



JRC SCIENCE FOR POLICY REPORT

Scientific, Technical and Economic Committee for Fisheries (STECF)

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Evaluation of Member States' Annual Reports on the Landing Obligation (for 2019) (STECF- Adhoc-20-02)

Edited by Dominic Rihan & Hendrik Doerner

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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 deals with the of Member States' Annual Reports on the Landing Obligation (for 2019).

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**SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF) -
Evaluation of Member States' Annual Reports on the Landing Obligation (for
2019) (STECF-Adhoc-20-02)**

Background provided by the Commission

DG MARE would like to be able to make reference to the work done by ad-hoc experts. A possible approach is that the Chair acknowledges receipt of the report in the conclusive spring 2020 plenary written procedure report, and that it may be reviewed for conclusion during a future Plenary.

Background documents provided to the ad contractors and the STECF are available on: <https://stecf.jrc.ec.europa.eu/plen2001>

Request to the STECF observations and response

The STECF Chair acknowledges receipt of the adhoc report report.

The contract report has not been fully reviewed and commented by the STECF plenum, but based on a provisional review by committee members, the STECF observes that in the ad hoc report the terms "Remote Electronic Monitoring" (REM) and CCTV are linked together. However, STECF points out that in fact the REM systems tested have not always incorporated CCTV. There are also instances of CCTV being used as a standalone tool not linked to a REM system. STECF stresses it is important to differentiate and properly define what is meant when referring to REM systems as there are differences between the systems being tested, noting that this is not always clear in the reports provided by the Member States.

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ADHOC REPORT

REPORT TO THE STECF

Evaluation of Member States' Annual Reports on the Landing Obligation (for 2019)

March 2020

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

DG MARE Contract STECF No. 2003

**Evaluation of Member States' Annual Reports on
the Landing Obligation (for 2019)**

March 2020

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Executive Summary

Regulation (EU) No 2015/812 (the so-called Omnibus Regulation) introduced an obligation for the European Commission to report annually on the implementation of the landing obligation, based on information transmitted by the EU Member States, the Advisory Councils and other relevant sources. This report summarises the Member States' reports covering 2019 and builds on the previous reporting round, utilising the same report structure and highlighting where changes have occurred. For 2019, the Commission has received reports from seventeen Member States, submissions from five Advisory Councils (some individual submissions from members of the AC have also been received and reviewed). Changes in the countries responding are noted. No reports were received from Bulgaria, Croatia, Italy, Lithuania, Sweden and the UK. Two of these Member States - Croatia and Italy - provided no response to the questionnaire for the last three years. STECF concluded in PLEN 19-01 that there are many sources of information in addition to the Member States' reports and that they should be better integrated into the review process of the landing obligation. This includes quantitative data from ICES and EFCA, H2020 research projects (Minouw, DiscardLess), a submission from ClientEarth and European Parliament hearings. For the 2019 report, a review of this information has been provided along with indications of whether it supports or contradicts the Member States reports.

As with previous years, care is required in interpreting year on year change since the composition of respondents in the different areas has changed. It is also important to recognise that changes reported in a questionnaire do not necessarily imply a successful outcome for the landing obligation. Similarly, failure to respond or reports showing no change do not necessarily mean an unsuccessful outcome. Effective and successful implementation of the landing obligation will depend on confidence that there has been significant change in fishing practise at sea, adequate monitoring and control to ensure that catches are fully accounted for and significant reduction in unwanted catches.

This report contains introductory sections which summarise the extent to which changes are evident from the previous report and, the aspects of the landing obligation for which changes have been reported by the Member States. Overall, the changes reported in 2019 tend to refer to activities taking place across the different elements of the Regulation. Many Member States (Cyprus, Denmark, Finland, Germany, Ireland, Netherlands, Portugal, Spain) have provided more quantitative data. Information on discard quantities is more detailed but based on the questionnaires it is still not possible to say definitively whether there have been any changes in discard quantities. Member States (e.g. Belgium, France, Ireland, Portugal, Spain) and the Advisory Councils (NWWAC, SWWAC, NSAC) continue to report that the fishing industry remains negative towards the landing obligation. This is backed up by the presentations given at hearings of the European Parliament, where industry representatives routinely rejected the policy as unworkable and ill-conceived. There is still limited evidence to suggest behavioural change in terms of operating practices when at sea, and even with full implementation in 2019, maintaining "business as usual" seems the main objective.

The main findings under each of the seven elements listed in the Regulation are summarised as follows:

As in 2018, there continues to be a wide divergence in approach to *promoting compliance with the landing obligation*. Most Member States have continued to make significant efforts

in disseminating information to fishermen and to engage with the relevant Advisory Councils. However, apart from one AC the level of information provided has been very limited in 2019. Moreover, in several sea basins, Member States (Denmark, France, Netherlands, Portugal, Spain) highlight that information provided by the ACs in 2019 has been of limited value as it has been presented as widely differing minority positions from the NGOs on one hand and the fishing industry representatives on the other.

Significantly fewer Member States (Denmark, Germany, Ireland, Portugal and Spain) have carried out specific studies and pilot projects to test selective gears or avoidance strategies. Instead, focus in 2019 has been on sampling programmes or economic studies to support de minimis exemptions as well as survival experiments to support high survivability exemptions.

Actions taken by Member States in the Baltic Sea, Mediterranean and Black Sea have been limited in 2019 where less difficulty with implementing the landing obligation has been reported. Member States have continued to apply for various exemptions included under the regional discard plans and more Member States (Germany, Ireland, Netherlands, Portugal, Spain) than in 2018 have adjusted their national quota management systems. Inter-species quota flexibility has mostly not been used but inter-annual flexibility mechanisms continue to be used extensively. There is no evidence of any significant increases in quota swapping amongst Member States although it remains an important mechanism and there are specific cases where Member States report quota swaps have helped to avoid choke situations. The quota pool put in place for 2019 to provide quota for bycatch species which Member States had no quota are thought to be a good initiative that should be continued, even if these quotas have not been fully utilised.

Many Member States (Denmark, France, Germany, Ireland Netherlands, Portugal, Spain) reported further changes in 2019 *to ensure compliance with the landing obligation*. Specific training and dedicated workshops for inspectors on control elements of the landing obligation have continued with, facilitated by EFCA. Some Member States (Denmark, Estonia, Germany, Netherlands), particularly in the North Sea and the Baltic elaborated on their risk-based approach to control and monitoring and provided data on last haul analysis, which is widely used in most sea basins. There is still an over reliance on existing tools to monitor and control the landing obligation. However, new control tools such as Remote Electronic Monitoring(REM) systems with or without CCTV continued to be tested in 2019 by several countries (Denmark, Germany, Netherlands). The actual detail on the systems being used as not well specified in the Member State reports, while the mandatory use of such tools remains limited. The Netherlands expressed the need for a standardised approach for adopting such technologies equally across Member States. EFCA and the NGO, ClientEarth both highlighted the importance of making the use of CCTV mandatory across all fisheries and sea basins. Spain mentioned the potential use of drones as a monitoring tool without providing any detail on whether these had been trialled.

Most Member States report that it remains difficult to assess the *socio-economic impacts* of the landing obligation, indicating that problems remain minimal across sea basins. For 2019, very limited information was supplied, and anything provided merely repeated the same information provided in 2017 and 2018. However, extensive modelling of the impacts of the landing obligation were provided in the H2020 funded DISCARDLESS and MINOUW projects. The general conclusion was that while there were initial short-term economic impacts, in the longer-term these were more positive.

During 2019, as in previous years, there was again no clear evidence of the landing obligation causing *safety issues on board fishing vessels* and reports from Member States were identical to the previous years in that no incidents or issues were recorded. Several Member States reiterated their perception that such impacts exist and will become issues as the landing obligation is fully enforced. However, no substantive evidence has been provided to support this assertion.

Landings of fish below mcrs reported for 2019 by Member States are generally low compared to overall catches (typically less than 1-2% of total catches) across the different regions. Not all Member States have provided quantitative information, so the picture is incomplete. The landed material below mcrs continues to be used for fish meal, pet food or as bait for pot fisheries, with low economic returns. Two studies of alternative uses of below mcrs catches are reported for 2019 and suggest that although alternatives exist and although transport links are available, the prohibitive cost to the fishermen of storage and transport make the alternatives still economically unattractive. Several Member States (Portugal and Spain) and the SWWAC suggest that the legislation should be changed to allow such catches to be used for charitable purposes. Other than in several Member States (Denmark, Germany, Ireland, Spain), the reports for 2019 saw limited funding provided under the EMFF to improve the *infrastructure of ports as well as modifications on board fishing vessels*. Specific actions so far include the provision of cold storage facilities onshore and aboard vessels for storage of unwanted catches. Funding continued to be provided for selective gear work, although uptake dropped.

As in previous years, Member States continue to indicate that actual *difficulties encountered* so far have been minimal. Member States in the Baltic, Mediterranean and the Black Sea reported few difficulties in implementing the landing obligation, even with full implementation in 2019. Several Member States (Belgium, France, Ireland, Netherlands, Spain) in other regions highlighted the most significant issue they face is the industries' continued reluctance to implement the landing obligation despite considerable efforts to disseminate information to them. They also report that fishermen seem slow to change behaviour and there is little evidence of changing practices. Responses for 2019 in NWW, SWW and the North Sea continue to highlight the problem of choke species causing the premature closure of fisheries. The ACs also highlighted this as the biggest challenge in implementing the landing obligation. However, as in previous years, only several specific examples relating to sole (Belgium) and bigeye tuna (France) were reported.

Reporting by fishermen of fish discarded under exemptions (i.e. de minimis, high survivability and damaged by predators), discards of fish currently not subject to the landing obligation and catches of fish below mcrs remains sporadic. More Member States (Cyprus, Denmark, Finland, Germany, Greece, Ireland, Netherlands, Portugal, Spain) than in previous years provided quite detailed information on such catches for 2019, while others provided no data, claiming there were still difficulties in recording such catches in the Electronic Recording System (ERS). Despite the better reporting of catches discarded under exemptions and landings of catches below mcrs, evidenced by the Member States reports for 2019, it is extremely doubtful that they reflect the true quantities being caught. Observer data as identified by ICES and last haul analysis as reported by EFCA indicate large discrepancies between what is reported and what is observed. Member States should ramp up efforts to ensure better reporting of such catches. Until there is sufficient confidence that all the catch has been accurately accounted for, uncertainty will remain. The fact that such a high

proportion of onboard fishing operations take place without scrutiny remains a serious issue for successful implementation of the landing obligation.

Member States continue to develop control and monitoring, particularly the risk-based approach and the use of the last-haul analysis. However, it is apparent that there is still a lack of comparative data and forensic sampling of catches on board vessel is limited with the result that the level of confidence in catch reporting remains low. Observer coverage has not increased and the operational use of technologies such as REM with or without CCTV is restricted to a few pilot studies.

Overall, it appears that the impacts of the landing obligation on Member States and the fishing industry remain low. This is contrary to indications given by Member States and the Advisory Councils in 2018 that impacts would increase with full implementation in 2019. Most Member States in NWW, SWW, Baltic and North Sea have put more focus on control and enforcement but compliance in general would appear to be still low. The lack of accurate reporting by most countries of fish discarded under exemptions allowed for under the landing obligation, the very low volumes of fish below mcrs being landed and the difficulties experienced by Member States in monitoring such catches are major concerns and areas that have not been addressed in the MS reports. In the Mediterranean and the Black Sea, the impression given by Member States and supported in the case of the Mediterranean by the ACs is that provided the current exemptions remain in place, then the impacts of the landing obligation will be minimal. However, the reliance on exemptions suggest there is a lack of willingness to change operational behaviour or take steps to increase selectivity. Most of the gaps and weaknesses reported in 2018 remain and full implementation is still some way off being achieved in all sea basins.

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1. BACKGROUND

Regulation (EU) No 2015/812 (the so-called Omnibus Regulation) introduced an obligation for the European Commission to report annually on the implementation of the landing obligation, based on information transmitted by the EU Member States, the Advisory Councils and other relevant sources. According to Article 9 of the Omnibus Regulation, the European Commission report should include the following elements:

- Steps taken by Member States and the producer organisations to comply with the landing obligation;
- Steps taken by Member States regarding the control of compliance with the landing obligation;
- Information on the socio-economic impact of the landing obligation;
- Information on the effect of the landing obligation on safety on board fishing vessels;
- Information on the use and outlets of catches below minimum conservation reference size of a species subject to the landing obligation;
- Information on port infrastructures and of vessels' fitting with regard to the landing obligation, for each fishery concerned; and
- Information on the difficulties encountered in the implementation of the landing obligation and recommendations to address them.

In order to facilitate the reporting, and in line with the outcome of STECF EWG 16-04, in 2017 Member States were invited on a voluntary basis to complete questionnaires seeking more detailed information on the impact of the landing obligation and national steps taken to assist with its implementation. In 2018 and 2019, Member States were asked to update the information provided as appropriate with additional questions on control and enforcement. The Commission's report in 2020 will cover the implementation of the landing obligation in 2019 - the year it fully entered into force. Against this background, and to be able to report comprehensively on the implementation, the Commission stressed the importance that every Member State fills in the enclosed questionnaire as comprehensively as possible or update the information submitted, whenever appropriate. Aside from the Member States, all the Advisory Councils and the European Fisheries Control Agency (EFCA) were asked to submit information on the themes covered in the questionnaire.

Throughout the transition period (2015 - 2018), intense collaboration and exchanges with all stakeholders have taken place and have helped to reach a better, and in some instances a common understanding in both the solutions and challenges in implementing the landing obligation. STECF concluded in PLEN 19-01 that there are many sources of information in addition to the Member States' reports and concludes that these should be better integrated into the review process of the landing obligation. Including quantitative data, research projects (Minouw, DiscardLess), European Parliament hearings and last-haul results collected by EFCA. As in previous years, STECF is asked for a review and a summary of these reports via two ad hoc contracts – to feed into the STECF PLEN 20-01. To follow up on STECF conclusions in PLEN 19-01, a better integration of the available

qualitative resources is requested to STECF, including a global overview of discard rates at sea basin level based on the available ICES data including, if possible, the Mediterranean.

2. TERMS OF REFERENCE

Following the structure of themes on the STECF questionnaire, and based on the annual reports received by the Member States, the Advisory Councils and the EFCA; finalized research projects; EP hearings; ICES; and on the letters sent by the Advisory Councils in 2019 regarding their recommendations concerning the landing obligation

The selected expert(s) are requested to:

- 1) Review and summarise the main findings of the reports received by the Member States highlighting, in a structured manner, key salient points raised by each Member State and to provide an overview' of them at the sea basin level;
- 2) Review and summarise the main findings of the reports and recommendations received by the Advisory Councils highlighting, in a structured manner, key salient points raised by each Advisory Council and to provide an overview of them at the sea basin level;
- 3) Review and summarise die main findings of the information available by other information sources (e.g. EFCA, the European Parliament, ICES advice) highlighting, in a structured manner, key salient points raised by each other stakeholder or event and to provide an overview of them at the sea basin level;
- 4) Identify the most important gaps, weakness or risks in implementation and the lessons to be learned from the available sources Where available, identify specific fleets and stocks where the landing obligation has had a direct impact on fishing activity;
- 5) Specific actions where Member States and Producers Organisations have made adjustments to support the implementation of the landing obligation;
- 6) Highlight the most important weaknesses in the reporting and registration of all catches and the lessons to be learned from best practices; and
- 7) To advise the Commission on the elements appropriate to meet the reporting requirements of Article 9 of Regulation (EU) 2015/812 and, if deemed appropriate, to provide suggestions for modifications in the questionnaire.

3. PREVIOUS REPORTING (COVERING 2015 TO 2018)

Reports on the implementation of the landing obligation were first required in 2015. Reports were received from seventeen Member States, four Advisory Councils, one regional Member States group and one group of industry representatives. The reports while rather limited did provide some insights into difficulties in implementing the landing obligation, steps taken by Member States to try and address these issues and identified potential difficulties in future years as more species and fisheries are subject to the landing obligation. The rather limited submissions reflected the short period of time since the introduction of the legislation, the limited number of species and fisheries affected at that early stage and to some extent, uncertainty about what was expected in reporting to the Commission.

STECF EWG 16-04 considered these reports and developed a questionnaire to help Member States provide more coherent semi-quantitative information. The template developed by

STECF is divided into seven sections covering the various reporting elements and for each series of simple yes/no questions were posed to guide the content of submitted material. Supplementary questions were also added to enable underlying background information to be provided.

Reports for 2016 were received from twenty-one Member States, three Advisory Councils and the European Fisheries Control Agency (EFCA). No reports were received from Italy (information was provided in the MEDAC) or Portugal.

Reports for 2017 were received from fifteen Member States and two ACs – a reduction from the previous year. No reports were received from Croatia, France, Italy, Latvia, Netherlands, Portugal, Romania and the United Kingdom. Reports were received from the NWWAC and BSAC as well as EFCA. The PELAC, NSAC, SWWAC and the MEDAC did not submit a report.

For 2018, the Commission received reports from nineteen Member States and five Advisory Councils - with some changes in the countries responding. No reports were received from Croatia, France, Italy and Romania. No report was received from EFCA or any other source in 2018.

4. REVIEW OF MEMBER STATES REPORTS COVERING 2019

Reports for 2019 were received from seventeen Member States, five Advisory Councils as well as EFCA. Submissions were received from one NGO independent of the ACs. No reports were received from Bulgaria, Croatia, Italy, Lithuania, Sweden and the United Kingdom. The NSAC, NWWAC, SWWAC, PELAC and MEDAC submitted responses. The Baltic AC did not report although the Fisheries Protection Association of Schleswig-Holstein and the German Federal Ministry of Food and Agriculture did submit reports through the BSAC. Two reports were also received from ClientEarth that were submitted directly to the Commission.

No information has been provided for the long-distance fleets operating outside Union waters. A short response was received from the LDAC that highlighted the landing obligation does not apply in practice to EU vessels fishing outside EU waters for several various reasons laid out in article 15 of the CFP Regulation. These result from insufficient scientific knowledge on the fisheries, and conflicts of rules with provisions of international law such as RFMO resolutions resulting in specific exemptions to the landing obligation for those species subject to catch limits, mainly tropical tuna and tuna-like species being put in place.

Table 4.1 shows the responses received from Member States by sea basin. Generally, Member States that responded followed the questionnaire although the level of detail provided varied widely. Many of the reports tended to repeat information provided for earlier years (2016, 2017 and 2018).

Member States	NWW	SWW	North Sea	Baltic	Mediterranean	Black Sea
Belgium	Yes	Yes	Yes			

Bulgaria						No
Croatia					No	
Cyprus					Yes	
Denmark			Yes	Yes		
Estonia				Yes		
Finland				Yes		
France	Yes	Yes	Yes		Yes	
Germany			Yes	Yes		
Greece					Yes	
Ireland	Yes					
Italy					No	
Latvia				Yes		
Lithuania				No		
Malta					Yes	
Netherlands	Yes		Yes			
Poland				Yes		
Portugal	Yes	Yes				
Romania						Yes
Slovenia					Yes	
Spain	Yes	Yes			Yes	
Sweden			No	No		
United Kingdom	No	No	No			
NWWAC	Yes					
SWWAC		Yes				

NSAC			Yes			
BSAC				No		
MEDAC					Yes	
Black Sea AC						No
PAC	Yes – across various areas					

Table 4.1 2019 Reports received (in 2020) by region (Blanks indicate no activity in that sea basin)

Annex I contains a summary of the salient points from the individual reports. The main observations were then collated into regional summaries covering specific actions taken (Section 5), key areas of concern (Section 6) and main conclusions (Section 7). It should be noted that this updated regional analysis for 2019 is again based on a variable number of Member State responses (Table 4.1) and because the contributor composition has changed, comparison with previous years is impaired. In some cases, the comments are based on only one or two responses.

A key requirement in the review of the 2019 questionnaire responses was to indicate where there was evidence of adaptation, development or change from the previous submissions, indicative of progress towards implementation of the landing obligation. Table 4.2 provides a general indication of the extent to which the Member State reports have changed since the initial submission covering 2016.

Member States	2016	2017	2018	2019
Belgium				
Bulgaria				
Croatia				
Cyprus				
Denmark				
Estonia				
Finland				
France				
Germany				
Greece				
Ireland				
Italy				
Latvia				
Lithuania				
Malta				
Netherlands				
Poland				
Portugal				
Romania				
Slovenia				
Spain				
Sweden				
United Kingdom				

Key		
	2016	2017-2019
	No Report	No Report
	No information	No change
	Significant information	Significant change

*The 'No Change' category also includes responses where there were only minor changes

Table 4.2 Extent to which reports have been changing by Member State

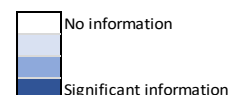
As in 2018, for those Member States providing a report, a simple four category classification was adopted based loosely on a combination of the number of questions for which some change was evident and whether the change was small or was of greater significance. In 2019 overall responses from six Member States (Denmark, Germany, Ireland, Netherlands, Portugal and Spain) reported comprehensively with significant changes highlighted. The remaining countries provided reports described with limited changes highlighted and limited new information provided.

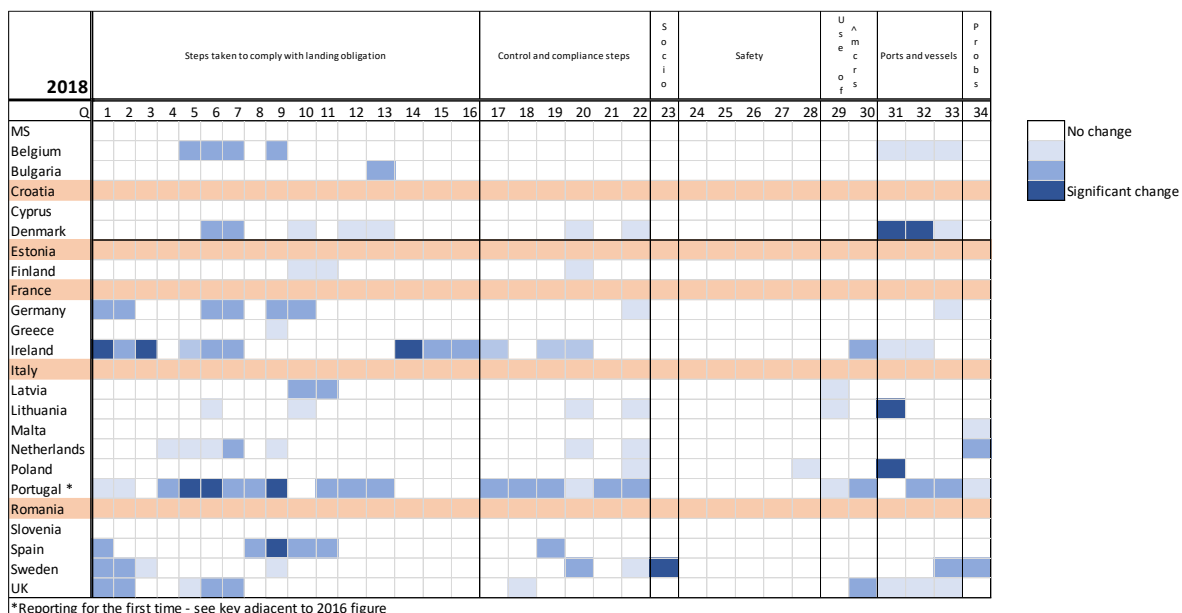
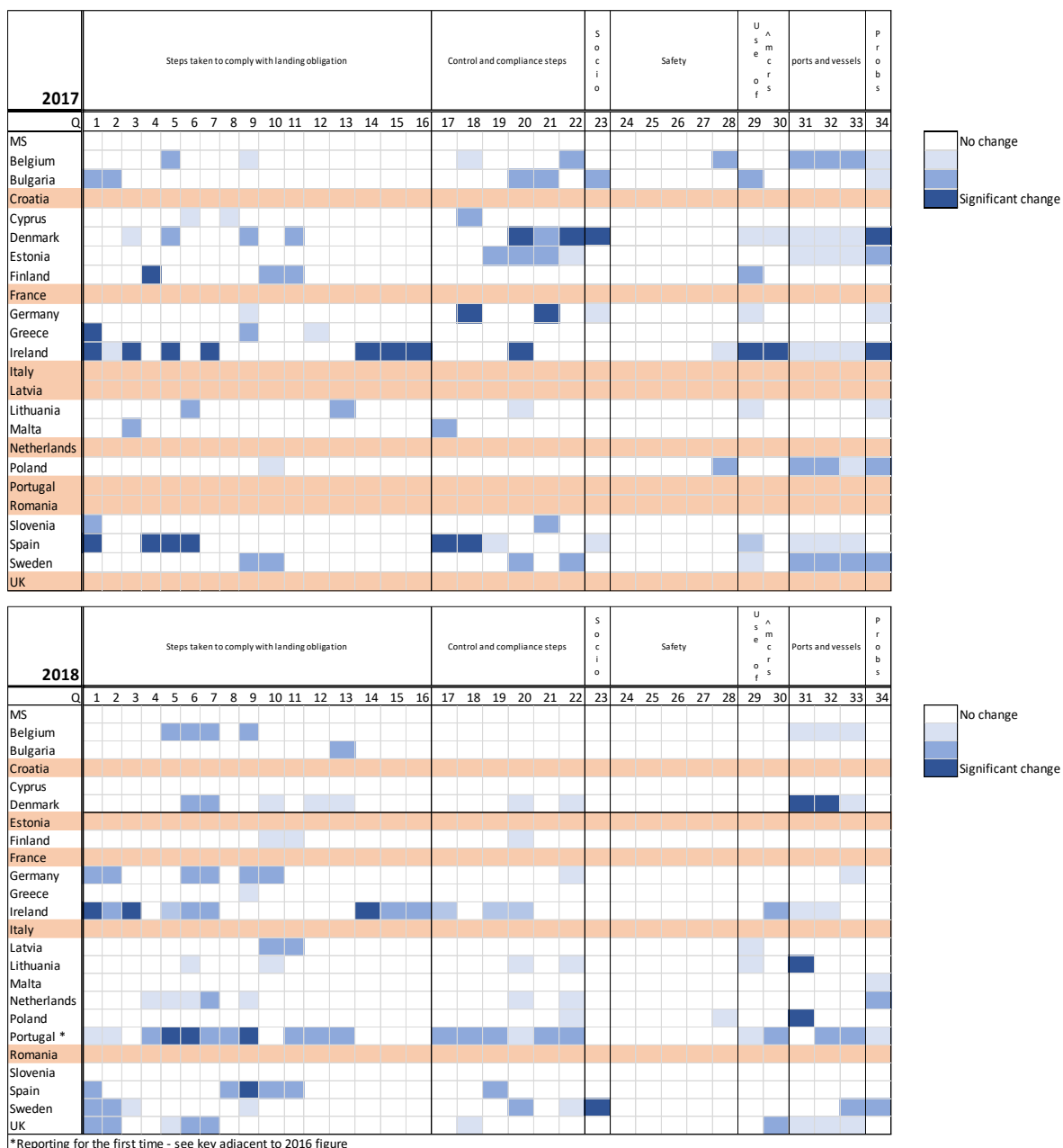
Table 4.3 provides a summary of the aspects of the landing obligation where most change was evident. Here a simple colour scale from 'No change' to 'Significant change' has been used to classify the 2017, 2018 and 2019 responses (by Member State) to the individual questions posed in the Commission questionnaire (the questions are included in Annex III). For 2016, the first year of using the questionnaire, the key indicates the significance of the *initial* information. The patterns of response are somewhat variable between Member States, but a few general observations can be made. Most change is associated with 'actions' of various types (specific steps to comply, certain of the compliance actions, dealing with <mcrs and provision of funding). Very little change was reported under the 'safety' category and this appears to be something which is universally regarded as not a problem. Interestingly only, one Member State has indicated changes under the questions (14-16) covering 'other methods' for helping to comply with the landing obligation. In the final section problems and difficulties, the responses vary considerably, some countries simply reiterated their 2017 and 2018 responses while others offered lists of new and emerging issues or brought forward suggestions for the way they would tackle issues identified earlier. In 2019, the most significant change that has occurred is in the number of Member States that have provided quantitative data relating to catches discarding under exemptions, landings of below mcrs fish and number of infringements.

2016	Steps taken to comply with landing obligation																Control and compliance steps						S o c i o	Safety				U s e	A c c e s s	ports and vessels	P r o b s					
	Q	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		22	23	24	25					26	27	28	29	30
MS																																				
Belgium																																				
Bulgaria																																				
Croatia																																				
Cyprus																																				
Denmark																																				
Estonia																																				
Finland																																				
France																																				
Germany																																				
Greece																																				
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Italy																																				
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Lithuania																																				
Malta																																				
Netherlands																																				
Poland																																				
Portugal																																				
Romania																																				
Slovenia																																				
Spain																																				
Sweden																																				
UK																																				

No information

Significant information





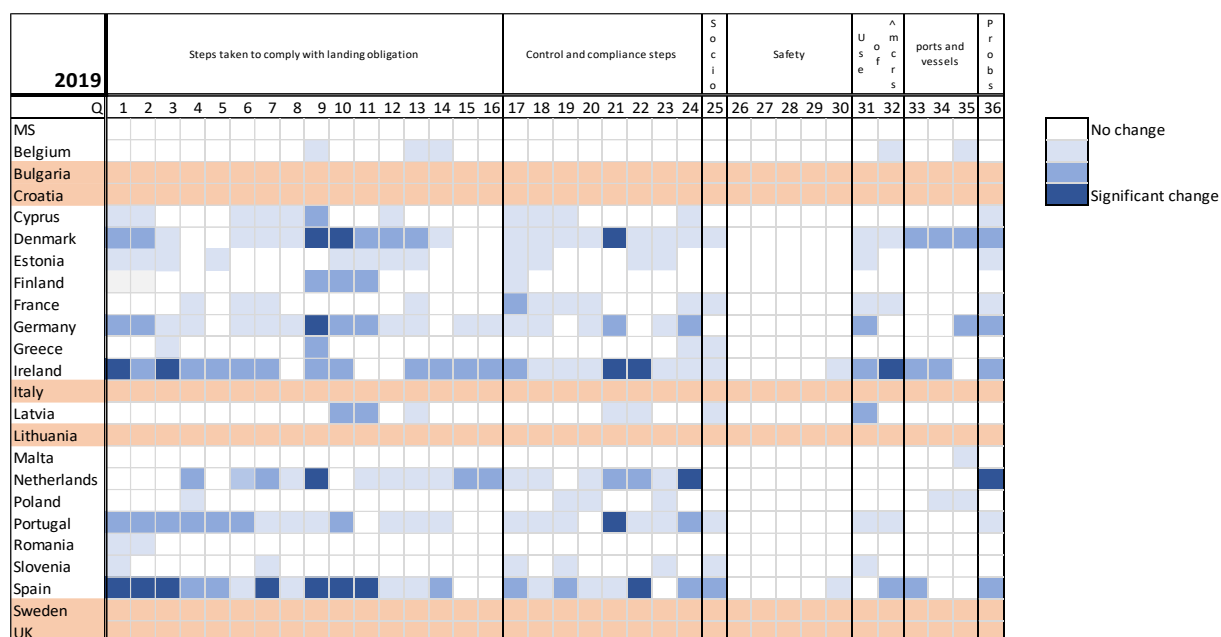


Table 4.3 Summary by member State of the aspects of the landing obligation implementation in 2016-2019. Numbering refers to the questionnaire within the broad topic headings.

Note that it should not be concluded that year on year changes in the questionnaire responses (from any Member State) necessarily imply that the implementation of the landing obligation and the outcomes from it are any more successful. Progressive changes in reports might be interpreted as good engagement with the landing obligation process and an expression of intent. Judgment on the success of the landing obligation will rely on adequate data on reductions in unwanted catch and a transparent system for ensuring that all catches are accounted for. Up until 2019 Member State reports have contained few of these data.

For the questionnaire exercise covering 2018, the Commission included two additional questions in its letter to Member States seeking clarification on control and enforcement. For 2019, these questions have been incorporated into the standard questionnaire as follows:

Q17. How is the effective control and enforcement of the landing obligation at sea and the accurate documentation of all catches, including quantities discarded, ensured?

Q23. How many suspected and confirmed infringements, related to the landing obligation, have been detected at sea and at landing/marketing? In cases of confirmed infringements please indicate the circumstances of the offence and the sanctions applied, including penalty points.

Summaries of the Member State responses to these are included in Annex 1. In those responding, various suggestions were made on the approaches to ensuring effective control and enforcement many of which referred to on-board observation, last haul analysis and the importance of cross-checking these results with what was landed in the ports. It would appear from the responses that comparatively few infringements of the landing obligation were detected in 2019.

