed a survival rate of 67% after 8 days. **3. Fishery context** For Italy, landing data and the number of vessels catching red seabream with hooks and lines were provided for the GSA 9, 10 and 11, but no discard rates were reported. Total landings of this species by hooks and lines were about 6.7 tons in 2019. For Spain, the total landings of bottom longline (average values of 2015-2019) were 8.06 tonnes and discard are reported as negligible. For France, in 2019 the number of vessels was 35 and total landings of hooks and line were 27.4 tonnes. **4. Survival and fishery compatibility** The at-vessel mortality tends to be slightly higher for bottom longlines than for handlines, which could be due to the soaking time, which is higher for deep-water bottom longlines. **5. Additional evidence** As the supporting studies on the survivability were conducted in the Atlantic, it is difficult to determine whether survival rates may differ across gear types (in particular the hook type), seasons and geographic areas. As suggested in EWG 19-08, a full study following ICES WKMEDS guidelines to directly observe discard survival should ideally be conducted in the Mediterranean.
Lobster and Crawfish (Palinuridae) caught with nets (GNS, GN, GND, GNC, GTN, GTR, GEN) and with pots and traps (FPO, FIX) in the Western Mediterranean	**1. Exemption status** Extension of an existing exemption expiring the 31/12/2021 (Commission Delegated Regulation (EU) 2020/4). Exemption is requested for the period 01/01/2022 to 31/12/2024. **2. Survival evidence** A survival rate of 0.64 is reported by Italy for both species caught with nets, pots and traps. This value is based on a study of undersized crawfish, but as no references are provided it is not possible to assess the quality of this estimation. Additional studies showing high survivability for both species are also mentioned, but such information is summarised only with references or without a full report. **3. Fishery context** In Italy, 1326 vessels caught 11.1 tonnes of these two species in GSA9 using set nets in 2019. In the GSA11, a total of 1242 vessels landed 57.5

	tonnes of crawfish and 4.1 tonnes of lobster, and discarded 25.4 tonnes and 0.2 tonnes, respectively (2019). In addition, a similar number of vessels landed lobsters (6.9 tonnes) and crawfish (0.03 tonnes) as bycatch with pots and traps in GSA11 in 2019. No data on discard are provided. In France, 140 vessels caught 2.0 tonnes of lobster and 12 vessels caught 0.4 tonnes of crawfish with nets, pots and traps in 2019. No additional data are provided for describing the fishery context. **4. Survival and fishery compatibility** Survivability for both species is expected to be high, while reported catches are generally low, so the impact of the survivability exemption for these fisheries is likely to be low. However, there is a lack of evidence to fully support this assertion. **5. Additional evidence** There is currently a lack of survival estimates to support this exemption and additional survival studies would be advisable, as well as supplementary information on the operational modalities of these fisheries.

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9. BLACK SEA – OVERVIEW OF JOINT RECOMMENDATIONS

Commission Delegated Regulation (EU) 2017/87 established a discard plan for turbot fisheries in the Black Sea. This discard plan was valid until 31 December 2019 and included a high survivability exemption for turbot caught in bottom set gillnets. This exemption was granted for one year on the provision that the Member States concerned in the fishery should submit relevant data to the Commission to allow STECF to further assess the justifications for this exemption. No such data was forthcoming, so the exemption lapsed. Following discussions between Romania and Bulgaria a new Joint Recommendation for a discard plan for turbot fisheries in the Black Sea was submitted in 2021 and assessed by EWG 21-05.

The main elements of the JR assessed by EWG 21-05 are summarised in table 8.1.

Elements	***Contained currently in pelagic or demersal discard plan***	***Status with relevant Article in current discard plan***	***Assessment by EWG 21-05 with relevant Annexes in JR***
Turbot caught with gillnets	Demersal	New request of an Exemption granted in 2017 that expired at the end of 2019 Article 3(1)	Assessed based on supporting information supplied by Bulgaria and Romania

9.1. Proposals for high survivability exemptions – Black Sea

A summary of the information provided to support the high survivability exemptions for turbot in the Black Sea is provided in table 9.1.1.

