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(STECF-PLEN-25-03)

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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. The Scientific, Technical and Economic Committee for Fisheries held its 80th plenary from 10 to 14 November 2025.

80th PLENARY REPORT OF THE SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (PLEN-25-03)

10-14 November 2025

1. INTRODUCTION

The STECF held its winter plenary on 10-14 November 2025 at the Centre Borschette, Brussels. The meeting was chaired by the STECF chair Raul Prellezo and was held as a hybrid meeting.

2. LIST OF PARTICIPANTS

The meeting was attended in person by 29 members of the STECF and four JRC personnel. Four STECF members and four JRC personell attended online. Several Directorate General Maritime Affairs and Fisheries (DG MARE) attended parts of the meeting physically or online.

The following two STECF members did not attend the plenary meeting:

- Maria Teresa Spedicato
- Daniel Valentinsson

Section eight of this report provides a detailed participant list with contact details.

3. INFORMATION TO THE PLENARY

STECF planning

STECF plenary meetings 2026:

- 9-13 March, Brussels
- 6-10 July, Brussels
- 9-13 November, Brussels

4. STECF INITIATIVES

No STECF initiatives were addressed.

5. ASSESSMENT OF STECF EWG REPORTS

5.1 EWG 25-10 Evaluation of Fisheries Dependent Information (FDI) for EU Fleets

Request to STECF

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments and recommendations.

STECF comments

EWG 25-10 met in Ispra, Italy from 8 to 12 September 2025. The meeting was attended by 29 experts in total, including six STECF members and one JRC expert.

STECF considers that the EWG adequately addressed the TORs and has the following specific comments on the five ToRs addressed by EWG 25-10.

1. ToR 1. Review and document the completeness of the data set and feedback from Member States on the approaches used and problems encountered in responding to the data call.

STECF notes that the FDI data call requested data for 2024 and allowed for resubmission of data for 2013–2023 if needed. Time series prior to 2013 were not requested but could be provided on a voluntary basis.

STECF notes that, except for three Member States, all data for 2024 were submitted for the requested tables by the legal deadline of the data call. Missing tables were subsequently resubmitted: Table B from Germany before the operational deadline, and Table B from Spain and Table J from the Netherlands during the EWG. Further resubmissions were made by several Member States both before the operational deadline and during the EWG. During the data upload process, the upload tool ensured compliance with the annex specifications and code and cross-table consistency. Following the upload, additional quality checks were conducted to assess data consistency across years and to cross-validate the submitted data with EUROSTAT.

STECF notes that several Member States resubmitted revised datasets covering the period 2013–2024 during the meeting in order to improve the quality of the data.

STECF notes that coverage of discard data remains low, with discards known for approximately 25% of total landings. Nonetheless, STECF observes that this represents the highest level of coverage since 2019.

STECF notes that of the 34 data transmission issues identified in 2024 and recorded in the Data Transmission Monitoring Tool (DTMT), 17 were resolved through re-submission to the 2025 FDI data call, 15 remain pending, and 2 will not be addressed due to lack of data. In 2025, 50 low- to medium-severity quality or coverage issues were recorded in the DTMT, 16 of which were recurrent and 12 were related to spatial data issues.

STECF notes that the EWG suggested updating the cross-check procedure to ensure alignment of mesh size range allocation with the UK EEZ and metier allocation with the corresponding sub-region, in order to further improve the data quality.

STECF notes that landings with no reported value were not recorded in the DTMT as these involve mostly landings in non-EU waters or small-scale fleets with no available sales data.

STECF notes that the assessment of issues related to the consistency between the Annual Economic Report (AER) and FDI datasets indicates that, while overall consistency has improved, discrepancies remain. Effort data show marked improvement, reaching about 90–95% consistency by 2023, and landings weight alignment also improved (75% consistent). However, consistency in landed value declined to approximately 50% mainly because Spain, a Member State with a large fleet, reporting a greater value of landings per segments in the FDI dataset. STECF notes that the EWG completed the missing information on the methodology used by Member States for the data call, not available during EWG 25-05. The additions cover: (a) differences in métier definitions and related fields; (b) the methodology for the EEZ indicator; (c) use of FDI quality indicators and related issues; and (d) the definition of the DEEP indicator.

2. ToR 2. Provide landings and discards data for exemptions in discard plans.

STECF notes that the EWG supplied landings and discards data for exemptions in discard plans following the approach used in previous EWGs (24-11, 23-10, 22-10, 21-12, and 20-10) and the outcomes of *ad-hoc* contract 2587. The EWG presented discard data for each exemption in two versions: with and without fill-ins (extrapolations for fleets lacking discard data) and reported the limitations affecting interpretation. STECF acknowledges that, as a measure of quality of the reported discard estimates and fill-ins, the data tables also include coverage expressed as the percentage of landings with discards.

3. ToR 3. Review dissemination formats and produce dissemination tables and maps of spatial effort and landings by c-squares.

STECF notes that the FDI dissemination formats have been expanded with an interactive visualization of spatial landings and effort data at a 0.5-degree

resolution. This new feature further reinforces the FDI dissemination formats as a unique and valuable source of EU fisheries data, where total data are published on EU level, and non-confidential data are published on Member State level.

STECF notes that the EWG provided an overview summarizing discussions from several meetings in 2024 and 2025 on the dissemination of aggregated and confidential data.

STECF notes that the increasing number of requests addressed to the Commission for access to complete data sets indicates growing interest from scientists and the public in having more comprehensive data available at a higher level of aggregation, including by country, to support robust and meaningful analyses. EWG 25-05 proposed potential aggregation levels and a corresponding data sensitivity scale, which were further reviewed by the EWG, including adjustments to sensitivity level 2 (allowing publication except for specific cases detailed by Member States). The revised interpretation of sensitivity levels will be shared with National Correspondents, who are required to review and confirm their applicability before data can be aggregated and published. STECF also notes that data aggregation is included in the proposed FDI data flow, illustrating data sharing, use, and publication processes.

STECF notes that the EWG proposes allowing discards to be marked as confidential separately from landings. In Table A, this would be indicated with the value ‘D’; when the currently existing code ‘W’ is used, both TOTWGHTLANDG and DISCARDS fields are treated as confidential. This change will avoid the potential issue of Member States reporting discards at a lower resolution than the sampling/estimate and then using the confidentiality mark to protect discards estimates.

STECF notes that there is potential to enhance the accessibility to FDI data and to raise awareness of data dissemination. Suggested actions to promote usability include demonstrating the practical application of FDI data through projects involving FDI experts, linking the data from relevant EU websites, showcasing visual outputs such as maps and plots, organizing university hackathons, and including references to FDI data use, limitations, and dissemination in introductory presentations at EWG meetings. Specific improvements proposed to make the data more user-friendly include providing an easily accessible code list, adding common and scientific species names alongside FAO codes, including simple metadata overviews (maps or tables), renaming datasets for clarity (e.g., Catches by Member State and EU landings), and adding visualizations of biological data to the dashboards.

STECF notes that the EWG proposed publishing all FDI datasets, not only the spatial data through the JRC Data Catalogue with a consistent reference. In line with FAIR data principles, STECF also reiterates the importance, underlined by PLEN 24-03 and EWG 25-05 of assigning a DOI to the datasets.

STECF notes that the geographical data validation protocol established in the previous year was implemented to support the mapping, visualization, and dissemination of spatial data. The protocol comprises three main checks to verify the consistency and validity of C-square codes and coordinates. Prior to mapping, all spatial datasets are standardized to a 0.5×0.5° C-squares global grid to ensure comparability across varying input resolutions (0.5×0.5°, 0.5×1°, 1×1°, 5×5°), with effort and landings proportionally apportioned among constituent grid cells.