The following sections of the report are structured and largely based on the review of information for 2019 but refer to reports from 2016, 2017 and 2018 (DG MARE Contract No.

5. SPECIFIC ACTIONS TAKEN BY MEMBER STATES

5.1. General Comments

As with 2018, in 2019 there was only a limited amount of new activity that could be described as significant, even with full implementation obligation. Most of the responses indicated a continuation of measures in place although many reports contained more quantitative information than in previous years on the level of discarding under exemptions, landings of catches below mcrs and the number of infringements. Assessment of the socioeconomic impacts of the landing obligation remain poorly reported with most Member States providing no useful or new information.

There continues to be a wide divergence in approach in implementing the landing obligation by Member States in different sea basins. Member States in the NWW, SWW and North Sea have been the most active but overall there has been a general decline in the number of supporting studies being undertaken. Most of these have focused on providing justifications for exemptions with fewer studies aimed at improving selectivity. Uptake of selective gears remains low although several Member States report they are in the process of introducing national measures to address this issue. New measures in the NWW have also been introduced through the discard plan. Member States in the Baltic, Mediterranean and Black Sea have taken few or no actions and report that they have experienced few difficulties with implementing the landing obligation.

There is evidence of limited changes to the quota management systems in Member States. Several Member States with ITQ systems have adapted them to the landing obligation, including the use of bycatch and over shoot quotas to cover unintended catches and prevent “choke” situations. Most Member States continue to use inter annual flexibility but there are very few reported instances of the inter species flexibility mechanism being used.

Most Member States are employing a risk-based approach to control and monitoring largely facilitated by EFCA. EFCA has also shown the utility of the last haul analysis to facilitate the evaluation of compliance with the landing obligation provisions and provide information on catch composition across different fisheries. However, most Member States are still largely relying on existing control and monitoring tools. Several Member States, mainly in the North Sea and Baltic report of adopting new control techniques such as gramme size for pelagic species, traceability systems, aerial surveillance and advanced landing notices for vessels operating in fisheries identified as high-risk. Continued progress has also been made by Member States with adjustments to control practices and refinements of IT systems to accommodate the recording of below MCRS and de minimis catches. Several Member States indicated they will trial the use of REM systems with and without CCTV, but no mandatory use of such systems has occurred.

In 2019 provision of quantitative information on de minimis use and <mcrs catches was more evident than before but the coverage is still not universal across all Member States. The levels reported remain very low compared to overall catches, while the accuracy of the figures supplied is also questionable as Member States freely admit the estimates are partial.

Most Member States continue to engage with the relevant Advisory Councils. However, there are indications that the quality of the advice from the AC's has been compromised as the information provided has contained multiple, differing minority positions from NGOs and industry representatives. Member States have also continued to disseminate information to fishermen in a variety of ways – meetings, information notes or one-to-one meetings. Member States have continued to provide specific training for inspectors facilitated extensively by EFCA.

There have been few new studies on the uses of catches below mcrs and Member States report most unwanted catches are being used for fish meal, as pet food or sent to landfill. There has been little investment in facilities in ports to handle such catches as the volumes remain very low and as a result business seem reluctant to invest even with grant aid available.

5.2. NWW

Five of the six Member States involved in NWW fisheries submitted reports on actions being taken to implement the landing obligation. Two of these Member State reports contained comprehensive information on new implementation studies carried out in 2019 although not all the data presented were relevant only to the NWW region. Studies reported on included selectivity studies on technical conservation measures (selectivity devices and codend changes to mitigate chokes and reduce discards in Areas 6a and 7 for demersal whitefish and *Nephrops* fisheries), avoidance of unwanted catches and studies to support high survival exemptions for Sole and Cuckoo Ray. One Member State provided a detailed quantitative breakdown of the uptake of new selectivity measures. One Member State is actively working to implement the selective gears tested at national level by first introducing them over a transitional period to reconfirm results across fleets and areas and at the same time let the fleet change gears voluntarily and avail of EMFF funding. The intention is to make such gears compulsory at national level over time.

All Member States stress the importance of de minimis and survivability exemptions to avoid choke situations and all five Member States report new exemptions to the landing obligation which were applied for in 2019. Moving-on provisions (in one case linked to the NWW discard plan) are referenced in two of the Member States reports although no details are provided. One Member State reports that their quota management system has been adapted to account for the landing obligation by using a quota balancing scheme to balance quota overshoots by individual vessels) and a further Member State reports that their quota system is being reviewed and will be changed in 2020. The quota pool put in place for 2019 to provide quota for bycatch species which Member States had no quota are thought to be a good initiative by most that should be continued, even if these quotas have not been fully utilised in 2019.

Two Member States reports provide detailed breakdown of de minimis discards (in one case the figures are given as potential de minimis quantities due to the difficulty in assessing quantities). Two other Member States provide partial de minimis data. One Member State reports that their quota swap activity has evolved to account for choke species. Two Member States report on choke related fisheries closures in 2019 (early closure of three sole fisheries and closure of the bigeye tuna fishery in the Atlantic due to bycatch in other fisheries leading to the quota being exhausted in September).

Four Member States report the use of inter-annual flexibility as a measure with only one Member State reporting the use of inter-species flexibility. The consensus continues to be that this flexibility is a last resort and there is a continued reluctance for Member States to use it widely.

Member States in NWW report that they consulted with the NWWAC, PELAC, national stakeholder groups and fisheries science institutes in the development of Joint Recommendations to support the implementation of the landing obligation. The ACs are invited to participate in meetings of the NWW Member States Regional Group as observers.

All Member States report that they have used various communication and consultation methods to improve understanding and awareness of the landing obligation. New guidelines for 2019 have been produced and new training and information workshops have been held both for fishing industry stakeholders and fisheries control staff.

One Member State does report a pilot project to test Remote Electronic Monitoring Systems (REM) in pelagic fisheries. The pilot project is due to commence in early 2021. It is not clear if this includes fisheries in NWW. The other Member States do not report on using additional monitoring or new technologies to measure compliance. Member States continue to rely on the existing measures contained in the Control Regulation (e.g. ERS, inspections, authorisations). Four Member States reports refer to limited use of last haul analysis as a control tool with two Member States reports quantifying it's use. Two Member States reported infringements of the landing obligation (seven and two infringements respectively). The other three Member States reported no infringements during 2019 although one provided detailed arguments on how it is difficult to procure a solid basis for prosecuting landing obligation infringements which it suspects are widespread. This Member State points to the necessity for a level playing pitch regarding control and then the introduction of REM controls as the only way to enforce the landing obligation.

All reports indicate relatively low levels of landings of fish below mcrrs but only one Member State provides a breakdown of <mcrrs landings data. This data shows some increase in <mcrrs landings over time. Several Member States reports cite the low level and sporadic nature of such landings making monitoring and development of pragmatic uses of <mcrrs difficult. The main uses for unwanted catches reported are for bait, processing into fish meal and as animal feed. Two studies investigating uses for unwanted catches are reported for 2019. One study examined the use of dehydration technology with mixed results. The other study investigated the development of aquatic resources for bio-based products. The study confirmed that uses of unwanted catches other than for fish meal would require additional investment (e.g. production of hydrolysates).

Three Member States reported that funding under the EMFF had been granted for handling catches on board, infrastructure or marketing projects. One Member State reported the funding of several shore based cold storage projects which will be completed in 2020. No Member State indicated any safety issues related to the landing obligation.

One Member State reported on the use of Fishery Improvement Projects (FIPs) in *Nephrops*, Albacore Tuna and whitefish species as an additional measure relevant to implementation of the landing obligation.

5.3. SWW

All four Member States involved in fisheries in SWW submitted reports for 2019. Three of these reports were comprehensive including quantitative and qualitative information. While many of the measures reported are a continuation of those put in place in 2017 and 2018, there is also evidence of new initiatives being taken in 2019.

Three of the SWW Member States have carried out new studies in 2019 aimed at i) improving selectivity in key fisheries (e.g. hake and crustaceans); ii) assessing the socio-economic impact of the landing obligation on specific fleets; and iii) the estimation of survivability or providing supporting evidence in support of de minimis exemption requests (e.g. red sea bream, cuckoo ray and hake). These studies have focused on bottom trawl and gillnet fisheries for demersal finfish species and crustaceans, but some have also covered artisanal and hook and line fisheries. Both Member States report active participation and engagement from the industry. One Member State is actively working to implement the selective gears tested at national level by first introducing them over a transitional period to reconfirm results across fleets and areas and at the same time let the fleet change gears voluntarily and avail of EMFF funding. The intention is to make such gears compulsory at national level over time.

Three Member States indicate continued adaptation to their quota management systems to implement the landing obligation. These range from development of data reporting, to monitoring systems to track volumes of catches discarded under de minimis and survivability exemptions, to the allocation of quotas on an individual basis to improve and allow better monitoring of utilisation of quotas. Transfer of quotas between fleet segments has also been introduced by one Member State to better match quota with catches. Member States have also introduced bycatch provisions for species when quotas are close to being fully utilised. There is no indication of how successful these measures have been, other than that only one choke situation (bigeye tuna) is reported.

All Member States stress the importance of de minimis and survivability exemptions to avoid choke situations. Two Member States have provided a detailed breakdown by species and gear types of recorded discards under exemptions for their respective fleets. In most cases the amounts discarded are small compared to overall catches, typically < 5% of total catches. There is no indication as to the accuracy of the figures provided. In addition to discarding under exemptions, one Member State has provided estimates of catch discarded due to damage by predators. One Member State reports that discarding has occurred but highlights that quantification of such discards is not possible as the ERS system does not allow recording of them. Two other Member States report no discarding due to predation damage.

All Member States have continued to use inter-annual flexibility routinely to a greater or lesser extent. However, only one Member State reports using inter-species flexibility and, in this case, only for one stock. The consensus continues to be that this flexibility is a last resort and there is a continued reluctance for Member States to use it widely.

Member States in SWW to continue to consult with the SWWAC and PELAC in the development of Joint Recommendations to support the implementation of the landing obligation. The ACs are invited to participate in meetings of the SWW Member States Regional Group as observers. Member States also report consultation with Research Institutes and fishermen's groups in their respective countries.

To improve understanding and awareness of the landing obligation, the Member States continue to establish working groups involving scientists, fishing representatives, managers and NGOs to discuss progress made in the implementation of the landing obligation. Guidelines and circular letters have also been sent to skippers and information has been provided to fisheries inspectors. New and updated guidelines have been published in 2019 by most Member States, detailing changes to the discard plans for 2019. There is also evidence of meetings with fishermen at port level and on a one-to-one basis with fisheries inspectors. Producer Organisations have also been more active in circulating information to fishermen on measures to aid implementation of the landing obligation.

None of the Member States report on additional monitoring or the use of new technologies to measure compliance. Member States continue to rely on the existing measures contained in the Control Regulation (e.g. ERS, inspections, authorisations). One Member State does report a pilot project to test Remote Electronic Monitoring Systems (REM) in pelagic fisheries. The pilot project is due to commence in early 2021. It is not clear if this includes fisheries in SWW. As in previous years, Member States have engaged with EFCA in JDPs and two Member States participated in last-haul analysis as part of risk-based approaches to control. Two Member States reported infringements of the landing obligation (7 and 34 infringements respectively). These mostly related to landings of unwanted catches below mcrs being sold for human consumption or not being logged against quotas. The other two Member States reported no infringements during 2019.

The reports show low levels of landings of fish below mcrs and indicate the low level and sporadic nature of such landings make monitoring difficult. Member States continue to report a lack of adequate infrastructure to store unwanted catches. The main declared uses, for unwanted catches are processed into fish meal and oil, animal feed (“pet-food”, fertilisers, bait for recreational fishing. Returns for unwanted catches were reported as averaging 50 €/tonne regardless of the species to having no value. Two studies investigating uses for unwanted catches are reported for 2019. One study considered the use of unwanted catches in the preparation of protein hydrolysates and oxylipines as natural fungicides and growth stimulants of several plants, to be used in agriculture. The results were reported as promising. The other study investigated the development of aquatic resources for bio-based products. The study confirmed that unwanted catches would be suitable for such products given their freshness and high protein content.

Funding under the EMFF for safety and infrastructure projects has been limited with only one Member State reporting only a few projects which are not directly related to implementation of the landing obligation. No Member State indicated any safety issues related to the landing obligation.

5.4. North Sea

Five Member States out of seven in the North Sea provided reports for 2019. However, one of the largest quota holders in the North Sea did not submit a report, therefore the information provided gives only a partial picture of the situation.

Only several new studies are reported by the North Sea Member States focusing on the brown shrimp trawl fishery. The first is considering spatial and temporal analysis of bycatch by species in the time series of data collection from observer trips. Statistical modelling of expected percentage bycatch in the brown shrimp fishery for all stocks with catch limits. The second involves self-sampling programme for demonstration of fulfilling the requirements

under the de minimis exemption from the landing obligation in the brown shrimp fishery. The study is conducted within an international collaboration of self-sampling programmes across Member States.

Different approaches to quota management have been adopted by Member States to implement the landing obligation. Several Member States have adopted systems that focus on the economically most important species with bycatch quotas allocated as required. Where there are insufficient national by-catch quotas, the shortfall is made up through swaps. Two other Member States already had ITQ systems in place before the introduction of the landing obligation which they have adapted to ease implementation. According to the Member States involved, the ITQ systems is highly flexible and can solve most problems for individual fisherman, with respect to ensuring adequate quota for a fishing trip, even for species previously not landed.

Considerable effort has been put in by Member States to provide supporting information for de minimis and high survivability exemptions, suggesting these exemptions are of considerable importance. Several Member States have provided detailed figures on the volume of discards reported under exemptions. The volumes remain small compared to overall catches, typically less than 1-2% of total catches. One Member State indicated that they are developing a monitoring tool for de minimis discards but as it remains unclear to what extent de-minimis exemptions can and should be computed and monitored at a Member State level, the tool is not being used currently. Damage by predators would not appear to be an issue in the North Sea and no Member State reported any discards under this exemption. In addition to the exemptions, all Member States have used the inter-annual flexibility mechanism, but no Member State in the North Sea has used inter-species quota flexibility.

Member States in the North Sea have continued to consult with the relevant Advisory Councils and the Commission through the Scheveningen Group. Nationally, most Member States have held meetings with industry representatives and other relevant stakeholders. The Advisory Councils were informed of the work in the Scheveningen regional group and had an opportunity to contribute to the group. Member States highlight concerns that the North Sea AC has consistently failed to reach a consensus opinion on the Joint Recommendations in the last two years and instead, have provided two separate opinions from the industry and NGOs respectively. Member States report this separate advice has little value in formulating the Joint Recommendations as it does not represent a consensus view.

Member States have continued to take actions to disseminate requirements of the landing obligation to fishermen and inspectors through guidelines, workshops, interviews and port visits. Every effort has been made to keep fishermen informed of changes to the Regulations and by and large it would appear awareness and understanding of the landing obligation has improved, even if acceptance of the policy has not.

In contrast to other regions, Member States have taken several progressive steps in compliance and data collection/recording within the North Sea region. The use of REM systems with CCTV as part of a Fully Documented Fisheries (FDF) approach is being trialled in several countries. One Member State involved in such trials highlights the need to develop an International Standard for the implementation of these tools to guarantee the effectiveness and usability for legal sampling as evidence during control inspections. In addition, from a policy perspective, the need for a level playing field between Member States on the introduction of CCTV and Full Documentation of catches. All Member States must participate in CCTV/FDF projects.

Several Member States have also continued to combine and compare observations at sea with information on landings made into ports as well as using the ‘last haul’ approach developed by EFCA. Member States continue to work closely with EFCA and in addition to the incorporation of ‘last haul’ procedures, are also now implementing risk-based systems routinely. One Member State reports 96 last-haul analysis were completed in 2019 with another reporting close to 40 completed last-haul inspections. Quantitative information on the amounts of <mcrs material landed remains quite limited and only several Member States supplied partial quantitative information.

As in other sea basins, the socioeconomic impacts of the landing obligation remain poorly understood. Several Member States report that studies are in progress, but no specific results are presented. The limited information presented suggests that pelagic fisheries have low bycatch rates and do not face major challenges due to the landing obligation. A similar situation applies to other directed fisheries such as the saithe fishery, where the fishing pattern can be adjusted in a way that unwanted bycatch is avoided. Overall the available data does not indicate any changes in the major fisheries after the full implementation of the landing obligation in 2019.

Facilities to handle unwanted catches remain limited across Member States. Several have funded a small number of projects under the EMFF to improve infrastructure to handle and store unwanted catches. Indications of how the money was being spent are rather vague and in some cases the funding is only indirectly linked to implementation of the landing obligation.

The small quantities of unwanted catches that have been landed have generally been used for fishmeal in ports with fishmeal production plants present. In other ports, it has been used for animal food in the fur production or for pet food. The majority, however, continues to be disposed of in landfill sites at considerable cost.

5.5. Baltic

In 2019 six of the eight Member States in the Baltic region submitted reports on implementation of the landing obligation. Low species diversity leads to several statements in Member State reports that the landing obligation is not as significant a problem in the Baltic as it is in many other regions. Due to the relatively simple nature of Baltic fisheries it was the first region, along with pelagic fisheries, where the landing obligation was implemented in 2015. Accordingly, the reports reflect 5 years of experience of implementation of the landing obligation and relationships between all stakeholders including regional fisheries groups such as Baltfish and BSAC are well established at this point.

Of the six Member States reporting on Baltic fisheries only one reports any new measures on selectivity which relates also to the emergency measures for Eastern Baltic Cod. These selectivity measures have been tested on research vessels and are now (early 2020) being tested on commercial vessels. Uptake of selectivity improvements have been described as low, but it is hoped that the cod stock situation may accelerate their use.

De minimis exemptions have not been applied in the Baltic but there is continued use of a high survival exemption for Cod and Plaice caught with certain static gears. Several Baltic Member States use an ITQ system for managing quotas and state that this system allows for efficient dealing with landing obligation issues. One Member State reports on the use of new legislation which establishes the setting aside of 1 to 2% of national quotas as overshoot quotas to accommodate situations where vessels exceed their quota.

Four Member States reports mention the use of inter-annual flexibility while two also mention the use of inter-species flexibility to cover small quantities of herring bycatch in sprat fisheries and plaice bycatch in the cod fishery which would otherwise cause a choke problem.

Member States in the Baltic all report that they consulted with BSAC and national stakeholder groups and fisheries science institutes in the development of Joint Recommendations to support the implementation of the landing obligation. All Member States report that they have used various communication and consultation methods to improve understanding and awareness of the landing obligation. New guidelines for 2019 have been produced and new training and information workshops have been held both for fishing industry stakeholders and fisheries control staff.

One Member States reports that the use of automated follow up to the last haul analysis has been successful in increasing compliance with the landing obligation. Four Member States report on the use of the last haul system but only two provide further details such as numbers of inspections. Gramme size analysis in pelagic fisheries, use of traceability systems, advance landing notice requirements and pilot aerial surveillance programmes are each mentioned in one Member State report as additional measures used to ensure compliance with the landing obligation. All Member States report that the control of the landing obligation is based on a risk assessment with one Member State providing a detailed annex. Only one Member State reports that infringements of the landing obligation were detected (6 in total, 2 detected at sea and 4 by logbook). Two Member States express support for the use of REM systems but stress the need for a level playing pitch for successful implementation. Difficulties with providing sufficient legal evidence to prosecute infringements are mentioned by one Member State.

Only one Member State reports on any significant landings of fish below mcrs. This data shows some increase in <mcrs landings over time. The main uses reported for unwanted catches are for fish meal, as animal feed and one Member State reports that much of it was simply disposed as garbage. One study investigating the production of fish silage from unwanted catch on medium to large vessels is reported the results of which are pending.

Two Member States reported that funding under the EMFF had been granted for handling catches on board and the provision of more selective gears. Two also provided EMFF funding for infrastructure projects to assist with onshore handling of unwanted catches and one Member State reported on the provision of EMFF funding for marketing initiatives relevant to the landing obligation. No Member State indicated any safety issues related to the landing obligation.

5.6. Mediterranean

Based on the six Member States with fisheries in the Mediterranean, there is little evidence of significant actions taken by Member States or by the fishing industry. Only one Member States appears to have carried out new studies to test selective gears in trawl fisheries. A few other Member States refer to catch sampling projects without providing any level of detail.

Regarding control and compliance with the landing obligation, few adaptations to the current systems are evident. Member States have engaged with EFCA on JDPs in Mediterranean fisheries and several have been involved in last-haul analysis. The number of serious

infringements is very low across Member States with only two Member States reporting a small number of infringements, mainly relating to the landing and selling of fish below mcrs.

Member States stress the importance of the de minimis and high survivability exemptions. Without these exemptions in place they claim that costs to fishermen would increase significantly because of being obliged to land unwanted catches below mcrs, which have no value, with very few facilities at ports to handle and store them. One Member State has provided a detailed breakdown of fish discarded under de minimis exemptions. This ranges from an uptake of 0% for red mullet in gillnets to 56% for anchovy, sardine, mackerel and horse mackerel in bottom trawl fisheries. It is unclear how uptake is calculated. The same Member State also provides estimates of fish discarded due to damage by predators. The volumes reported are very low totaling 5 tonnes across all fleets.

There has been very limited new work carried out in 2019 to investigate new outlets or commercial opportunities for the landings of fish below mcrs. As in previous years any work has focused on pelagic fisheries. Due to the small quantities, the cost of transport from numerous landing sites to, sometimes, remote processing plants and the fact that unwanted catches may be reduced overtime by improvement in selectivity and/or spatio-temporal avoidance, no feasible/practical solutions have been identified. This again is used as a justification for the continuation of the exemptions currently in place.

Member States have continued to engage actively with the MEDAC and continued to disseminate information to the fishing industry to aid implementation of the landing obligation. However, opposition to the policy remains widespread amongst Mediterranean fishermen even though the landing obligation does not appear to be a problem for any Member State in the Mediterranean.

There has been very limited use of funding under the EMFF although most Mediterranean Member States did participate in two H2020 projects – DISCARDLESS and MINOUW – that considered all aspects of the landing obligation.

5.7. Black Sea

Only one of the two Member States operating in the fisheries in the Black Sea reported in 2019. As in 2017 and 2018 very few specific actions have been taken to implement the landing obligation as the volume of unwanted catches is reportedly low. The Member State that did report, outlined a study investigation the avoidance of accidental catches of turbot and dogfish in beam trawl fisheries for whelk during the seasonal closure for turbot. No results are presented and this study had previously been reported in 2018

No studies have been instigated to support exemptions. There are anecdotal reports from fishermen of damage caused by predators (sharks, dolphins) in the turbot fishery. No estimates of the extent are provided.

There have been some attempts to disseminate information to fishermen and inspectors to ensure compliance through meetings through training seminars. Both Member States have engaged with EFCA and involved in JDPs during 2019. The report submitted indicates moving to a risk-based approach to control without providing any details. All vessels, including vessels less than 10m have been required to complete logbooks since introduction of the landing obligation. Other than this control has been through existing control measures included under the Control Regulation (e.g. VMS and ERS).

As in previous years, no EMFF funding has been allocated to implementation of the landing obligation.

6. KEY AREAS OF CONCERN AND DIFFICULTIES

6.1. General Comments

Based on the Member States' reports, the actual impacts of the landing obligation still seem minimal. There is little evidence of behavioural change by fishermen and in many Member States, particularly in the Mediterranean, in the Baltic and in the Black Sea indicate that the landing obligation has not created any real difficulties. A “business as usual” mentality seems to prevail. In the other sea basins – NWW, SWW and North Sea – difficulties remain largely perceived rather than actual. Widespread opposition to the landing obligation remains from fishermen in most Member States.

Choke species remain the most significant issue for Member States in the NWW, SWW, North Sea and to a lesser extent the Baltic. Additionally, three ACs (NWWAC, NSAC and PAC) were almost exclusively focused on the impending problems of choke under full landing obligation. However, based on the Member States reports there are still relatively few examples of choking of fisheries occurring, even with the full implementation of the landing obligation. There is evidence that Member States have mitigated against choke risks primarily through quota management measures (e.g. swaps, quota pools and bycatch quotas). Other choke risks such as for plaice and for skates and rays have been mitigated through de minimis and survivability exemptions.

While there continue to be genuine attempts to inform fishermen on the main elements of the landing obligation and to educate inspectors on how to enforce the rules, there are clear indications that efforts to monitor and enforce the rules are still not uniform across Member States. Several Member States are actively trialling new control and monitoring technologies (e.g. REM with and without CCTV), while in others there is still widespread opposition to such systems with an over reliance on existing control tools and measures. Similarly, several Member States have provided information on the volume of landings of unwanted below mcrs. These estimates are very low when compared to the level of catches and are most likely under estimates of actual catches of below mcrs catch. This is backed up by information from the last haul analysis carried out. Many Member States have not provided any estimates, claiming they are unable to monitor such landings across multiple ports.

As in previous years, few Member States are using funding under the EMFF to support fishermen in implementing the landing obligation. Very little funding continues to be provided to improve the infrastructure of ports and harbours reflecting the low levels of unwanted catches below mcrs that was landed. Similarly, many Member States and the SWWAC continue to highlight potential problems and safety issues that will be faced by fishermen on board in handling unwanted catches. However, there is still no evidence that such problems exist.

6.2. NWW

One of the main areas of concern expressed in 2019 across NWW Member State reports is with ongoing difficulties regarding enforcement. Several issues are cited relevant to this including: difficulties with control and monitoring exemptions without robust at-sea controls;

a pre-existing culture of non-compliance regarding discards; the lack of a level playing pitch regarding Member States views of landing obligation control measures. The latter issue may be the most significant barrier to an integrated approach across the NWW region as it appears from the Member States reports that views on REM solutions and whether CCTV should be used as part of such systems are not shared. Some Member States being more enthusiastic in their support for the use of such tools while others point to potential difficulties regarding their use, and some member states favour the use of measures such as last haul and risk-based approaches.

Although only two Member States reported actual fishery closures due to chokes in 2019 ongoing concerns regarding choke closures are still evident in several Member State reports. These concerns are continuing to have an impact on industry attitudes towards the landing obligation although most Member State reports indicate that selectivity improvements in fishing gear are well supported by the fishing industry. However, three of the Member State reports indicate that selectivity improvements will take time to achieve due to the time taken and costs involved for vessels in taking up new gears. The potential negative economic impact of highly selective gears in some fisheries was also highlighted. This issue negatively impacts on the uptake rate of selective gears which is still poorly reported on in NWW fisheries. The ability to fund selective gears under the EMFF once they become legal gears is also highlighted as a problem. The EMFF does not allow funding of gears that are mandatory under regulation (e.g. included in discard plans).

An ongoing issue, in common with previous annual reports, is the difficulty with dealing with <mcrs catches. Member State reports cite problems that artisanal vessels have due to small quantities spread over wide areas and associated costs. One Member State highlights the disproportionate costs experienced by their artisanal fleet and argues the need for specific derogations for this fleet to offset the costs of implementing the landing obligation.

Although several Member States this year and in previous years have reported studies on potential uses these studies remain speculative and there appear to have been very few changes to main utilisation options reported in previous years, reduction to fish meal, bait for pot and recreational fisheries and food for animal farms.

Potential socio-economic impacts of the landing obligation are cited by several Member State reports although given the lack of dedicated studies on this issue these concerns remain as speculative and the true impacts of landing obligation implementation in NWW fisheries are difficult to quantify.

One Member State identifies the prohibition on using unwanted catches for charity purposes as a problem that needs to be addressed. This is also reported as an issue in SWW and the Mediterranean. The strict interpretation of the prohibition of using unwanted catches for direct human consumption below the mcrs is perceived by civil society as negative and nonsensical. The same Member State also highlights the need to ensure there is no differences between mcrs and minimum marketing sizes established under Regulation (EU) 1379/2019. Ambiguity between the two has led to unfair advantages for imported fish not meeting the mcrs.

One Member State reports difficulties in taking observers on board due to the associated costs and a lack of space. This is highlighted as being a factor in reducing the quality of catch data being reported.

The NWWAC highlighted similar issues in 2019 as it did in the previous year namely:

- Choke species and potential early closures;
- The setting of TACs in mixed fisheries (e.g. cod, haddock, whiting 7b-k) and coverage of non-target species (e.g. Plaice 7hjk);
- The MSY timetable, which requires that all harvested species are managed according to the principles of MSY by 2020 at the latest;
- Zero TACs and zero quota stocks;
- Highly depleted stocks with low rebuilding potential (e.g. West of Scotland cod);
- The lack of data, particularly on unwanted catches;
- Unintended consequences of measures, e.g. displacement of effort.

The NWWAC stresses that measures to mitigate chokes should also be designed to benefit stocks and that measures which will minimise unwanted catches in the first place such as closed areas, real-time closures and move-on rules should be prioritised.

6.3. SWW

In 2019, many of the operational and implementation issues reported in 2017 and 2018 remain the same in the fisheries in SWW. However, as in previous years, relatively few of these were supported by direct observation – most remain speculative. The consensus is that the landing obligation has and will continue to lead to increased costs for fishermen, but the extent of socio-economic impacts is difficult to assess accurately. One Member States highlights the disproportionate costs experienced by their artisanal fleet and argues the need for specific derogations for this fleet to offset the costs of implementing the landing obligation. This is based on such vessels having low catches with very low levels of unwanted catches.

The inability of the ERS system to record the reason for discarding remains a problem beyond the control of Member States. Furthermore, vessels less than 12 metres which have no eLogBook makes implementation difficult. It also reduces the quality of catch data available for stock assessment purposes given the preponderance of inshore vessels in SWW. The limited quota swap opportunities in SWW is also highlighted a problem by two Member States, given only four Member States are involved in the SWW fisheries.

Awareness of the landing obligation appears to have increased among fishermen in SWW but there is still a lack of acceptance of the policy. Fishermen still struggle to understand the benefits of the landing obligation and only perceive problems and additional costs. Lack of acceptance of the landing obligation by fishermen is continuing to restrict the ability of Member States to implement the policy, even though Member States continue to make efforts to improve understanding and tighten compliance.

Uptake of selective gears also appears to be a problem in SWW fisheries. Member States report fishermen reluctant to use gears developed as they result in losses of catches, often of high value species caught in small volumes. The ability to fund selective gears under the EMFF once they become legal gears is also highlighted as a problem by several Member States. The EMFF does not allow funding of gears that are mandatory under regulation (e.g. included in discard plans). The time and costs of trials required to test such gears adequately is also identified as being a factor in restricting uptake. Fishermen are reluctant to uptake gears that have not been tested in their specific fishery.

Choke species remain a major concern, although only one instance of a choke occurring has been identified. France had to close the bigeye tuna fishery in the Atlantic due to bycatch in other fisheries leading to the quota being exhausted in September.

There is still work needed on the development of port infrastructures to handle the unwanted catches landed and of new cost-effective commercial outlets. All Member States highlight the low quantities of unwanted catches has restricted the development of new outlets. Uncertainty over the quantities of unwanted catch has restricted investment.

One Member State identifies the prohibition on using unwanted catches for charity purposes as a problem that needs to be addressed. The strict interpretation of the prohibition of using unwanted catches for direct human consumption below the mcrs is perceived by civil society as negative and nonsensical.

The SWWAC reports that the landing obligation has had negative economic, social and environmental impacts for fisheries in SWW. This assertion is based on experiences in the 2019 mackerel fishery in Spain and difficulties in allocating quotas for mackerel and horse mackerel in demersal fisheries in France. They also identify issues with obtaining funding to carry out research work, particularly in carrying out selectivity experiments and pilot studies to provide information to support exemptions to the landing obligation. They indicate additional exemptions are required to cover other stocks and fisheries but that it is impossible to provide supporting information. These factors have resulted in choke situations in SWW fisheries although this is not supported by the reports from Member States, who reported only one choke situation for bigeye tuna. The SWWAC highlights additional costs for handling unwanted catches as a problem although provides no quantitative data to support this. They claim there is widespread mistrust and opposition with the landing obligation amongst fishermen in SWW.

The SWWAC put forward several potential solutions which include exempting stocks with low quotas or species with low market value; providing financial support to the processing industry, for research and development of innovative products from unmarketable species or with very low economic value as well as providing commercial incentives for the creation of a fish collection network and storage capacity for unwanted catches.

6.4. North Sea

The 2019 Member State reports for the North Sea indicate that the overarching areas of concern or difficulties identified by Member States remain. Despite the best efforts of Member State authorities, there is still a lack of support for the landing obligation measures and approaches being adopted, even though awareness and understanding of the rules has increased significantly. It is seen as a bureaucratic intervention that is unworkable and costly. This lack of acceptance and engagement represents a real challenge and continues to act as a potential barrier to successful implementation. Some of the difficulties could be overcome and measures found to be more widely acceptable if there was a greater sense of a 'level playing field'. There is a lack of incentive to comply and Brexit has added to the lack of acceptability of the landing obligation as a legitimate policy.