Table 9.1.1. Summary of high survivability submitted as part of the Black Sea Joint Recommendations

High Survivability	
Exemption	Main Findings of EWG 21-05
Turbot (*Scophthalmus maximus*) caught with bottom-set gillnets (GNS) in the Black Sea (GSA29)	**1. Exemption status** New exemption based on an exemption included under Commission Delegated Regulation (EU) 2017/87 that established a discard plan for turbot fisheries in the Black Sea. **2. Survival evidence** Survival evidence is provided accordingly to scientific advice from IFR (Bulgaria) and NIMRD (Romania) stating that turbot has a high survivability (around 90%) when released from gillnets and trawls. However, high survivability of this species is not documented with any reference or supporting report, therefore the quality of the information cannot be assessed. **3. Fishery context** For Romania, 59 vessels targeted turbot with gillnets in 2020 and landed about 70 tonnes of turbot. Catches are reported as 75 tonnes, but the estimated discard was negligible. For Bulgaria, 124 vessels targeted turbot with gillnets in 2020 and landed about 62 tonnes of turbot. Catches are reported as 75 tonnes, but gain the estimated discard are reported as negligible. **4. Survival and fishery compatibility**

	Survival evidence is poorly documented and mainly refers to survival of turbot in trawl fisheries, while the exemption concerns only gillnets. Moreover, it is reported that gillnets are hauled at 2-4 days intervals without affecting the survival rate of individuals below MCRS. However, there is no evidence to support this assertion and based on information from similar gillnet fisheries, EWG 21-05 observes that the long soak time is likely to affect survival. **5. Additional evidence** The supporting information provided is limited and much is unrelated to gillnets. Therefore, additional experiments to obtain survival rates of turbot caught with gillnets are required. A full study following ICES WKMEDS guidelines to directly observe discard survival should ideally be conducted in the gillnet fishery to provide robust survival estimates for turbot.

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10. CONCLUSIONS

The conclusions reported below are general observations on the quality and weaknesses identified with the exemptions submitted across all the regional groups. In this regard, EWG 21-05 concludes that:

General conclusions

- The role of STECF EWGs set up to evaluate Joint Recommendations remains to evaluate the scientific rigor and robustness of the underpinning information supplied by Member States to support the main elements of Joint Recommendations. The EWG or STECF cannot adjudicate on whether exemptions should be accepted or not.
- The avoidance of unwanted catch through improved selectivity or other means should be the primary focus in implementing the landing obligation. While recognising that modifying selectivity can result in some reduction in revenue, such loss in revenue should be viewed in the broader context of medium-term gains in stocks from an increase in selectivity, the reduced risk of choke events and better utilization of quota to land a higher proportion of more valuable catch.
- The quality of submissions to support the exemptions has generally improved since the first JR's were submitted in 2014. However, there are cases in the 2021 JRs where the quality of submission is poor or absent, making it difficult to conduct an analysis. Members States Regional Groups where possible should use the templates developed by STECF to supply fisheries and fleet descriptors; in the case of *de minimis* exemptions provide economic data to support such proposals; and for high survival exemptions provide all relevant survival information.
- The quality and consistency of catch data provided to support exemptions needs to improve. Such data is important to understand the relationship between the de minimis volume requested and the actual level of unwanted catches to put the proposed exemption in the context of the fishery and also the state of the stock for which the exemption is covering. This will allow an assessment as to whether risk of the exemption to the relevant stocks covered by the exemption is minimal.
- Weaknesses remain in the collection of catch documentation data. If the data situation does not improve and the true quantities being caught as reported do not reflect the actual removals, it will likely have a significant impact on the quality of scientific advice and may compromise the achievement of the MSY objective. This potential for this discrepancy is higher for *de minimis* than high survival exemptions because the actual discard amount may be substantially higher than the permitted *de minimis* amount. For high survival exemptions, this risk has been mitigated to some extent by deducting the estimated dead discards associated with the exemptions from the total allowable quota prior to allocation.
- It would be timely for the Member States Groups and the Commission to review exemptions that have been in place since the introduction of the Landing Obligation. This review would help to determine whether they need to be amended or are still required given likely changes in catch patterns, gears used, vessels involved and uptake.

Conclusions on de minimis exemptions

- Under Article 15 of the CFP Basic regulation Member States have a legal requirement to record all catches discarded under de minimis exemptions. However, in many cases this information is lacking from the supporting information provided by Member States.
- *De minimis* exemptions can provide an incentive for vessel operators to continue discarding unwanted catches at sea and only retain unwanted catches on board if they are inspected on hauling, or to bring only permitted *de minimis* quantities ashore on landing.
- For many exemptions, the relationship between the *de minimis* volume requested and the level of unwanted catches is unclear from the information provided to support the exemption. In some cases, the *de minimis* volume covers 100% of the unwanted

catches, usually in fisheries where the levels of unwanted catch are small. In other cases, the *de minimis* volume covers only a small part of the unwanted catches and the supporting information should contain indications on the measures to be taken to reduce these residual unwanted catches.