STECF acknowledges the inclusion of spatial validation and mapping functionalities within the newly implemented QLIK-based data monitoring platform, which effectively identified erroneous records such as those with land-based coordinates and detected C-squares located on subregion boundaries.

STECF notes that the validation process indicated an overall improvement in the quality of submitted spatial data, with less than 0.1% of effort or landings records deemed invalid.

STECF notes that the EWG continues to refine automated validation and reallocation procedures to further enhance spatial data quality across subregions.

4. ToR 4. Follow up on the comparability between the data collected in the FDI database and the data provided to the AER.

STECF interprets comparability between the AER and FDI datasets, as requested in the ToR, as the extent to which the reported values are consistent across the two datasets (e.g. the number of vessels from country XX reported in FDI compared with the number reported in AER). In contrast, alignment is understood as the extent to which the datasets can be harmonised by identifying overlap, discrepancy, and missing information, with the ultimate goal of combining the AER and FDI data call information into a single, coherent and consistent dataset.

STECF notes that the EWG analysed the degree of alignment between AER and the FDI data calls, using a variable-by-variable comparison. The analysis showed that the two data calls are broadly consistent regarding core variables for capacity, effort, and landings. However, differences remain in the representation of metadata (e.g. units, confidentiality flags, and the acceptability of codes such as “NO” (No fishing technique) and “NK” (Not known) in FDI), reference years for landings and effort data (AER: N–2; preliminary N–1 voluntary data. FDI: N–1), and additional variables included in FDI, while AER contains fields absent in FDI (in particular activity, fishery and cluster). Capacity template definitions show the lowest compatibility, primarily due to differences in population definitions: AER defines population by number of vessels, whereas FDI is based on fishing activity, resulting in some activities being reported to FDI without an associated vessel. In contrast, effort and landings data exhibit a

higher degree of alignment, with differences mainly linked to AER fields on activity and fishery.

STECF highlights that harmonisation is affected by the presence in AER of the activity and fishery fields, which are absent in FDI. These variables are essential for stratifying fleets and linking landings and effort data with economic performance data.

STECF observes that the variable MAXSEADAYS was not evaluated in the comparability-alignment analysis between AER and FDI and notes that there is an inconsistency between the data calls definitions. STECF notes that there is an RCG recommendation to review the definition of MAXSEADAYS and to harmonise this between AER and FDI in the ToR 6.7 of this STECF plenary report.

STECF notes that, if the data call provisions are respected, there are no methodological specifications preventing the comparison between FDI and AER datasets. Comparison of landings and effort can be made at the level of fishing technique, vessel length, geographical indicator, supra-region and sub-region.

STECF notes that the EWG proposed a new data submission approach for capacity data in 2026–2027 to improve consistent fleet segmentation across the two data calls. STECF stresses that the key improvement is the systematic use of the JRC-provided automated validation tools to cross-check the datasets, rather than opening the FDI data call earlier alongside the AER data call. STECF clarifies that providing these consistency checks prior to the final AER submission will help ensure that fleet segment codes, capacity indicators (GT/kW), and geographical fields are aligned, and that aggregated capacity values remain internally coherent.

5. ToR 5. Follow up and finalise work on procedures and scripts extracting catches, landings and discards, at a level of aggregation corresponding to the fleet, area and gear type as specified in each exemption of each delegated regulation specifying the details of implementation of the landing obligation. With the aim to finalise all scripts needed to extract data and produce visualisations needed finalising piloting phase of data extraction procedures developed by EWG 24-11 and 25-05.

STECF acknowledges the progress made in the development of the three R scripts defined during the EWG 24-11 and EWG 25-05 to streamline the preparatory work required to estimate the landings and discards for the exemptions of the landing obligation.

STECF notes that the EWG successfully integrated the functionalities of script 2 (merging FDI Table A with extraction codes and extracting FDI data for exemptions) and script 3 (generating summarized outputs and interactive visualizations) into a cohesive, modular dashboard. The dashboard provides

interactive multi-criteria filtering, drill-down for exploring data behind totals, and pivot analysis through user-friendly, interactive tables and pivot tools.

STECF notes that a key achievement is the removal of the Shiny server dependency, enabling the dashboard to run locally on any computer with a standard R installation. A standalone HTML version would further simplify access for all users, including those with less technical expertise.

STECF acknowledges that extensive validation has been performed for scripts 2 and 3, focusing on exemption categorization accuracy, aggregation correctness, and alignment with STECF reference outputs. The validation is complex due to calculations spanning multiple Excel pivot tables and manual steps, now replicated programmatically in the automated system.

STECF notes that full automation from DG MARE's legislative input to final visualizations still requires completing script 1, which will automate translating legal texts into FDI extraction codes, a task being currently worked on by experts. Enhanced error handling, performance optimisation, and database integration are suggested as additional functionality improvements.

STECF conclusions

STECF concludes that the EWG addressed all the ToRs appropriately and endorses the report and the related annexes.

STECF concludes that approximately half of the data quality or coverage issues identified in 2024 were resolved through re-submissions (2013–2023) within the 2025 FDI data call. While the number of new data transmission issues identified in 2025 increased compared to the previous year, their overall impact was classified as low or medium, reflecting the effectiveness of the quality checks introduced for the biological data.

STECF concludes that coverage of discard data remains low, with discards reported for approximately 25% of total landings. Nonetheless, this represents the highest coverage level since 2019.

STECF concludes that the sharing, use, and publication of FDI data can be effectively supported through the proposed data flow, and aggregation for publication, provided that those aggregations are reviewed and agreed upon by National Correspondents.

STECF concludes that the new geographical data validation protocol, together with QLIK-based spatial mapping tools, have significantly improved the quality of submitted spatial data, leading to near complete validation of all spatial information on effort and landings.

STECF concludes there are no technical limitations for comparing the FDI and AER effort and landings datasets, provided that the data call provisions are followed. In contrast, structural differences prevent a direct merger of the two

datasets, with some fleet specifications (activity and fishery) absent from the FDI capacity dataset, and principal subregion not requested in the AER.

STECF concludes that an inconsistency exists in the definition of the variable MAXSEADAYS between the AER and FDI data calls and supports the RCG recommendation to review and harmonise this variable across the two datasets, noting that this variable is also relevant for the fleet balance between fishing opportunities and capacity evaluation.

STECF concludes that, overall, consistency between the AER and FDI datasets has improved, with notable progress in effort and landings data, while consistency in landed value has decreased, mainly due to one Member State with a large fleet reporting a higher landed value by fleets in the FDI.

STECF supports expanding the JRC automated validation tools with cross-checks between the AER and FDI datasets and making them available during the AER upload period, to improve consistency between the two data calls. Initially starting with capacity data in 2026–2027 and later extending to landings and effort. However, STECF does not support opening the FDI data call earlier, as this would require procedural changes, and as this is deemed unnecessary given the existing upload tool.

STECF concludes that the EWG has made significant progress towards a fully automated estimation of landings and discards for each exemption under the landing obligation. The development of a cohesive and modular dashboard has streamlined the processing, aggregation, and visualization of FDI data. STECF concludes that the immediate priority is to complete validation of the current implementation against established reference outputs. STECF also supports the EWG proposals for further improvements afterwards and notes the potential to expand the analytical tools with time-series, mapping, and forecasting functionalities for future discard rate analysis.

5.2 EWG 25-11: Fishing effort regime for demersal fisheries in West Med and associated ad-hoc reports

Request to STECF

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting, as well as those of the associated ad hoc reports, and make any appropriate comments and recommendations. STECF advice should be released early, by 21 November 2025.