Trials of novel selectivity approaches have continued but with little uptake. Several Member States do not see the need for further experiments, given their fishermen are already using selective gear. One Member State reports that fishermen are fishing with a considerably

larger mesh size, for example 130 mm instead of the allowed 120 mm, and therefore do not so any need to further selectivity work, preferring to look at other solutions.

All Member State highlight the challenges posed by the reductions in cod quota. Cod remains, which is an important species for North Sea fisheries and which occurs in virtually all demersal fisheries. The quota was reduced by as much as 35% in 2019 and 50% in 2020, and threats to become a high-risk choke species. There are currently limited possibilities to increase selectivity in relation to cod without having a significant impact on fisheries income. Other potential choke species identified are ling in 3a, cod in 3a, saithe in 2a, 3a and 4, megrim in 2a and 4, although no actual choke species are reported for 2019.

In the Skagerrak and Kattegat in the *Nephrops* fisheries, one Member State highlights whiting bycatch as a major challenge with inevitable by-catches of whiting. Whiting is a quota species but has low market value. This has been highlighted by the industry over several years now and it is suggested for the TAC to be simply removed.

Member States report that the landing obligation remains difficult to enforce as evidence of any non-compliance is difficult to produce. The possibility of de minimis discards makes distinguishing between legal and illegal discards very difficult for control authorities. Tracking of de minimis amounts is challenging although changes to the ERS system to allow direct entry of de minimis discards may help. One Member State has initiated a project on fully documented fishery using cameras in the *Nephrops* fishery in Kattegat, which again is designed to improve compliance and recording of de minimis discards.

Challenges remain due to the lack of port facilities for handling of unwanted catches. There is still no satisfactory solution for vessels to dispose of “unwanted catch” in fishing ports in a harmonized, simple and inexpensive way. Volumes remain small adding to costs of storage and transport, which has led to a reluctance to invest in onshore facilities. One Member State put forward a simple solution through the development of a sales channel/management model, so that all fishermen have the same opportunities to dispose of unwanted catches at virtually no cost to them.

Cooperation among Member States is excellent in respect of quota swaps. However, in this context it remains to be seen what consequence Brexit, and the potential loss of the UK as a swapping partner, will have on the availability of swapping opportunities.

There would seem to be differences in providing funding for the sector to adapt to the landing obligation. One Member State indicates that sufficient funding has been allocated for fishing gear development as well as for vessel improvements to assist compliance. Other Member States report that no funding has been provided. An ever-growing focus on grants for smaller vessels in the future will mean that there will be no funds to help the medium-sized fishing vessels that now account for most of the catches.

6.5. Baltic

Several Member States reports state that due to the relative lack of complexity and species diversity and prevalence of small pelagic fisheries that discarding, and the landing obligation are not a major problem in the region. However, several issues are mentioned repeatedly. An ongoing issue, in common with previous annual reports, is the difficulty with dealing with small quantities of <mcrs catches and the disproportionate costs of implementing the landing obligation. Although one Member State reports on possible silage production on board vessels, reduction to fish meal, food for animal farms and waste disposal remain as the

principal options. One Member State report stresses the difficulty with quantifying unwanted catches in pelagic fisheries prior to sorting of the fish in factories.

An industry representative organisation stress that the industry has the impression that the landing obligation is overly bureaucratic and penalises fishermen. They also reiterated their call from previous reports for an adaption of technical measures to make the landing obligation more technically coherent and amenable to the use of more selective gears. The need for more research and the slow pace of realising selectivity improvements is also mentioned as an issue in one Member State report.

Control and enforcement issues are stressed by several Member States as one of the main areas of concern in 2019. Issues cited include the need for a level playing field and Member States coordination in implementing control measures such as REM. Difficulties with getting sufficient legal evidence to bring infringements to court was described by one Member State as a major challenge to landing obligation implementation. Difficulties for fishermen in understanding all legal requirements and exemptions was stressed but new electronic reporting processes should address this.

Predator damage to salmon, seems to be a more significant problem in the Baltic than in any other region but overall quantities are not large.

Lack of quota for bycatch species has been reported as a problem, particularly for plaice, although the use of inter-species flexibility appears to have addressed this issue in 2019 and avoid choke situations.

6.6. Mediterranean

As in previous years, the reports from Member States in the Mediterranean indicate few if any difficulties and concerns in implementation of the landing obligation. This is predicated on the de minimis and survivability exemptions remaining in place, even though levels of unwanted catches are reported to be extremely low across fleets. To justify these exemptions, Member States continue to highlight the disproportionate costs of handling, storage and processing the small volumes of catches under mcrs and the need for transport to, sometimes, remote processing facilities.

Several Member States indicate that improving selectivity is not possible in Mediterranean fisheries and question the continued implementation of the landing obligation in fisheries where it is perceived by the fishing industry to serve no purpose.

Other than participation in JDP programmes with EFCA and the use of the last haul analysis by Member States, there is little evidence of any significant changes to control and monitoring measures used by the Member States in the Mediterranean. Overall very little new information was provided in 2019, other than by one Member State. The continuing impression is that amongst most of the Member States responding their fisheries are not greatly impacted by the landing obligation and that the status quo prevails in Mediterranean fisheries with little or no change in behaviour amongst fishermen.

6.7. Black Sea

The report for 2019 from one of the two Member States fishing in the Black Sea suggest that the landing obligation continues to have very little impact. No difficulties are identified. Catches in the sprat fishery that is one of the main fishery in the Black Sea are reportedly well below the TAC. No catches of fish below mcrs subject to the landing obligation have

been recorded, even though the Member State report indicates that any such catches are confiscated and incinerated. No infringements of the landing obligation are reported by the control authorities by the Member State that reported.

7. EFCA

In 2019 the European Fisheries Control Agency (EFCA) produced a report (Ref. Ares (2020)1202277 - 26/02/2020) on its work in promoting effective implementation of the landing obligation. The primary tool used by EFCA in this work was the use of Last Haul inspections as part of Joint Deployment Plans (JDPs) in different regions as a compliance indicator. The number of Last Haul inspections which were carried out in 2019 are set out below.

Baltic Sea: 184

North Sea: 88

North Western Waters: 86

Mediterranean: 25

Based on risk assessments, a series of specific actions addressing priority risks in the most relevant fleet segments and implementing some of the risk treatment measures, were implemented in JDPs. Some specific actions performed in the JDPs aimed to increase the number of Last Haul inspections in vessels of high risk of non-compliance with the landing obligation, and to conduct a follow up land inspection.

Suspected infringements to the landing obligation in 2019 are provided in the table below by JDP and correspond to 1% of all suspected infringement detected in 2019.

Suspected infringements 2019	Non-Compliance with LO		
JDP	CLASSIFICATION	TOTAL*	% TOTAL
Western Waters	None detected	-	-
Baltic Sea	No recording of BMS	1	6%
Mediterranean	Discard species subject to LO	1	6%
	Illegal sales - BMS	1	6%
Black Sea	Illegal sales - BMS	1	6%
North Sea	Discard species subject to LO	2	13%
	Illegal sales - BMS	8	50%
	No recording of BMS	2	13%
TOTAL		16	100%

*Data available on 24 January 2020. Additional data may be received later from Member States.

EFCA standardised methodology was used to conduct risk assessment of non-compliance with the landing obligation for all areas in a joint exercise with the Member States. In 2019, Regional Risk Assessments were conducted at fleet segment level for several JDP areas (Baltic Sea, North Sea, Western Waters, Mediterranean Sea and Black Sea). Dedicated regional meetings took place and resulted in two main outcomes: a) fleet segments were identified with higher risk that should be addressed with priority; and b) a set of possible risk treatment measures to address the identified high-risk threats were recommended.

EFCA also worked with the regional Member State groups, Baltfish, Scheveningen and NWW, to evaluate landing obligation compliance. EFCA has produced compliance evaluation reports for the period 2015-2017 for mackerel fisheries and for 2016-2017 for North Sea fisheries targeting cod, plaice and sole and for North-western waters fisheries targeting haddock, hake and whiting. Concerning the Baltic Sea, EFCA has produced a compliance report for herring, sprat, salmon and cod referring to 2015-2016.

The evaluation implemented up to five different methods for measuring compliance with the Landing Obligation, also mitigating the low availability of reference data obtained during sea inspections where the catch composition is assessed.

The main points from the mackerel evaluation are:

- The most reliable of the methods would be reference data derived from direct observations (Method 1). However, in the case of the pelagic fisheries in the NS and NWW, so few last haul inspections have been carried out (large-scale pelagic fisheries are not ideally suited to this type of approach) that the estimates of discards are highly uncertain.
- Using scientific data (method 2) high discard rates in these fisheries have been identified, suggesting a high level of non-compliance with the landing obligation in pelagic trawl fleet segments, (PEL01 to PEL04). ICES assessments of discards are not informative in this evaluation due to them being at the stock level and so not readily aligned with fleet segments.
- Method 3 (infringement analysis) results indicate two infringements for suspected high-grading in 2015 but given the difficulties in detecting illegal discarding at sea, the lack of infringements should not be taken to indicate compliance with the landing obligation.
- For Method 4 (interviews with control experts and industry stakeholders) results point also in the direction that compliance with the landing obligation is low.
- In Method 5 (Market Analysis) some respondents state that the average size of the lowest commercial grade had dropped to 'unacceptable' levels. That is a huge market incentive to discard lower value fish and reserve hold volume for the higher-priced grades of fish.

The main conclusions from the NWW haddock, hake and whiting evaluation were:

- Results indicate that for certain towed gears used in certain areas, mainly segments NWW01 (<100mm) and NWW02 (<100mm), non-compliance with the landing obligation appears to have been widespread during the evaluation period.
- The compliance evaluation was complicated by two elements: the lack of data and the complexities of the provisions under the discard plans exemptions.
- Increased use of Last Haul inspections would go some way to compensate for the lack of reference data.

The main conclusions to the North Sea evaluation of demersal fisheries targeting cod, plaice and sole were:

- for certain towed gears used in certain areas NS01 (Otter trawls/Seines ≥ 100 mm), NS02 (Otter trawls/Seines, ≥ 70 and < 100 mm), NS03 (Otter trawls/Seines, ≥ 32 and < 70 mm) and NS07 (Beam trawls ≥ 80 and < 120 mm), non-compliance with the landing obligation appears to have been widespread during the evaluation period.

- In addition to the discarding of BMS fish, there was evidence from some areas (3a and 4a) of significant high-grading of cod, according to the CCTV trials data from 2016.
- The compliance evaluation was complicated by two elements: the lack of data and the complexities of the provisions under the discard plans exemptions.
- Increasing numbers of LH inspections, including with grade sizes collection for species where high-grading is believed to take place (e.g. cod), should be envisaged.

The overall results suggest that non-compliance with the landing obligation appears to have been widespread during the evaluation period. Moreover, detection of non-compliance with the landing obligation remains difficult when only depending on classical monitoring based on inspections due to the fleeting nature of discards at sea, which may occur at any time of the fishing trip by day and by night.

The evaluations conclude that Remote Electronic Monitoring (REM) systems, encompassing Closed Circuit Television (CCTV), ensure a continuous observation of the fishing gear and catch processing activities on board the fishing vessels, and would be instrumental in the efficient monitoring, control and surveillance of compliance with the landing obligation.

8. ICES

Since 2015, two main changes have been triggered in the ICES stock assessment process, involving the way catch data are collected and the way forecasts are performed and presented (Rihan et al., 2019).

For stock assessments, since 2015, ICES now consider that even if landed, a part of the catch is still not targeted by fishermen, but they cannot be called discards anymore and are referred to as “unwanted catch”, while landings are now referred to as “wanted catch”. To keep track of these categories, the ICES InterCatch database was expanded in November 2015, and now includes five categories:

- **L = Landings.** Landings above minimum conservation reference size;
- **B = BMS Landings.** Landings below minimum conservation reference size, BMS. Relevant for stocks under the landing obligation. The BMS landing will consist of BMS landings and predator damaged fish.
- **D = Discards.** The part of the catch which is thrown overboard into the sea and not registered in the logbook. This is still based on fishery observer estimates and applying to all stocks, both under and outside the landing obligation.
- **R = Logbook Registered Discard.** Relevant for stocks under landing obligation. Logbook registered discard are discards, which are registered in the logbook and are under the exemption rules (e.g. *de minimis*). Damaged fish can be included under this Logbook registered discard.
- **C = Catch** can be used for a few species, for which there is no separation in the information of landings or discards

Source: Rihan et al. 2019¹

¹ Rihan, D., Uhlmann, S.S., Ulrich, C., Breen, M., Catchpole, T. (2018). Requirements for Documentation, Data Collection and Scientific Evaluations. In S.S. Uhlmann, C. Ulrich, S.J. Kennelly (Eds.), *The European Landing Obligation - Reducing discards in complex, multi-species and multi-jurisdictional fisheries*. Cham: Springer.

The sum of (B+D+R) is the “unwanted catch” and corresponds to what was previously recorded as D alone prior to the introduction of the landing obligation. This adds a complication to the stock assessment process in that there are now many more strata to fill and raise in the stock assessment process. ICES report that even with full implementation of the landing obligation, the R and B categories have remained negligible. Therefore, stock assessors must make decisions on how to sample, monitor and include these catch components in the assessment. The categories B and R are currently not routinely sampled directly, but being considered “unwanted”, they are allocated an age distribution from the category D.

Additionally, the logbook systems in place prior to the Landing Obligation were not able to deal with the new categories, and software updates have been required in all Member States, as reported in many of the Member State annual reports. ICES report differences in reporting of all these categories to ICES across Member States.

The second major change in the ICES process relates to the advice itself; (i.e. to the maximum tonnage advised by ICES to be in line with the management objective). The target fishing mortality (e.g., F_{msy}) corresponds to the quantity of dead fish to be removed from the population, regardless of whether they are landed or discarded. Previously, the advice was expressed in terms of landings, assuming a given share of discards based on previous years’ observations. In theory, the landing obligation should ensure that all catches would be landed, and a single catch advice would suffice. In practice, quantitative challenges have arisen, linked to the facts that: i) discarding still takes place and cannot be ignored; and ii) legal provisions (e.g. high survivability, *de minimis* and predator damage fish) under the landing obligation have introduced additional complexities that making formulation of single catch advice difficult. ICES has therefore chosen to issue advice as a single maximum catch value split between wanted and unwanted catches, leaving it to the Commission to decide the actual level of the TAC. Combined, the scientific information has become more complex to collect, to use and to quality-check, and to explain to clients in a simple and transparent manner. ICES has highlighted that this has introduced uncertainty into their management advice, particularly given widespread discrepancies in the level of unwanted catch recorded in logbooks compared to the levels observed by at-sea observers. Examples from the ICES advice from 2019 for 2020 illustrating the extent of the discrepancies in reported and observed data are given below:

8.1. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea)

For cod in the eastern Baltic, ICES reports discrepancies between the reported landings of unwanted catches and the observed discards. The ICES advice states:

“Discarding, which ICES understands not to be in accordance with the current regulations, still takes place even though the landing obligation has been in place since 2015. Landings of fish below the minimum conservation reference size (MCRS; 35 cm) are very low (108 t reported in 2018), compared to the discards (3103 tonnes in 2018) in the management area of SD 25–32. The estimated discard amount in 2018 (approximately 16% of the total catch) was based on observer data, but this is an underestimate. The available information from the

fisheries and observers suggests that modifications to the selectivity properties of the gear takes place, leading to a higher proportion of smaller fish being caught”².

8.2. Haddock (*Melanogrammus aeglefinus*) in Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak)

The advice for haddock in the North Sea, West of Scotland and Skagerrak indicates differences between reported landings compared to the estimated unwanted catches based on observer data. ICES states:

“The EU landing obligation has been phased in to all catches of haddock in ICES Subarea 4 since 2016. Since 2019, the stock is fully under the EU landing obligation. Landings of fish below the minimum conservation reference size (MCRS) are very low and discarding still takes place. The estimated discard amount is 4895 tonnes in 2018 (12.4%), based on observer data”³.

8.3. Whiting (*Merlangius merlangus*) in Subarea 4 and Division 7.d (North Sea and eastern English Channel)

The advice for whiting in the North Sea and eastern English Channel indicates substantial differences between reported landings and observer data. There is an added complication for this stock in that a de minimis exemption is in place but discards under the exemption are not reported. ICES advise:

“BMS landings reported to ICES in 2015–2018 were low. Since 2018, whiting catches in all fleets (including TR2, BT2) of Subarea 4 and Division 7.d are subject to the landing obligation, with a de minimis exemption for whiting caught with bottom trawls in Division 4.c. Substantial discarding still continues, based on observations from sampling programmes (estimated unwanted catch in 2018 is 9942 tonnes, which is 38% of the human consumption fishery catch). To maximize the benefit for the fishery of this stock, the most obvious measure would be to improve the selection pattern and reduce catches of undersized fish”⁴.

8.4. Plaice (*Pleuronectes platessa*) in Subarea 4 (North Sea) and Subdivision 20 (Skagerrak)

The ICES advice for plaice in the North Sea and Skagerrak highlights discrepancies between reported unwanted catches and observed discards from sampling programmes. The advice states:

“Since 2016, large mesh trawlers (TR1 and BT1) are under landing obligation in Subarea 4. In 2019 the fleets (BT2 and TR2) that contribute most to the total discards will fall under landing obligation in Subarea 4, with de minimis exemptions in certain fisheries. In 2018, 52% of the total catch in Subarea 4 and 19% in Subdivision 20 was discarded. The reported BMS landings for fleets that are under the landing obligation in Subarea 4 are currently much lower than the estimates of unwanted catch from catch monitoring programmes”⁵.

² <http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/cod.27.24-32.pdf>

³ http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/had.27.46a20_replaced.pdf

⁴ <http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/whg.27.47d.pdf>

⁵ http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/ple.27.420_Replaced.pdf

8.5. Plaice (*Pleuronectes platessa*) in subdivisions 24–32 (Baltic Sea, excluding the Sound and Belt Seas)

The ICES advice for plaice in the Baltic Sea highlights significant differences between the reported unwanted catches and the estimated discard amounts. In this case the estimated discards are 80 times the reported landings. The advice states:

“Landings of fish below the minimum conservation reference size (MCRS) are very low (8.6 tonnes below minimum conservation reference size [BMS] reported in 2018) and discarding still takes place despite the fact that the landing obligation has been in place since 2017. The estimated discard amount of 720 tonnes in 2018 (approximately 30.5%) is based on observer data. ICES understand that this is not in accordance with the current regulations”⁶.

8.6. Sole (*Solea solea*) in Subarea 4 (North Sea)

For sole in the North Sea, ICES highlights differences between reported and observed unwanted catches. The scale of these differences is harder to estimate in this case because there is a de minimis exemption for some fisheries in the North Sea which allows discarding of sole but recording of these discards is limited. The ICES advice states:

“Sole in Subarea 4 has been fully under the landing obligation since 2016, with de minimis exemptions in certain fisheries. Below minimum size (BMS) landings of sole reported to ICES are currently much lower than the estimates of unwanted catches, which in 2018 comprises 8.6% of the total catch based on catch monitoring programmes”⁷.

8.7. Norway lobster (*Nephrops norvegicus*) in Division 7.a, Functional Unit 15 (Irish Sea, West)

For Norway lobster in the Irish Sea, ICES identified that observations indicate discarding of unwanted catches of Norway lobster have continued even with the landing obligation applying to this stock. In this case, given the uncertainty of the actual level of discarding and the amount being discarded legally under exemptions in place, ICES has chosen to apply average discard rates as observed over the last three years in providing their catch advice. The advice states:

“From 2016 the EU landing obligation was applied to all catches of Norway lobster fisheries in ICES Subarea 7, with several exemptions. Observations from the 2016–2018 fishery indicate that discarding above the minimum conservation reference size (MCRS) continues and has not changed markedly. Consequently, ICES is providing advice for 2020 assuming average discard rates as observed over the last three years. This is considered to be the most realistic assumption. The survival rate of discards of 10% assumed for FU14 and FU 15 is lower than that for other stocks because fishing practices are similar in these two FUs and both are largely spring/summer fisheries where animals discarded are exposed to warmer temperatures”⁸.

⁶ <http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/ple.27.24-32.pdf>

⁷ http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/sol.27.4_replaced.pdf

⁸ <http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/nep.fu.15.pdf>

8.8. Norway lobster (*Nephrops norvegicus*) in Division 3.a, functional units 3 and 4 (Skagerrak and Kattegat)

The ICES advice for Norway lobster in the Skagerrak and Kattegat illustrates a different issue, ICES has encountered. For this stock evidence provided by Member States to support a high survivability exemption indicates a survival rate double the survival rate used by ICES in the assessment. The advice states:

“Since 1 January 2016 the MCRS was lowered from 40 to 32 mm carapace length for EU countries fishing in this area (Figure 4). This reduced the proportion of the catch that was discarded. A discard ban implemented in the Norwegian zone of the Skagerrak on 1 January 2015 retains a minimum landing size of 40 mm carapace length.

For this stock, Swedish discard survival experiments indicate that the trawl discard survival may be around 50% (Valentinsson and Nilsson, 2015). As a result, an exemption from the landing obligation based on high survivability has been granted by the European Commission. ICES continue to use the survival rate of 25% (ICES, 2016), because the survival rates estimated by Valentinsson and Nilsson (2015) have not been evaluated by ICES”⁹.

9. EU FUNDED PROJECTS - DISCARDLESS AND MINOUW

⁹ <http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/nep.fu.3-4.pdf>

9.1. DISCARDLESS

DiscardLess was a 4-year H2020 research project which aimed to provide the knowledge, tools and technologies as well as the involvement of the stakeholders to achieve the gradual elimination of discarding. The project produced a large amount of scientific data on avoiding unwanted catch, utilisation options for unwanted catches, discard mitigation strategies for fisheries and case studies, environmental and economic impact assessments of the landing obligation and policy briefs which summarised implementation progress in various case studies. The fourth and final policy brief, produced at the end of the project probably provides the most useful summary of the project's work relevant to this report. The 4th Discardless policy brief provides an overview of the status (as at February 2019), experiences, barriers, and opportunities regarding applying the landing obligation in mixed demersal fisheries in the North Sea, North Western Waters and South Western Waters, the Mediterranean and the Azores. Report highlights included the following:

- Implementation of the landing obligation is occurring across all DiscardLess case studies with measures such as trials of selective gears, provision of information on implementation requirements and the use of exemptions among the aspects most evident.
- There is very little evidence to date of changes in discard rates or fishing practices although that is not confirmation that these are not occurring but reflects a lack of data to draw such conclusions at present.
- Recording of discards under exemptions and unwanted catches remains lower than expected although there is evidence of some increase in these practices in early 2019.
- It is difficult to assess whether changes in fishing practices to promote selectivity and avoid discards are taking place. Given some delays in sanctioning and gradual uptake of new gears (e.g. for trawlers catching Baltic Cod), recent changes to permitted gears (e.g. new mesh size and selective gear requirements in the Celtic Sea) and the upcoming implementation of the new Technical Measures framework some improvements in selectivity and discard rates would be expected.
- The quality of discard data is not improving due to industry fears about the potential negative impact of providing discard data and subsequent decrease in observer coverage in some Member States. Stakeholders across all backgrounds have expressed concerns about the risks associated with potential rises in fishing mortality.
- Concerns about efficient and effective monitoring of the landing obligation are increasingly being channeled into calls for electronic monitoring across all fleets or on a risk assessment basis. These calls are particularly strong in some Member States such as Denmark.
- A move towards a Results Based Management approach involving electronic monitoring is being advocated with some industry stakeholders specifying that it would require changes to the landing obligation to gain industry support.
- Despite a general negative attitude towards the landing obligation among fishermen, contributions to the final DiscardLess conference in January 2019 including from fishers outlined both positives, such as the incentivising of change, as well as implementation barriers.

Policy recommendations from the policy brief were:

- Data shortfalls make it difficult to make a reliable assessment of the extent of landing obligation implementation and its impact. Improvements in the following areas of data provision would greatly assist with this assessment process.
- Recording of discards and unwanted catches at vessel level is poor across all case studies and has been identified by STECF as the most significant problem with monitoring landing obligation

implementation. Member States will have to develop stronger accounting measures based on last haul analysis if this trend continues.

- As part of annual reporting on landing obligation implementation Member States should provide data not just on selectivity trials undertaken but also on the uptake rates for the use of such gears beyond trial situations. This would allow assessments of changes in selectivity patterns within fisheries to be made.
- The uptake rates of selective gears could be potentially accelerated by incentivising their use with additional quota.
- Negative industry attitudes towards the landing obligation across all case studies point to the necessity to find workable discard reduction plans at regional level. The evolving regionalisation process which now incorporates technical measures, multi-annual plans, discard plans and in some cases bycatch reduction plans may provide the necessary framework to overcome industry fears particularly regarding choke closures.
- Reduced uncertainty regarding the use of measures such as inter-species flexibility and its effect on relative stability would assist with mitigating potential chokes.
- The need for effective monitoring and control of the landing obligation is clear. Calls for the use of electronic monitoring as the solution will also require some degree of industry acceptance for this to be viable. Implementing an electronic monitoring approach either on a risk basis or as part of a wider results-based management approach could make this a more feasible option.

9.2. MINOUW

MINOUW was also a 4-year H2020 funded research project which aimed to encourage the adoption of fishing technologies and practices that reduce unwanted catches and contribute to the eventual elimination of discards in European fisheries. The project completed its work in 2019 with several policy recommendations summarised below:

1. TECHNICAL MEASURES TO INCREASE SELECTIVITY

To avoid unwanted catches and to increase survivability of released fish Member States should promote:

- the adoption of T90 mesh panels in trawl fishery
- the use of selective grid in trawl fishery;
- the introduction of guarding nets in small scale fishery set nets,
- the adoption of high-survival rate slipping techniques in purse seine fisheries
- measures to encourage adoption of low impact gears

Member states should not focus on exemptions when drafting Discard Management Plans or Multi-Annual Plans, but promote:

- the development and wide adoption of technical solutions to increase selectivity
- the exclusion of fishing activities in areas showing high probabilities of unwanted catches, including the establishment of zones for the recovery of fish stocks in spawning sites and areas with a high frequency of juveniles.
- preferential access to vessels using more selective gears.

2. SUPPORT OF EMFF TO REDUCE UNWANTED CATCHES

To achieve a significant reduction in unwanted catches Member States should promote EMFF funding opportunities to support:

- the collection and management of data on discards

- the adoption of selective gears;
- studies/pilot projects to test and to improve gears selectivity
- the dissemination of knowledge/state of the art on how to reduce unwanted catches.

3. HANDLING OF DISCARDS AND ILLEGAL MARKET

Support measures such as waste reception and management facilities should be provided to discourage illegal discards at sea (post 1st January 2019) and the commercialization of unwanted catches on the illegal market. Controls to discourage the establishment of a lucrative market of undersized fish should include monitoring distribution chains and education campaigns.

4. DE MINIMIS AND HIGH SURVIVABILITY EXEMPTIONS AND SURVIVAL RATES BASED ON SCIENTIFIC EVIDENCE

De minimis exemptions should be based on scientific evidence and only be granted when Member States demonstrate that efforts have been deployed to improve fishing gear selectivity and that further selectivity development would come with disproportionate costs (e.g. discards handling time). Similarly, high survivability exemptions be strictly based on scientifically validated post-release survival estimates.

5. FISHING MONITORING

The lack of reliable data and information on the levels of discards in different fisheries is an important obstacle to overcome by (i) effectively monitoring stock states and (ii) thus to identify and implement policies and measures aimed at minimizing unwanted catches. It is therefore particularly important to strengthen control, surveillance and scientific monitoring of Landing Obligation to collect reliable data on discards and evaluate adequately the effectiveness of the adopted measures to reduce discards.

10. EP HEARINGS AND SUPPORTING ANALYSES

10.1. EP hearings

The European Parliament's PECH Committee held two hearings on the Landing Obligation in 2019 in February¹⁰ and December¹¹. They provided an assessment of implementation of the landing obligation from the perspective of industry representatives and fisheries scientists. The overarching message from the industry emanating from this hearing was unanimous rejection of the policy. The objectives remain unclear, and a lack of consistency in the implementation of the rules across Member States. This has consistently been the industry's position since the landing obligation was first introduced. The consensus is that the focus should be on improving selectivity to reduce discarding rather than the landing obligation, which they claim is unworkable. The risk of choke species leading to early closure of fisheries was highlighted consistently as the biggest potential issue for fishermen. There were also calls to reduce the number of stocks covered by the landing obligation and to exempt small-scale fisheries given the specific difficulties faced by inshore vessels in complying with the landing obligation.

The impression of scientists was that despite the landing obligation being in place since 2014 implementation has been limited and there is little evidence of behavioural change in European fisheries. There is agreement that the policy is unpopular and unclear and that this has hindered compliance as the landing obligation has no credibility amongst fishermen. Control and enforcement

¹⁰ <https://www.europarl.europa.eu/committees/en/public-hearing-on-first-assessment-of-im/product-details/20190205CHE05861>

¹¹ <https://www.europarl.europa.eu/committees/en/hearing-state-of-play-of-the-landing-obl/product-details/20191119CHE06542>

has been limited, and the existing control tools are insufficient to properly monitor the landing obligation. Additionally, TACs have been increased and exemptions have been given but discarding has continued. This is contrary to the MSY objective in the CFP. Possible ways to improve selectivity were highlighted and while these were felt to be effective, uptake by the fishing industry remain limited.

10.2. Supporting Analyses

Since 2016, the European Parliament's Policy Department has published six separate studies on the implementation of landing obligation as follows:

- The discard ban and the landing obligation in the Western- Mediterranean Sea - The Italian case¹² (2018)
- The discard ban and the landing obligation in the Western- Mediterranean Sea - The Spanish case¹³ (2018)
- Landing obligation and choke species in mixed fisheries - North Sea¹⁴/North-Western Waters¹⁵/South-Western Waters¹⁶ (2018)
- The discard ban and its impact on the MSY objective - The Bay of Biscay case/The Baltic Sea/The North Sea (2016)
- The discard ban and its impact on the Maximum Sustainable Yield objective on fisheries¹⁷ (2016)
- Options of handling choke species in view of the EU landing obligation - the Baltic plaice example¹⁸ (2015)
- The Landing Obligation and its Implications on the Control of Fisheries¹⁹ (2015)

While these studies report on specific case studies from fisheries in different sea basins, the overarching conclusions are the same and largely concur with the findings of the EP hearings and the annual reports from the Member States. These can be summarised as follows:

- The landing obligation and catch quotas should provide incentives for change in the fisheries, including adaptation through taking up selective gears and spatiotemporal effort reallocation, but also quota redistribution within and between member states (swapping). However, these incentives have not materialised due to a lack of enforcement. Without adequate control the incentive to discard remains.
- The issue of choke species continues to be highlighted by Member States and the Advisory Councils as the biggest single problem in implementing the landing obligation. Analyses carried out in the different sea basins indicate the tools available will not be able to mitigate fully mitigate the risk of choke species, even though the actual instances of choke species are still limited to a few cases.
- There is no evidence that quota swapping patterns have changed since the introduction of the landing obligation, contrary to what had been anticipated that quota swapping would become more dynamic under the landing obligation.
- There have not been major consequences of the landing obligation regulation for fishermen in the Mediterranean, mainly because of the use of the “high survivability” and “de minimis” exemptions.

¹² [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/629178/IPOL_STU\(2018\)629178_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/629178/IPOL_STU(2018)629178_EN.pdf)

¹³ [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/629179/IPOL_STU\(2018\)629179_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/629179/IPOL_STU(2018)629179_EN.pdf)

¹⁴ [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617471/IPOL_STU\(2018\)617471_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617471/IPOL_STU(2018)617471_EN.pdf)

¹⁵ [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617472/IPOL_STU\(2018\)617472_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617472/IPOL_STU(2018)617472_EN.pdf)

¹⁶ [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617473/IPOL_STU\(2018\)617473_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617473/IPOL_STU(2018)617473_EN.pdf)

¹⁷ [https://www.europarl.europa.eu/RegData/etudes/STUD/2016/573440/IPOL_STU\(2016\)573440_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2016/573440/IPOL_STU(2016)573440_EN.pdf)

¹⁸ [https://www.europarl.europa.eu/RegData/etudes/STUD/2015/563399/IPOL_STU\(2015\)563399_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/563399/IPOL_STU(2015)563399_EN.pdf)

¹⁹ [https://www.europarl.europa.eu/RegData/etudes/STUD/2015/563381/IPOL_STU\(2015\)563381_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/563381/IPOL_STU(2015)563381_EN.pdf)

- Possible drawbacks of the landing obligation highlighted for Mediterranean fisheries are linked to the increase of the work on board leading to an increase in the number of employees; and there is a lack of an appropriate governance process to handle unwanted catches once landed.
- The landing obligation is expected to have a negative short-term effect on the economic performance on affected fleets/fisheries, hinder the achievement of FMSY, but has the potential to improve exploitation patterns in the medium to longer term. However, to date there is no evidence of economic effects or widespread improvements in exploitation patterns because of the landing obligation. There are indications that fishing mortality has increased for some stocks due to quota uplifts allocated to take account of catches that were previously discarded,
- While there are potential new uses, potential new markets and potential for existing market expansion for the newly landed fish (and evidence of commercial and investment interest in these opportunities) there are some challenges for commercial development. These challenges mainly relate to the small quantities of unwanted catches that are being landed. This has created a reluctance to invest in new facilities/opportunities to handle unwanted catches with continued uncertainty over the quantities of such catches that will be available in the future.