- The case for *de minimis* should not be improved by having high levels of unwanted catches, and therefore high handling costs, where the incentive to improve selectivity should be maintained. Improving selectivity or avoidance methods to reduce the catches of unwanted catches should be the priority.
- It has become increasingly clear to STECF that there is no scientific methodology or reasons available to justify whether a certain level of additional costs is disproportionate or not. Even with very detailed calculations, STECF cannot judge at which level costs are disproportionate because there is no way of assessing objectively what level of costs constitutes disproportionate. For this reason, in assessing de minimis exemptions, the relationship between the de minimis volume, the actual level of unwanted catches and the overall status of the stocks involved has been the focus of the assessments.

Conclusions on high survivability exemptions

- Assessing what constitutes high survivability is complicated by the limited evidence and the variability in the available estimates. Many factors can affect survival, but these are not well understood. This makes assessment of requests for survivability complex as many factors need to be considered.
- Survivability should be considered in the context of the discard rate for the fishery seeking an exemption. Medium survival rates in high discarding fisheries still lead to high discard mortality rates. STECF has previously concluded (STECF PLEN 19-02) that unless surviving discards are accounted for in stock assessments when dead discards are accounted for in TAC setting, where survivability exemptions are in place, the actual fishing mortality will not match the agreed catch level. This should continue to be discussed in the assessment forums for stocks with survival exemptions.
- Where survivability exemptions are linked to a roadmap setting out work planned to develop survival estimates and accompanying measures to increase survivability, the JRs should report against the different tasks set out in the roadmap to facilitate future evaluations.
- Trends are emerging from the evidence provided to support survivability exemptions. Most of the exemptions in the demersal fisheries have continued to focus on a few species, Norway lobster, plaice, sole and skates and rays. Studies on these species are indicating general differences in overall discard survival between gear types, whereby otter trawl fisheries have higher survival levels compared with beam (including pulse) trawl fisheries. The species most studied to date is plaice. Several studies on plaice have shown that discard survival is lower when more Norway lobster are caught. For rays, there is emerging evidence to suggest that the survival of cuckoo rays is less than other ray species.
- To date, survival and discard evidence and fleet information is reported in rather incoherent way that hindered assessment by the EWG. Most information is Member State specific within regions and there is very limited trans boundary linkages to neighbouring areas with shared stocks and fisheries.
- There remains a gap in the evidence provided on conditions of the relevant fisheries (gear use, haul duration, seasonality, areas etc.) and catch data for all Member States to provide context for this exemption. Such information is crucial in order to assess the representativeness of the different reported survival rates and to be able to assess the effects of the exemption on the different stocks.

Conclusions on technical measures

- Despite many experiments to test selective gears, there are still relatively few examples of such gears being incorporated into the JRs submitted. Where there is no specific

legislation making the use of selective gears mandatory, uptake of selective gears remains extremely low even in fisheries where unwanted catches remain high.

- While extensive work has been carried out on selectivity, for some regions, this work has been uncoordinated and not necessarily targeted at the right fisheries. A review of the work completed to identify what works and what does not, along with detailing the gaps in knowledge would help to channel further experiments into the appropriate fisheries.
- It is challenging to assess Joint Recommendations for technical measures against the objectives and targets set out in Article 3 and 4 of the Technical Measures Regulation. Generally, the data provided is not sufficient to quantifiably assess such JRs and therefore, any assessment is qualitative and based on expert judgement.
- The separate JRs relating to Red Sea Bream (NWW and SWW) and King Scallop in ICES division 7d contain positive elements that will improve the management of the stocks. but due to lack of supporting data it is not possible to assess fully whether the impacts of these measures on the respective stocks.

Conclusions on the definition of directed fishing

- The data provided to support the JR on defining directed fishing in SWW allowed for an evaluation of the suitability of the use of a catch threshold to define directed fisheries. However, the analysis suggests that the thresholds defined may not be suitable for the metiers present in SWW, given the variability in the catch compositions in the fisheries in SWW.
- As no means to monitor and control these thresholds are specified in the SWW JR, it is unclear how these thresholds could be implemented in the relevant fisheries.
- It is unclear how such catch thresholds would apply in the context of the landing obligation, under which all catches must be landed. If no measures to monitor and control vessels operating under catch thresholds are taken, then the catch data provided clearly shows the potential for the incentive to discard to increase for fisheries when operating within their catch thresholds, due to the high catch variability.