STECF comments

Three documents were evaluated by the STECF

1. Report of the Expert Working group 25-11: Fishing effort regime for demersal fisheries in West Med.
2. Ad hoc contract report (STECF 25103): Fishing effort scenarios for demersal fisheries in the western Mediterranean Sea (EMU 2).
3. Ad hoc contract report (STECF 25105): Efficiency of permanent closure areas under 600m depth in the Western Mediterranean Sea.

The two contracts were performed after the EWG meeting. Taken together, the EWG 25-11 report and the two contract reports provide additional insights to support current and future evaluations of the implementation of the Western Mediterranean Multi-Annual Management Plan (West Med MAP).

STECF firstly reviewed and commented the three documents separately, then common comments and conclusions were drawn.

The ad hoc contracts are published on:

https://stecf.ec.europa.eu/document/32534030-de3c-4748-a28b-c2fce855c5ff

1. Report of the Expert Working group 25-11

EWG 25-11 is the fourteenth of a series of expert working groups dedicated to evaluating the implementation of the West Med MAP. The EWG was given an extensive set of ToRs, which are summarised and commented below. STECF considers that the EWG adequately addressed its TORs but encountered severe procedural difficulties that affected the group's performance; these are commented first.

1.1 Process feedback

STECF notes that the detailed management scenarios needed for simulation were not delivered until the first morning of the EWG meeting. The lack of early detail delayed model preparation, causing most of the meeting to be spent on the setup of the models. As a result, initial model outputs were only available on

the final day of the EWG meeting, leaving insufficient time to fully review and reach conclusions on all simulations.

STECF notes that in 2025 the West Med MAP moved from its transition phase to its permanent phase, meaning that provisions concerning the “most vulnerable stock” and the “Voluntary Temporary Compensation scheme” are now part of the 2025 regulation on maximum permissible fishing effort. As the most vulnerable stock may now change from year to year, the results from the stock assessment EWG (EWG 25-09) are now of greater importance for setting up the simulation scenarios. STECF notes several data issues had to be resolved at the start of the meeting. Stock objects from the Western Mediterranean stock assessment EWG need to be shared in due time ahead of the EWG, as well as partial F and partial catch-at-age matrices by gear. Therefore, improving communication and alignment between the two EWGs is crucial, especially considering the limited time between the two EWGs.

In addition, STECF recalls that the following data are also needed before the meeting starts ; i) all relevant FDI data; ii) all necessary economic data, including GSA-level data in EMU 2 not available from the AER; iii) the management scenarios to be assessed, together with all data needed to simulate them (e.g. VMS–logbook spatial data for spatial scenarios); iv) an overview of national implementation measures, such as additional fishing days, if compensation mechanisms are to be evaluated.

Furthermore, in order to keep the EWG time for discussions, model cross-checking and common conclusions, all preparatory work should be organised and completed before the meeting. Options include ad-hoc contracts for modellers to run the scenarios and a preparatory meeting to compile and verify input data and set up the simulation models.

STECF finally notes that one ad-hoc contract relied on the draft EWG 25-11 report, which had not yet been endorsed by STECF. Although the ad-hoc contract report’s author was also involved in the EWG, the version used may not reflect the final STECF report. Therefore, any findings from the ad-hoc contract referring to the EWG 25-11 report should be revisited once the report is finalized and endorsed by STECF.

Some of the aforementioned points are further discussed under ToR 7.1 in this plenary report dealing with the 2026 West Med MAP work programme.

1.2. ToR 1. Time series of fishing effort

STECF notes that, as requested, time series of fishing effort (fishing days, days at sea, hours at sea, GT × fishing days, and kW × fishing days) were produced by country (Spain, France, Italy), EMU (1 and 2), GSA (1, 5, 6, 7, 8, 9, 10, 11), gear (OTB, OTT, GNS, GTR, LLS, other), and fleet segment (<12 m, 12–18 m, 18–24 m, >24 m). Graphs for fishing days are presented in the report; all remaining data are provided in Annex I (Excel workbook).

STECF notes that for both EMU 1 and EMU 2, trends in fishing effort (fishing days) by gear and fleet segment were generally stable or decreasing over 2015–2024. Exceptions include FRA–GSA7–OTT and ESP–GSA5–GTR, which showed increasing trends.

EWG 25-11 compared the effort deployed in 2024, as estimated using FDI data, with the effort ceiling as per the fishing opportunities regulations (Reg. 2024/259 and Reg. 2025/219). In EMU 1, the 2024 effort ceiling was largely above the deployed effort for French trawlers (+49%), but slightly below the deployed effort for Spanish trawlers (-8%). For both Member States, the 2025 effort ceilings were set lower than the fishing days reported for 2024, in spite of compensation provisions at Member State, métier, and vessel level. In EMU 2, the 2024 effort ceilings were higher than the deployed 2024 effort for both Italian (+13%) and French trawlers (+36%). In 2025, both Member States received lower effort ceilings than their 2024 declared effort. STECF also notes that France received 2025 fishing opportunities for the deep-water métier, despite no such activity being declared in previous years or in 2024 according to the FDI data.

1.3. ToR 2a. Relationship between F and fishing effort

The EWG updated the relationships between fishing effort and fishing mortality in EMU 1 and EMU 2 using the most recent stock assessment results from EWG 25-09 (F_{bar} by species) and the corresponding time series of deployed effort by gear from the 2025 FDI data call.

STECF notes that the results of the fishing mortality-effort (F-E) analysis need to be interpreted on a case-by-case basis. As in previous West Med analyses produced by STECF, no consistent linear relationship across GSAs and stocks was observed for any gear. At stock level, the relationship was sometimes significantly positive (e.g. HKE in GSAs 1_5_6_7, DPS_5_6_7, and ARA_6_7); however, when examined separately by GSA, relationships were generally weak and sometimes inverse. STECF reminds also that these relationships are difficult to analyse for nets and hooks, as effort expressed in days does not properly reflect the true level of deployed effort by such gears.

These findings indicate that F-E dynamics are gear- and area-specific, likely influenced by differences in selectivity, temporal patterns of effort, local ecological conditions, and potential changes in catch efficiency during the effort reduction period (see ToR 3a). Significant correlations observed for several gears highlight the need to incorporate gear- and area-specific effort considerations in management to avoid overexploitation.

1.4. ToR 2b. Information on subsidies and consequences of fuel cost changes

The EWG addressed: i) measures supporting the fleet; ii) the effects of fuel price changes during 2022–2024; and iii) approaches for modelling energy costs. Main findings are:

i) Measures to support the fleet

The EWG used and commented the findings of three *ad-hoc* contracts completed in 2024, which collected information on subsidies in Spain, France, and Italy, focusing on trawl vessels operating in the Western Mediterranean. The EWG summarised the mandatory temporary cessation (MTC) schemes implemented by France, Italy, and Spain. While they are all aimed at reducing trawl effort and support income during temporary cessations, they differ in implementation, traceability, and calculation methods among Member States. PLEN 24-03 concluded that payments related to MTC could, in principle, be integrated into West Med MAP modelling. However, PLEN 24-03 highlighted persistent data gaps due to pending payments, incomplete reporting, and inconsistencies in timing.

To improve future analyses, STECF notes that the EWG 25-11 suggested that temporary cessation payments be provided in a standardised and complete format. That would include (i) annual breakdown of actual payments; (ii) breakdown by GSA and fleet segment aligned with West Med MAP units; (iii) clear identification of the measure associated with each payment; (iv) inclusion of both EU and national funding shares.