11. SUBMISSION FROM CLIENTEARTH

The NGO, ClientEarth sent a response to the Commission's 2019 questionnaire. This followed from the Commission's request for input to the North Sea and North Western Waters Advisory Councils. This response was largely based on the findings of a recent series of reports about the control of the landing obligation in three Member States (France, Denmark and Spain). Information for 2019 is limited in the report, and the submission principally provides information over the period 2017 to early 2019.

The main findings reported by ClientEarth are as follows:

- Considering the large number of exemptions, it is crucial that fishermen, and subsequently the competent authorities, accurately report catches and discards.
- The competent authorities in all Member States had the legal obligation to ensure that fishers using the electronic logbook could report all their catches. However, according to ClientEarth this has not happened across the board.
- There does not appear to be a separate code in the logbooks for discards under the exemptions for predator-damaged catches or based on high survival, respectively, raising the question whether or how fishermen have to date been recording such discards.
- ClientEarth has legitimate concerns about the comprehensiveness and accuracy of data collection on total catches (including discards), which are crucial prerequisites for reliable stock assessments and the resulting scientific advice and catch limits.
- The lack of progress made last year by the regional North Western Waters Member State group regarding the development of effective bycatch reduction plans and the implementation of adequate control and monitoring measures to ensure that bycatch TACs adopted last year for five vulnerable stocks with 0-catch advice are not exceeded is another key concern.
- Based on the three case studies conducted by ClientEarth regarding control of the landing obligation in France, Denmark and Spain, the Commission as the 'Guardian of the Treaties' has not taken sufficient steps to ensure that Member States comply with the landing obligation.
- The Commission has proposed, and the Council adopted increased Total Allowable Catches (TAC) that presumed that no unaccounted discards would take place. This assumption has been contradicted by the Commission itself, which noted a consensus among actors in fisheries control, that traditional

means of control, such as inspections at sea and aerial surveillance, are not effective to monitor the Landing Obligation

12. MAIN CONCLUSIONS

The following sections summarise the key points from the different sea basins.

12.1. NWW

NWW Member States continue to report new measures and studies to implement the landing obligation. While the level of new studies in 2019 varies across the Member States further progress on both knowledge about selectivity and uptake of more selective gears is being made, albeit slowly. Regulatory changes in some fisheries requiring the use of more selective gear may contribute to improvement in selective gear uptake also. The long time required to achieve improved uptake of new gears and associated selectivity improvements is a recurring theme in Member States' reports. In addition to collecting information on selective gear uptake an analysis of barriers to uptake would provide useful context for understanding uptake rates. Understanding which factor, whether it might be the cost of new gear, potential economic losses or usability of new gears was the most significant barrier to uptake for fishers would inform strategies to improve the situation.

There are continued developments in the number of both de minimis and high survivability exemptions across all Member States. Adjustments of national quota management procedures as an element of landing obligation implementation are also a feature of the 2019 reports.

Although again this year there are some new studies on potential utilisation options for unwanted catch very little progress appears to have been made in practice as the same low value utilisation options are being availed of as have been reported in previous years.

All Member States are working with the fishing industry and Advisory Councils to ensure that information on the landing obligation is well understood and communicated. Industry views on the landing obligation are still focused on potential choke problems although across the region only four fisheries were reported to have faced choke related early closures.

This year's reports continue the trend of increasing concerns regarding compliance with the landing obligation. This issue may be the most significant barrier to an integrated approach across the NWW region as it appears from the Member State reports that views on REM solutions and whether they should incorporate CCTV are not shared. Some Member States (Netherlands) are more enthusiastic in their support for the use of such tools while others (Ireland, Spain) point to potential difficulties regarding their use. Some Member States (France, Ireland, Netherlands) favour the use of measures such as last haul and risk-based approaches.

The findings from the EFCA evaluations and the submission from Client Earth highlight low levels of compliance with the landing obligation in both pelagic and demersal fisheries in NWW waters and EFCA's stated view that traditional monitoring techniques are insufficient to detect infringements supports the view of some Member States (Ireland, Netherlands) that new control approaches are required.

Assessing progress in implementation of the landing obligation is complicated by inconsistent approaches to the reporting of several variables. Data for variables such as volumes of <mcrs fish, de minimis quantities and the proportion of overall de minimis allowances, detailed breakdown of use of last haul inspections all suffer from patchy, partial or inconsistent reporting.

12.2. SWW

While there have been genuine attempts by Member States (France, Portugal, Spain), based on the reports received, there is still widespread opposition to the policy at industry level. The SWWAC (industry representatives) reports that the landing obligation has had negative economic, social and environmental impacts for fisheries in SWW. They cite the examples of the 2019 mackerel fishery in Spain and difficulties in allocating quotas for mackerel and horse mackerel in demersal fisheries in France. These factors have resulted in choke situations in SWW fisheries although this is not supported by the reports from Member States, who reported only one actual choke situation for bigeye tuna. The AC also identify issues with obtaining funding to carry out research work, particularly in carrying out work to support exemptions under the landing obligation. They indicate additional exemptions are required to cover other stocks and fisheries but that it is impossible to provide supporting information. The SWWAC highlights additional costs for handling unwanted catches as a problem although provide no quantitative data to support this assertion. They suggest a radical overhaul of the landing obligation with less species covered and artisanal vessels exempted. Several Member States (France, Portugal, Spain) express a similar perspective and point to difficulties in implementing in the policy. These views were brought out by industry representatives from SWW in the various European Parliament hearings that took place in 2019.

Most Member States (France, Portugal, Spain) have made significant efforts in 2019 to improve monitoring and reporting as well as making further adaptations to their respective quota management systems to mitigate against the risk of choke species. As in 2018 there was an encouraging increase in the reporting of de minimis use and this now needs to be supported by assurance procedures that show the information is reasonably reliable, if still an under estimate. Reporting of landings of unwanted catches under mcrs has also been improved by most Member States. The levels reported remain very low compared to catches and indicate that likely illegal discarding is continuing. Increased emphasis on all the quantitative reporting requirements particularly around below mcrs landings is necessary.

Recognising the efforts made by Member States in SWW, as in other regions there is still a reliance on existing control and monitoring tools with, other than one Member State (France), any appetite to adopt new technologies. The number of reported infringements remains very low across Member States (Belgium and France report no infringements). Use of EMFF funding to support implementation remains limited mainly to funding studies to support exemptions either in the form of selectivity experiments or sampling programmes. These are vital to avoid choke situations in SWW.

12.3. North Sea

The lack of reports from several Member States (Sweden and the UK) in the North Sea means only a partial picture is available for 2019. From the reports received, as with other sea basins, there is a general reluctance from the fishing industry to comply fully with the landing obligation remains. Despite the considerable efforts by some Member States (Denmark, Germany, Netherlands), reporting of catches discarded under exemptions remains highly variable and landings of fish below mcrs are well below levels that would be reasonably expected. This is evidenced by ICES, through analysis of observer data used for stock assessment purposes and by EFCA, through the last-haul analyses carried out across sea basins.

A risk-based approach to control and the use of last haul analysis is now routinely used in the North Sea. Trials with control and monitoring tools such as REM systems with CCTV have continued in the North Sea to assess their application in implementing the landing obligation, but the use of such tools has still not progressed past the experimental phase. One Member State (Netherlands) pointed out that the adoption of such control tools is restricted by the lack of consistency across Member States. They point for the need for common standards and procedures to ensure a level playing field.

The level of testing of selective gears has slowed significantly in the North Sea and the focus has moved more on providing information to support exemptions. Survivability work on plaice and skates and rays as in

other regions in a priority in the North Sea, given the choke risks associated with these species. Member States report that exemptions, combined with improved quota management systems have resulted in only limited choke issues. Despite this, identifying potential choke species and the impacts of these species on North Sea fisheries remains a priority for Member States in the North Sea.

The Scheveningen group in North Sea has continued to consult the NSAC and PELAC. While they indicate this has been useful, they point to the issues surrounding the lack of consensus advice from the AC, limiting the value of the advice provided.

Awareness raising, and training have continued across North Sea Member States, while most Member States in the North Sea have been pro-active in allocating funding to help with the implementation of the landing obligation although funding for infrastructure projects to handle unwanted catches has been limited as in other regions.

12.4. Baltic

Relatively few new measures and studies related to implementation of the landing obligation are reported in 2019 by Baltic Member States which may be because several reports stress that the landing obligation does not present a significant challenge due to the relative lack of complexity of Baltic fisheries. Only one Member State (Germany) reports on new selectivity studies and the pace of uptake of selective gears also appears to be slow. The long time required to achieve improved uptake of new gears and associated selectivity improvements is mentioned but emergency measures related to Baltic Cod may accelerate uptake of more selective gear. However, fishing industry representatives in the Baltic point to regulatory barriers to the use of more selective gear which require addressing. This points to the need for an analysis of barriers when collecting information on selective gear uptake would provide useful context for understanding uptake rates. Understanding which factor, whether it might be the cost of new gear, potential economic losses or usability of new gears was the most significant barrier to uptake for fishers would inform strategies to improve the situation.

Only minor changes to quota management arrangements are reported for 2019 in the Baltic with one Member State (Denmark) introducing an overshoot quota. Also, one Member State (Germany) has commissioned a new study on potential utilisation options for unwanted catch but as in other regions very little progress appears to have been made in practice as the same low value utilisation options are being availed of as have been reported in previous years. Continuing issues with small quantities of unwanted catch spread across wide areas are hampering the development of new utilisation options.

As in other regions concerns regarding compliance with the landing obligation are a significant issue for several Member States (Denmark, Finland, Germany). Difficulties with traditional fisheries monitoring tools and the lack of a level playing pitch are described as major barriers to landing obligation implementation. As in other regions support for the use of REM without CCTV as a control tool is not universal across all Member States in the region. However, reported improvements in compliance due to the use of an automated follow up to last haul inspections may point to a more universally acceptable approach as all Member States report the use of Last Haul inspections as an element of their control efforts.

The identification by EFCA of the trawl fishery using 105mm mesh or higher for Cod in the Western Baltic as very high risk and EFCA's stated view that traditional monitoring techniques are insufficient to detect infringements supports the view of some Member States that new control approaches are required.

As in other regions assessing progress in implementation of the landing obligation is complicated by inconsistent approaches to the reporting of several variables. Data for variables such as volumes of <mcrs fish and detailed breakdown of use of last haul inspections all suffer from patchy, partial or inconsistent reporting.

12.5. Mediterranean

The conclusions for the Mediterranean do not change in 2019. As in 2018, the landing obligation appears to have had little impact on fisheries in the Mediterranean. Both Member States and the MEDAC report no difficulties in implementation. This is predicated on the current *de minimis* and survivability exemptions remaining in place. Member States and the MEDAC stress the importance of maintaining these exemptions to minimise impacts in the future. Very few Member States (apart from France and Spain) report additional studies or trials to support implementation and there is limited evidence of new control and monitoring measures, other than the widespread use of the last-haul analysis.

Only a few infringements have been reported mainly for illegal selling of fish below the mcrs for human consumption. Several Member States (France and Spain) continue to highlight this is a problem unique to the Mediterranean and propose that the Regulation should be changed to allow the selling of undersized fish for charitable purposes. There continues to be limited use of EMFF funding to support implementation although the research institutes of many Member States have been involved in the H2020 funded DISCARDLESS and MINOUW projects.

12.6. Black Sea

The conclusions for the Black Sea have not change in 2019. Based on the report from one of the two Member States (Romania) operating in the Black Sea, there is clear evidence that the landing obligation has had little or no impact on fisheries in the Black Sea. Very limited specific actions or measures have been taken in this sea basin, other than new monitoring requirements for vessels under 10m.

13. SPECIFIC GAPS OR WEAKNESSES

As in 2017 and 2018, specific gaps and weaknesses have been identified in 2019 based on the Member States reports and other sources of information reviewed. Many of these re-iterate gaps and weaknesses identified in earlier years. These are mainly related to a continued lack of acceptance by the fishing industry and some Member States. There are also continuing implementation and operational issues. Weaknesses in the reporting process remain. These issues are split into ones that require intervention by DGMARE and others that require action by Member States/Regional Groups, the fishing industry, Advisory Councils and for ICES.

13.1. DGMARE

- It is apparent that the questionnaire continues to help structure the responses provided by Member States compared to the first year covered by reports (2015). While the quality of the information provided by most Member States improved in 2019, unfortunately, the responses still lack consistency. Two Member States have not reported at all for several years, while at least four others have reported sporadically. Efforts to remind them of their responsibilities remain necessary.
- As identified in the reports from 2016, 2017 and 2018, the responses based on the questionnaire do not provide a full picture of the progress towards effective implementation of the landing obligation. For Member States to provide harmonised and useful reports, as STECF PLEN 19-01 identified, it is necessary for DGMARE to reconsider the utility of some aspects of the questionnaire. For example, Member States have not reported at all on elements relating to safety at sea and in only a limited manner on the socioeconomic impacts of the landing obligation. Focus should be on developing a new template more adapted to the critical information needs and to the ability to provide that information. Specific templates for the supply of *de minimis* and below mcrs catches would be beneficial.

Consideration should be given by DGMARE to a socioeconomic impact assessment of the landing obligation following 5 years of implementation.

- As is apparent from the reports from Member States, supported by information from ICES, critical for the success of the landing obligation is achieving assurance that all catches are accounted for. This continues to be a serious weakness and there is still considerable uncertainty about what is happening at sea. There is evidence that illegal discarding (supported by EFCA and ClientEarth reports) is occurring and the quality of catch information available to ICES has deteriorated. There are emerging control and monitoring technologies available and it is suggested that DGMARE, working with EFCA and the Member States, be more proactive in promoting these and fast-tracking their mandatory use.
- As in 2018, the reports indicate that most Member States have embraced a risk-based approach to control. There is also widespread acceptance of the last haul analysis as a means of cross-checking logbook information and shore-based inspections. However, there remains an over reliance on existing control tools and a reluctance to use new technologies (REM, CCTV and drones). Combined, these would improve the monitoring process and provide vastly improved catch data. Concerns over transparency and the creation of a “level playing field” remain amongst Member States. DG MARE should try to address these concerns and to demonstrate the benefits to stakeholders of an even-handed approach in the full implementation of the landing obligation.
- Based on the information provided in the Member States reports, it is currently impossible to identify whether discard rates have reduced in specific fleets or fisheries. The ICES advice from 2019 for 2020 show that there are significant discrepancies in the level of unwanted catch recorded in logbooks compared to the levels observed by at-sea observers. This highlights again the general issue that for fisheries under exemptions only limited information is available to provide discard information based on observer programmes. According to STECF 19-11, DCF national sampling programmes provide information in a much wider context and are not designed to provide information for each exemption even if a Member States has only a small amount of catches under a certain exemption. DGMARE should work with Member States, ICES and STECF to assess how this issue can be addressed and the quality of information can be improved to allow assessment of the implementation of the landing obligation.
- There have been multiple changes to technical measures regulations in 2019 and for 2020 in several sea basins. These have been introduced through the new technical measures framework regulation (Regulation (EU) 2019/1241), the regional discard plans and in the case of NWW through the Fishing Opportunities Regulation (Regulation (EU) 2020/123). While these regulatory changes are well intentioned and warranted, the manner in which they have been introduced has not been well received by the fishing industry. Technical measures have been introduced and then changed before fishermen have had time to adapt. There is confusion in the regulations that apply and inconsistencies creating regulatory uncertainty. It is suggested DGMARE should seek to clarify the regulations that apply and avoid further changes to technical measures unless the state of stocks make it necessary to provide a degree of stability and allow time to assess the impacts of the measures introduced.

13.2. Member States/Regional Groups

- As identified by STECF PLEN 19-01, feedback on the progress at sea basin level is critical to understanding how effective the implementation of the landing obligation has been and what adjustments are necessary. It is evident from the 2019 reports that there has still been no cooperation between Member States at sea basin level in completing the questionnaire. A co-ordinated approach to reporting at the regional level would help to avoid the large amount of repetition that continues to appear in the submitted questionnaires. Not only would this simplify the reporting process for

Member States and for the Commission, but it might help to ensure that all Member States were involved in the response process to the Commission.

- Reports for 2019 continue to show that most Member States have put increased efforts into the control and monitoring of the landing obligation. However, as identified by ICES and others, the level of confidence in catch reporting remains low. Observer coverage has not increased in several Member States, although equally there is no evidence of coverage having diminished substantially during 2019. There is little uptake in the use of control tools such as REM and there is a reliance on existing control and monitoring techniques to enforce the landing obligation. The regional groups set-up in the different sea basins have established Expert Control Groups but there seems little evidence that Member States have followed the advice of these Groups. It would be beneficial if the Member States considered and adopted the recommendations from the Control Expert Groups at a regional level. It would also be useful for Member States to collate the various sources of monitoring and sampling at the Regional level to see if this provided a more complete picture of the effectiveness of the landing obligation at the regional level.
- Despite better reporting of catches discarded under exemptions and landings of catches below mcrs, evidenced by the Member States reports for 2019, it is extremely doubtful that they reflect the true quantities being caught. Observer data as identified by ICES and last haul analysis as reported by EFCA indicate large discrepancies between what is reported and what is observed. Member States should ramp up efforts to ensure better reporting of such catches. Until there is sufficient confidence that all the catch has been accurately accounted for, uncertainty will remain. The fact that such a high proportion of onboard fishing operations take place without scrutiny remains a serious issue for successful implementation of the landing obligation.
- The level of testing of selective gears declined significantly in 2019 and uptake of selective gears remains low other than when introduced through legislation. Regional groups have tended to focus on developing cases for de minimis or survivability exemptions rather than improvements in selectivity. Member States should carefully consider the introduction of relevant technical measures that would help to improve selectivity. Member States should also encourage better recording of selective gears being used either through fishing authorisations or reporting in the logbook. Without a consistent means of differentiating which gears are being used, it is difficult to assess the impacts of using such gears and identify which gears are most effective.
- Member States remained slow to use all the exemptions and flexibility tools available to them to implement the landing obligation in 2019. It is evident that few Member States have used the inter-species quota flexibility mechanism. Member States appear to recognise that this carries risks of elevated mortality rates and still view it as a last resort approach. Member States should continue efforts to agree on a consolidated approach to using this flexibility or else unilaterally agree not to use it under any circumstance.
- The 2019 reports show a lack of assessment of the socioeconomic impacts of the landing obligation. Several Member States and some of the ACs claim that the landing obligation has had negative economic, social and environmental impacts for fisheries, but this remains largely unsubstantiated. Member States should coordinate efforts through the regional groups to assess the true impacts to date and the likely impacts going forward to inform future direction of the policy.

13.3. Fishing industry

- Most Member States' reports indicate that, as in 2017 and 2018, there is still widespread opposition towards the landing obligation from many fishermen. There is little evidence of behavioural change, even with full implementation of the landing obligation in 2019. Proper implementation of the landing

obligation will require a change in the operational approach taken by fishermen and strong industry leadership combined with collaborative work within the ACs would be very beneficial.

- As indicated a lack of reporting by fishermen of fish discarded under exemptions and catches of fish below mcrs is creating uncertainty in the provision of scientific advice. As indicated by ICES, inaccurate or incomplete catch data compromises the provision of scientific advice on stock abundance and status. This increasing uncertainty will result in more precautionary advice and as has been the case for some stocks in 2019 leading to large decreases in fishing opportunities. Industry representatives should stress that it is in the fishermen's best interests to accurately record such catches and increase efforts to reduce any unwanted components of their catch.
- There continues to be very little information provided on the outcomes arising from specific actions such as the proportions of vessels utilising new gears or the extent to which de minimis exemptions are utilised. The fishing industry should routinely record selective gears being used in the logbook. This would help to differentiate which gears are being used and allow easier assessment of the impacts of using such gears.

13.4. Advisory Councils

- Other than the SWWAC, the Advisory Councils in 2019 provided only limited information on implementation or impacts of the landing obligation. It has been restricted to communications and advisory letters on specific issues of most concern to them. There is also a lack of advice agreed by consensus. Differing positions have been put forward by NGOs and industry groups within the AC and this has limited the value of the advice provided as there is no consensus opinion.

13.5. ICES

- High survival exemptions are in place for several stocks such as *Nephrops*, plaice and skates and rays. These are based on the results of survivability studies. However, ICES is not using these survival rates in their assessments and are continuing to use historic discard survival rates. For these stocks, ICES should evaluate the observed survival rates generated in the supporting studies and where relevant incorporate these into future stocks assessments.

ANNEX I SUMMARY OF INDIVIDUAL MEMBER STATES' REPORTS

To be updated

Belgium

Steps taken to comply with the landing obligation:

2016 Belgium has not initiated any measures involving spatial or temporal closures to avoid unwanted catch except a 'moving on' policy for fish discarded under de minimis exemptions. Although 'choke' problems have been experienced first-hand through fishery closures, there appears to have been no strategic efforts to understand or mitigate the problem.

Belgium makes use of exemption provisions and cited background work, reviewed by STECF in support of this. The proportion of the de minimis total was provided (8-31%) but no detail was offered on the reliability of these figures. Belgium has continued to participate in the regional coordination process involving ACs and has disseminated information to fishermen but does not appear to have initiated any additional processes to encourage compliance.

2017. Limited changes compared to previous report. Belgium participated in development of choke mitigation tool. Proportion of de minimis used was 9-44%.

2018. Some changes compared to previous report. Notes choke problem in 3 targeted sole fisheries. Reports on high survival observations and an exemption with requirement to use a 'flip up rope' or benthic panel. Proportion of de minimis used was 7-21%.

2019. Very few changes compared to previous reports. Report 3 choke closures of targeted sole fisheries which were flagged as a potential issue in the 2018 report. Regarding a high survival exemption for plaice and turbot in beam trawlers using certain gears new information is scheduled to be sent by May 2020 to extend the exemption.

Steps taken by Member States to enforce the landing obligation:

2016. Belgium authorities have notified industry of what is expected of them and used reminders and oral warnings during inspections. Little information or specific training was provided to inspectors, apart from an EFCA seminar. No new control tools have been developed and Belgium does not appear to be fully monitoring landings of below mcrs fish. Compliance is said to be risk-based but no detail is provided. A limited number of 'last-haul' analyses have been carried out.

2017. Limited changes compared to previous report. Last haul analysis in southern North Sea sole fishery reported.

2018. No substantive change to previous reports – Belgium notes the difficulty of combining 'last haul' sampling with routine inspections. No detail provided.

2019. Limited change from previous reports – some oral warnings were reported based on inspections at sea, information on reporting obligations was provided to fishers based on circulars. There was limited use and analysis of last haul sampling. Lack of supporting detail.

Information on the socio-economic impact of the landing obligation:

2016. No detail was offered on socio-economic effects, but a study has apparently been launched.

2017. No change compared to previous report. Still no results from study.

2018. No change compared to previous report. Still no results from study.

2019. No change compared to previous report. Still no results from study.

Information on the impact of the landing obligation on on-board safety:

2016. Belgium indicated that no information was available on the impact of the landing obligation on safety. No changes to safety legislation were noted and no funding to ameliorate problems has been provided.

2017. Limited changes compared to previous report. 6 EMFF projects but not linked to the Landing Obligation.

2018. No change compared to previous report.

2019. No new information. €5.8m EMFF funding is mentioned which is not directly relevant to the landing obligation but should contribute to landing obligation objectives.

Information on opportunities for processing catches smaller than the MCRS:

2016. Early indications are that landings of fish below mcrs have been low and were used for animal feed and fishmeal - other potential uses are not being investigated. There is doubt whether the quantities landed represent the quantities of fish below mcrs being caught.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No new information compared to previous reports.

Information on port infrastructures and vessel modifications :

2016. Provision of funds for modification or adaptations has been limited to 2 grants unrelated to the landing obligation. It is not clear whether this is down to a lack of resources being provided or a lack of interest from the industry.

2017. Funding approved for survival experiments and reference made to earlier multi-annual study.

2018. Some change compared to previous report. 6 investment projects concerned with switching to *Nephrops* and shrimp fishing. Several other Article 43 and Article 68 projects approved but not linked to the landing obligation.

2019. No new information compared to previous reports.

Information on the difficulties encountered and recommendations made-:

2016. Several difficulties are listed by Belgium. The most significant is the industries' reluctance to implement the landing obligation. From the questionnaire it is not clear how much effort has gone into assisting the industry to make any changes – many of the responses suggest that more could be done. Several difficulties cited involve issues around recording information and the time taken to investigate selectivity measures or other alternatives. Again, it is not clear how much effort is going into assisting with these problems and the apparent absence of providing funds may be indicative of the problem.

2017. No substantive change compared to previous report. De minimis and BMS considered to be underreported. Appeal for a comprehensive solution to choke problem but no constructive solutions offered.

2018. No substantive change compared to previous report. Reiterated occurrence of choke situations in 2018.

2019. Difficulties in enforcing exemptions and discarding behaviours overall are reported. The slow pace of realising selectivity improvements is noted.

Concluding remarks:

2016. Overall, it appears that the basic requirements of the landing obligation have been disseminated to the Belgian industry but that only a limited amount has been done to assist it during the

implementation of the landing obligation. Very little detail is provided on monitoring and compliance and no comments were made about what might be happening at sea or how to monitor discards at sea.

2017. Overall there were limited changes compared to the previous report. Belgium has contributed to some of the Regional activities such as the analysis of choke species.

2018. Limited change compared to previous report. Reports of chokes, the use of a survival exemption and some directed EMFF funding were the main changes. Very little quantitative detail and admission that little is known about discarding activity.

2019. Limited change compared to previous report. Three reports of choke closures (sole), and some quantification of *de minimis* discarding but overall very little quantitative detail provided.

Bulgaria

Steps taken to comply with the landing obligation:

2016. Bulgaria has not initiated any measures involving spatial or temporal movement to avoid unwanted catch, has not adjusted its quota management system and has not investigated the potential for choke situations. The only measure pursued by the authorities was a high survival exemption for turbot in the Black Sea. This was supported by scientific opinion to STECF, but no direct evidence was produced. Other exemptions (*de minimis*) and flexibilities have not been used. The authorities have consulted with stakeholders and with Romania (although the Black Sea AC did not formally exist at the time) and have undertaken to ensure fishermen understand their obligations.

2017. Limited change compared to previous report. A study conducted within the *Rapana venosa* discard project to evaluate beam trawling impacts on juvenile turbot and picked dogfish. 6 out of 58 vessels involved in study, turbot mean, and maximum incidental catch rate was 0.32% and 4.44% respectively.

2018. No substantive change compared to previous report. Incidental catch rate of turbot in the *Rapana* fishery and the number of licensed vessels was updated (but no major change). Note that skippers required to sign that they are aware of landing obligation.

2019. No report provided.

Steps taken by Member States to enforce the landing obligation:

2016. The industry has been informed through the EFCA webpage and inspectors have been trained through seminars. No new control measures have been introduced. Monitoring for fish below mcrs has taken place and a meeting with EFCA on risk-based sampling took place but no information was supplied of the outcomes.

2017. Changes compared to previous report include more detail on the approach to monitoring below mcrs and the implementation of a risk-based approach to monitoring. However, much of this relates to a National fisheries control plan for 2018 and no data for 2017 were presented

2018. No substantive change compared to previous report. Additional awareness meetings for fishermen and training sessions for inspectors were organised. No detail on quantities of below MCRS catches.

2019. xyz

Information on the socio-economic impact of the landing obligation:

2016. No information provided.

2017. Limited change compared to previous report. Some speculation on likely negative impacts affecting mainly catching sector but no studies presented.

2018. No change compared to previous report.

2019. xyz

Information on the impact of the landing obligation on on-board safety:

2016. No reports of safety issues were identified and no provisions to assist with safety issues were made.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. xyz

Information on opportunities for processing catches smaller than the MCRS:

2016. Information on catches of fish below mcrcs have not been quantified and no studies to investigate potential uses have taken place.

2017. Limited change compared to previous report. States that no below mcrcs catches reported but no quantification of observation rate. Offers some general options for using below mcrcs material.

2018. No change compared to previous report.

2019. xyz

Information on port infrastructures and vessel modifications:

2016. Funding has not been made available for modifications of any kind that might be beneficial in implementing the landing obligation.

2017. No change from previous report.

2018. No change compared to previous report.

2019. xyz

Information on the difficulties encountered and recommendations made:

2016. None identified

2017. Change from previous report. Identifies difficulties with handling, storage and processing of unwanted catches and with lack of understanding or awareness of rules but no detail is offered on specific problems in Bulgaria.

2018. No change compared to previous report.

2019. xyz

Clarification related to control and enforcement.

2017 Effective control and enforcement of the landing obligation at sea and the accurate documentation of all catches, including quantities discarded is ensured using amendments to logbooks, provision of guidelines for filling in logbooks, and use of website to raise awareness and ongoing training of inspectors. No infringements were detected.

2018. No change compared to previous report.

2019. xyz

Concluding remarks:

2016. This report contained very little information with which to ascertain real progress towards implementing the landing obligation. Activity appears to have been limited to obtaining a high survival

exemption and ensuring basic information on landing obligation requirements was made available to fishermen and inspectors. No quantitative information was offered, and no comment was provided on operations at sea and whether observers were able to monitor catches.

2017. Limited changes compared to previous conclusions. Some additional material on studies undertaken and on new control plans but no quantitative information was offered only statements that there were no reports of below mcrs material.

2018. No substantive change compared to previous report.

2019. xyz

Croatia

Steps taken to comply with the landing obligation:

2016. Croatia has a spatial-temporal arrangement in place which is designed to limit catches of unwanted fish in the small pelagic fisheries for anchovy and sardine. This applies to 186 larger vessels (>12m) which represent 84% of the fleet segment catching anchovy and sardine and aims to enhance reproductive output for marketable fish. Quota management adjustment and choke issues are not relevant. A de minimis exemption of 5% is applied and scientific monitoring and according to the Croatian report the characteristics of the gear ensure that this is mostly not exceeded. Comparison of logbook data with observed catch is used to check adherence to the 5% rate and vessels are informed of the need to land all their catch if the rate is exceeded. Detailed information was provided on de minimis quantities suggesting rates < 0.1%. Croatia plays an active part in the MEDAC and has established a national group for implementation of the landing obligation. Communication within this group helps to ensure that fishermen are well informed and kept up to date with developments.

2017. No report provided.

2018. No report provided.

2019. No report provided.

Steps taken by Member States to enforce the landing obligation:

2016. Very little background information was provided. Fishermen are informed of the landing obligation requirements, but inspectors have apparently not been provided with guidelines. According to the report new control tools are being used, control is based on risk assessment and the last haul analyses have been carried out, but no detail is provided. No detail was provided on levels of catches below mcrs.

2017. No report.

2018. No report.

2019. No Report

Information on the socio-economic impact of the landing obligation:

2016. No information provided.

2017. No report

2018. No report

2019. No report

Information on the impact of the landing obligation on on-board safety:

2016. No impact and no additional information provided.

2017. No report

2018. No report

2019. No report

Information on opportunities for processing catches smaller than the MCRS:

2016. No information was offered on landings below mcrs and there have been no pilot studies on potential uses.

2017. No report

2018. No report

2019. No report

Information on port infrastructures and vessel modifications:

2016. No operations were selected under the various EMFF funding Articles and no further information was provided.

2017. No report

2018. No report

2019. No report

Information on the difficulties encountered and recommendations made:

2016. No information provided.

2017. No report

2018. No report

2019. No report.

Concluding remarks:

2016. The report presents Croatia's approach to the landing obligation with respect to its small pelagic fleet segment. Based on the information provided, it appears that a proactive approach has been used to engage fishermen and to develop appropriate measures avoid unwanted catch and to ensure that any unwanted material is detected. Early results suggest that de minimis quantities are small. Lack of detail on sampling and observer sampling prevents a fuller assessment of what is happening at sea and the reliability of the approach. Croatia has provided little information on other aspects related to the landing obligation but seems to suggest there has been virtually no impact.