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12. List of Relevant Regulations

Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy

Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC

Commission Delegated Regulation (EU) No 1392/2014 of 20 October 2014 establishing a discard plan for certain small pelagic fisheries in the Mediterranean Sea

Commission Delegated Regulation (EU) No 1393/2014 of 20 October 2014 establishing a discard plan for certain pelagic fisheries in north-western waters

Commission Delegated Regulation (EU) No 1394/2014 of 20 October 2014 establishing a discard plan for certain pelagic fisheries in south-western waters

Commission Delegated Regulation (EU) No 1395/2014 of 20 October 2014 establishing a discard plan for certain small pelagic fisheries and fisheries for industrial purposes in the North Sea

Commission Delegated Regulation (EU) No 1396/2014 of 20 October 2014 establishing a discard plan in the Baltic Sea

Commission Delegated Regulation (EU) 2015/2438 of 12 October 2015 establishing a discard plan for certain demersal fisheries in north-western waters

Commission Delegated Regulation (EU) 2015/2439 of 12 October 2015 establishing a discard plan for certain demersal fisheries in south-western waters

Commission Delegated Regulation (EU) 2015/2440 of 22 October 2015 establishing a discard plan for certain demersal fisheries in the North Sea and in Union waters of ICES Division IIa

Commission Delegated Regulation (EU) 2016/2377 of 14 October 2016 amending Delegated Regulation (EU) No 1394/2014 establishing a discard plan for certain pelagic fisheries in South-Western waters

Commission Delegated Regulation (EU) 2017/86 of 20 October 2016 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea

Commission Delegated Regulation (EU) 2017/87 of 20 October 2016 establishing a discard plan for turbot fisheries in the Black Sea

Commission Delegated Regulation (EU) 2018/153 of 23 October 2017 amending Delegated Regulation (EU) 2017/86 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea

Commission Delegated Regulation (EU) 2018/211 of 21 November 2017 establishing a discard plan as regards salmon in the Baltic Sea

Commission Delegated Regulation (EU) 2018/45 of 20 October 2017 establishing a discard plan for certain demersal fisheries in the North Sea and in Union waters of ICES Division IIa for the year 2018

Commission Delegated Regulation (EU) 2018/46 of 20 October 2017 establishing a discard plan for certain demersal and deep sea fisheries in North-Western waters for the year 2018

Commission Delegated Regulation (EU) 2018/188 of 21 November 2017 amending Delegated Regulation (EU) No 1394/2014 establishing a discard plan for certain pelagic fisheries in South-Western waters

Commission Delegated Regulation (EU) 2018/189 of 23 November 2017 amending Delegated Regulation (EU) No 1395/2014 establishing a discard plan for certain small pelagic fisheries and fisheries for industrial purposes in the North Sea

Commission Delegated Regulation (EU) 2018/190 of 24 November 2017 amending Delegated Regulation (EU) No 1393/2014 establishing a discard plan for certain pelagic fisheries in North-Western waters.

Commission Delegated Regulation (EU) 2018/2033 of 18 October 2018 establishing a discard plan for certain demersal fisheries in South-Western waters for the period 2019-2021

Commission Delegated Regulation (EU) 2018/2034 of 18 October 2018 establishing a discard plan for certain demersal fisheries in North-Western waters for the period 2019-2021

Commission Delegated Regulation (EU) 2018/2035 of 18 October 2018 specifying details of implementation of the Landing Obligation for certain demersal fisheries in the North Sea for the period 2019-2021

Commission Delegated Regulation (EU) 2018/2036 of 18 October 2018 amending Delegated Regulation (EU) 2017/86 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea

Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008

Commission Delegated Regulation (EU) 2019/905 of 13 March 2019 amending Delegated Regulation (EU) 2018/2034 establishing a discard plan for certain demersal fisheries in North-Western waters for the period 2019-2021

Commission Delegated Regulation (EU) 2019/906 of 13 March 2019 amending Delegated Regulation (EU) 2018/2035 specifying details of implementation of the Landing Obligation for certain demersal fisheries in the North Sea for the period 2019-2021

Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005.

Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008

Commission Delegated Regulation (EU) 2019/2237 of 1 October 2019 specifying details of the landing obligation for certain demersal fisheries in South-Western waters for the period 2020-2021

Commission Delegated Regulation (EU) 2019/2238 of 1 October 2019 specifying details of implementation of the landing obligation for certain demersal fisheries in the North Sea for the period 2020-2021

Commission Delegated Regulation (EU) 2019/2239 of 1 October 2019 specifying details of the landing obligation for certain demersal fisheries in North-Western waters for the period 2020-2021

Commission Delegated Regulation (EU) 2020/4 of 29 August 2019 amending Delegated Regulation (EU) 2017/86 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea

Council Regulation (EU) 2020/123 of 27 January 2020 fixing for 2020 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters

Commission Delegated Regulation (EU) 2020/2015 of 21 August 2020 specifying details of the implementation of the landing obligation for certain fisheries in Western Waters for the period 2021-2023

Commission Delegated Regulation (EU) 2020/2013 of 21 August 2020 amending Regulation (EU) 2019/1241 of the European Parliament and of the Council as regards technical measures for certain demersal and pelagic fisheries in the North Sea and in the South-Western Waters

Commission Delegated Regulation (EU) 2020/2014 of 21 August 2020 specifying details of implementation of the landing obligation for certain fisheries in the North Sea for the period 2021-2023

Council Regulation (EU) 2021/92 of 28 January 2021 fixing for 2021 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters

13. ANNEXES

Annex I - Templates for the provision of fisheries information to support *de minimis* and high survivability exemptions

Table 12.1a Template for the provision of information that defines the fisheries to which *de minimis* exemptions should apply

Country	Exemption applied for (species, area, gear type)*	Species as bycatch or target	Number of Vessels subject to LO	Landings (by LO subject Vessels)	Estimated Discards*	Estimated Catch	Discard Rate**	Estimated *de minimis* volumes**

Recommended steps to follow to support proposed high survival exemptions:

1. Define the selected species for which the exemption is being sought
2. Define the stock(s) of the selected species
3. Define the management unit (group of vessels)
4. Describe the catch and discard profile (discard rate, age composition, confidence and variability in the data)
5. Where relevant, describe any selective measures with potential to reduce unwanted catches and/or increase discard survival
6. Describe the scientific discard survival evidence to support the request for exemption, it is important to include the detailed scientific reports, so the quality of the estimates can be established
7. Describe any relevant current and future scientific discard survival studies
8. Describe any expected benefits or risks (economic, environmental) in the provision of an exemption for the selected species and management unit

Reporting against a Road Map (e.g. plaice, skates and rays)

Progress against the three main tasks of the road map should be detailed:

1. Quantifying catches and discards per species and metier
2. Generating discard survival evidence
3. Stakeholder led adoption of codes of best practice to maximize discard survival

Templates of summary tables for supporting high survival exemptions evidence

Table Annex 1.1. List all studies with survival evidence relevant to the exemption.

Country	Exemption applied for				Survival estimate					Evidence		
	Species	Area	Gear	Status	Type of study	Status	Experimental sample	Survival estimate in %	Factors that influence survival	Status of the evidence	Reference	Annex
XX	XX	XX	XX	Existing exemption/ response to request for additional	Captive / Vitality / Tagging	Completed/ Ongoing/ Delayed/ Upcoming	Species, area, gear	Survival estimate (95% confidence interval)	Describe observed effects of the operational (e.g., haul duration, catch weight,	New evidence / already submitted in YEAR	Reference of the report or published article	Annex number for the provided evidence

				evidence/ extension of existing exemption/ new exemption					catch composition, sorting time, air exposure), biological (e.g., fish size) and environmental (e.g., temperature, fishing depth) factors			
…	…	…	…	…	…	…		…	…	…	…	…

Table Annex 1.2. List all fisheries to which the exemption applies, with blanks if no further information available.

Country	Exemption applied for				Fishery					Landings and discards			Evidence		
	Species	Area	Gear	Status	Species as bycatch or target	Number of vessels	Season	Catch composition	Sorting time	Landings in weight	Discards in weight	Discard rate in %	Status of the evidence	Reference	Annex
XX	XX	XX	XX	Existing exemption/ response to request for additional evidence/ extension of existing exemption/ new exemption			Describe when the fishery is taking place	Describe the catch composition (e.g., presence of stones or sand, mix of fish and crustaceans)	Average (min-max)		Average (min-max) over the years if relevant	Average (min-max) over the years if relevant	New evidence/ already submitted in YEAR	Reference of the report or published article	Annex number for the provided evidence
…	…	…	…								…	…			…

Approach applied for high survival evidence evaluation

1. Exemption status

Existing exemption/response to request for additional evidence/extension of existing exemption/new exemption

2. **Survival evidence**
   New discard survival evidence provided? ICES critical review applied (see Annex II)? Robustness of the survival estimate? Study limitations e.g. representativeness within study, monitoring duration? *Give % survival.*
3. **Fishery context**
   Is it clear to which fisheries the exemption applies? Fishery description (vessels, discards) information provided? *Give % discard rate.*
4. **Survival and fishery compatibility**
   Is survival evidence relevant to the fishery? What assumptions are being made on factors that influence survival?
5. **Additional evidence**
   What additional evidence would improve confidence in awarding an exemption? How does this link to the roadmap (skates and rays, NS TBB PLE only)?