Information on permanent cessation schemes was also reviewed. France's 2022 decommissioning plan removed 14 vessels (1,471 GT; 4,424 kW), already incorporated into the model baseline. Spain's 2024 action plan includes a decommissioning scheme for segments considered to be out of balance between capacity and fishing opportunities, and Italy's 2024 action plan foresees the withdrawal of 4,563 GT in GSAs 9, 10, and 11. Scrapping measures will take effect from 2026 and are being integrated into the simulation of the bio-economic model for all scenarios.

(ii) Consequences of fuel cost changes in 2022–2024

Using EUMOFA data, the EWG reported trends in marine fuel price for Spain, Italy, and France from 2020 to 2025 (partially). Prices showed high volatility, and the EWG analysed how this impacted operating costs, profitability, and effort decisions.

STECF notes that the EWG reports that the ratio of energy costs to revenues increased markedly for many fleet segments between 2020 and 2023. Larger and more energy-intensive trawl fleets were most affected, underscoring the vulnerability of Mediterranean fleets to fuel price fluctuations.

(iii) Modelling of energy costs

The EWG discussed potential improvements for modelling fuel consumption and concluded that combining energy audit data with high-resolution logbook information can support fisheries-specific estimates of daily fuel use based on vessel characteristics. In this context, STECF notes that the ongoing DecarbonyT project (Decarbonisation of the fishing fleet in the Mediterranean

and Black Sea https://decarbonyt.eu/) will provide further tools. In particular, Task 2 of this project will develop an application to model vessel-level fuel consumption during steaming and fishing phases, providing bottom-up estimates of fuel use and carbon emissions at fleet-segment level.

1.5. ToR 3a. Partial fishing mortalities

In continuity of EWG 25-09, the EWG completed the calculation of partial fishing mortalities (F_part) in 2024 by species, GSA, gear and age for EMU 1 and EMU 2 using stock assessment values. STECF notes that F_part varies across fleet segments and GSAs in both EMUs, but OTB segments account for the highest F_part for the majority of stocks.

STECF notes that the EWG developed a number of analyses under this ToR.

The EWG discussed, for the first time, whether the significant positive linear relationships for some fleet segments and stocks developed under ToR 2a might be used as a guide to determining the approximate level of effort required to achieve a desired fishing mortality rate i.e. if the F-E relationship is significant and positive, for a given value of F on the y-axis, the corresponding level of effort can simply be read from the x-axis. The EWG suggested that future bioeconomic modelling under the West Med MAP could explore such an approach further.

The EWG also analysed the potential changes in catch efficiency linked to effort reduction in two cases. The first case was for Spain in EMU 1. The spatial fishing patterns of the Spanish fleet were analysed using VMS data (2024) and earlier data (for the year 2021, available from a previous effort EWG). Beyond the fact that most days at sea are spent in GSA 6, the analysis detected a likely displacement of effort towards more offshore areas between 2021 and 2024, especially in GSA 1, probably rather due to reduced activity of smaller vessels rather than a systematic shift by all vessels. Confirmation would require access to vessel-level VMS data. Considering that management is organised by gear and vessel size and not by GSA, the EWG reflected that the fleet may concentrate effort in high-density stock areas in response to restricted effort. Such behaviour can blur F-E relationships and complicate management, particularly when other measures (closures, selectivity changes, effort limits and/or fleet restructuring) interact with effort dynamics.

The second case was for the spatio-temporal closure established in the Gulf of Lion (GSA 7) since 2020. The measure consists of two seasonal closures designed to protect juvenile hake (*Merluccius merluccius;* HKE). The EWG examined: i) changes in juvenile hake catches since 2020, ii) redistribution of effort; and iii) trends in CPUE. STECF has specific comments on these three points:

- Regarding point i), STECF notes that the proportion of hake catches below MCRS remains very high (~50%), driven mainly by poor size selectivity of the gear (40 mm square mesh). The closure has not reduced the proportion

of undersized hake; with inter-annual variation reflecting recruitment strength rather than management effects.

- Regarding point ii), STECF notes that trawlers have adapted to the closure. They shift effort to the boundaries of the closure when it is active and concentrate more in the central area when it is open. The total effort in the area when it is open is slightly higher than before the establishment of the closure for the same period. In parallel, a marked decrease in effort in coastal areas was observed. The EWG suggests though that the overall reduction in effort in GSA 7 is attributed mainly to the West Med MAP effort reductions, not to the closure itself. Finally, the EWG also compared trends in effort expressed in days (the unit of fishing effort ceilings) or in hours. Effort in GSA 7 effectively decreased by 27% in fishing hours over 2020–2024, consistent with West Med MAP effort reductions.

- Regarding point iii), STECF notes that in areas outside the closure when it is in force and within the areas outside the closed season, strongest CPUE increases have been observed for red mullets (*Mullus* spp.; MUX) and monkfishes (*Lophius* spp.; MNZ**)**, and less so for hake and octopuses (Octopodidae; OCT**)** from which only hake and red mullet is included in the West Med MAP. Total CPUE (TOT CPUE, all species combined) also increased, likely due to the combined effects of effort reductions and the 8-months resting period created by this closure. Investigating patterns more closely, monthly CPUE analysis indicates that juvenile catches were not reduced**,** despite good compliance, because the low gear selectivity means that fishing during the 4-months open period removes any benefit gained in protecting the juveniles during the closure.

STECF notes thus that, overall, both the spatio-temporal closure and the broader effort reductions may have improved exploitation status for several stocks in GSA 7. However, these indications — primarily based on CPUE — will require confirmation through future stock assessments.

1.6. ToR 3b. Effort and catch management scenarios for all demersal gears in EMU 1 and EMU 2

The EWG was requested to simulate a wide range of effort management scenarios for EMU 1 and EMU 2 up to 2030 (see Table 5.2.1). The EWG used three bioeconomic models, depending on the EMU: Isis-Fish (primarily hake in EMU 1), IAM (EMU 1), and BEMTOOL (EMU 2). Across these models, simulations covered the following scenario types: Status quo (SQ), Trawler-only effort reduction (A), Temporary selectivity measures (B), Permanent selectivity measures (C), 12-months deep closures (D), 5% 12-months closures at 200–500 m (E) and Catch limits (F), with some additional variations (Table 5.2.1). STECF notes that, due to the procedural, technical, and time constraints described above, only 8 of the 9 requested scenarios could be implemented during the meeting. STECF also observes that, by design, some scenarios

could not be simulated with the modelling platforms available at the meeting (e.g. spatial scenarios D and E cannot be run with non-spatial models). In contrast, additional scenarios were required as preparatory steps before the requested simulations could be executed. Overall, there was no time available for the EWG to collectively exchange on the outcomes from the simulation results.

The scenarios requested and those actually completed are summarised in Table 5.2.2. STECF notes that the SMART model simulations listed in the table were completed separately under ad-hoc contract STECF 25103 after the EWG meeting. STECF's review of this contract is provided later in the report (see Section 2). This sequencing of work prevented any collective discussion of results across the different modelling approaches.

Table 5.2.1: Management scenarios requested to EWG-25-11.