2017. No report

2018. No report

2019. No report.

Cyprus

Steps taken to comply with the landing obligation:

2016. Cyprus has not initiated any spatial or temporal measures to avoid unwanted catches. Reference is made to a longstanding closed area for juveniles, but no information is offered on the extent to which this reduces catches of unwanted fish. Since in the Mediterranean only Bluefin tuna is managed by TACs, questions relating to quota management were not deemed applicable. Exemptions were pursued for some demersal de minimis cases and for fish damaged by predators. Data from the DCF and restricted opportunities for processing undersized fish in Cyprus were used to justify the de minimis cases. DCF observer sampling continues and is used to estimate that de minimis quantities are below the limit set – although no data were presented. Consultation with MEDAC and stakeholders

has taken place but in Cyprus most demersal vessels appear are not subject to the landing obligation currently.

2017. Limited changes compared to previous report. Details of 2017 de minimis arrangements provided and statement that discard rates are lower than de minimis but no data provided. Mention of 2018 small pelagic de minimis in GSA25 and the use of written and oral communication to inform the small number of vessels.

2018. No substantive change compared to previous report. Notes that de minimis was not utilised in 2018 since there was no small pelagic fishery and since vessels in the demersal fishery did not meet the criteria for being subject to the landing obligation. The report outlined MEDAC's role in the development of the 2018 joint recommendation.

2019. Cyprus will introduce an extension of the prohibited period for deploying trawls below 5m isobath, by two months (extension from the period 1 June – 30 September to 1 May- 31 October). This is not directly linked to the landing obligation but may have benefits. Cyprus has not carried out any studies investigating selective gears or avoidance measures. Information on catches discarded under exemptions has been collected under the DCF. Semi-quantitative data of the levels of these discards are provided in the form of percentage of de minimis used. The basis of the information provided is unclear. Assessment of the level of discards of species for which de minimis exemptions apply, has been implemented in 2019 through administrative checks of reporting; on the spot inspections on board and at landing to assess the relevant discards; and deployment of a control observer on board vessels below 10m to assess the catches and discards of species below mcrs. Cyprus has participated in JDP in the Mediterranean and has carried out last-haul analysis on ten occasions. Cyprus has continued to consult with the MEDAC and there is limited dissemination of information to fishermen.

Steps taken by Member States to enforce the landing obligation:

2016. Information relating to the landing obligation for small pelagic fisheries has been sent out to fishermen but there appears to be only a limited number of vessels that occasionally fish for these species. Control officers have been informed of the regulations. No new control measures have been introduced although CCTV is installed on one boat (for another purpose). There have been no observed discards during catch monitoring. Risk based approaches and last haul analyses have not been employed in Cyprus.

2017. Limited changes compared to previous report. Training session for control officers carried out and further training planned for 2018.

2018. No substantive change compared to previous report. Additional training took place as planned.

2019. To accommodate reporting of catches and landings related to the landing obligation, Cyprus has adapted the electronic and paper reporting systems. Since 2019 fishermen have been informed of the changes in the documentation and reporting system for discards under de minimis exceptions and to landings of species below mcrs. Cyprus performs both administrative checks of reporting and on the spot inspections to assess the presence on board or at landing of fish below mcrs. For 2019 the control system was not adjusted to landings of species below mcrs as fishermen were instructed to continue discarding under the de minimis regulation. During 2019 one infringement case was recorded of having undersize fish on board, although it is unclear how this was considered to be a breach of the landing obligation which obliges vessels to land all catches.

Information on the socio-economic impact of the landing obligation:

2016. No apparent effect so far.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. Cyprus with the de minimis exemption in place there have been no socioeconomic impacts.

Information on the impact of the landing obligation on on-board safety:

2016. No apparent effects so far.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No incidents recorded.

Information on opportunities for processing catches smaller than the MCRS:

2016. There have been no catches of fish below mcrs reported from the in small pelagic fishery in Cyprus and the landing obligation does not apply to demersal vessels yet so fish below mcrs still must be discarded.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. There have been no landings of unwanted catches due to the de minimis exemptions.

Information on port infrastructures and vessel modifications :

2016. Funding is foreseen and would be available, but no detail is provided as to what is envisaged.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No funding has been provided.

Information on the difficulties encountered and recommendations made:

2016. Cyprus reports that the high number of species encountered in the Mediterranean will make avoidance of unwanted catches very difficult. Processing of such unwanted catches is not presently feasible in Cyprus. It is also requested that the ERS system will be upgraded to help with monitoring and control.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. The landing obligation has had no impact on the fisheries in Cyprus. Provided the de minimis exemptions remain in place this will continue to be the case.

Concluding remarks:

2016. The report suggests that the landing obligation has so far had little effect on fishing operations in Cyprus because the small pelagic fishery is almost non-existent and because most of the demersal fishery is not subject to the landing obligation. Authorities appear to have made efforts to disseminate information and have established de minimis rules, but no quantitative information was offered on levels of discards or unwanted catches below mcrs.

2017. No changes to conclusions compared to previous ones.

2018. No changes to conclusions compared to previous ones.

2019. The landing obligation has had no impact on the fisheries in Cyprus and Cyprus has not had to make few changes to their control and monitoring system. Provided the de minimis exemptions remain in place this will continue to be the case.

Denmark

Steps taken to comply with the landing obligation:

2016. Denmark is taking part in (and in some cases leading) EU studies intended to identify tools such as spatial-temporal closures to avoid unwanted catches and thereby assist implementation of the landing obligation. These projects apply to trawl fisheries for human consumption fish but at present only involve a few vessels. Denmark already has a flexible quota system and has not adjusted this. Analysis of choke issues has been performed but no detail of outcomes was provided – it is unclear from the report if the current quota system can deal with choke issues. De minimis applications were made as part of the various joint recommendations and, in some cases, supported by national scientific studies. To record de minimis amounts, the logbook has been adjusted. De minimis quantities are stated as small – but no detail is provided and there is no information on onboard observer sampling. Denmark has utilised the provision to discard because of predators (but said it could not provide quantitative detail). Information on its use of flexibilities was provided (although this was difficult to interpret). Detailed descriptions were also provided of work within the ACs and on the extensive communications processes involving industry.

2017. Limited changes compared to previous report. Some information on numbers of vessels in fleets where gear trials occurring but not clear how many using new gears. Choke species by area identified in study. De minimis quantity included (Q20). Interannual flexibility numbers provided but unclear about actual use.

2018. Limited change compared to previous report. Some initiatives to support high survivability and de minimis cases with background to support this. Figures for predator damaged fish were updated. Additional examples of involvement of advisory councils was also provided. Additional meetings with industry were held in 2018 ahead of the 2019 full implementation of landing obligation.

2019. The Danish Fisheries Agency has cooperated closely with the fishing industry and relevant parties by measures such as circulating guidelines and holding public information meetings, placing information in weekly fishing newspaper and on the internet, meetings with industry representatives, seminars and training of fisheries controllers, introduction of separate logbook entries for each haul by captured quantity, including BMS fish; introduction of automatic control and monitoring of last haul that compares previous fishing trips. 2 new exemptions have been approved, one in the industrial fishery and an extension into the summer of a plaice exemption. De minimis quantities are given (in response to Q21). Figures for the discarding of predator damaged fish are provided. Some use has been made of inter annual flexibility (no details provided) and limited use of inter-species flexibility between Herring and Sprat. Difficulties with ACs being unable to reach consensus on Joint Recommendations were reported.

Steps taken by Member States to enforce the landing obligation:

2016. Detail of the specific types of information provided to fishermen and to fisheries inspectors was listed and beneficial new control measures (e.g. requirement to record haul by haul information), were identified. Monitoring of the landing of catches below mcrs is being carried out routinely and the report concludes that quantities are very small and mainly from the eastern Baltic. No information is provided on levels of onboard observation or sampling. The report provides a detailed description of Denmark's risk-based approach to control and includes an example report from EFCA concerning Denmark's use of the last haul approach. Last haul sampling is used 'forensically' to compare with what is being landed. According to these reports, there are large discrepancies between what is being reported and what has been observed on board and from the results of last-haul sampling.

2017. Some changes compared to previous report. Introduction of follow up procedure to ensure all catches below mcrs are landed. Denmark provided, by region, quantities of below mcrs and de minimis for 2015 and 2016 – the quantities were very variable. Further explanation of risk based and sharing of data with EFCA etc. Details of last haul sampling provided (73 vessels in NSK and 103 in Baltic).

2018. No substantive changes compared to previous report. Denmark updated its figures for <mcrs catches and de minimis quantities and updated the last haul sampling information.

2019. An automatic follow up to last haul inspection system has been implemented (it is not clear exactly when) which Denmark claims has indirectly improved compliance with the Landing Obligation. Last Haul sampling figures, quantities of below MCRS and de minimis discards are provided. Significant quantities of BMS fish are recorded and there appears to be an increase over previous years. No suspected or confirmed infringements were reported.

Information on the socio-economic impact of the landing obligation:

2016. A study is underway but no results or other information are provided.

2017. Significant update compared to previous report. Detailed description of results of Copenhagen University socio-economic study which indicates the extent to which ‘top ups alleviate’ landing obligation difficulties. Biggest problems expected in Baltic and Kattegat/Skagerrak and in small/medium vessel groups-especially trawlers.

2018. No change compared to previous report – no further socio-economic studies.

2019. No change compared to previous report, but the University of Copenhagen is due to publish an update of a 2016 report soon.

Information on the impact of the landing obligation on on-board safety:

2016. There appears to be no impacts on safety issues and therefore no action by the authorities.

2017. No change compared to previous report.

2018. No change compared to previous report

2019. No change compared to previous report

Information on opportunities for processing catches smaller than the MCRS:

2016. Catches of fish below mcrs fish have been used for fish meal with prices in line with those paid for ‘industrial’ fish. A pilot project on ‘silage’ production was mentioned but no detail provided.

2017. No substantive change compared to previous report.

2018. No change compared to previous report.

2019. No change compared to previous report. Catches below MCRS are often used for fishmeal production or for animal food in the fur production. However, a big amount is disposed as garbage due to high costs of handling of the unwanted catches.

Information on port infrastructures and vessel modifications :

2016. Denmark has focused its efforts on EMFF funding for vessel modification under Article 38 to encourage reduction of unwanted catches and improving selectivity. The overall amount is 64 million DKK. Funding has not so far been provided under other EMFF articles.

2017. No substantive change compared to previous report, although numbers of projects appear to have changed and the funding is now quoted in Euros (424,024 in payments, 602687 in commitments).

2018. Some changes compared to previous report. In 2018 Denmark has funded a substantial number of projects under the various Articles i.e. 45 under Article 38 (mainly concerning improving gear selectivity and handling unwanted catches on board); 7 under Article 43; 3 under Article 68 and 8 under Article 69. It should be noted that the last 11 projects are not focused on the landing obligation.

2019. Sixty-nine landing obligation related projects on board vessels have been funded (DKK 32 million) and three infrastructure projects ashore have been funded (9.6 million DKK).

Information on the difficulties encountered and recommendations made:

2016. Denmark did not list specific difficulties encountered but refer instead to issues raised elsewhere in the questionnaire. It also drew attention to difficulties created by interaction between the landing obligation and earlier technical regulations.

2017. Report contained far more information than in the previous one. On selectivity issues attention was drawn to TR1s which fish in Norwegian waters and use large meshes so avoiding many problems. In the Skagerrak and Kattegat, the biggest perceived problem appears to be ling. The report reiterated the need for adaptations in the Baltic Sea technical rules to avoid confounding situations. On handling, most vessels seem able to cope with below mcrs fish and some have invested in facilities to assist this. In harbours on the other hand there remains some problems with lack of facilities and the development of simple handling solutions – funding is not considered to be a problem. Lack of understanding of the rules is not considered a problem – a key requirement at the regional scale is a level playing field. Quotas generally line up with fishing opportunities and the Danish ITQ system helps this – some problems with Kattegat cod are, however, envisaged in 2019.

2018. No substantive change compared to previous report. Denmark highlights the increased funding for gear improvement and hopefully improved selectivity.

2019. The response to the question on difficulties encountered has been used by the Danish report as an opportunity to ask the fishing industry their views. Issues highlighted include the lack of industry support based on their perception that the Landing Obligation is overly bureaucratic and penalises fishermen unfairly. They also highlight the need for coherent measures regarding technical regulations and the landing obligation. In the covering letter Denmark emphasises the need for continuing focus on intensive control of Landing Obligation compliance. Potential choke species are identified; ling in 3a, cod in 3a, saithe in 2a, 3a and 4, megrim in 2a and 4. In 2020 Denmark intends to start a project on fully documented fishery using cameras in the Norway Lobster fishery in Kattegat. Denmark supports the regional implementation of further control tools, if there is a level playing field.

Concluding remarks:

2016. The Danish report provides helpful information on its numerous steps to implement the landing obligation – both from its approach to communicating requirements and its attention to control issues. The report provides several examples of how proactive adjustments to management and compliance processes have been made to facilitate implementation. However, there was a lack of detail on actual quantities of fish being discarded and no information on the extent to which sampling at sea is possible and the reliability of any observations made.

2017. Some changes compared to the conclusions drawn last year. More information has been provided for 2017 with some quantitative indications of *de minimis* and below mcrs catches. Choke analysis and socioeconomic analysis has delivered useful reports that help to focus the efforts of Denmark onto the key issues. Key issues to be tackled are identified and funding opportunities explained. Where there are no perceived problems these are helpfully outlined.

2018. Limited changes compared to the conclusions drawn last year. Information given on initiatives to secure high survivability exemptions and *de minimis*. Information on additional industry briefing meetings ahead of the 2019 full implementation. More detail is provided on the funding provided under various Articles (38,43,68,69).

2019. Denmark provided a comprehensive report and gave quantities of *de minimis* discards, BMS fish, use of last haul analysis etc. Overall there is a strong emphasis on the use of control measures such as automated follow up of last haul inspections.

Estonia

Steps taken to comply with the landing obligation:

2016. Estonia has not implemented any new measures or carried out any studies specifically related to the implementation of the landing obligation. No new quota management measures have been taken as Estonia already operates an individual transferable quota system within most of the fleet. The report indicates that with this quota management system in place the potential for choke species is minimal except for the case of plaice in cod fisheries. Estonia also indicates that salmon may become a choke species if the TAC is reduced further. Estonia has availed of the high survivability derogation for trapnet and similar gears but provide no information on the extent to which this exemption is utilised by the fishing industry. Similarly, no information is provided on the level of fish discarded due to predation from seals. Estonia also has indicated that it does not use the inter-species quota flexibility mechanism but does use the inter-annual flexibility. Estonia has participated in the preparatory work for the discard plan in the framework of BALTFISH during 2014-2016. No specific awareness raising measures for fishermen are reported.

2017. No changes compared to previous report.

2018. No report.

2019. A report for 2018 was also submitted along with the 2019 report. There are very few changes compared to previous reports. Plaice is identified as the main choke problem although details of how the choke situation are addressed are not clear. Small quantities of predator damaged fish are reported and the use of inter-annual and inter-area flexibilities (for Salmon).

Steps taken regarding control of compliance with the landing obligation:

2016. Dedicated workshops and seminars have been held with Estonian fisheries inspectors and guidance notes have been provided to inspectors. No new control tools have been utilised except prior notification for coastal vessels fishing with static gears has been introduced and amendments have been made to national legislation regarding the registration of catches of fish below mcrs. Estonia has not implemented a risk-based approach to control but have carried out a limited amount of last-haul analyses in the sprat and herring fisheries.

2017. Limited changes compared to previous report. Further detail on pre-notification and registration in logbooks. Now suggesting that a basic 'risk based' approach is in place although it does not have a risk group of trawlers since only a low number of irregularities are detected. This will be developed further. Last haul analysis has not revealed a great deal in the herring and sprat fishery since discards do not occur.

2018. No report.

2019. Limited changes compared to previous report. No discards are reported. There appears to be limited use of last haul inspections due to the lack of discarding in Estonian fisheries. A document with further details on the risk assessment is provided. No infringements are reported.

Information on the socioeconomic impact of the landing obligation:

2016. Estonia reports the socioeconomic impact of the landing obligation on the Estonian fishing industry is low. They indicate there may be potential problems in the salmon fishery if TACs are reduced further causing early closure of the fisheries.

2017. No change compared to previous report, no data available.

2018. No report.

2019. No information or data provided.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported.

2017. No change compared to previous report.

2018. No report.

2019. No information provided.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. As the landings of catches below MCRS are very small, there is little detailed information on the use or outlets of catches below the MCRS. The indication from the Estonia report is that any have been used for fish meal.

2017. No change compared to previous report

2018. No report.

2019. Very small quantities of below MCRS fish and no new utilisation options or studies are reported.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. As the landings below the mcrs are minimal, there has been no need for modifications to fishing vessels. However, Estonia does report significant investment in port infrastructures. One application has been approved for the construction of a fishmeal factory for Producers Organisations with a total investment of approximately €8 million. A further 6 applications have been approved for marketing measures with total investment of €700,000. These projects are funded under the EMFF.

2017. Changes compared to the previous report suggest that there is no available extra infrastructure for the landing obligation and no provision of funds for investment or improvement.

2018. No report.

2019. no additional funds have been provided for the landing obligation.

Information on the difficulties encountered and recommendations made:

2016. Estonia reports that to date the landing obligation has had little impact. They highlight the main difficulties will be with plaice bycatch in the cod fisheries and in the salmon fisheries if TACs are further reduced.

2017. Some changes compared to previous report – these include refusal to carry an observer, problems reallocating quota and continuing difficulties with plaice and salmon due to choke issues.

2018. No report.

2019. No significant difficulties are reported.

Concluding Remarks:

2016. The Estonian report provides little detailed information probably reflecting the fact that the landing obligation to date has had very little impact on Estonian vessels. The main concerns revolve around further reductions in the salmon TAC in the Baltic that Estonia believes will force early closure of fisheries.

2017. No change to the conclusions arrived at last year.

2018. No report.

2019. The Estonian report provides little detailed information probably reflecting the fact that the landing obligation to date has had very little impact on Estonian vessels due to the relatively non-complex nature of their fisheries. Potential issues with Salmon closures and associated socio-economic impacts are highlighted.

Finland

Steps taken to comply with the landing obligation:

2016. Finland has not implemented any new measures or carried out any studies specifically related to the implementation of the landing obligation. No changes have been made to the quota management system. Finland has participated in the preparatory work for the discard plan in the framework of BALTFISH during 2014-2015. No specific awareness raising measures for fishermen are reported.

2017. Some changes compared to previous report. A system of transferable fishing concessions was introduced (herring, sprat and salmon) to help long term planning while avoiding competition for maximum fishing opportunity at the start of the year. Discard issues are not a problem in the pelagic fisheries. The only reason for discarding is damage by predators and data were presented to show the extent of this. Some use was made of inter-species and inter-annual flexibility – again data were presented to show the extent of this.

2018. No substantive changes compared to previous report. Data for predator damaged fish were updated. Some information on exchanges of quota with other countries were also supplied. Finland indicates that it has no difficulty complying with the landing obligation.

2019. No substantive changes compared to previous report. Data for predator damaged fish were updated. Inter-annual flexibility was used but not inter-species. Details of exchanges of quota with other countries were also supplied. Finland indicates that it has no difficulty complying with the landing obligation.

Steps taken regarding control of compliance with the landing obligation:

2016. The BALTFISH control working group and EFCA has organized meetings during 2015 and 2016 regarding control of compliance with the landing obligation. Finnish fisheries inspectors have attended these meetings. Guidance has been provided to inspectors on how to comply with the new rules of the landing obligation. No new control and monitoring tools have been used but amendments have been made to logbooks. Finland reports that no infringements have been detected concerning non-compliance with the landing obligation. Cod fisheries and landings to Finnish ports are very scarce. Discards in salmon fisheries are also assumed to be non-existent since salmon individuals caught with trapnets are large adult fish and since undersized or predator (seal) damaged salmon can be returned to sea under the landing obligation. No information is provided on the extent of damaged fish discarded in the Finnish salmon fishery.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No change compared to previous report. No infringements were reported.

Information on the socioeconomic impact of the landing obligation:

2016. No socioeconomic impacts are reported.

2017. No change compared to previous report (only costs are associated with reporting to the Commission).

2018. No change compared to previous report.

2019. No information or data provided.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No information or data provided.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. As the landings of catches below MCRS are very small, there is no information on the use or outlets of catches below the MCRS.

2017. Limited change compared to previous report. Below mcrs quantities of cod reported (1.4 tonnes or less)

2018. Limited change compared to previous report. Below mcrs quantities of cod reported (3.2 tonnes).

2019. No below mcrs catches of fish were reported.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. As the landings below the MCRS are minimal, there has been no need for reconstructing port or vessel infrastructures.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No change compared to previous report.

Information on the difficulties encountered and recommendations made:

2016. Finnish operators have no difficulties in complying with the landing obligation. Therefore, there has been no need to carry out studies or fund any infrastructural changes to help fishermen to adapt to the implementation of the landing obligation.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No change compared to previous report.

Concluding remarks:

2016. The Finnish report contains very little detail and provides only general information mainly relating to the dissemination of information and collaboration with EFCA. The overall impression is that the landing obligation has had no impact on Finnish fishermen.

2017. No substantive change compared to the previous conclusions – some quantitative information now provided.

2018. No change compared to previous report.

2019. The cover letter with the Finnish report emphasises that discards are not a significant issue as the pelagic fisheries do not produce many discards, trap fisheries for Salmon are exempt and the Cod quota has not been exhausted.

France

Steps taken to comply with the landing obligation:

2016. France does not report any measures involving spatial or temporal avoidance of unwanted catches. The main action taken by France for compliance with the landing obligation has consisted in information notes distributed to fishermen's representative organisations and control agents. Guidelines were also made available on the ministry website and several information meetings were

organized. France also noted that the current electronic logbook (ERS) does not allow to differentiate the reason of discarding (de minimis, predation, others). Little other information is provided.

2017. No report

2018. No report

2019. No new studies on avoidance and selectivity, have been initiated in France in 2019. The possibility of establishing of a ‘move-on-rule’ (near real-time closure) was discussed in the context of the NWW Member States group but has not been introduced. Studies to support de minimis and high survivability exemptions have been undertaken. Survivability of skates and rays has been a priority during 2019.

France has adapted their quota swap strategy to cover catches of potential choke species previously discarded (e.g. Boarfish in areas 6,7 and 8). The open pool introduced in 2019 is also seen as a useful mechanism to lessen the likelihood of choke situations. Inter-annual quota flexibility was used in 2019 but interspecies flexibility has not been used and seen by France as a last resort.

Data reporting and monitoring systems have been developed to monitor volumes of catches discarded under exemptions. No quantitative data was provided on volumes discarded in 2019. Volumes discarded due to damage by predators are similarly not provided because It is reported there is no way of differentiating such catches in the logbook.

France continues to participate in the NWW Member States group and consult with the relevant ACs. At national level, documents, explanations and summaries are sent to fishermen via the committees (national, regional and departmental) and producer organisations. National guidelines to the implementation of the landing obligation (aid for the filling of electronic and paper fishing logbooks) and a summary of the current measures contained in the relevant discard plans has been provided. There are also regular port meetings.

Steps taken regarding control of compliance with the landing obligation:

2016. Up to now, inspectors have been focusing more on information to fishermen than on control of potential infringements. No new control tools have been developed and France does not seem to be monitoring catches of fish below mcrs. CCTV trials are planned for highest risk category pelagic vessels in 2017. For the demersal fisheries, the process of risk categorisation is currently ongoing

2017. No report.

2018. No report.

2019. A risk-based approach has been adopted to identify high-risk fisheries for increased monitoring. No new control tools have been developed. Monitoring and data reporting have been updated and cross-checking of landings of last-haul analysis with shore-based inspections is taking place. This is principally aimed at tracking unwanted catches covered by exemptions. A pilot project has been developed to test remote electronic monitoring systems (REM systems) out on four industrial pelagic trawlers.

No details on the fisheries or timelines has not been provided. Extensive steps have been taken to provide information to fishermen on reporting catches through training provided at port level and guideline documents.

No infringements were reported for 2019.

Information on the socioeconomic impact of the landing obligation:

2016. No information is provided. The indication is that the impact on demersal fisheries will be large. No evidence is provided to support this.

2017. No report

2018. No report

2019. Reports socio-economic impacts are difficult to quantify. However, the first impacts reported by fishermen are the additional costs incurred because of having to land unwanted catches. Costs are incurred both on board and on landing sites. These costs are not quantified. The increased workload on board and the lack of space on board. This is not quantified.

In fish markets, investments may be necessary to set up specific and separate places of storage for such catches. Some markets are already reporting the cost of such implementation. Similarly, the various sorting, identification and weighing operations of these catches entail additional costs. Preventing the cross-flow of marketable and unwanted catches is also highlighted as a potential problem. The uncertainty and current low volumes of unwanted catches is preventing investment in facilities to handle such catches.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No effects have been reported but the fishing industry anticipates some effect in the short term in the demersal fishery. No funding to address this issue has been provided.

2017. No report

2018. No report

2019. No information is provided, and no funding has been provided.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. Some research projects to investigate new outlets are mentioned but no details or references are provided. Current outlets include bait for pot fisheries and fish meal. France highlights the fact that the unwanted catches quantities may decline in the future following the implementation of the landing obligation may not incentivise for the development of new outlets of catches below mcrs.

2017. No report

2018. No report

2019. The main declared uses for catches below mcrs are processed into fish oils, Fish meal, animal feed ("pet-food"), fertiliser and baits mostly for recreational fisheries. Animal feed is the most common use. No specific studies or projects were piloted in 2019 on potential uses of unwanted catches of species under minimum conservation reference sizes. However, one study which has the aim of developing the Blue Bio-economy, explores avenues for the development of aquatic resources for the development of bio-based products, this includes unwanted catches. The study confirms that these catches form could be used for such purposes because their freshness and high protein content make them valuable resources with potentially high added value.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. No information is provided. The management of projects under article 43 is under regional jurisdiction.

2017. No report

2018. No report

2019. No information provided.

Information on the difficulties encountered and recommendations made:

2016. No difficulties are reported.

2017. No report

2018. No report

2019. The landing obligation has upset the equilibrium and historical distribution of quotas which, at a national level, does not grant sub-quotas to certain POs for certain species, which have no economic value. This has the potential to create choke situations.

The specific case of bigeye tuna is provided as a choke situation is given. This fishery was closed in September due to excessive bycatches in other fisheries.

Concluding remarks:

2016. The report contains little information to assess progress made towards the implementation of the landing obligation. However, it appears that the French authorities have made basic efforts to disseminate information to the industry and control agencies. Less effort seems to have been deployed on compliance and control. No quantitative information is provided on levels of unwanted catches below mcrs or on fish discarded under exemptions.

2017. No report

2018. No report

2019. The report contains mainly qualitative information. Examples of the levels of catches below mcrs landed are provided but no breakdown by area or fishery. The report details efforts being made by the French authorities to implement the landing obligation, but this is rather generic and not always split between different sea basins. For example, very little information is provided for French Mediterranean fisheries. Several difficulties are highlighted but these are unsubstantiated.

Germany

Steps taken to comply with the landing obligation:

2016. Germany has conducted scientific studies on plaice avoidance using spatial-temporal means and considered the relative benefits of changes in selectivity – the latter seem to be more effective. Numerous selectivity studies have been conducted in other demersal fisheries in the Baltic, North Sea and Kattegat/Skagerrak with encouraging results for problems in multi-species fisheries. The extent to which these approaches have been taken up by industry is not clear, but it is expected that as bycatch becomes more restrictive, these methods will assist in implementation. The focus in quota management has shifted towards avoiding unwanted bycatch and involves close cooperation with industry on observed changes in catch composition. Use is made of the North Sea discard atlas to identify choke species and Germany has taken part in agreeing various exemptions to the landing obligation with other Member States who have (to the present) provided supporting evidence. Local arrangements were agreed for reporting de minimis quantities (in the absence of appropriate ERS fields) and quantitative information on de minimis amounts was provided in the report. Some use has been made of interannual flexibility but not interspecies flexibility. Germany plays a full and active part in various AC discussions and has implemented its own communications to fishermen through flyers, a web-portal and an open dialogue with compliance officers. Germany has taken part in CCTV trials with 2 cod ‘cutters’ carrying cameras – this technology may be important in the future of the landing obligation.

2017. No substantive change compared to previous report. De minimis quantities used were updated with 2016 data.

2018. Some changes compared to previous report. Modelling investigations of spatial/ temporal closed area measures to address bycatch issues have taken place in the North Sea. Collaborative gear selectivity work with Spain in waters to the SW of Ireland has been investigating the scope to use T90 gears (developed in the Baltic) to address bycatch issues in the mixed fishery operating there. Germany also initiated and provided data for a brown shrimp de minimis in the North Sea. Data for an existing

Nephrops de minimis was updated indicating relatively low usage of the *de minimis*. Limited data on predator damage of herring, cod and plaice in the Baltic was provided.

2019. Minor changes in comparison to the previous year's report. Some additional work on selectivity of mixed demersal gear to avoid Cod in the Baltic and in Brown Shrimp fisheries in the North Sea are reported. The uptake of selective gears is described as low but, in the Baltic, it is reported that the Cod emergency measures may increase the uptake rate. A new self-sampling data collection program to support the *de minimis* exemption in the North Sea Brown Shrimp fishery is described and the data is currently being analysed. *De minimis* quantities are described in an annex but this was not provided. The use of inter-annual flexibility is reported but inter-species flexibility was not.

Steps taken by Member States to enforce the landing obligation:

2016. In addition to the information provided for fishermen, training workshops, visits by EFCA and flyers have been used to train Germany's inspectors. All opportunities to explore new control and advisory techniques are being examined (e.g. interrogating databases to identify areas of high abundance of under-sized fish to focus controls there and in the use of CCTV). Catches of fish below mcrs fish are monitored and tabulated detail was provided on the quantities of this material in various areas and by species. There is detailed description on the risk-based approach to compliance adopted by Germany and a similar level of informative detail was given describing its use of the last haul approach coupled with gramme size and grade information.

2017. Some changes compared to previous report. An update was provided on instructions to inspectors to carry out last haul monitoring in the Baltic and North Sea. An informative update on ongoing improvements to its risk-based monitoring programme.

2018. No substantive compared to previous report. Detail provided on 2018 last haul analysis (57 in the North Sea and 72 in the Baltic).

2019. No substantive changes are reported compared to previous report. Landings database and last haul analysis are used to identify areas of high discarding. Legal problems with prosecuting infringements are reported. 6 infringements were detected, 2 at sea and 4 via logbooks. Last haul inspections are quantified, and they were used mainly in the Baltic (n = 88) rather than the North Sea (n = 5). A possible REM project on pelagic vessels is being considered dependent on actions also occurring in other Member States.

Information on the socio-economic impact of the landing obligation:

2016. Germany considers that socioeconomic effects on the pelagic industry and in the fishery for saithe are minimal and has so far led to few limitations. There were, however, no studies cited in support of these remarks.

2017. No substantive changes compared to the previous report. Latest report suggests concerns over the effects of the full application of the landing obligation in 2019 but no detail was provided.

2018. No change to previous report.

2019. No change to previous report.

Information on the impact of the landing obligation on on-board safety:

2016. No incidents are known, and Germany has not changed legislation or diverted resources to address any perceived concerns.

2017. No change to previous report.

2018. No change to previous report

2019. No change to previous report.

Information on opportunities for processing catches smaller than the MCRS:

2016. The main outlet for <mcrs fish is fish meal and the quantities of undersized fish which were utilised for this purpose (mainly mackerel, cod and saithe) were provided in the report.

2017. No substantive changes compared to the previous report. Latest report contains an update on quantities of below mcrs fish in 2017.

2018. No substantive change to previous report. Quantities of <mcrs fish were again updated.

2019. Quantities of <mcrs fish are described as being presented in an annex which was not provided.

Information on port infrastructures and vessel modifications :

2016. Germany has earlier provided EMFF funding under Articles 68/69 for a traceability system for processors (698K euros) which will be beneficial in the implementation of the landing obligation. It has not provided any funds under other EMFF Articles.

2017. No change to previous report.

2018. Limited change to previous report. Funding provided for a total of 18 projects under Articles 68 and 69 although it was not made clear how these would impact implementation of the LO.

2019. Limited change to previous report. The provision of €1.5m for processing and marketing projects are reported although it was not made clear how these would impact implementation of the LO.

Information on the difficulties encountered and recommendations made:

2016. Germany provided a lengthy response to various aspects of the difficulties of implementing the landing obligation. Unlike other Member State submissions, this did not focus only on the negative experiences but also on positive aspects and indicating ways in which it had overcome problems. Similarly, Germany was the only country to address each of the sub sections of this question and the content merits examination. Germany indicated that so far, its scientific observer programme appears to have continued without being impacted by the landing obligation.