Submit full discard survival study reports or papers

Any new evidence for discard survival should be supported by documentation (e.g. scientific or technical report, submitted or published paper) appended as annex. Documentation should be informative enough so that the ICES critical review can be applied such as described in:
ICES. 2015. Report of the Workshop on Methods for Estimating Discard Survival 3 (WKMEDS 3), 20-24 April 2015, London, UK. ICES CM 2015\ACOM:39. 47 pp.

Annex II – ICES template for critical review of survival experiments

The framework of the critical review used to evaluate literature on discard survival estimates based on ICES WKMEDS guidelines; Catchpole et al., unpubl. data. 'Y' = yes, 'N' = no, 'P' = partial; whereby more positive responses demonstrate more robust studies.

	Critical review questions
Key guidance questions	Are criteria given to define when death occurred?
	Was a control used that informed on experimental induced mortality?
	Was all discard induced mortality observed/modelled (during monitoring period or time at liberty)?
	Did the sample represent the part of the catch being studied?
	Did the sample represent the relevant population in the wider fishery?
Vitality assessments	Is the method of selection for assessed fish described?
	Is there a description for each health state category?
	Were reflexes developed using 'unstressed' fish (not exposed to capture treatment) and consistently observed?
	Were there time limits for responses/reflexes? e.g. operculum movement within 5 secs.
	Was assessment container appropriate for the species, adequate to observe responses?
	Is the potential for observer bias discussed?
	Are the protocols effective in assessing health/injury?
	Are assessments consistent across all parts of the study?
Captive Observation	Are the holding/transfer facilities described?
	Are holding/transfer facilities considered sympathetic to the biological/behavioural needs of the subjects?
	Are the holding/transfer conditions the same across treatments/replicates?
	Was there potential for additional stress/injury/mortality with captive fish unlikely?
	Are the holding/transfer conditions representative of "ambient" (discarded to) conditions?
	Are there appropriate protocols for handling/removal of dead specimens? (e.g. dead removed regularly)
	Are there appropriate protocols for monitoring live specimens?
	Is there sufficient frequency in observations during the monitoring period?
	Was there potential for stress/injury in subjects during observation unlikely?
	Was mortality observed to (or very near to) asymptote?
Tagging	Has the potential for tagging induced mortality been considered?

	Are fish released in the same area as they were caught?
	Are tag losses accounted for?
	Can discard-related mortality be distinguished from natural mortality, fishing mortality and emigration?
	Is the duration of the at-liberty tagged period sufficiently long to estimate discard survival?
	Traditional tags - Are catches in the fishery sufficiently large to provide the required tag return rate to estimate discard survival?
	Acoustic, DST tags - Can the death of an individual be accurately determined from the data?
	Acoustic tags - Does the acoustic receiver array provide full coverage of the area?
	Pop-off DST-tags - Is there a similar likelihood of tag recovery for both survivors and non-survivors?
Controls	Were controls representative of the treatment groups? i.e. biologically (length, sex, condition), number, spatial & temporal origin
	Did control subjects experience same experimental conditions?
	Were treatment and controls randomly selected to account for bias?
	Were "blind controls" used to account for performance/measurement bias?
	Is potential for effects when combining stressors from acquisition methods discussed?
Analysis	Is the analysis that derived the survival estimates described?
	Are the conclusions based on data summary or statistical inference?
	Are the conclusions supported by the data / analysis?

14. Contact Details of EWG-21-05 Participants

[1] - Information on EWG participant's affiliations is displayed for information only. In any case, Members of the STECF, invited experts, and JRC experts shall act independently. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members and experts also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: http://stecf.jrc.ec.europa.eu/adm-declarations

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15. LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on:
https://stecf.jrc.ec.europa.eu/ewg2105

List of background documents:

EWG-21-05 – Doc 1 - Declarations of invited experts (see also section 14 of this report – List of participants)

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KJ-AX-21-010-EN-N

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doi:10.2760/83668

ISBN 978-92-76-40593-1