Scenario for 2026 and beyond	**Trawler effort levels to Achieve F_{MSY} of most vulnerable stock**	**Compensation Mechanism for trawlers**	**Set nets (GNS&GTR)** **Catch Limit for HKE levels** **As well as** **Effort level (fishing days) LLS**	**Catch Limit level** **For** **ARS and ARA**	**Conservation Measures (Spatial)**	**Conservation Measures (Selectivity)**
SQ What happened in 2025	Same effort in 2026 as in FO2025	Same level of compensation in 2026 and beyond as in 2025	Levels of 2025	Level of 2025	keep closure areas adopted until 2025 (see Annex A of the EWG report)	2025 implementation: Full ES fleet, 2 thirds of FR fleet
A F_{MSY} in 2026 and beyond from trawling effort reduction only	2026: level of reduction that secures F_{MSY} in 2026 and beyond for all stocks (based on most vulnerable stock in each EMU)	**A1** 2026: 50% of compensation gained in 2025 implementation and same for 2027 and onwards **A2** Same level of compensation in 2026 and beyond as in 2025	Levels of 2025	Level of 2025	Keep closure areas adopted until 2025 (see Annex A of the EWG report)	2025 implementation: Full ES fleet, 2 thirds of FR fleet
B Temporary selectivity	2026: level of reduction that secures F_{MSY} in 2026 and beyond for all stocks (based on most vulnerable stock in each EMU)	Same level of compensation in 2026 and 2027 as in2025 and no more compensation after	Levels of 2025	Level of 2025	Keep closure areas adopted until 2025 (see Annex A of the EWG report)	increase in selectivity with mandatory square mesh size of 45mm in coastal and 50mm in deep-water in codend for all trawlers in ES, FR & IT in 2026 but then changed back to 40mm for all as of 2027

C Permanent selectivity	2026: level of reduction that secures F_{MSY} in 2026 and beyond for all stocks (based on most vulnerable stock in each EMU)	Same level of compensation in 2026 and beyond as in 2025	Levels of 2025	Level of 2025	Keep closure areas adopted until 2025 (see Annex A of the EWG report).	Permanent increase in selectivity with mandatory selectivity measures (e.g. square mesh size of 45mm in coastal and 50mm in deep-water, codend length, flying doors) for all trawlers in ES, FR & IT in 2026 and beyond
D 12-month Deep closures	2026: level of reduction that secures F_{MSY} in 2026 and beyond for all stocks (based on most vulnerable stock in each EMU)	**D1** 2026: 50% of compensation gained in 2025 implementation and same for 2027 and onwards **D2** Same level of compensation in 2026 and beyond as in 2025	Levels of 2025	Level of 2025	Keep closure areas adopted until 2025 (see Annex A of the EWG report). in addition, an increase of 12-month closure areas for trawlers to deeper waters (depths depending on stocks biology	2025 implementation: Full ES fleet, 2 thirds of FR fleet
E 5% 12-month closures in waters between 200m and 500m	2026: level of reduction that secures F_{MSY} in 2026 and beyond for all stocks (based on most vulnerable stock in each EMU)	**E1** 2026: 50% of compensation gained in 2025 implementation and same for 2027 and onwards **E2** Same level of compensation in 2026 and beyond as in 2025	Levels of 2025	Level of 2025	Keep closure areas adopted until 2025 (see Annex A of the EWG report). in addition, an increase of 12-month closure areas for trawlers to deeper waters (depths depending on stocks biology	2025 implementation: Full ES fleet, 2 thirds of FR fleet
F Catch limits	2026: level of reduction that secures F_{MSY} in 2026 and beyond for all stocks (based on most vulnerable stock in each EMU)	Same level of compensation in 2026 and beyond as in 2025	25% reduction from 2024 level (starting from 2026 and then maintained)	2025 level of reduction that secures F_{MSY} in 2026 for ARA and ARS	Keep closure areas adopted until 2025 (see Annex A of the EWG report).	2025 implementation: Full ES fleet, 2 thirds of FR fleet

Source: PLEN 25-03 elaboration based on EWG 25-11 report.

Table 5.2.2. Simulations carried out by the EWG and additional SMART ad hoc contract.

		EMU1		EMU2	
		ISIS-Fish	IAM	SMART	BEMTOOL
		EWG 25-11	EWG 25-11	Ad-hoc 25103	EWG 25-11
REQUESTED SCENARIOS	**SQ**	X	X	X	X
	A1	X	X	X	
	A2			X	
	B	X	X		X
	C	X	X		
	D1			X (D800)	
	D2	X			
	E1			X	
	E2				
	F		X	X	X
ADDITIONAL SCENARIOS	**SQ2024**	X			
	A0		X		
	B0				X
	C0		X		
	D600			X	
	D700			X	
	F0				X

Source: PLEN 25-03 elaboration based on EWG 25-11 report.

The main findings from each simulation are presented below, by model.

1.6.1. Isis-fish (EMU 1)

Simulations focusing on hake in EMU 1 indicated that hake biomass is expected to increase under the status quo scenario, assuming the larger mesh size introduced in 2025 remains in place. Reverting to the smaller mesh size (scenario B) would negate these gains.

The additional SQ2024 scenario (same effort level but without selectivity measures) would lead to higher fishing mortality and lower SSB than the SQ scenario, evidencing the gain attributed to the selectivity measures. The model projects economic benefits for netters and longliners due to larger fish sizes but highlights the need for adaptive catch limits to prevent premature closure of these fisheries.

Scenario A1 (F_{MSY} in 2026 from trawling effort reduction and removal of 50% of compensatory days) indicates hake fishing mortality would fall below F_{MSY} and SSB would be close to B_{MSY} in 2030, though with negative economic impact for

Spanish trawlers (-6% variation of gross profit margin in 2030 with respect to 2024).

Under Scenario C (full adoption of 45 mm square mesh codend for OTB, and OTT ban by all French trawlers from 2026 on), results are mixed: fishing mortality for ages 1-3 (F_{bar}) increases slightly , but F on age-0 hake decreases (due to the increased size selectivity).Scenario D2 (permanent closure >600 m to protect ARA) shows no additional reduction in hake fishing mortality compared with status quo and indicates higher F on age-0 hake, likely due to effort displacement into coastal areas where juvenile concentrate.

1.6.2. IAM (EMU 1)

IAM is a non-spatial model; spatial scenarios were therefore not tested.

Across scenarios, maintaining 2025 deployed effort levels (scenarios SQ, B, C), the model's projections fail to achieve F_{MSY} for all stocks by 2026, primarily due to insufficient reductions in fishing mortality for Norway lobster (NEP) in GSA6, the most vulnerable stock. Scenario A0 that includes effort reductions to successfully bring all stocks to F_{MSY} by 2026, generates the largest increases in biomass but also the largest reductions in landings and profits.

Regarding the selectivity measures, maintaining the mesh size change introduced in 2025 is beneficial; while returning to 40mm mesh size (scenario B) is detrimental with increase catches of undersized hake and long-term negative effects on the biomass recovery. However, the scenario with permanent selectivity measures implemented in 2026 and beyond (scenario C) does not lead to big differences with respect to the SQ scenario as it concerns only a few vessels (those that did not implement selectivity measures in 2025).

The scenario A1, which couples the selectivity measures with a reduction in trawling effort, results in a fishing mortality closer to F_{MSY} for NEP in GSA 6 and below F_{MSY} for all the other stocks. Scenario A0 that secures reaching F_{MSY} by 2026 for all stocks requires substantial effort reductions in Spanish trawlers (~63%) with subsequent negative economic consequences.

Scenario F (dynamic catch limits targeting blue and red shrimp (*Aristeus antennatus,* ARA) similarly achieves F_{MSY} across stocks and spreads negative economic impacts more evenly among gears.

Overall, scenarios A0, C0 and F would reach F_{MSY} in 2026 and produce the strongest improvements in SSB by 2030. However, all of these scenarios show severe short-term economic impacts for Spanish trawlers, while hook fisheries in both countries and French trawlers are expected to benefit from biomass increases.