2017. No substantive changes to previous report. Report highlights difficulties in monitoring and recording of de minimis catches and the approach taken to correcting erroneous entries and to advising fishermen. Some difficulties occurred in relation to salmon quota limitations.

2018. No change to previous report.

2019. The need for further selectivity research is stressed. Enforcement and legal difficulties are reported. New options for recording *de minimis* discards are hoped to resolve awareness issues with fishers.

Concluding remarks:

2016. Germany's report gives a very helpful overview of its progress and efforts towards implementing the landing obligation and suggesting a good degree of engagement with the process towards avoiding unwanted catches.

2017. No substantive changes to previous conclusions. Germany continues to develop its approach to the landing obligation, providing several examples of progress and latest steps.

2018. No substantive change to previous conclusions. Germany again provides several examples of progress and efforts to promote avoidance of unwanted fish.

2019. No substantive change to previous conclusions. Germany again provides a useful overview and indicates where progress may be made regarding improved selectivity and improved controls. The

Annex referred to with additional details of quantities of *de minimis* etc was not provided which would also have been useful.

Greece

Steps taken to comply with the landing obligation:

2016. No specific studies have been initiated or supported by Greece in relation to the avoidance of unwanted catches. The quota management system has not been adjusted and the potential for choke species has not been investigated. *De minimis* exemptions for small pelagic species caught using purse seines in the Ionian Sea, Aegean Sea and off Crete and for bluefin tuna bycatch have been utilised. DCF data have been used to monitor the amount of *de minimis* discards but no details are provided on how this is carried out. The reported use of *de minimis* is below 3%.

2017. Some changes compared to previous report. Greece has introduced fishery restrictions in one area for the protection of juvenile hake. The measure affects most gears and limits the activity of over 280 vessels previously operating in the area. The reported use of *de minimis* did not exceed 3 % for small pelagics and was below 7% for demersal species. Consultations with MEDAC and stakeholders took place.

2018. No substantive changes compared to previous report. Figures for *de minimis* were updated - again suggesting quantities were generally low.

2019. No specific studies have been initiated or supported by Greece in relation to the avoidance of unwanted catches. Existing closures not directly related to the landing obligation are the mian technical measure used. Information on the level of unwanted catches discarded under *de minimis* has been provided. DCF data have been used to monitor the amount of *de minimis* discards but no details are provided on how this is carried out in practice. Greece has consulted with the MEDAC through the Sudestmed regional group of Member States. Circulars to Regional Fisheries Authorities and Port Authorities, in order to inform all stakeholders and relevant announcement to the open access website of the Directorate General for Fisheries and of the Ministry of Rural Development and Food.

Steps taken regarding control of compliance with the landing obligation:

2016. Greece has sent circulars to Regional Fisheries Authorities and Port Authorities. Information has also been provided via government websites. Guidelines for inspectors on the effective and uniform application of the landing obligation have been produced. Seminars and trainings have been organised for presenting the guidelines to inspectors at national and regional level. The catches below mcrs have been monitored by inspections but no details are provided of quantities.

2017. No change compared to previous report. Risk based control and monitoring is not used and the last haul approach has not been employed.

2018. No substantive changes compared to previous report. Note that risk assessment tools will be introduced in 2019.

2019. No substantive changes compared to previous report. Risk assessment tools have not be introduced as yet.

Information on the socioeconomic impact of the landing obligation:

2016. Greece noted that there might be disproportionate handling cost of unwanted catches due to the very small quantities and the need to develop specific facilities and maintenance infrastructures at all landing points, which are numerous and scattered in Greece. No detailed supporting information is provided.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. Greece highlights the main socioeconomic impact of the landing obligation is related to the disproportionate costs associated with handling catches below mcrs ashore. There is a lack of facilities in most of the Greek islands to handle such catches. All such catches are treated as animal by-products with associated catches. No quantitative data on the scale of the impact is provided.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No effects are listed.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No incidents reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. The Greek authorities are considering funding for feasibility studies to look at uses of such catches.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No information has been provided.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. No information is provided

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No funding has been provided.

Information on the difficulties encountered and recommendations made:

2016. Handling and transport difficulties of unwanted catches are mentioned but no supporting information is provided.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No information provided but all indications are that the landing obligation is having a minimal impact on the Greek fishing industry. The de minimis exemption covers any catches of fish below mcrs.

Clarification related to control and enforcement.

2017. Response to additional questions not provided.

2018. No change compared to previous report.

2019. No information provided.

Concluding remarks:

2016. The report contains little information to assess progress made towards the implementation of the landing obligation. Basic information requirements have been disseminated and preliminary data

indicates that the level of discards is below the de minimis exemption for small pelagics and bluefin tuna. No quantitative information to support this is provided.

2017. Apart from the introduction of a fishery restriction designed to prevent catches of juvenile hake, and the provision of catch information on de minimis quantities the conclusions are broadly unchanged from the previous ones.

2018. No substantive change compared to previous report.

2019. Apart from some quantitative data on volumes discarded under exemptions there is very little information provided. The general impression is that the landing obligation has had only limited impact on Greece and this would remain the case provided the de minimis exemptions remain in place.

Ireland

Steps taken to comply with the landing obligation:

2016. Ireland has supported and carried out several studies into the avoidance of unwanted catches. Two types of approaches have been investigated: technical modifications of gears to improve selectivity and spatial and temporal avoidance of catches below mcrs. The main conclusion of a study carried out in the *Nephrops* and whitefish demersal trawl fishery is that the technical measures tested (increase in mesh size 70 to 80mm and customized sorting grid) might be more promising than spatial avoidance. A new Irish regulation has been implemented in 2017 with mesh sizes increased from 70 to 80mm for vessels larger than 12m that deploy more than one demersal trawl. T90 mesh has also been shown to be successful to reduce catches of undersized whiting in the mixed demersal trawl fishery targeting whiting and is currently used by several vessels in that fishery. A new dual codend with net separator was also successfully tested in the *Nephrops* fishery. The Irish quota system has been amended in relation to specific quota management regimes for anglerfish and whitefish species. An IT project has also recently been initiated to look at the possibility of further developing the quota management system. Additional catch limits are made available each month to mitigate choke effect. Ireland has identified the more problematic choke stocks which are cod - VIa, VIIa, VIIb-k, Whiting – VIa, VIIa, Sole – VIIa, VIIf,g, Haddock VIIb-k, Spurdog and Bluefin tuna

To ensure amount discarded are under the granted de minimis, leaflets have been distributed to fishermen to inform them on their allowance. It is noted, however, that in any case the discards level recorded were low. Issues associated with the lack of information on the de minimis allocation of foreign flag vessels fishing in Irish waters is also mentioned which makes control difficult. Further to that, it is noted that the current ERS does not allow to differentiate the reason of discarding (de minimis, predation, other). Ireland has made no use of inter-annual or inter-species flexibility.

Ireland also reports that it will implement Fishery Improvement Projects for *Nephrops*, whitefish and albacore fishery in 2017 to address the main issues with the implementation of the landing obligation, improve dialog and operational performance by the industry.

2017. Several new developments compared to the previous report. Ireland notes the importance of reducing unwanted bycatch species in the *Nephrops* fishery to avoid chokes and reports several new projects in 2017. Studies on the SELTRA sorting box were particularly promising and led to increased catches of the target *Nephrops*, shorter sorting time and better quality. Additional modifications incorporating an inclined panel were not so successful. A *Nephrops* high survivability study was also carried out achieving a 64% survival rate which is likely to lead to an application for an exemption. A new '*Nephrops* Scheme' is expected to incentivise the uptake of more selective gears by allocating additional catching opportunities to participating vessels.

In the mixed demersal fishery of the Celtic Sea, trials using a raised fishing line reduced catches of low quota species such as cod and increased target whiting and haddock which in turn helped offset losses of groundfish (e.g. anglerfish). This gear will be further developed in 2018.

Further choke analysis conducted in NWWAC/NWW RG workshops identified some additional choke issues such as anglerfish in Via and VIIfg. Inter-annual flexibility was used. Further meetings, workshops and breakfast briefings were held in 2017 to disseminate information on the landing obligation to stakeholders. As promised, FIPs were introduced in 2017 for *Nephrops*, whitefish and albacore attracting participation by significant numbers of vessels in each sector.

2018. Some changes compared to previous report. Ireland reported new selectivity trials designed to try to reduce undersized whiting catches. Although in some case these also led to reductions in target species (e.g. *Nephrops*), they nevertheless contribute to a ‘toolbox’ of options available to fishermen. Ireland has issued a technical guide setting out the options. Several the earlier gear developments in Ireland now form part of the NWW discard plan so uptake is necessarily high. Uptake of more novel gears may increase as part of the FIPs scheme (see below). Ireland also worked closely with NWW in 2018 to update the choke analysis using the choke mitigation tool. Prior to December Council analysis focussed on Irish issues identified several critical stocks. Good progress was made in developing a high survival exemption case supported by scientific studies for plaice (to be sought in 2019). Discard figures assumed potential de minimis figures were presented for whiting and *Nephrops* along with detailed discard figures for other species. Ireland has continued to expand the coverage and develop Fishery Improvement Projects (FIPs) – these cover *Nephrops* trawlers, trawlers and seines targeting whitefish and pelagic vessels targeting albacore tuna. Uptake of these measures was reported as quite high.

2019. Ireland reported on a range of studies in 2019 related to avoidance of unwanted catches including: work on equivalent selectivity; testing of new gear under the North Western Waters discard plan; development of novel selective gear; testing of instrumentation which incentivises avoidance of unwanted catches and species survivability. Ireland also reports on studies to support high survival exemptions for Sole and Cuckoo Ray. A detailed quantitative breakdown of the uptake of new selectivity measures is provided. New high survivability exemptions for sole and cuckoo ray are described. Ireland reports that their quota management system has been adapted to account for the LO by using a quota balancing scheme to balance quota overshoots by individual vessels. A detailed breakdown of potential de minimis discards and estimated discards are provided. The use of inter-annual flexibility as a measure is reported but not inter-species flexibility. The use of Fishery Improvement Projects (FIPs) in *Nephrops*, Albacore Tuna and whitefish species as an additional measure relevant to implementation of the LO is reported.

Steps taken regarding control of compliance with the landing obligation:

2016. Ireland distributed leaflets and instructions to all vessels within the landing obligation. Seminars for inspectors run by the SFPA were organised. Controls were carried out at sea, at port and during post-landing inspections. Control and monitoring has been based on risk assessment (assessed by NWW CEG) with significant input from EFCA. The last observed haul approach has also been used but has been found to be very resource intensive and difficult to reconcile with the normal inspection time.

2017. Some changes compared to the previous report. Quantities of below mcrs fish landed showed variability in species composition and amounts landed. The amount (species combined) was about 10.5 tonnes in 2017. The National Fisheries Control plan specifies at sea and landing checks for <mcrs and SFPA presence in processing premises ensures no post first sale <mcrs in these establishments. Last haul analysis has been focussed mainly on pelagic fisheries.

2018. Limited change compared to the previous report. Regional information sessions were set up in Q4 2018 ahead of the full implementation of the landing obligation. Although no new control tools are currently being used, Ireland has been proactive in testing and scoping the practical implementation of new technologies (e.g. REM and CCTV). Quantities of <mcrs fish were updated with the overall quantity dropping in 2018 compared to 2017. There is concern that landing inspection controls are not

very effective in helping the implementation of the landing obligation. A limited amount of last haul analysis has been completed.

2019. Ireland reports limited use of last haul analysis as a control tool (19 Last Haul inspections). Details of the Risk Management approach taken by Ireland are provided. Ireland reports the detection of 2 infringements of the landing obligation. A breakdown of <MCRS landings data is provided which shows a significant increase in volume compared to previous reports.

Information on the socioeconomic impact of the landing obligation:

2016. The data collected in the context of the DCF will be analysed so it is too early to conclude, and nothing has been reported yet.

2017. No change compared to previous report.

2018. No substantive change compared to previous report.

2019. No substantive change compared to previous report. A bio-economic model under development is described.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No effect has been reported in terms of safety on-board. 5 projects (not directly linked to the landing obligation) and 255 grants have been attributed for safety improvements on board under a national grant aid scheme.

2017. No substantive change compared to previous report. EMFF project number updated to 26 with 385 national grants covering general safety issues.

2018. No substantive change compared to previous report.

2019. No substantive change compared to previous report.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. The main use of the catches has been for fish meal, bait and pet-food. Some projects are currently ongoing to look at other potential use as for instance the development of smart ingredients for use in pet food trade. The work is being carried out with facility in Tromsø Norway.

2017. Some changes compared to previous report. Ireland provided indications of the prices per tonne and the return to the fishing vessel amounting to around €60/tonne. Following the studies to investigate potential uses of <mcrs material, the main findings were presented. These suggest that even for innovative products price to the fishermen remains low and there remain questions around whether the variable mix of species inhibits the use in specialised products.

2018. Limited change compared to previous report. In 2018 a feasibility study on the potential to use aerobic digestion to deal with unwanted catches and fish processing by products. Another detailed study on drying/dehydration systems was carried out leading to a pilot study (in 2019) of the use of dried fish product as crab bait.

2019. Limited change in terms of actual usage compared to previous report. A study investigating the use of dehydration technology is described as having mixed results.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. 9 projects have been funded for environmentally friendly fishing gear (SMP, increase in Mesh Size). 11 projects have been funded for the provision of equipment to improve fish handling quality. 5 applications have been received to support certification and promotion of fishery products. 45 vessels are involved together with four onshore premises.

2017. No substantive change compared to previous report. Article 38 EMFF project number updated to 26 with a further 48 Article 42 projects providing equipment to improve fish quality and enhance the monitoring of landing obligation catches. Funding has also been provided for infrastructure projects in ports and for certification of sustainable fish products.

2018. Limited change compared to previous report. Information was updated on funding under Articles 38, 42 and 43. No funding was provided under Article 68 of the EMFF.

2019. Fifty-seven landing obligation related projects on fishing vessels availed of EMFF funding of €1.8 million. Three infrastructure projects providing additional cold storage were due to be completed in 2019 but will now finish in 2020.

Information on the difficulties encountered and recommendations made:

2016. Several difficulties are mentioned including the high level of whiting bycatch in the Celtic sea herring fishery with no current solution to avoid the bycatch (gear/spatial), the fact that there is no way to document the reasons for discarding in the ERS and a decrease in the number of vessels ready to take observers onboard.

2017. Some changes compared to previous report. Attention was drawn to some potential cephalopod choke situations going forward (squid fishery in VIa and cuttlefish in VIIe). Concerns were also raised about ongoing ignorance of the landing obligation and the confusing use of terms (particularly conflating the term ‘discards’ with <mcrs fish). A culture of non-recording of discards is seen as an issue along with lack of differentiation of reasons for discards within the ERS system.

2018. No change compared to previous report

2019. No new difficulties were described in comparison to previous reports. Several high risk choke species have potential to create difficulties in 2020. High costs of dealing with unwanted catches are an ongoing issue. There are ongoing difficulties regarding compliance with and understanding of the landing obligation in the fishing industry.

Conclusions:

2016. The Irish report provides helpful information on how the implementation of the landing obligation is carried out. Based on the information provided, a proactive approach is used to engage fishermen and develop measures to avoid catches under MCRS. Thus, important efforts are made to develop approaches in close collaboration with the industry through, for example, the development of new gear or the establishment of Fishery Improvement Projects. Choke species are highlighted as a problem.

2017. No substantive changes to previous conclusions. Ireland continues to develop its approach to the landing obligation, providing several new examples of progress and latest steps.

2018. No substantive change to the previous conclusions.

2019. Ireland provides a comprehensive report with significant supporting data and details regarding new studies on selectivity, discard, *de minimis* and <MCRS quantities.

Italy

2016. No report provided.

2017. No report provided

2018. No report provided.

2019. No report provided.

Latvia

Steps taken to comply with the landing obligation:

2016. No measures have been taken or studies carried out in relation to the avoidance of unwanted catches as the level of discards in the salmon and pelagic fisheries subject to the landing obligation have been low. The current system of quota management based on ITQ works well with the possibility to swap catches and does not need to be amended according to the report. The only choke species listed by Latvia is plaice in the cod fishery.

The de minimis exemptions requested for high survivability for salmon and cod caught in traps/nets, creels/pots fyke nets and pound nets are utilised. Only 950 kg of discards were reported (based on voluntary questionnaires) in the small-scale fishery but no breakdown by species was provided.

Instructions were sent to fishers and seminars and meeting between government and non-government organization were organised to help compliance with the landing obligation. Fishery advisory council of Latvia ministry promotes cooperation between administration and other bodies.

2017. No report provided.

2018. Some changes since last (2016) report. Information on discarded seal damaged fish provided for several species but only presented as % of total catch – not weights of discarded fish. Highest percentages were for salmon and sea trout. Latvia indicated that it is making use of interannual flexibility for herring and sprat and interspecies flexibility for herring and sprat in mixed fisheries, and for plaice in the cod fishery.

2019. No significant changes from previous report. Quantities for predator damaged fish are updated. Inter-species flexibility was used to cover bycatch of plaice in the cod fishery which would otherwise have been a choke issue.

Steps taken regarding control of compliance with the landing obligation:

2016. Guidelines, prepared in 2015, were distributed to fishermen and inspectors. Specific seminars were organised for inspectors (but no separate guidelines for inspectors were produced). SES inspectors have monitored catches of fish below mcrs which were not sold for direct human consumption. The quantities are said to have been recorded but no figures have been provided. Control and monitoring has been based on risk assessment developed by EFCA. The last observed haul approach has also been used on the cod fishery, but no details are provided.

2017. No report provided.

2018. No change since last (2016) report.

2019. No significant change since 2018 report. Some new controls relating to the Cod emergency measures are described such as prior notification of landing. Digital traceability systems may also offer an additional monitoring tool.

Information on the socioeconomic impact of the landing obligation:

2016. Nothing has been reported yet. It is noted however, that increase in fishing operation cost might be expected due to increase in handling of very low quantities of catches below mcrs. Furthermore, at port, it might not be cost effective to develop specific logistic for very small amount of fish. This may increase the risk of non-compliance

2017. No report provided

2018. No change since last (2016) report.

2019. No significant change since last report.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No effects are reported. 1 project to investigate this issue is listed but it is said not to have a direct link with the landing obligation.

2017. No report provided

2018. No change since last (2016) report.

2019. No significant change since last report.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. The main use is for fish meal. Quantities landed to date have been very small.

2017. No report provided

2018. No substantive change since last (2016) report. Weights and value of cod sold for fishmeal were updated – quantities have declined since 2016.

2019. Quantities of below MCRS fish are updated and their use is reported as mainly for fishmeal.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. Funding has been made available under article 38 of the EMFF for on board processing, chilling and freezing of unwanted catch but no projects have been proposed so far. One project under article 43 has been completed on the building of a warehouse in a fishing port. Under article 68, six projects on the participation in trade shows and market surveys have been currently carried out and under article 69, ten projects for investment and modernization of fish processing facilities have been approved. None of these are directly related to implementation of the landing obligation.

2017. No report provided.

2018. No change since last (2016) report.

2019. No significant change since last report.

Information on the difficulties encountered and recommendations made:

2016. Among the difficulties encountered, it is noted that because the catches under mcrs are small, it is costly to handle and the price on the market is too low to cover the cost. There are also issues to report catch of fish below mcrs with the ERS system and the sampling approach suggested by the Commission does not work well.

2017. No report provided.

2018. No change since last (2016) report.

2019. No significant change since last report. Issues linked to small quantities of below MCRS fish are reported.

Conclusions:

2016. The Latvian report contains very little detailed information, reflecting the low impact of the landing obligation to date. The report suggests that unwanted catches are limited, and that the quota system is flexible enough to avoid any choke situations. Concerns are raised on the cost of handling small amounts of catch below mcrs that must be landed.

2017. No report provided.

2018. No substantive change since last (2016) report. Main change is on the use of flexibilities.

2019. No significant change since last report.

Lithuania

Steps taken to comply with the landing obligation:

2016. No measures have been taken or studies carried out in relation to the avoidance of unwanted catches. Lithuania has also not made any changes to the quota management system.

Lithuania does report vessels of an overall length of less than 12 metres deploying passive fishing gears (i.e. small scale coastal fishing) have discarded cod catch damaged by seals during 2016. The levels of these discards were recorded by fishermen on a voluntary basis, pending new national legislation to be introduced in 2017 that will require the mandatory recording of such catches.

To raise awareness of the landing obligation, Lithuania has carried out extensive consultation with fishermen in 2014 and 2015. This was followed up in 2016 with one-to-one meetings with fishermen on request. Information on the landing obligation and guidance on compliance were also published in the website of the Ministry of Agriculture.

2017. Limited changes compared to the previous report. Lithuania along with other Baltic States has submitted a joint recommendation for the continuation of high survivability exemptions for cod and salmon caught in certain static gears and for an extension of this to plaice. Justification for this was not provided in the report. Consultations with stakeholders continued in 2017.

2018. No substantive change compared to previous report. Report notes that high survival exemption (see 2017) was included in the Baltic discard plan covering 2018. Data on seal damaged fish was provided by one vessel.

2019. No report provided.

Steps taken regarding control of compliance with the landing obligation:

2016. Consultations of masters of fishing vessels on legal requirements were carried out continuously in 2016, as part of the infringements' prevention task of the Lithuania Fisheries Service. Training was also provided on the effective and uniform application of the landing obligation to fishery inspectors.

Lithuania relied on existing control and monitoring tools to enforce the landing obligation. However, they have utilised the risk assessment methodology used developed by EFCA in the context of the Baltic Sea JDP. The assessment was focused on threats classified in groups encompassing activities that may be in contravention to the legislation in force. Lithuania has also carried out a limited number of last haul analyses.

Some fishing vessels have voluntarily submitted pre-notifications of expected landings of fish under mcrs. Inspections at sea, during landing and regular cross-checking, analysis and verification of catches are carried out to ensure traceability and that catches under mcrs are not used for direct human consumption. The State Food and Veterinary Service carries out regular checks at retail outlets to ensure that fish under mcrs are not sold for direct human consumption. Landings can only be made in designated ports (approved by the Ministry of Agriculture) or in fish auctions. Reported landings of fish below mcrs have been low and decreasing since the introduction of the landing obligation.

2017. No substantive changes compared to the previous report. Consultations and information exchange with fishermen continued in 2017. Information provided on numbers of below mcrs fish caught and landed. Numbers mostly very small except flounder landings by OTB in 2015 and 2016. Cod numbers presented in this section do not appear to match those cited in the 'use of below mcrs' section.

2018. No substantive change compared to previous report. Figures for discards and for last haul analysis updated.

2019. xyz

Information on the socioeconomic impact of the landing obligation:

2016. No information has been provided.

2017. No change compared to previous report.

2018. No substantive change compared to previous report. Report notes that since bycatch rates are low, socioeconomic impacts are expected to be low.

2019. xyz

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. xyz

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. Only very limited catches of fish below mcrs have been landed (65 tonnes of cod). This has been sold at a price of €0.17/kg. The main use has been animal food or pet food.

2017. No substantive change compared to previous report. In 2017, about 12 tonnes of cod (€0.15/kg) were landed and sold, mostly in Lithuania.

2018. No substantive change compared to previous report. Information on <mcrs catches landed and sold for fishmeal etc was updated – this amounted to <6 tonnes in 2018.

2019. xyz

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. No funding has been provided.

2017. No change compared to previous report

2018. Some change compared to previous report. There were 17 applications for funding under Article 38. 12 applications were approved amounting to 213807 EUR. The majority were tailored towards gear selectivity improvements.

2019. xyz

Information on the difficulties encountered and recommendations made:

2016. The Lithuanian fisheries sector and administration responsible for control have not indicated any major difficulties in 2016 in the implementation of the landing obligation.

2017. No change compared to previous report

2018. No change compared to previous report.

2019. xyz

Clarification related to control and enforcement.

2017. Effective control and enforcement of the landing obligation at sea and the accurate documentation of all catches, including quantities discarded, is ensured using at sea inspections involving full checking of catch documentation, stowage and separation etc. In addition, last haul data is being submitted to shore teams for cross checking with landings. No infringements were detected in 2017.

2018. No change compared to previous report.

2019. xyz

Concluding remarks:

2016. The Lithuania report provides little detailed information probably reflecting the fact that the landing obligation to date has had very little impact on their vessels. The main concerns revolve around the costs associated with disposing of fish below mcrs.

2017. No substantive change to previous conclusions

2018. No substantive change to previous conclusions. Some funding has been provided for improving selectivity of gear.

2019. xyz

Malta

Steps taken to comply with the landing obligation:

2016. An existing nursery area has been closed under a GFCM recommendation (GFCM Recommendation GFCM/40/2016/4). Whether this has helped with the implementation of the landing obligation is unclear. De minimis exemptions were requested by Malta for the Lampara fishery (Regulation (EU) 1392/2014) and has been utilised. The monitoring of de minimis has been based on logbook declaration and observation made at landing by inspectors. Little information is provided on actual quantities. Catches of fish below mcrs have been used for feed for tuna farms. Again, no information is provided on the quantities involved.

Malta has participated in several meetings within MEDAC in preparation for the landing obligation. Fishermen were invited to present their views and deliver advice according to their experience at sea. A letter explaining the landing obligation was sent to each license holder authorized for the Lampara fishery.

2017. Limited change compared to previous report. Proposal for a scientific study to improve trawl gear selectivity. Mention of the possibility to apply derogations in the bottom trawl fishery but no indication of intent.

2018. No change compared to previous report.

2019. No changes compared to previous report.

Steps taken regarding control of compliance with the landing obligation:

2016. Fishermen have been advised that landings of the Lampara fishery must be carried out in the presence of an inspector for accurate recording of the catches landed. However, no catches below mcrs have been recorded/observed. The monitoring has not been based on risk assessment (100% coverage for inspections of Lampara and trawlers fleets) and the last observed haul approach was not used.

2017. Limited change compared to previous report. Requirements extended to otter bottom trawls.

2018. No change compared to previous report.

2019. No change compared to previous report.

Information on the socioeconomic impact of the landing obligation:

2016. No impact has been reported by Malta.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No impacts reported.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No effect has been reported by Malta.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No incidents reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. The main use of catches below mcrs has been for feed for tuna farms. No information on quantities are provided.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No unwanted catches below mcrs have been reported.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. Under article 43 of the EMFF a request for funding has been received for the development of cold storage facilities for fish below mcrs.

2017. No change compared to previous report.

2018. No substantive change compared to previous report. Details of a project funded under Articles 68 and 69 of the EMFF concerning a promotional campaign to communicate messages on local fish stocks, sustainable consumption and the role of individuals in assisting conservation.

2019. One projects entails the Construction of a landing Office and a cold room in the Designated Port of Marsaxlokk. Funding for a crane to assist in the landing of big catches was also purchased as part of this investment.

Information on the difficulties encountered and recommendations made:

2016. No information is provided by Malta regarding difficulties encountered.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No difficulties observed.

Clarification related to control and enforcement.

2017. Response to additional questions was not provided.

2018. Some change to previous report. Response suggests that since Lampara fisheries do not catch or discard fish below the MCRS, enforcement issues are not a problem. The question on infringements was considered not applicable.

2019. No information provided.

Concluding remarks:

2016. The report suggests that the landing obligation has so far had little effect on fishing operations in Malta. Little information on the steps taken for the implementation and monitoring of the landing obligation is provided. Authorities appear however to have made efforts to disseminate information to the industry.

2017. No substantive change to the previous conclusions.

2018. No substantive change compared to previous report.

2019. No substantive change compared to previous report. The landing obligation has had little impact on Maltese fisheries.

Netherlands

Steps taken to comply with the landing obligation:

2016. A project is currently underway to evaluate the geographical aspects of discarding, but it is not clear if this is linked to spatial avoidance. The Dutch ITQ system has been amended so that vessels cannot leave the port with a gear expected to catch species for which no quota is available.

The Dutch administration has participated in a choke species workshop organised by the ACs. Based on their own analysis the main choke species identified are hake and saithe in the pelagic fisheries and plaice in the beam trawl fishery.

De minimis exemptions included in the discard plans have been utilised and the exemption for boarfish. There was a moderate use of the de minimis for vessels using the so called Belgian net device in the sole beam trawl fishery and there was a limited use of the de minimis for undersized sole and *Nephrops* below mcrs in trawl and trammel net fisheries. It is not yet possible to quantify the de minimis in 2016 due to limitations in the ERS system but it is reported allowable levels have not been exceeded.

To ensure that the de minimis exemptions were not exceeded, Netherlands has organised several meetings with fishermen and producer organizations and explain how to report catches. The use of de minimis has been monitored but no details on how this is done in practice has been provided. Netherlands has adopted an implementation agenda of the landing obligation in collaboration with the fishing industry. However, Netherlands report the industry to remain firmly opposed to the landing obligation. They have agreed nationally to improve selectivity and to reduce discards by 35%. EMFF funds were made available to improve selectivity, assess survivability and look at unwanted catches marketing. 1 project on FDF is also listed as being ongoing.

2017. No report.

2018. Limited change compared to previous (2016) report. Further detail provided on the Dutch ITQ system operating in the landing obligation. Netherlands reported continuing choke analysis leading to requests for exemptions - high survivability for plaice, skates and rays and turbot and de minimis for brown shrimp and whiting in beam trawls (Area IV). A small amount of de minimis utilisation was reported.

2019. Limited change compared to previous report. Two new exemptions are reported, one for high survivability in Turbot and another for Whiting and Cod in the beam trawl fishery in ICES Area IV. Discard rates and de minimis quantities are updated although the Netherlands report stresses that *de minimis* should not be managed at member state level but at fleet level. Inter-annual flexibility is reported as being used but not inter-species flexibility. A pilot Fully Documented Fishery scheme is in place on 5 beam trawl vessels.

Steps taken regarding control of compliance with the landing obligation:

2016. Netherlands organised several meetings with fishermen and producer organizations and explain how to report catches. Leaflets have also been distributed.

Standard protocols have been defined for the inspectors and handouts produced for at sea control. Inspector training has been carried out by the Food Safety Authority on Animal by-product legislation.

Netherlands has participated in the last observed haul project from EFCA. It is noted that the data gathered will be useful for monitoring but not for enforcement. It will be used as a basis for future risk-based approach. A stepwise approach is planned: In 2016 Netherlands focus on guidance and

information on the landing obligation and in 2017 on how to report the discards. Control is not yet based on risk assessment.

2017. No report.

2018. No substantive change compared to previous (2016) report. Some overall figures provided for <mcrs landings but it was not possible to interpret what these related to. Control and monitoring is based on risk assessment and numbers of last haul reports were provided but the latter is not being used to derive targets for sampling.

2019. No substantive change compared to previous report. Issues with securing legal proofs of infringements are repeatedly stressed. The use of REM as a robust control tool for the landing obligation is supported if a common approach is taken by all Member States. The use of Last Haul inspections appears very limited in comparison to previous years. The findings of the EFCA evaluation report of widespread non-compliance with the landing obligation are highlighted.

Information on the socioeconomic impact of the landing obligation:

2016. In 2016, the sector estimated the cost at 25 million euros/year but no details on how this estimation is carried out is provided

2017. No report.

2018. No change compared to previous (2016) report.

2019. No significant issues reported.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No effects are listed but some study from the industry show that 70% of smaller vessels will be forced to return to port early when the landing obligation is fully implemented. No details are however provided on the analysis on which this figure is based.

2017. No report.

2018. No substantive change compared to previous 2016 report. Safety on board issues related to the landing obligation does not appear to be an issue in the Netherlands.

2019. No significant issues reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. The main use of catches below mcrs is, for the demersal species, for non-human consumption (category 3 material according to the animal by-products regulation (EC) 1069/2009), and for the pelagic species for animal food, (e.g. to tuna farms).

2017. No report.

2018. No change compared to previous (2016) report.

2019. No significant issues reported, or new information provided.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. Under article 68, there is a tender for subsidies for €2.8 million but Netherlands has not yet selected the projects that will be funded.

2017. No report.

2018. No substantive change compared to previous (2016) report. Netherlands provided limited detail on 6 projects funded under Article 68 which were mainly seeking to improve marketing, consumption and introduction of new products.

2019. No new information of data provided.

Information on the difficulties encountered and recommendations made:

2016. The major challenge for the landing obligation is in the mixed flatfish fishery in which improved selectivity is very difficult to achieve without significantly increasing the costs. Pilot projects (not referenced in the report) have shown that with current practice and under a landing obligation without exemption, extra labour on board or a reduction in the number of hauls per journey might be needed. Furthermore 70% of the Dutch vessels will need to get back to port early. Several potential choke species are mentioned but no details are provided.

Currently there is no key control tool in force at a regional level or EU level to monitor the compliance with the landing obligation with sufficient guarantees. The ERS system has not been upgraded in accordance with the landing obligation. There is in general a lack of support for the landing obligation by the Dutch demersal sector, so the risk of non-compliance is reportedly very high.