1.6.3. BEMTOOL (EMU 2)

The version used is non-spatial, therefore, spatial scenarios were not tested.

Simulations examined combinations of effort reductions and selectivity improvements to reach F_{MSY} for Norway lobster in GSA 11. Under SQ, B0, and F0, trawlers are constrained by catch limits for red shrimps, which regulate effort for deep-water trawling segments (OTB_DWS, OTB_MDD). Under scenarios B and F, trawling effort is reduced substantially—~80% fewer fishing days for OTB_DEF compared to 2025 — to reach F_{MSY} for Norway lobster in GSA 11. In contrast to scenarios SQ, B0 and F0, the scenarios with trawling effort reduction (B and F) predict SSB will rise quickly, reaching B_{pa} in 2–3 years for all stocks. However, these scenarios also project reduced short-term revenues for trawlers across GSAs, while passive gears benefit from reduced competition. Scenario B, which combines strong effort reductions with temporary selectivity improvements, yields the best outcomes for passive gears in terms of catches and revenues. For trawlers, the highest gross profit margins are obtained for scenario SQ in GSAs 9 and 10, and for scenarios B and F in GSA 11.

1.6.4. Summary across EMU 1 and EMU 2

Across models, results indicate that current management measures (SQ scenario) are not sufficient to successfully bring all stocks to F_{MSY} in 2026 nor by 2030. Additional effort reductions and/or dynamic catch limits are needed, especially for the most vulnerable stocks, with the subsequent negative economic impacts for some of the fleet segments. Reverting to smaller mesh sizes has been shown to jeopardise progress to F_{MSY}, while a reduction of the compensation mechanisms seems to facilitate progress towards F_{MSY}. The impacts of the adoption of permanent selectivity measures are not conclusive across models as they only involve a few number of vessels.

However, STECF stresses that the simulation outputs should be considered as indicative of likely future directions of changes, rather than precise predictions, and must be interpreted with caution. STECF recalls also that the models do not include trophic interactions or dynamic responses in fishery behaviour and stock productivity. Additionally, spatial analyses using VMS data (see ToR 3a) show that spatio-temporal closures, such as those in the Gulf of Lion, can influence catch efficiency and stock recovery. These effects are not fully captured in the bioeconomic models.

1.7. ToR 4b. Synoptic overview of the outcomes

STECF notes that the EWG was unable to fully address ToR 4b because modelling results were only available on the final day of the meeting, leaving insufficient time for discussion or interpretation. Only the status quo scenario was run across all bioeconomic models, while one scenario (E2) was not implemented in any model. As each model has its own structure and assumptions, and despite the standardisation of output indicators, results from

different models are not fully comparable. Cross-model discussion and a shared understanding of model behaviour, necessary for deriving general conclusions, were not possible, and the individual model results should therefore be interpreted with caution.

The analysis presented by EWG 25-11 provides a solid basis for deriving economic insights using the four indicators agreed in EWG 24-12: Gross Value Added, Gross Profit, Gross Profit Margin, and Full Time Equivalent. The current analysis does not evaluate broader downstream impacts on related sectors (e.g. processing, ancillary services, fishing communities). Acknowledging these limitations would strengthen interpretation and guide future research.

Furthermore, STECF notes that these are strictly economic indicators, not socio-economic ones, as they reflect financial performance and employment, but not wider social impacts. Incorporating social and community-level impacts would provide a more complete picture of the management plan's effects on overall socio-economic sustainability. In this context, STECF highlights that the social dimension toolbox developed through recent STECF EWGs on Social Data (EWG 24-05, EWG 25-02) offers relevant resources, including National Fisheries Profiles (https://oceans-and-fisheries.ec.europa.eu/national-fisheries-profiles_en), Fisheries Community Profiles, social indicators, social data calls (https://dcf.ec.europa.eu/data-calls/social_en), and the Annual Social Report (EWG 25-13). While some tools are still under development, they offer a useful starting point for future work. Their potential use in support of analyses of the West Med demersal effort regime should be explored in line with future strategic objectives and planning.

2. *Ad-hoc* contract report (STECF 25103): Fishing effort scenarios for demersal fisheries in the western Mediterranean Sea (EMU 2)

The main objective of this *ad-hoc* contract was to apply the SMART model (Russo et al., 2014; D'Andrea et al., 2020) to all demersal fishing gears in EMU 2 to simulate the management scenarios requested to EWG 25-11. STECF notes that SMART has been used in previous EWGs assessing fishing effort regimes for demersal fisheries in the Western Mediterranean, particularly for spatial management scenarios. This year, however, SMART experts were unable to attend EWG 25-11, and model simulations could not be included in the report. Consequently, the results from this *ad-hoc* contract serve as a complementary contribution to the EWG 25-11 report described above, in line with previous years.

The SMART model for EMU 2 was set up using updated 2024 data, including stock data from EWG 25-09, catches, VMS-derived effort, and biological and economic information. A total of eight management scenarios were simulated: SQ, A1, A2, D600, D700, D800, E, and F (cf Table above). STECF notes that the D600, D700, and D800 scenarios reflect the D1 scenario, with varying thresholds for deep-water closures, while scenario E corresponds to the

requested E1 scenario. For both D1 and E1 scenarios, 50% of the compensation gain achieved in 2025 was applied in 2026, and the same level of compensation as in 2025 was maintained from 2027 onwards. Additionally, the D600, D700, and D800 scenarios, involving 12-months closures of waters deeper than 600m, 700m, and 800m respectively, were included to assess the progressive impacts of closing deeper areas.

STECF notes that Scenario E, defined in the TORs as a closure of 5% of fishing grounds between 200m and 500m for trawlers, was implemented based on the Core Fishing Ground Analysis developed by ICES (https://github.com/ices-taf/MBCG_trade-off). Core Fishing Grounds were defined as the smallest area required to maintain 95% of current GVA, using the methodology of Ban and Vincent (2009) and Fabbrizzi et al. (2023), and applying the 'prioritizr' package in R (Hanson et al., 2023). A randomly selected block of cells, equal to 5% of the Core Fishing Grounds within the 200–500m depth range, was then closed to fishing in addition to existing closures. This approach has previously been applied in EMU 2 and other Mediterranean case studies (Sbrana et al., 2025).

STECF emphasizes that scenario definitions can be subject to different interpretations in terms of model parametrisation. To ensure meaningful comparisons, scenario assumptions must be clearly defined and discussed during model setup. Transparent documentation of assumptions is essential for consistent interpretation across analyses.

STECF notes that despite being a key species in deep-water fisheries, blue and red shrimp could not be fully included in the SMART model due to the absence of an analytical assessment (stock Category 5 in STECF EWG 25-09). As a result, the implementation of maximum catch limits for this stock could not be simulated.

Results from the SMART model indicate that all alternative management scenarios (A1–F) reduced F and increased SSB relative to the Status Quo (SQ), with stronger effort reductions yielding greater biological benefits. D-type scenarios, particularly D600, provided the strongest conservation outcomes. Conversely, SQ and Scenario E maintained higher fishing pressure and limited biomass recovery.

STECF further notes that stock-specific responses varied across scenarios. Scenario D600 achieved the greatest F reduction for giant red shrimp (*Aristaeomorpha foliacea*, ARS), while Scenario E was most effective for deep-water rose shrimp. Norway lobster in GSA 9 and GSA 11 showed reductions in F only under scenarios A and F. Red mullet was unaffected by spatial measures, as its main fishing grounds fall outside closure areas. None of the scenarios brought F below F_{MSY} for giant red shrimp, red mullet, or Norway lobster, while hake reached or remained below F_{MSY} in all scenarios.

Regarding SSB, all scenarios projected giant red shrimp, deep-water rose shrimp, and red mullet above Bpa. Hake was close to but slightly below Bpa, while the two Norway lobster stocks were below Bpa, but above Blim. STECF

notes that the sharp increase in hake recruitment estimated for 2024 may influence these projections. Strong fluctuations across scenarios also reflect high uncertainty for future stock dynamics.

Scenarios with stronger F reductions (e.g. D600–D800) resulted in stable or increased catches in 2030 compared to 2026, while scenarios maintaining high exploitation (e.g. SQ, F) showed reduced catches in 2030. This underscores the mid-term benefits of mortality reduction, especially for rebuilding stocks.

Finally, STECF notes that from an economic perspective, all scenarios except E showed higher profitability and full-time equivalent employment than SQ. D-type scenarios delivered the largest short-term improvements in gross profit margin and employment due to reduced costs and improved stock status. By 2030, D700 emerged as the scenario combining strong economic performance and sustainable exploitation levels.

STECF recalls that in 2024 (PLEN 24-03), the limited number of SMART model iterations led to concerns over result robustness. The longer time-frame provided under the ad-hoc contract improved computational feasibility but was still insufficient to simulate all requested scenarios. Moreover, running simulations after EWG 25-11 reduced chances for model comparison and postponed the finalisation of technical discussions.

3. *Ad-hoc* contract report (STECF 25105): Efficiency of permanent closure areas under 600m depth in the Western Mediterranean Sea

The second *ad-hoc* contract had two main objectives: (1) to compile and summarize literature on permanent deep-water closures in the Mediterranean Sea, with a focus on the socio-economic impacts of fisheries operating below 600 m depth, and (2) to assemble available data to set up a spatial BEMTOOL model for EMU 2.

STECF notes that the literature review included six documents: three related to EMU 1, two to EMU 2, and one covering both EMUs. These documents comprised the draft West Med effort regime report (EWG 25-11) and the previously described ad-hoc contract nº 25103. One of the reviewed documents (*ad-hoc* contract 2217) had already been assessed by STECF in PLEN 22-02.

The main findings and limitations of each document are summarized in Tables 5.2.3 and 5.2.4 for EMU 1 and EMU 2, respectively.

Table 5.2.3. Synthesis of the literature review on the socio-economic impact of the deep-water closures for EMU 1.

Management Unit: EMU 1					
Source	**Fleets covered**	**Stocks covered**	**Deep-water closures**	**Main findings**	**Limitations**
STECF ad hoc 2217 (based on BEMTOOL model)	DTS >12 m; Spain and France	ARA1 and ARA67	Closure areas under 600 m and 800 m	increased ARA SSB (+4 for 800 m and +17% for 600 m in GSA1) and decreased GVA for Spanish trawlers	+ only trawlers and two stocks were dynamically modelled + Spanish economic data were estimated (not available) + closures were simulated without effort reallocation
STECF EWG 25-11 (based on Isis-Fish model)	Trawlers, gillnets and longlines; Spain and France	HKE1-5-6-7	Closure areas under 600m	No further hake F reduction vs SQ; age-0 F slightly rises (effort shifts inshore), and catch changes are minimal.	+ Spanish liners and netters need to be more accurately spatially described+ Only hake modelled.
ICATMAR report Carretón et al. (2023)	Trawlers GSA 6	Focus on ARA fishery	Closure areas under 600 m and 800 m	Average yearly revenue losses under a 600 m limit were 35% in the North zone of GSA 6 and 27% in the Center	+ No model used for projections + Not possible to take into account stock recovery in the medium and long term + Only revenues considered as economic indicator
GFCM pilot study on deep-sea fisheries in Spanish waters	Trawlers GSA 6 (Spain)	Focus on ARA fishery	Fisheries operating at 800-1000 m	30% of the revenues coming from 500-1000 m of depth. No effect of ban 800-1000 m, but results may be masked by the recovery trend stocks due to management measures in force	Preliminary results

Source: PLEN 25-03 elaboration based on STECF 25105 ad-hoc contract report.

Table 5.2.4. Synthesis of the literature review on the socio-economic impact of the deep-water closures for EMU 2.

Management Unit: EMU 2					
Source	**Fleets covered**	**Stocks covered**	**Deep-water closures**	**Main findings**	**Limitations**
STECF ad hoc 2217 (based on BEMTOOL model)	Trawlers and polyvalents	ARA, ARS, HKE, DPS, NEP9, MUT9 and MUT10	Closure areas under 600 m and 800 m	The closure increases the GVA of the segments with lower overlap to spawning grounds (GSA 10 and GSA 11 DTS > 24 m).	The closures are simulated through an implicit approach, with no possibility to mimic effort reallocation
ABIOMMED project Sbrana et al. (2025)	Trawlers > 15 m	ARA, ARS, NEP, DPS, MUT, HKE and others (not in the MAP).	Closure areas under 600 m, 700 m and 800 m	Decrease in catches of deep-sea crustaceans Decrease in profits of -5% for 600 m and -15% for 800 m	+ Projections useful only for the short term + Not covering vessels < 12 m of length and other gears than trawlers
STECF ad-hoc 25103 (based on SMART model)	Trawlers and longlines > 12 m	ARA, ARS, NEP, DPS, MUT, HKE and others (not in the MAP).	Closure areas under 600m, 700m and 800m	The profitability and the number of fleet segments operating under viable conditions increase compared to the SQ	+ Not covering vessels < 12 m as well as gillnets and trammel nets. + No GVA and GP projections

Source: PLEN 25-03 elaboration based on STECF 25105 ad-hoc contract report.

In EMU 1, the closure of areas deeper than 800 m had a minimal impact on the Spanish fleet, with only a 1% loss in revenue according to the ICATMAR report. In contrast, a closure at 600 m significantly reduced fleet profitability. For EMU 2, results were mixed: Sbrana et al. (2025) projected profit reductions of 5% and 15% for closures at 800 m and 600 m, respectively, while STECF *ad-hoc* contract 25103 reported increased profitability for spatial closure scenarios compared to the status quo.

STECF notes that the studies included in the literature review use different models and methodologies, each with varying strengths and limitations. While they offer valuable qualitative insights, the economic results are not directly comparable in quantitative terms. STECF notes that the social component was not included in the analysis performed.

Beyond the literature review, STECF observes the *ad-hoc* contract provided “apparent fishing hours” for Western Mediterranean trawlers (EMU 1 and EMU 2) based on recent Global Fishing Watch (GFW) data. The average effort from 2021 to 2024 exerted at depths below 800 m was 1.64%, and 8.5% below

600 m. STECF notes that since 2024, permanent closures below 800 m are included as measures under Article 8 of the Mediterranean and Black Sea fishing opportunities regulations (Regulation (EU) 2024/259 and Regulation (EU) 2025/219). The implementation of these measures from the compensation mechanism may influence spatial effort allocation and lead to considerable year-to-year variability depending on the adoption level, which should be considered into bioeconomic simulations. Additionally, STECF notes that AIS-based data from GFW may produce biased effort estimates in some cases (Hintzen et al., 2025). Thus, GFW-derived effort data should be validated and, if necessary, supplemented with alternative sources to ensure reliable model inputs.

Regarding the second task, the ad-hoc contract's report identified the needed data sources to parametrise the spatial BEMTOOL model. In addition to the standard BEMTOOL inputs, the spatial version requires AIS data (ideally complemented with VMS to improve spatial resolution), GFCM and EU fleet register data to match AIS tracks with fleet segments, FDI spatial effort and landings data for total effort calibration, MEDITS data for spatial stock distribution, and logbook data for refined spatial catch estimates. While most of these data are publicly available, VMS and logbook data require a dedicated data call, with appropriate data use disclaimers.