2017. No report.

2018. Some changes compared to previous (2016 report). More detail was provided on the problems encountered in mixed fisheries and through the variable nature of catch composition from trip to trip. Concern was expressed over the time taken for EMFF funding to deliver successful innovation. There was continuing complaint from industry about the complexity of the LO and ongoing concern about the monitoring of de minimis catches and of enforcing the LO. On the positive side the adjustments to the ITQ system provide some mitigating mechanisms and so far, choke situations have not occurred.

2019. No significant new issues reported compared to 2018 report.

Concluding remarks:

2016. The Dutch report provides valuable information on its proactive approach to the implementation of the landing obligation. However, little detail or quantitative information is provided (unwanted catches level, choke species, observations and control). There would seem widespread opposition to the landing obligation from the Dutch demersal sector.

2017. No report.

2018. No substantive change to the previous 2016 report. The Netherlands give the impression it is not possible to enforce the landing obligation and indicate that fishermen seem unwillingly to adapt to the new requirements – this is affecting implementation.

2019. No substantial change to the 2018 conclusions. The main point stressed throughout the report is that there are significant difficulties with enforcing the LO which require a common approach across Member States to address.

Poland

Steps taken to comply with the landing obligation:

2016. Poland has not taken any new avoidance measures or initiated any changes to gear selectivity since the introduction of the landing obligation into Baltic Sea fisheries. No specific studies have been carried out.

Changes have been made to the quota management system through the creation of bycatch quotas for species deemed not be the target species in different fisheries. These bycatch quotas amount to 2% of the total quotas for cod, salmon and western herring and 1% of the quotas for central herring, sprat and plaice. No detail is given but it is suggested this change has prevented choke issues for Poland.

Poland reports that it does not use de minimis exemptions but does report that they have availed of the exemption for the discarding of fish damaged by predators. From January to October 2016, over 1,100 cod, about 100 salmon and about 250 trout were recorded as damaged by seals. This seems to be a problem for the small coastal segment that uses static gear, especially in the Bay of Puck. Towards the end of 2016, Poland introduced a compensation to incentivise fishermen to bring damaged fish into port, keeping photographs of them and submitting detailed information about them. Documented losses of 209 salmonids from seal-damaged catches were notified in December 2016.

Poland has not used the inter-species flexibility but did use inter annual flexibility for cod, herring and sprat. No specific communication and awareness raising measures are reported.

2017. No substantive changes compared to the previous report. Updated numbers were provided for predator damaged fish.

2018. No substantive changes compared to previous report. Numbers for predator damaged fish were not provided for 2018.

2019. No substantive changes compared to previous report.
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Steps taken regarding control of compliance with the landing obligation:

2016. A guide to implementing the landing obligation was produced and made available to the fishing industry. Follow-up meetings were held with the fishing industry, and the need for detailed recording of entire catches was stressed. Guidelines were also circulated to inspectors by the Baltfish fisheries control group and by EFCA on recording discards using the ‘last haul’ method. Landing obligation implementation workshops for inspectors were also held.

No new control and monitoring tools have been used by Polish inspectors and most effort has centred on at sea inspections. However, Poland indicates that is considering the use of drones for surveillance of fishing gears and the implementation of haul-by-haul recording of catches in electronic logbooks.

There has been some monitoring of catches below mcrs. However, few details are provided as to what specific measures have been taken over and above what is required under current legislation.

Poland has adopted a risk-based assessment although no details are provided. Poland has also participated in the last observed haul approach developed by EFCA. This has mainly been in the cod fishery.

2017. No change compared to previous report.

2018. No substantive changes compared to previous report. Limited information on last haul procedure was included.

2019. No substantive changes compared to previous report. Limited information on last haul procedure was included. Consideration is being given to the use of drones as a control tool.
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Information on the socioeconomic impact of the landing obligation:

2016. No information is provided.

2017. No change compared to previous report.

2018. No substantive changes compared to previous report. Some speculation on potential generic effects of the landing obligation but no detail is provided.

2019. No information is provided.
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Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported, and no funding has been provided.

2017. Limited change compared to previous report. Funding for Article 32 EMFF projects was made available attracting 211 applications.

2018. No substantive changes compared to previous report. Note that 162 project agreements signed under Article 32 funding.

2019. No safety issues are reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. Catches below mcrs have mainly been sent for fish meal. Prices received for such catches are low. Unwanted catches have consisted of cod, with a total of 1 041 kg landed in 2015 and 133 kg from January to November 2016. No explanation is given for the reduction in landings. No pilot projects have been carried out to consider uses of unwanted catches.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No information or data provided.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2016. No funding has been provided for changes to infrastructure ashore or on vessels.

2017. Limited change compared to previous report. A call for Article 38 projects will be made in 2018. A call for Article 43 projects was made in 2017 attracting 19 applications – no further information was provided. A similar call for Article 69 was also made – this is in the process of being processed.

2018. Some changes compared to previous report. Substantial number of Article 38 project applications made of which 60 contracts amounting to 2.7 million PLN were signed. Projects concern the use of selective gears.

2019. Two hundred and seventy-five projects on board vessels are reported and eight infrastructure projects but little data is provided of what was funded.

Information on the difficulties encountered and recommendations made:

2016. The major difficulty highlighted is the physical storage and transport of unwanted catches both on board and ashore. No detail of the extent of these problems is provided.

2017. Limited change compared to previous report. Report raises difficulties relating to monitoring, control and enforcement and essentially concludes that the only answer is to have an inspector or official physically present on the vessel.

2018. No change compared to previous report.

2019. No issues reported.

Concluding remarks:

2016. The Polish report provides some useful information on implementation without providing much quantitative data to support their findings other than for seal damaged fish. Quantities of fish below mcrs are reportedly low and interestingly have dropped since introduction of the landing obligation. There is little in the report to suggest this reduction has been as a direct result in behavioural change by the industry.

2017. No substantive change compared to the previous conclusions.

2018. Limited change compared to the previous conclusions. Some more evidence of funding provision to deal with the landing obligation. Evaluation of this report was impaired by the translation provided.

2019. Limited change compared to the previous conclusions. Some more evidence of funding provision to deal with the LO. Evaluation of this report was impaired by the translation provided.

Portugal

Steps taken to comply with the landing obligation

2016. No report provided.

2017. No report provided.

2018. Portugal suggested it had been involved in measures related to avoidance measures or improved selectivity in its trawler fleet, but no detail was provided. Comments suggest uptake of these measures has been limited. Quota management for mackerel is now dealt with at the individual vessel level to improve utilisation. Choke studies suggest problems for anglerfish, red seabream, megrim, skates and rays and deep-water sharks. In pelagic fisheries high survivability and de minimis exemptions have been sought. In demersal fisheries a high survival exemption was sought for Nephrops and a de minimis for hake (both ICES sub-areas 8-9), Supporting evidence sources were presented. Close monitoring and feedback to industry prevents de minimis from exceeding agreed limits. Quantitative information on de minimis utilisation was provided suggesting low rates of utilisation. Vessels have not used the provision for damaged fish. Portugal has used inter-annual flexibility for some species but not inter-species flexibility. Consultation with relevant advisory Councils takes place and information is disseminated to industry.

2019. Portugal has undertaken three relevant studies in 2019 to support de minimis and survivability exemptions. They have also participated in a joint study with Spain considering the socioeconomic impacts of the landing obligation in SWW. These studies involved demersal and crustacean trawlers. Portugal reports it has been difficult to encourage fishermen to uptake selective gears due to losses of marketable catches and operational. Potential choke situations are highlighted but no actual chokes are identified.

Portugal has adapted the quota management system to provide more flexibility and reduce the risk of choke situations. Specific measures have been put in place for mackerel, megrim, alfonsinos, horse mackerel, sole and anglerfish. A “sub quota” to control the volumes of catch discarded under de minimis exemptions for each relevant stock has been developed. All reported discards are counted against these “sub quotas”. If the “sub quota” level is reached, fishermen are informed that from that date on all catches must be landed. Portugal has used inter annual flexibility but not the inter species mechanism.

Detailed data has been provided for catches landed under de minimis exemptions. These have been provided by stock, area and gear type. The figures show the level of discarding is very small compared to total catches, less than 0.05%. No catches have been discarded due to damage by predators.

Consultation with relevant advisory Councils continues and information is disseminated to industry through workshops and information notes. Producer organisations are an important conduit for information sharing.

Steps taken regarding control of compliance with the landing obligation:

2018. Guidelines have been provided to industry including the need for accurate reporting of catches. Guidelines and training seminars have been provided for inspectors. A new electronic logbook has been developed which accommodates the need to record more details on catches and discarded material. Information on discards by fleet were provided and a traceability system operates in ports to ensure all landings are subject to MCRS control. Risk based monitoring is applied and last haul analysis routinely takes place.

2019. No major changes indicated since 2018 although quantitative data for volumes of fish below mcrs are provided. Portugal continues to rely on existing control and monitoring tools to implement the landing obligation, adapted to the requirements of the landing obligation. Portugal reports 34 infringements. These were all detected during inspections of landings. Sanctions applied were in most case fines and penalty points for two cases.

Information on the socioeconomic impact of the landing obligation:

2018. No information was available.

2019. Portugal highlights that commercial losses from the use of selective devices provide a disincentive to uptake these gears. Studies show that, if used extensively, those technical devices may make fisheries uneconomic.

Information on the effect of the landing obligation on safety on board fishing vessels:

2018. No incidents were reported, and no additional information was provided.

2019. No incidents are reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2018. The main outlet for catches <mcrs is fishmeal although no quantities were provided. A long bibliographic list was provided on utilisation of unwanted catches.

2019. The main outlet for catches below mcrs is still fishmeal. Average price reported was €50/tonne. A study on the use of these catches in the preparation of protein hydrolysates and oxylipines as natural fungicides and growth stimulants of several plants, to be used in agriculture has been undertaken. The results are promising but no detail is provided.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation:

2018. Funding was provided under articles 43 (1 project), 68 and 69 (two projects). The total funding amounted to about 1.8 million euro.

2019. No funding has been provided in 2019.

Information on the difficulties encountered and recommendations made:

2018. Some general comments on difficulties were provided but no substantive detail was presented.

2019. Portugal reports several issues without providing any supporting information. The main difficult highlighted is the problem of improving selectivity in mixed fisheries, where improving selectivity is difficult. Portugal concludes that It is impossible to create a selective gear that will achieve discard avoidance for all species. Even if unwanted catches are proportionately scarce in such fisheries, they are difficult to avoid.

Portugal also indicates that there are insufficient fishmeal factories and markets for unwanted catches, therefore, a proportion of such catches are going to landfill with no value back to the fishermen. To bring and process unwanted catches onshore is very expensive without market demand. The monitoring of unwanted catches is difficult on small vessels. These vessels contribute relatively little of the overall catch of species under landing obligation.

There are still implementation problems concerning electronic processes (e.g. adaptation of ERS systems). There are also problems with the availability of quota swaps in SWW given relatively few stocks are covered under the TAC and quota regime. For most of the stocks, Portugal can only swap quotas with Spain.

Clarification related to control and enforcement.

2018. Effective control and enforcement is ensured using new logbooks and follow up risk-based assessment and inspections based on that information. Information on infringements was not available.

2019. See above.

Concluding remarks:

2018 Portugal provided a short overview in their questionnaire response. In some cases, efforts were made to provide detail on initiatives and quantitative information while in other parts of the report there was only very limited information available. Focus on the need to quantify and provide good data based on logbooks and follow up inspections and risk-based assessment suggests efforts to effectively implement the landing obligation are being made.

2019. Portugal provided a more detailed report for 2019 including providing detailed quantitative data on catches discarded under exemptions and landings of unwanted catches below mcrs. Portugal has put in significant effort to implement the landing obligation through supporting studies, adapting the quota management system as well as control and monitoring. Portugal continues to disseminate information to the industry and consulting with the AC.

Romania

Steps taken to comply with the landing obligation:

2016. Romania has not implemented any new measures or carried out any studies specifically related to the implementation of the landing obligation. No changes have been made to the quota management system as the quota for sprat is not fully utilised. A choke species analysis has been carried out, but no details are provided. To raise awareness of the landing obligation, Romania holds periodic meetings with the Black Sea Advisory Council and has annual meetings with fishermen to explain the regulations.

2017. No report provided.

2018. No report provided.

2019. Romania carried out one study investigation the avoidance of accidental catches of turbot and dogfish in beam trawl fisheries for whelk during the seasonal closure for turbot. No results are presented. No studies have been carried out to support exemptions. No adjustments have been made to the quota management system. Romania reports that there are verbal records from fishermen in connection with some damage caused by some predators (sharks, dolphins) in the turbot fishery. No estimates of volumes are provided. Romania holds periodic meetings with the Black Sea Advisory Council and has annual meetings with fishermen to explain the regulations.

Steps taken regarding control of compliance with the landing obligation:

2016. Romania has provided specific training to fishery inspectors. Further training courses are planned in 2017. No new monitoring and control tools have been used although levels of at sea and onshore inspections have been increased. Figures are provided for landings of sprat below mcrs for the period 2013 -2015. These show a reduction in landings from 39 tonnes to 3 tonnes in 2015. During 2016 no catches of sprat below mcrs were observed during inspections at sea. Romania has participated in the National Control Plan for the Black Sea coordinated by EFCA. This is a risk-based approach although no details are provided. No last haul analyses have been carried out.

2017. No report provided.

2018. No report provided.

2019. Romania relies on existing control and monitoring tools to implement the landing obligation. In 2019, 3 seminars and trainings were organized by NAFA and EFCA with all fisheries inspectors from

Romania. Inspectors from Romania have participated in joint aerial surveillance and a JDP organised by EFCA. No landings of unwanted catches below mcrs or infringements are reported.

Information on the socioeconomic impact of the landing obligation:

2016. No specific information is provided other to indicate operational expenses for fishermen are increasing.

2017. No report provided.

2018. No report provided.

2019. No impacts reported.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported.

2017. No report provided.

2018. No report provided.

2019. No incidents reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. No information provided.

2017. No report provided.

2018. No report provided.

2019. No catches below mcrs reported.

Information on port infrastructures and of vessels fitting with regard to the landing obligation:

2016. No funding has been provided.

2017. No report provided.

2018. No report provided.

2019. No funding provided.

Information on the difficulties encountered and recommendations made:

2016. Romania highlights difficulties with fishermen with handling, storage and processing of unwanted catches on board without providing any supporting evidence. From a control perspective, Romania highlights an issue with the ERS system and a fleet capacity issue that is unrelated to the landing obligation.

2017. No report provided.

2018. No report provided.

2019. No difficulties encountered. The landing obligation has only minimal impact.

Concluding remarks: The landing obligation has not impacted the Romanian fishing fleet.

2016. Very little information is provided in the Romanian report. The overall impression is that the impacts have been very low, and this has resulted in any real measures or changes to the control system being initiated by Romania. They do indicate that impacts will increase in the future through increasing handling and storage costs for fish below mcrs.

2017. No report provided.

2018. No report provided.

2019. xyz

Slovenia

Steps taken to comply with the landing obligation:

2016. Only 4 Slovenian purse seiners targeting small pelagic species are currently subject to the landing obligation, so the impacts are reportedly low. No specific measures or studies have been carried out by Slovenia and they have very much relied on the de minimis exemption for pelagic species to implement the landing obligation.

2017. Limited change compared to the previous report. The main addition is recognition that from 2017 the landing obligation applies to species which define the fisheries in the Mediterranean, but since Slovenia does not have vessels prosecuting these fisheries there is no impact.

2018. No change compared to previous report.

2019. Slovenian vessels have not targeted small pelagic species under the landing obligation, so the impacts are reportedly low. No specific measures or studies have been carried out by Slovenia and they have very much relied on the de minimis exemption for pelagic species to implement the landing obligation.

Steps taken regarding control of compliance with the landing obligation:

2016. Information on the landing obligation has been provided to fishermen by the national authorities. Under national legislation all vessels regardless of size must fill in logbooks. Slovenia has also participated in JDP's in the context of the Specific Control and Inspection Programme (SCIP) for fisheries exploiting stocks of bluefin tuna in the Eastern Atlantic and the Mediterranean, swordfish in the Mediterranean and for fisheries exploiting stocks of sardine and anchovy in the Northern Adriatic Sea.

2017. Limited change compared to the previous report. Slovenia mentions that their control includes a risk-based approach, but no detail is given.

2018. No change compared to previous report.

2019. No change compared to previous report. Slovenia relies on existing control and monitoring tools.

Information on the socioeconomic impact of the landing obligation:

2016. No specific information is provided.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. Slovenia indicates that without the de minimis exemption in place, safety on board would be compromised due to the small size and limited carrying capacity. No information is provided to support this assertion.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No incidents are reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. No landings of fish below mcrs are reported. The number of vessels subject to the landing obligation and the reported catches of fish below mcrs are low. These catches are currently covered by the de minimis exemption. However, it is reported that unwanted catches would have to be transported from the coast to central Slovenia (i.e. to near Ljubljana for incineration as waste located at 150 km away). In this case, the costs of disposal as waste would be disproportionately high in comparison to actual quantities of unwanted catches.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No additional information provided.

Information on port infrastructures and of vessels fitting with regard to the landing obligation:

2016. No funding has been provided.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No funding has been provided.

Information on the difficulties encountered and recommendations made:

2016. There were no difficulties encountered in the implementation of the landing obligation.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. There were no difficulties encountered in the implementation of the landing obligation.

Clarification related to control and enforcement:

2017. Response to additional questions not provided.

2018. Enforcement is ensured by implementing control and enforcement in accordance with the rules of the CFP via the National Decree on monitoring catches and sales (Official Journal of the Republic of Slovenia, No. 38/16). No infringements were detected in 2018.

2019. No information provided.

Concluding remarks:

2016. Only 4 vessels are subject to the landing obligation and the impacts on these vessels are reportedly very low. Slovenia does not anticipate any major difficulties in implementing the landing obligation provided the de minimis exemption for pelagic species remains in place.

2017. No change compared to previous conclusions.

2018. No substantive changes compared to previous conclusions.

2019. The Slovenian report provides little new information but given catches under the landing obligation are very low there has been no impacts from the landing obligation.

Spain

Steps taken to comply with the landing obligation:

2016. Spain has carried out a range of studies related to implementation of the landing obligation. These include several selectivity studies, studies to measure the impacts of the landing obligation on specific fleets, measurement of discard rates in fisheries subject to the landing obligation and several studies to support high survivability and de minimis exemptions. Many of the studies have been carried out on trawlers, pair trawlers and gillnetters targeting, hake, megrim and anglerfish. Six vessels have been involved in the selectivity studies.

Spain has made changes to their quota management system to allow the recording of discards under de minimis exemptions. No details are provided.

Spain has been carrying out analysis of choke species as part of a detailed analysis being carried out by the North Western Waters regional group. Spain has also participated in the regional groups in SWW and the Mediterranean.

Spain has established a global de minimis for the fleet, calculated over the quota allocated to these vessels individually or for the gear and area. All discards are counted against this global de minimis. However, little detailed information on the actual amounts of de minimis discards is reported and there are indications that fishermen are not reporting such discards in their logbooks consistently. Spain also reports catches that have been discarded due to damage by predators. No information on volume is provided.

Spain has not used inter-species flexibility but has used the inter-annual flexibility mechanism.

To improve understanding and awareness of the landing obligation, Spain has set up several working groups that meet frequently to discuss implementation issues. These groups involve NGOs, fishing representatives, scientists and different regional administrations and feed their recommendations into the regional groups of Member States. Guidelines have also been sent to fishermen to help with implementation. These have been complemented with regular port visits.

2017. Some changes compared to the previous report. Quite a lot of detail provided on a range of projects which Spain has conducted or taken part in (e.g. DISCARDLESS) during 2017. It is believed that the main choke problems exist in the bottom trawl fisheries. There are ongoing developments in the quota management system including a dedicated group to control de minimis uptake. Spain is involved in the work on the NWW choke tool and by the end of 2018 a complete definition of the problem is expected. Work has taken place on some potential high survivability cases and requests for exemptions are being pursued. Limited financial resources were identified as a problem in delivering the required analysis. Improved IT systems for recording de minimis were highlighted but installation has still to be completed. Information was not available on the utilisation of de minimis or on the extent of damage by predators.

2018. Some changes compared to previous report. Spain continues to be involved in a variety of studies to address selectivity issues including testing gears developed in other sea basins (eg T90 trawls). Planned new controls for the use and reporting of de minimis were introduced in 2018. Figures on the utilisation of de minimis were provided by species and fishery – percentage utilisation was generally low except in some hake fisheries. Quantitative information on damage caused by predators was also provided by species and fishery - overall this amounted to about 337 tonnes. Detailed figures on inter-annual flexibility were provided while inter-species flexibility was not used.

2019. Many studies are reported by Spain. These have focused on assessing the socioeconomic impacts of the landing obligation and the consequences of choke species. Most studies have been in the form of trials with selective gears and measures to avoid discards for trawl fisheries. Specific studies to support de minimis and high survivability exemptions have also been carried out. Detailed summaries for each trial has been provided. Spain is working to implement the use of selective gears at national level based on the results from the studies. A transitional period to confirm the results of the trials are mirrored at commercial scale will be followed by national legislation to make the use of selective gears mandatory in trawl fisheries in areas 6 and 7 from 1 July 2020.

Spain has revised their internal quota management system to facilitate allocating of more species individually, providing the possibility of transfers between vessels or even between fleets segments if necessary to balance needs and avoid choke situations. Spain has also made use of the quota pool system in 2019. Both inter annual flexibility and inter species (3 stocks) have been used.

Spain has provided very detail breakdowns of unwanted catches discarded under exemptions. This is provided at fishery level by gear and area, covering all sea basins including the Mediterranean. Detailed data on catches discarded due to predator damage have also been supplied.

Spain continues to participate in the NWW Member States group and consult with the relevant ACs. At national level, documents, explanations and summaries are sent to fishermen via the committees (national, regional and departmental) and producer organisations. National guidelines to the implementation of the landing obligation (aid for the filling of electronic and paper fishing logbooks) and a summary of the current measures contained in the relevant discard plans has been provided. There are also regular port meetings.

Steps taken regarding control of compliance with the landing obligation:

2016. Regular briefings are held with inspectors to inform on changes to legislation and discuss control issues associated with the landing obligation. Training courses and workshops have also been organised for inspectors.

No additional control and monitoring measures are reported but Spain has increased the level of monitoring at sea and ashore to monitor the destination of catches below mcrs. There has been increased co-operation between Spanish regional authorities to assure the traceability of such catches.

Spain is developing a risk-based approach to monitoring compliance with the landing obligation that will be adopted during 2017. No details are provided. Spain has also participated in the last haul analysis initiated by EFCA in the context of the NWW JDP for pelagic species. No detailed information is provided on the findings or the number of last haul analysis completed.

2017. Some changes compared to the previous report. New landing obligation guidelines are expected to be published in 2018. Guidelines are provided to both stakeholders and inspectors. Several tools, such as REM are being considered but are not in use yet. Precise information on discards (de minimis catches) and below mcrs catches are not available.

2018. Limited changes compared to previous report. In 2018, Spain has trialed the use of drones as a inspection tool and expects to use these operationally in 2019. Experiences with last haul analysis have led Spain to conclude it is not suitable for estimating discards and it is not pursuing this approach – it does not discuss why it cannot be used to assist other aspects of the landing obligation, however.

2019. Risk-based approach to implementation of the landing obligation has been applied. There is a detailed description of the elements of the approach provided in Spain's annual report. Monitoring of the landing obligation has been stepped up and data reporting systems have been adapted to allow better monitoring and reporting of unwanted catches and catches discarded under exemptions. No new control tool has been adopted and Spain does not use the last-haul analysis. No trials with REM or CCTV are reported although it is being discussed with the industry. A database for first-point of sale information has been developed and allows identification and verification of the destination of marketable and below mcrs catches.

Regular briefings are held with inspectors to inform on changes to legislation and discuss control issues associated with the landing obligation. Training courses and workshops have also been organised for inspectors. Guidelines and training has also been provided to fishermen at regular intervals.

Seven infringements related to the landing obligation are reported for 2019, with a further 92 possible infringements.

Information on the socioeconomic impact of the landing obligation:

2016. Spain has carried out several specific studies to assess the socioeconomic impacts of the landing obligation. These studies have considered the costs for the catching sector and Member States for implementing the landing obligation, effects on safety on board, bio-economic impacts of changes in selectivity, disproportionate costs of handling unwanted catches on board and impacts on upstream businesses. The information presented is a mixture of qualitative and quantitative data.

2017. No substantive change compared to previous report. There is a lot of speculative discussion and concern but very few data are presented.

2018. No change compared to previous report.

2019. No change compared to previous reports. Studies on impacts continuing.

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported.

2017. No change compared to previous report.

2018. No change compared to previous report.

2019. No incidents reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. No information is provided although several studies have commenced to look at potential uses of catches below mcrs.

2017. Limited change compared to previous report. Information is not available for the whole coastline but in the Basque country, the total amount of 'by products which went to fishmeal amounted to 121 tonnes.

2018. No change compared to previous report. No response provided.

2019. Results from a study carried out in 2018 are reported. This study considered the development of higher value products from below mcrs landings. By increasing the selling price for unwanted legal size catch potential disproportionate costs are reduced. Fish pulp and the production of hydrolysates were both considered viable options. However, any unwanted catches landed currently go for fish meal, but volumes are small.

Information on port infrastructures and of vessels fitting with regard to the landing obligation:

2016. No specific projects have been funded under the EMFF either for port infrastructures or for modifications to vessels. A total of 42 vessels have been funded for marketing and processing measures which are indirectly linked to the landing obligation.

2017. No substantive change compared to previous report. Numbers cited for specific projects involving marketing differs between last report and 2017 report – Spanish authorities may wish to clarify.

2018. No change compared to previous report.

2019. Funding for two projects for unspecified equipment for reducing unwanted catches on board has been provided. There has been no investment in infrastructure projects.

Information on the difficulties encountered and recommendations made:

2016. Spain highlighted several difficulties with the implementation of the landing obligation. Most of these are problems that are expected to arise as more species and fisheries become subject to the landing obligation rather than current problems. They stress the need for more time and funding to

implement the landing obligation given the complexity and highlight the problems of control and monitoring. Problems are reported on the control of landings of hake below mcrs in Andalusia and for horse and *Nephrops* in the Gulf of Cadiz. They also indicate that allowing the use of catches below mcrs for charitable purposes should be considered as this would act as an incentive for compliance.

2017. No change compared to previous report. A very long description of perceived problems is included, critical analysis focusing on actual problems experienced is mostly missing.

2018. No change compared to previous report.

2019. No change compared to previous report. The anticipated problems identified remain.

Clarification related to control and enforcement.

2017. Response to additional questions not provided

2018. Effective control and enforcement of the landing obligation is ensured through well-developed electronic recording systems for discards and <mcrs catches. Fishery inspections include the use of aerial tools, at sea inspections and port monitoring. There were no reported infringements.

2019. Reported above.

Concluding remarks:

2016. Spain has provided detailed information on certain aspects which show they have been proactive in implementing the landing obligation particularly through studies and pilot projects on various operational aspects as well as in disseminating information to fishermen and inspectors. Limited quantitative information is provided on quantities of fish discarded under exemptions or catches of fish below mcrs landed. The impression is that these have been low, but the reported levels are unreliable. Spain also indicates that the fishing industry remains opposed to the landing obligation which makes implementation difficult.

2017. No change compared to previous conclusions.

2018. No substantive changes compared to previous conclusions. Spain has provided more quantitative information on de minimis uptake and predator damage.

2019. No substantive change and Spain has continued to be proactive in carrying out studies, disseminating information and adapting existing control and monitoring systems to facilitate the implementation of the landing obligation. Modifications have been made to the quota management system to allow more transferability of quota and Spain has also used all available quota flexibility mechanisms. Spain has provided detailed quantitative information on discards under exemptions and below mcrs. A modification to the Regulation to allow the use of catches below mcrs for charitable purposes is suggested.

Sweden

Steps taken to comply with the landing obligation:

2016. Sweden has not taken any new avoidance measures or initiated any changes to gear selectivity since the introduction of the landing obligation into Baltic Sea and North Sea fisheries. Approximately 1 million euro per year (2014-2017) has been provided for to gear development projects initiated by the stakeholders to facilitate the implementation of the landing obligation. Some of the gears developed are now used in commercial fisheries, for instance trawls separating roundfish and flatfish and pelagic trawls with selective grids to reduce the bycatch of saithe.

Sweden has introduced a new quota management system for 2017. The new system allows for the possibility of transferring fishing possibilities between individual fishermen during the year. This was not possible under the previous system. It is based on yearly allocation of individual fishing opportunities.

Sweden has actively engaged with the regional groups in both the Baltic Sea (Baltfish) and in the North Sea (Scheveningen group) in the development of discard plans and the provision of information to support de minimis and high survivability exemptions. Sweden has monitored the reported amounts of discard that fit under the de minimis to monitor the established limits are not exceeded. Actual levels of de minimis reported are very low amounting to a total 2 645 kg of in the *Nephrops* trawl fishery with a sorting grid in the Skagerrak and 10 kg (0.4%) of common sole.

Sweden has also availed of the exemption for fish damaged by predators and has provided a detailed breakdown of the weights by species and by fishery. A total of 137 vessels using passive gears have reported around 234 tonnes of predator (seal) damaged fish. The majority of this (181 tonnes) has been cod. Sweden will introduce mandatory reporting of predator damaged fish in 2017.

Sweden has not used the inter-species flexibility mechanism but has used inter-annual flexibility. No details of given of the species or amounts involved.

To raise awareness of the landing obligation, in addition to consultation with the relevant Advisory Councils through the regional groups, Sweden has also sent information to all licensed fishermen, organised meetings at national level with fishermen's organisations and published detailed information and guides on governmental websites.

2017. Limited change compared to previous report. The de minimis quantity reported is very small in 2017 – amounting to 366kg. More vessels reported predator damage in 2017 and a detailed table by species was provided.

2018. No substantive changes compared to previous report. Sweden updated the de minimis figures and provided further links to gear research funded by Sweden. Despite the positive developments, uptake of new gears is still limited.

2019. No report provided.

Steps taken regarding control of compliance with the landing obligation:

2016. Sweden has taken several initiatives to improve compliance with the landing obligation. These include the measures outlined above along with a two-day-seminar for all Swedish inspectors organised by/in cooperation with EFCA. Instructions and manuals have also been sent to all fishermen using paper logbooks and they were also invited to visit the agency for on-to-one meetings on completing logbooks.

No new control and monitoring tools have been introduced. However, the software for electronic reporting has been updated to allow for catch reporting. Sweden has also adopted a risk-based approach to control and monitoring by moving away from set control benchmarks to a control system based on qualified risk assessments. The risk categories are based on the same categories used in the regional risk assessment developed by EFCA for JDPs and the regional Control Expert Groups. During 2016 an automated system for risk assessment has been developed. No detail of this system is provided.

In addition, the Swedish Coastguard has carried out last haul observations as a mean to compare reported catch of undersized cod with observed catch. A total of 57 last haul analysis were carried out in the Baltic (2014-2016) and 18 in the North Sea (2016). This has shown that there are very small landings of fish below mcrs (for example 1.9 % in the trawl fisheries for cod in the Baltic Sea) when compared to that of approximately 20% observed in the last haul inspections.

Sweden has also continued to work with joint inspections during specific times of the year. These joint inspections have focused on certain species and risks, respectively, in an attempt to cover fishing activities in an entire fishing trip.

2017. Limited change compared to previous report. Below mcrs quantities are provided for 2017. In the NSK about 257 tonnes was reported of which 97% was herring while in the Baltic about 90 tonnes

was reported of which cod accounted for 98%. Serious incidents have hampered Swedish Coastguard boardings of vessels for last haul analysis in 2017 – no indication is given of the nature of the incidents.

2018. No substantive changes compared to last report. Sweden updated the <mcrs quantities (which remain low). Updated figures for last haul analysis were also provided.

2019. xyz

Information on the socioeconomic impact of the landing obligation:

2016. Sweden reports no socioeconomic impact of the landing obligation to date mainly because the quantities of fish below mcrs are very low.

2017. No change compared to the previous report.

2018. Some change compared to previous report. A preliminary analysis of costs incurred because of the landing obligation was provided for 2017 (2018 will be analysed once the data are available). Results suggested a relatively low cost and additional workload requirement compared with the overall cost and workload of the Swedish fleet.

2019. xyz

Information on the effect of the landing obligation on safety on board fishing vessels

2016. No incidents are reported.

2017. No change compared to the previous report.

2018. No change compared to previous report.

2019. xyz

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. Sweden has provided detailed information on landings of fish below mcrs by gear type for the period 2014-2016. Volumes are low, and any landings have generally been used for fish meal. No pilot studies to consider uses for such landings have been carried out.

2017. No substantive change compared to previous report – below MCRS fish are also used for animal feed.

2018. No change compared to previous report.

2019. xyz

Information on port infrastructures and of vessels fitting with regard to the landing obligation:

2016. Sweden has funded 8 projects (€55,000 investment) concerning investments for selective gear, purchase of gillnet and transition from bottom trawling to semi-pelagic fisheries under article 38 of the EMFF. Sweden has also funded 20 projects concerning investments for certification, formation of producer organizations and investments in existing producer organisations under articles 68 and 69 of the EMFF.

2017. Limited change compared to previous report. Updated figures provided to indicate that 29 projects were granted over 2.25 million SEK under Article 38, 8 projects were granted about 13 million SEK under Article 43 and 60 different projects were granted over 52 million SEK under Articles 68 and 69 of the EMMF.

2018. Limited change compared to previous report. Updated figures were provided for funded projects. Projects under Articles 68 and 69 continue to attract the most funding.

2019. xyz

Information on the difficulties encountered and recommendations made:

2016. Sweden highlights several challenges in implementing the landing obligation without providing any detailed information. They indicated that problems so far have been minimal, but these will increase as more species and fisheries become subject to the landing obligation.

2017. No change compared to previous report.

2018. No substantive change compared to previous report. Earlier issues with the acceptance of observers on vessels has been addressed by charging skippers a fee if they do not take an observer in the appropriate timescale.

2019. xyz

Clarification related to control and enforcement.

2017. Effective control and enforcement of the landing obligation at sea and the accurate documentation of all catches, including quantities discarded, is ensured by performing last haul analysis during inspections at sea and close work with shore-based teams to cross check and verify that the landing obligations are being observed. No confirmed infringements detected during 2017. One suspected case was reported but this was dropped owing to lack of evidence

2018. No substantive change to previous report concerning methodology of effective enforcement. There was one at sea infringement which is being dealt with by the prosecutor and 3 administrative infringements one of which is also being dealt with by the prosecutor (the other cases were resolved without further action).

2019. xyz

Concluding remarks:

2016. The Swedish report provides detailed information on the main measures and actions taken to implement the landing obligation including a major overhaul of their quota management system. They report that to date impacts on the fishing industry are low, but these will increase when more species and fisheries are subject to the landing obligation. They give the impression that control and monitoring are the biggest challenges facing them.

2017. No change compared to the previous conclusions.

2018. Some change compared to previous conclusions. Sweden appears to be effectively utilising last haul analysis and cross checking with landings and has reported infringements that have been detected.

2019. xyz

United Kingdom

Steps taken to comply with the landing obligation:

2016. The main measure reported by the UK related to the avoidance of unwanted catches has been the continued participation (since 2011) in Fully Documented Fisheries (FDF) trials. Vessels were fitted with Remote Electronic Monitoring/CCTV camera systems and operated as if they were under a landing obligation, with the trial participants landing all their catch in exchange for additional quota. In 2016 trials carried out on vessels in the TR 1 segment (i.e. trawlers and seiners fishing with gears more than 100mm) in the North Sea. Seventeen English out of 63 vessels participated in these trials in 2016.

No new quota management measures have been taken as the UK already operates a transferable quota system within most of the fleet. Consideration has been given to the option of reserving quota to “hedge” against a choke scenario, to avoid premature fishery closure for vessels outside the

transferable system (non-sector vessels). This mechanism has not been called on to date as there are limited stocks currently subject to the landing obligation.

The UK has carried out an extensive analysis of possible choke species and has provided specific lists of potential choke species by sea basin (e.g. North Sea, West of Scotland, Celtic Sea and Irish Sea) and also by type of choke (e.g. fishing opportunities out of line with current catches, zero TACs or quota species, low quota species and species that may choke fisheries in the absence of quota top-ups, quota swapping and behavioural change by fishermen).

The UK has availed of exemptions (de minimis and high survivability) as set out in the relevant discard plans. The UK has been the instigator of several of these exemptions. The quantities of fish discarded under de minimis exemptions are required to be reported in logbooks. This requirement has been highlighted in published guidance and through direct advice. However, compliance with this requirement has been difficult as discards are not routinely observed. So far, the data collected to date looks to be incomplete and not of a high quality. Indicative figures suggest that Scottish vessels using TR2 gear discarded a combined 2 tonnes of *Nephrops* in the North Sea and North Western Waters under de minimis.

The UK has limited reports of fish being discarded due to damage by predators. The discard data is considered unreliable with only limited amount of information on unmarketable discards from FDF trials.

To raise awareness of the landing obligation, in addition to consultation with the relevant Advisory Councils through the regional groups, the different administrations in the UK have also sent information to all licensed fishermen, organised meetings at national level with fishermen's organisations and published detailed information and guides on governmental websites.

2017. No report provided.

2018. Limited changes compared to previous (2016) report. The report contained updates for 2018 on the ongoing FDF scheme and information on unwanted catch 'hotspot' research and a spurdog bycatch avoidance programme in the Celtic Sea. UK conducted choke analysis in 2018 using bioeconomic models but no details were provided. UK contributed to several exemption initiatives, pointing to the Joint Recommendations for further detail. Data on 2018 de minimis utilisation was unavailable until 2019 – no updates were provided for 2016 or 2017 de minimis utilisation.

2019. No report provided.

Steps taken regarding control of compliance with the landing obligation:

2016. In addition to the measures described above, fisheries officers have been kept fully informed of all developments regarding implementation of the landing obligation and Enforcement Policy Instructions have been drafted and amended as required. Guidance continues to be rolled out to all offices via written communication, Videoconferencing seminars, face to face meetings and Workshops organised both locally and by EFCA.

All exiting control and monitoring tools such as aerial surveillance, inspections at sea, and monitoring in port have been used by inspectors in the UK. These have been supplemented with new tools and techniques such as CCTV and fitting forward look infrared cameras (FLIR) to our surveillance aircraft allowing them to keep a check on activities during the hours of darkness. Marine Scotland now follow up any boarding at sea where last haul analysis has been carried out with a full monitoring of the vessel on landing; this is then analysed against the landings of other vessels fishing in the same area. All pelagic vessels are now required to give their average gramme size and all vessels gramme sizes are compared against vessels from the same fishery, allowing them to be used as reference vessels.

Volumes of fish below mcrs entering direct human consumption outlets have been low. Fish that have been retained below the minimum size are kept separately and landed to specific areas which have been set up in all auction halls. Fish within these specific areas are subject to specific controls and are

normally used for bait by local creel vessels or dispatched to a fish meal plant where they are turned into meal and oil. Guidance has been provided to industry on the potential markets for below mcrs fish, specifying that food hygiene or Animal By-Products legislation should be adhered to, depending on the markets the fish is being sent. No information is supplied on actual volumes.

Risk assessments are currently being used to categorise the highest risk fisheries with a view to implementing appropriate and proportionate control tools. Control activities are risk based although the highest risks are not necessarily linked to the landing obligation. The UK has been fully involved with the implementation of the last observed haul approach elaborated by EFCA, for both pelagic and demersal fisheries. No details are provided of the fisheries or level of inspections carried out.

2017. No report

2018. No substantive change compared to previous (2016) report. Further detail on the FDF schemes were provided along with details of REM use in the fishery taking a high proportion of the English cod quota. No details were provided on the quantities of <mcrs fish.

2019. xyz

Information on the socioeconomic impact of the landing obligation:

2016. No socioeconomic data on the impacts of the landing obligation are supplied.

2017. No report

2018. No change compared to previous (2016) report.

2019. xyz

Information on the effect of the landing obligation on safety on board fishing vessels:

2016. No incidents are reported. In Scotland, under Article 32 of the EMFF, a total of £357,658.63 has been committed to 22 safety related projects. These projects are considered indirectly related to the result of the landing obligation.

2017. No report.

2018. No substantive change compared to previous (2016) report. Two incidents were reported of excessively high catches of juvenile fish which were judged to require processing time more than safe working hours.

2019. xyz

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation:

2016. The main reported uses of below MCRS fish are for fish meal and pot bait. No information is provided on the extent of such landings. One study has been completed in 2014 which has specifically considered this issue. The trial involved eight vessels of different sizes, gear types and from different ports along the south coast of England who were involved for up to five months.

2017. No report

2018. Some change compared to previous (2016) report. Details were provided of a report exploring potential uses for previously discarded material and identifying users of such material. Although facilities were some distance from the landing site, transport links were considered good. The main issue appeared to be the economic cost to the fishers through transport costs and use of quota to land the undersized material.

2019. xyz

Information on port infrastructures and of vessels fitting with regard to the landing obligation:

2016. Under Article 38 of the EMFF the UK has provided funding for a total of 34 projects with investment of around £240,000 for equipment to improve the handling of catches on board (2 projects) and to support the purchase of more selective gear types (32 projects).

Under Article 43 funding has also been provided for 22 projects with investment of £5.6 million for the handling of unwanted catches including extending a fish market, and ice making facilities, as well as harbour improvements indirectly related to the landing obligation.

Funding has also been provided under articles 68 and 69 for 5 projects with a total investment of £3 million which aim to secure accreditation for inshore fisheries, develop exports, increased processing capacity & the utilisation of by-products. These projects are indirectly linked to the landing obligation.

2017. No report

2018. No substantive change compared to previous (2016) report. The administrations in the UK continue to make significant use of available EMFF funding (and provide national contributions) across all the categories covered by Articles 38, 43, 68 and 69.

2019. xyz

Information on the difficulties encountered and recommendations made:

2016. The UK has highlighted several specific operational, monitoring and control and quota utilisation issues. On the operational side the main issues relate to the selectivity of fishing gears in pelagic fisheries and for haddock in the Celtic Sea. No issues relating to storage on board have been observed. Regarding control the main difficulty is in the reliability of data and the recording of fish discarded under exemptions. The UK also highlighted difficulties for some operators when they have had to purchase quota to cover unintended catches. Whilst the quota has so far been available the leasing price has made such landings uneconomic. The UK also reports that the VIIe/f herring fishery has been closed due to unintended catches and further landing could lead to the closure of the VIId/e spat fishery.

2017. No report

2018. No substantive change compared to previous (2016) report. The main concerns continue to be selectivity/avoidance issues in some fisheries (e.g. pelagic) and the reliability of discard observations (for e.g. ascertaining de minimis usage).

2019. xyz

Clarification related to control and enforcement.

2017 No Report

2018. Effective control and enforcement is ensured through onboard and shore based checking and cross checking of catches and recorded details. High risk fisheries attract additional aerial surveillance and observation by Marine Protection vessels (including last haul analysis. Limited use of REM technologies is also taking place. There have been no recorded incidents of suspected or confirmed infringements relating to the landing obligation in 2018.

2019. xyz

Concluding remarks:

2016. The UK report provides detailed information on the main measures and actions taken to implement the landing obligation including the completion of several studies on selectivity and the use of CCTV and REM monitoring systems. Similar to Sweden and Germany they report that to date impacts on the fishing industry are relatively low, but these will increase when more species and fisheries are subject to the landing obligation. They give the impression that control and monitoring of discards under exemptions is challenging, while that the catches of fish below mcrs being landed are not a true reflection of what is being caught.

2017. No report

2018. No substantive change compared to previous 2016 conclusions. More detail is provided on ongoing FDF and REM initiatives and there is continuing evidence of investment in studies and industry support to assist the implementation of the landing obligation. As before, very little quantitative detail is provided on outcomes concerning de minimis and <mcrs catches.

2019. xyz

ANNEX II SUMMARY OF ADVISORY COUNCILS

DGMARE included 2019 documents from five Advisory Councils – NSAC (3 submissions), PAC (1 submission), SWWAC (1 submission), MEDAC (1 submission) and NWWAC (1 submission). A summary of these is provided in the section below. Submissions from previous years are included for completeness.

- *NWWAC*

2016. The NWWAC does not provide any detailed information. It affirms the AC's commitment to the process and re-iterates difficulties with the landing obligation raised in previous correspondence. These include:

- Differences in regulatory measures between adjacent areas (North Sea, Bay of Biscay) creating problems in the understanding of the implementation of the landing obligation;
- Inconsistency between Member States in their catch documentation processes, which causes problems for the accurate recording of catches;
- “Real choke situation” for Belgium for sole in 7.hjk causing early closure and displacement of effort;
- The collection of undersized catches is still under development with few, if any, options or facilities in place in ports;
- Difficulties in accessing EMFF funding evident in some Member States.

2017. The NWWAC contribution consisted of a submission from the Isle of Man Manx Fish Producers Organisation. As such it is not possible to make comparison with the contribution received last year which was representative of the entire NWW region (West coast of Scotland to Bay of Biscay). Key observations from the Manx perspective were as follows:

- The Manx fisheries target non-TAC species, so the focus has been on addressing the issue of bycatches of TAC species. Studies have examined spatial and temporal changes in bycatch but generally find little variation.
- Some choke analysis has taken place but exemptions to the landing obligation for the bycatches have not so far been sought.
- There has been regular engagement with the NWWAC.
- Studies of gear modifications to avoid unwanted bycatch have been carried out but not so far taken up by industry – the stocks of bycatch species are not yet in the landing obligation.
- There is some confusion about how control processes will operate once the bycatch stocks are in the landing obligation since UK is the relevant authority. Socioeconomic issues are alluded to, but no studies have taken place.
- IOM cannot receive funds from the EMFF so there is some concern about provisioning for the landing obligation.
- A long list of perceived future difficulties is included.

2018. The NWWAC contribution received in November 2018 did not follow the standard questionnaire. Instead a document (supported by 2 tables detailing choke analyses) was submitted outlining the concern surrounding choke species issues with the imminent arrival of the full landing obligation in 2019. The document draws attention to the systematic choke analysis performed by the NWWAC and provides details on key problem stocks in each of the subareas covered by the NWWAC with suggestions of mitigating measures that might be applied to alleviate the problem. In this respect

the submission is the same as the NSAC. Commentary on other aspects of the landing obligation was not provided.

2019. As with 2019, the NWWAC contribution re-iterated the issues with choke species in NWW fisheries. The AC highlighted that priority should be given to measures that aim at avoiding unwanted catches in the first place. This could include spatial closures, real-time closures, mandatory move-on rules and gear modifications. The NWWAC finds it important that new initiatives that may appear in different regulations (Discard Plans, TAC & Quota regulation, etc.) undergo a constant evaluation of their effect on the necessary choke avoidance.

- **SWWAC**

2016. The SWWAC does not provide any detailed information. It highlights a number of issues relating to:

- Information/ Communication of discard plans;
- Implementation/ Application related to the reporting of discards under exemptions and the need to allow time for behavioural change;
- Follow-up on the application of de minimis;
- Collaboration with the Member State Group which has been steadily improving but still is a work in progress;
- Financing/ projects in relation in delays in EMFF funding being approved hindering pilot projects and studies on implementation issues.
- Other issues (e.g. choke species, the non-remuneration for additional work on board, and, the uncertainties associated more globally with the management of quotas in a new framework).

2017. No report provided

2018. The SWWAC contribution received in May 2018 did not follow the standard questionnaire. Instead an extensive document was submitted outlining the concern surrounding the imminent arrival of the full landing obligation in 2019. The document draws attention to a variety of perceived socio-economic and practical or technical difficulties likely to emerge. Some discussion and presentation of the results of studies are included to support some of the assertions and the general conclusion is that improved selectivity can only be achieved with economic losses. Fears over vessel safety are also expressed. A list of species is provided where choke situations are expected and the potential to avoid chokes is discussed in the light of mitigating measures. The SWW document then proposes a series of potential solutions including selectivity, high survival, combined de minimis, the removal of minimum marketing sizes in favour of <mcrs, management plans, removal of TACs from certain species and TAC adjustments. The focus on choke species in this report is like that of the NSAC and NWWAC. Commentary on other aspects of the landing obligation was limited.

2019. The SWWAC reports that the landing obligation has had negative economic, social and environmental impacts for fisheries in SWW. This assertion is based on experiences in the 2019 mackerel fishery in Spain and difficulties in allocating quotas for mackerel and horse mackerel in demersal fisheries in France. They also identify issues with obtaining funding to carry out research work, particularly in carrying out selectivity experiments and pilot studies to provide information to support exemptions to the landing obligation. They indicate additional exemptions are required to cover other stocks and fisheries but that it is impossible to provide supporting information. These factors have resulted in choke situations in SWW fisheries although this is not supported by the reports from Member States, who reported only one choke situation for bigeye tuna. The SWWAC highlights additional costs for handling unwanted catches as a problem although provides no quantitative data to support this. They claim there is widespread mistrust and opposition with the landing obligation amongst fishermen in SWW.

The SWWAC put forward several potential solutions which include exempting stocks with low quotas or species with low market value; providing financial support to the processing industry, for research and development of innovative products from unmarketable species or with very low economic value as well as providing commercial incentives for the creation of a fish collection network and storage capacity for unwanted catches.

- *NSAC*

2018. This was the first year for which material from the NSAC was supplied. Unlike submissions from ACs in previous years which offer responses to the standard questionnaire on progress in implementation of the landing obligation, the material provided by DGMARE consisted of 4 advisory letters received at intervals throughout 2018. The nature of these communications is one of advocacy regarding future management of the landing obligation and decision taking rather than a commentary on progress to date. Although the nature of the responses precludes a comparison with other ACs or the questionnaire responses from other member states, the content nevertheless does illustrate ongoing concerns and views held by the AC and in this respect contribute to the understanding of ‘difficulties encountered in the implementation of the landing obligation joint recommendations to address them’ (Q34 in the standard questionnaire). The communications mainly deal with anticipated choke issues in the light of full implementation of the landing obligation in 2019 and cover the following points:

- The first communication (April) concentrates on what can be achieved through the Joint Recommendation for a delegated act for 2019. Background information sets out the general concerns surrounding choke issues in the North Sea mixed fisheries including the recognition that chokes arise for a variety of reasons some of which are easier to resolve than others. Mitigation measures, such as de minimis, are discussed but the risk that over use of de minimis (and the associated loss of marketable quota) may exacerbate rather than improve the overall quota situation. A list of 9 stocks (or species groups) of particular concern is listed each with an outline of the perceived risk, prospects for selectivity solutions, potential options available within the joint recommendation and general conclusions.
- The second communication (June) considers current arrangements for Total Allowable Catches (TACs) and the basis and conditions for TAC removal as a way of reducing the potential impact of choke situations. The main drivers for TAC removal are set out and there is a call for a protocol to be developed to help guide decisions.
- A third communication in July highlights outstanding uncertainties and questions surrounding the implementation of the landing obligation. This makes an appeal for best use of the time between July and the 2018 December Council to address remaining issues including:
 - EU/Norway dynamics
 - Potential removal of TACs
 - TAC allocation methods for avoiding type 2 chokes
 - The use of good communication and proportionate measures in order to achieve a culture of compliance
 - Transparency in the process of agreeing high survivability exemptions
 - The role of footnotes in the TQR
 - Achieving assurance that discard rates under de minimis and high survival are accurately recorded.
 - Clarity on the use of inter-species flexibility.
- The final communication (October) offers advice on TAC and quota-based options for addressing the challenges of the landing obligation. This is set out in the context of the imminent negotiations culminating in December Council. Options and difficulties discussed include the use of Fmsy ranges,

removal of stocks from TAC management, footnotes in the TQR, interspecies flexibility and quota swaps and allocation. Once again, a list of species/stocks is included with specific consideration of the various options that might apply to them.

2019. The NSAC did not submit a response to the questionnaire and in fact only sent advice issued in May 2019 on Best Practices for Avoidance, Selectivity, and Survival of Skates and Rays.

- *BSAC*

2017 BSAC reported for the first time. The response was completed by an NGO executive committee member. Observations were mainly anecdotal, and policy related.

- The report suggested that insufficient controls were in place and that an increase in at sea inspections was required.
- Concerns were raised about continuing high discards in cod and plaice and misreporting in the pelagic fisheries.
- The contribution raised a number of pertinent questions relating to expected observations, implementation of new gears, and aspects of the exemption provisions drawing attention also to comments raised in the published EU/Norway agreement.
- A number of more general points were made by way of actions that could/should take place and critical requirements for effective operation of the landing obligation

2018. No report provided

2019. No report provided

- *MEDAC*

2016. The MEDAC provided a detailed overview of each of the seven reporting elements contained in the Regulation for five Member States - Croatia, Spain, Italy, France and Slovenia. These were based on information supplied by MEDAC members. They largely confirm the information supplied by the Member States. In the case of Italy, no report was received from the Member State, so this report provides additional information relating to the implementation of the landing obligation in Italy. This can be summarised as follows:

Steps taken to comply with the landing obligation: A number of meetings and seminars in Rome and in the main Italian ports have been held by the Italian administration to raise awareness of vessel owners, companies and cooperatives, crews on the landing obligation. Among other issues the need for proper management of fish below mcrs/or of the correct recording of discards under de minimis exemptions have been highlighted. In the Adriatic a number of closed areas/seasons have been established in Italy to protect the juveniles of certain species.

Steps taken regarding control of compliance with the landing obligation: Italy has established a special monitoring plan to monitor compliance. No details are given of the elements of this plan.

Information on the socioeconomic impact of the landing obligation: The landing obligation is not yet fully understood or accepted in Italian ports. Therefore it is not yet possible to quantify the impact on employment and on revenues. Fishermen have been slow to react and the de minimis has helped maintain more or less the status quo prior to the introduction of the landing obligation.

Information on the effect of the landing obligation on safety on board fishing vessels: No impacts on safety are reported.

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation: Italy has instigated a research project to consider the chemical and physical characteristics of fishmeal and fish oil obtained from small pelagics landed

below mcrs and an analytical assessment of the possible commercial outlets and price that might partially compensate the higher cost for fishermen to take these catches ashore. The results seem to indicate that the prices that would be obtained from such products are too low to encourage compliance.

Information on port infrastructures and of vessels fitting with regard to the landing obligation: No specific projects have been undertaken.

Information on the difficulties encountered and recommendations made: The difficulties highlighted before the introduction of the landing obligation – increased workload, complexity of the rules, lack of incentive to comply - remain in place. In addition, the approach in 2017 to establish catch threshold to establish which vessels should be subject to the landing obligation for certain demersal species will add more complexity and uncertainty.

Concluding remarks: The overall impression for Italy from the MEDAC report is that the impacts on the industry are low. Nonetheless Italy seem to have been reasonably proactive in initiating studies on the handling and uses for fish below mcrs as well as consulting extensively with the industry on implementation issues.

2017. No report provided in 2017

2018. The MEDAC contribution received on October 2018 did not offer a response to the standard questionnaire, rather it consisted of a letter advocating that the Commission should consider the earlier MEDAC proposals for the Joint Recommendation (also sent again). The submission emphasised the expected difficulties across the Mediterranean of reducing catches of undersized fish products and of landing and disposing of this material. The recommendations to adopt a management plan-based approach including high de minimis thresholds based on ‘total catches’ was reiterated. There was no commentary offered on other elements of the landing obligation.

2019. The MEDAC sent a short letter to DGMARE and did not respond directly to the questionnaire. MEDAC highlighted the importance of the exemptions in place and provided they remain in place, implementation of the landing obligation does not present any real difficulties for the fishing industries operating in the Mediterranean.

• *PAC*

2018. This was the first year for which material from the PAC was supplied. Unlike submissions from ACs in previous years which offer responses to the standard questionnaire on progress in implementation of the landing obligation, the material provided by DGMARE consisted of 2 advisory letters received in 2018. The nature of these communications is one of advocacy regarding future management of the landing obligation and decision taking rather than a commentary on progress to date. Although the nature of the responses precludes a comparison with other ACs or the questionnaire responses from other member states, the content nevertheless does illustrate ongoing concerns and views held by the AC and in this respect contribute to the understanding of ‘difficulties encountered in the implementation of the landing obligation and recommendations to address them’ (Q34 in the standard questionnaire).

The communications mainly address choke issues in the light of full implementation of the landing obligation in 2019 and cover the following points:

- The first communication (March) alerts DGMARE to the PAC’s use of the choke mitigation tool developed by NWWAC and the analysis showing that bycatches of demersal species in pelagic fisheries are likely to lead to an array of closures. The PAC signaled its willingness to work with DGMARE and Member States to tackle this perceived risk
- The second communication (May) provides recommendations on potential chokes arising from the 3 choke categories identified in the Member State Edinburgh Workshop (April 2016). Category 3 chokes

(insufficient quota within the sea basin) were considered the most severe and the PAC listed 7 demersal bycatch stocks in pelagic fisheries and 2 pelagic stocks in demersal fisheries. The PAC reiterated its earlier advice that a solution could be a 5% de minimis upon *landing* of the catch. In addition, PAC reiterated its earlier advice for a seasonal closure (from 15th March) of the boarfish fishery in NWW to mitigate some of the bycatch issues in that fishery. The PAC recommended full documentation of fisheries possibly supported by EMFF funding and that Member States invest in cost effective monitoring and control systems to ensure transparency.

2019. The PELAC sent a short letter to DGMARE informing that the Pelagic AC is organising a workshop in partnership with EFCA and the Scheveningen and North Western Water Member States Control Expert Groups on monitoring, control and surveillance of the Landing Obligation in pelagic fisheries in early March 2020. No other information was provided by the PELAC.

ANNEX III COMMISSION QUESTIONNAIRE FOR 2019

Steps taken by Member States and producer organisations to comply with the landing obligation

1. Have you initiated, supported, participated in or implemented any measures and/or studies relating to the avoidance of unwanted catches through spatial or temporal changes to fishing behaviour (for example, studies/pilots on real time closures)? Yes/No

Please specify the measures taken or studies.

2. Which fleet segments/fisheries do these measures and/or studies apply to?

3. What has the uptake of these measures and/or studies been in the fleet segments/fisheries to which they are applicable? Please provide the number and proportion of vessels in the segment/fishery.

4. Have you initiated any changes to your Quota Management system to implement the landing obligation? Yes/No

Please give details.

5. For stocks managed through catch limits, have you conducted a quantitative analysis to identify potential national choke issues? Yes/No.

Please give details.

6. Have you pursued any exemptions to the landing obligation (either for high survival or de minimis) in the development of regional joint recommendations? Yes/No

Please give details of each exemption pursued.

7. What studies or evidence have you collected or produced in order to support such a request.

8. What steps have you taken to ensure the amount discarded under granted de minimis exemptions does not exceed the permitted volume in the delegated act?

9. What has been the utilisation of any granted de minimis exemptions in the fleet segment/fishery to which the exemption applies? Please provide the total weight and proportion

of catch discarded under this exemption for each fleet segment/fishery to which an exemption applies.

10. Have any of your vessels utilised the provision to discard fish which shows damage caused by predators? Yes/No Please provide the total weight of catch of each species discarded for each fleet segment/fishery concerned

11. For stocks managed by catch limits, did you make use of the provisions for inter-annual or inter-species flexibility? Yes/No

Please identify which flexibility (or flexibilities) was used and the corresponding reallocation of fishing opportunities for the stocks concerned.

12. In the development of joint recommendations, has consultation with Advisory Councils and other relevant stakeholders taken place? Yes/No

Please outline the process of consultation with Advisory Councils.

Please outline the process of consultation with other stakeholders, if relevant.

13. Following the adoption of the delegated act for a discard plan, have steps been taken to ensure adequate understanding among stakeholders of their obligations under the provisions of the Act? Yes/No

Please outline the process of ensuring stakeholders understand the obligations that will apply to them.

14. Are there any other steps not covered by the questions above that you have carried out to effect compliance with the provisions of the landing obligation? Yes/No

Please specify the measures taken.

15. Which fleet segments/fisheries do these studies/pilots apply to

16. What has the uptake been of these measures in the fleet segments/fisheries to which they are applicable? Please provide the number and proportion of vessels in the segment/fishery.

Steps taken by Member States regarding control of compliance with the landing obligation

17. Has information been provided by Member States administrations and control agencies to fishermen? Yes/no

In what format has this information taken:

- Initiatives directed to fishermen to improve compliance
- Guidelines on the application of the landing obligation, accurate recording of catches, etc.
- Other

18. Have guidelines been provided by Member States administrations and control agencies for inspectors? Yes/no

In what format has this information taken:

- Delivery of guidelines for inspectors on the effective and uniform application of the landing obligation.

- Seminars and trainings organised for presenting the guidelines to inspectors at national and regional level.

19. Have new control and monitoring tools been used by Member States? Yes/no

Please supply information on:

- Control tools used in the context of landing obligation, i.e. REM, traditional systems (aerial surveillance, inspections at sea), reference fleets, etc.
- Steps towards implementation of new tools, including electronic monitoring means dedicated to implementation of landing obligation, haul-by-haul recording,

20. Have the Member state administrations and control authorities monitored below

Minimum Conservation Reference Size (MCRS) catches at and after landing (traceability)? Yes/No

Please supply information on:

- Total number of discards (by fishery, fleet segment) from 2013 to 2016
- Initiatives taken to prevent under MCRS catches from reaching the commercial channels (pre-notification of landings of under MCRS catches, etc.).
- Measures taken to monitor landings at fish markets/auctions adopted.

21. Has control and monitoring been based on risk assessment? Yes/no.

Please supply information on the risk assessment tools used and the results obtained, including those implemented by the regional Control Expert Groups in cooperation with EFCA.

22. Has the “last observed haul” approach elaborated by EFCA as a tool for monitoring the implementation of the landing obligation and to derive potential targets for inspection been used? Yes/No

Please give details of the fisheries covered and the extent of sampling.

Information on the socioeconomic impact of the landing obligation

23. Using the most appropriate indicators defined below, provide information on the socioeconomics impacts on:

- The catching sector
- Upstream businesses
- Processors
- Consumption and markets
- Costs for Member States

Information on the effect of the landing obligation on safety on board fishing vessels

24. Have there been any reported incidents of overloading of vessels causing stability problems? Yes/No

Please specify the number and nature of such incidents.

Can you quantify these in terms of:

- Number of deaths or serious injuries
- No of vessels involved as a % of the specific fleet segment

25. Have there been any reported incidents of overloading of vessels forcing them to return to port early? Yes/No

Please specify the number and nature of such incidents.

26. Have there been any reported incidents or accidents on board vessels that can be attributable to excessive workload? Yes/No

Please specify the number and nature of such incidents or accidents.

27. Has any national legislation relating to safety on board fishing vessels arising from the landing obligation been amended or introduced? Yes/No

Please provide details of this legislation.

28. Have you provided or received any funding under Article 32 (Health and safety) of EMFF or Article 3 (Eligible operations on safety) and Article 6 (Eligible operations on working conditions) of Commission Delegated Regulation (EU) 2015/531 to mitigate against potential safety issues caused by the landing obligation? Yes/No

If yes, please specify the number of projects involved and the nature of the measures taken.

If no, have any measures been taken which have not been funded under the EMFF?

Information on the use and outlets of catches below the minimum conservation reference size of a species subject to the landing obligation

29. What have been the main reported uses and destinations for catches below mcrs?

Can you quantify these catches by species in terms of volumes, price per tonne and associated costs for the different outlets such catches have been sent?

30. Have you carried out any studies or pilot projects considering the potential uses for such catches? Yes/No

Please provide details of such studies or pilot projects.

Information on port infrastructures and of vessels' fitting with regard to the landing obligation for each fishery concerned

31. Have you provided funding under Article 38 of the EMFF for modifications on board vessels for the handling of catches on board? Yes/No

Please specify the number, nature and total amount invested in such projects.

32. Have you provide funding under Article 43 of the EMFF for investment in the infrastructure of fishing ports, auction halls and shelters for the handling of unwanted catches? Yes/No

Please specify the number, nature and total amount invested in such projects.

33. Have you provide funding under Articles 68 and 69 of the EMFF for investment in marketing measures and the processing of fishery and aquaculture products? Yes/No

Please specify the number, nature and total amount invested in such projects.

Information on the difficulties encountered in the implementation of the landing obligation and recommendations to address them

34. Please provide information on the following:

Operational difficulties, such as:

- **Avoidance and/or selectivity insufficient to avoid unwanted catches**
- **Handling, storage and processing of unwanted catches**
- **Lack of funding to adapt fishing gears, vessels or port infrastructure**

Difficulties relating to monitoring, control and enforcement, such as:

- **Lack of understanding or awareness of the rules**
- **Difficulties implementing and monitoring de minimis or high survivability exemptions**
- **Implementation problems with regard to control/monitoring processes or infrastructure (e.g. adaptation of ERS systems)**
- **Refusal to carry observers**

Difficulties in fully utilising fishing opportunities, such as:

- **Problems re-allocating quota to cover catches previously not landed**
- **Problems with the timing or availability of quota swaps**
- **Fisheries being forced to close early due to choke problems**

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