STECF notes that the spatial BEMTOOL model, developed within the SEAwise project (https://seawiseproject.org/), has been applied to Adriatic demersal fisheries and deep-water fisheries in the western Ionian Sea. This model builds on the BEMTOOL framework already used in EMU 2, enabling the simulation of spatial management measures. However, STECF highlights that the SMART model, which is also suited for spatial analyses, is already in use in EMU 2. Introducing an additional spatial bioeconomic model could complicate the interpretation of results and should be carefully considered within the context of the West Med effort regime EWG. If spatial BEMTOOL is used alongside SMART, a thorough cross-model comparison and discussion will be necessary to ensure coherent and robust policy advice.

STECF conclusions

General conclusions on the process

STECF concludes that future evaluations of the West Med MAP would require a more efficient process, timely data and tasks delivery. The stock assessment EWG should receive clear requests for essential outputs, particularly stock objects and partial Fs, and all relevant datasets (AER, economic by GSA, FDI, and, when needed, VMS and logbook data) must be available well ahead of the EWG. A well-planned timely data call is needed for VMS and logbook data when spatial analyses are foreseen.

STECF emphasizes the need for precise and timely definition of simulation scenarios. Models must be based on assumptions that accurately reflect the intended management measures. For novel combinations of measures, such as the 5% increase in closed areas proposed in Scenario E of EWG 25-11, early engagement with modellers is recommended to avoid inconsistent interpretations. In this regard, STECF concludes that DG MARE should issue *ad-hoc* contracts so that models can be parametrised and run before the meeting.

Overall, STECF stresses that a clear planning, timely submission and prioritisation of ToRs by DG MARE will help ensure that future EWGs can fully address their tasks and provide robust advice.

EWG 25-11 report

Regarding ToR 1 – Time series of fishing effort, STECF concludes that most fishing effort trends (fishing days) in EMU 1 and EMU 2 were stable or decreasing between 2015 and 2024. For several fleet segments though, the effort ceilings in Regulation (EU) 2024/259 exceed the deployed effort reported in FDI, particularly in EMU 1, meaning the ceilings may not be as limiting as intended.

Regarding ToR 2a – Relationship between F and fishing effort, STECF concludes that no consistent linear F–Effort relationship was found across all GSAs, gears or stocks, confirming that reductions in fishing days do not automatically translate into proportional reductions in fishing mortality. These relationships require continued monitoring and should inform future effort-level testing in the bioeconomic models.

Regarding ToR 2b – Subsidies and fuel cost changes, STECF concludes that available information on temporary cessation payments remains incomplete and should be standardised (e.g. annual, by GSA/segment, by measure, EU/national share). Fuel price volatility has had significant impacts on operating costs, especially for energy-intensive trawler segments. Improved modelling of energy costs, including expected outcomes from projects such as DecarbonyT, would strengthen future analyses.

Regarding ToR 3a – Partial fishing mortalities & catch efficiency, STECF concludes that partial Fs were produced for all species and gears, with OTB segments generally contributing most to fishing mortality. Spatial analyses suggest effort displacement under effort restrictions and closures, highlighting the importance of accounting for behavioural responses. In GSA 7, the 2020 spatio-temporal closure did not reduce juvenile hake catches, largely due to poor selectivity, although CPUE improved in some areas due to effort reductions.

Regarding ToR 3b – Based on model outputs from 8 out of 9 requested management scenarios, STECF concludes that maintaining 2025 selectivity measures is critical for progress towards F_{MSY}, particularly for hake and Norway

lobster. The current management measures (simulated in the Status quo scenario) are not sufficient to bring all stocks to F_{MSY}. Additional management measures are needed to achieve biological objectives, in particular, for most vulnerable stocks. However, these may lead to short-term negative economic impacts for some trawling segments. Results from different models are not directly comparable and should be interpreted cautiously, as a lack of time prevented any discussion on the interpretation of the results during the EWG.

Regarding ToR 4a/4b – Synthesis of results, STECF concludes that a full synoptic overview was not possible due to late availability of model outputs. The EWG delivered synthesis tables with short-term (2026) and mid-term (2030) economic indicators, but these reflect economic, not socio-economic, impacts. Broader social effects were not assessed. Future analyses could consider integrating social indicators (National Fisheries Profiles, social data calls, ASOR) where relevant.

SMART *ad-hoc* contract

STECF concludes that the SMART model simulations for EMU 2 provide valuable complements to the results of EWG 25-11, particularly for the evaluation of spatial management measures. However, the absence of cross-discussion with the EWG limited the ability to fully interpret the results and may impede the development of robust scientific advice.

Based on the SMART model outputs, STECF concludes that all alternative scenarios (A1–F) resulted in lower F and higher SSB compared to the Status quo scenario (SQ), with the magnitude of change linked to the degree of effort reduction. D-type scenarios involving 12-month deep-water closures generally provided the most favourable conservation outcomes.

Deep-water and spatial BEMTOOL *ad-hoc* contract

STECF concludes that according to the simulations performed in the ad-hoc contract, closures at 600 metres would substantially reduce profitability for the Spanish fleet in EMU 1. For EMU 2, results were contrasted across studies. STECF notes that the absence of an analytical assessment for blue and red shrimp, a high-value species central to EMU 2 deep-water fisheries, limits the completeness of current economic analyses.

STECF concludes that, beyond the inputs required for the standard BEMTOOL model, the spatial version requires additional data. Most datasets are publicly accessible except for logbook and VMS data, which would require dedicated data requests.

Spatial BEMTOOL can extend the capabilities of the existing BEMTOOL model by enabling simulation of area-based management measures. However, since the SMART model is already implemented for spatial management evaluation in EMU 2, STECF concludes that introducing an additional model would add

complexity to results interpretation. If spatial BEMTOOL is adopted for future EWGs, a structured cross-model comparison should be conducted to ensure coherent and consistent policy recommendations.

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5.3 EWG 25-12 Balance/Capacity

Request to STECF

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments and recommendations.

STECF comments

1. General comments

EWG 25-12 met 6-10 October 2025 in Ispra, Italy. The EWG was attended by 21 experts (including three STECF members), two JRC experts and one observer from the French fisheries administration.

The ToRs and the structure of the EWG report are similar to previous years. However, contrary to last year where two separate EWGs were conveyed, one concerning the mainland Europe and one for the Outermost regions (OMRs), the information for the two areas are presented separately in a single report.

In addition, STECF notes the following changes in the report from previous years:

1) The traffic light tables have been further modified to include two estimates of the SAR indicator (using the 10% and 20% threshold) for fleets comprising vessels less than 12 metres in length in the OMRs. The two estimates are included to illustrate any differences in the number of stocks at risk that contribute to the indicator and whether the balance status indicated is the same or different.
2) Where Member States have provided an alternative Vessel Utilisation Ratio indicator (VURnn) as permitted by the Commission's guidelines, the traffic light table shows separate columns depicting the balance/out of balance status of fleet segments according to each indicator (VUR and VURnn).
3) Details of total vessels, inactive vessels and proportion inactive expressed in terms of number, tonnage (GT) and engine power (kW), have been included in the EWG report for the first time this year.
4) SAR threshold selection: the basis for including a stock at risk in the SAR indicator (10% of the stock or 10 % of the fleet segment landings) is given in a new table for fleet segments in the OMR section of the report. It also indicates the species flagged as 'at risk' and their relative importance expressed as a proportion of the total EU landings by the fleet segment.

STECF notes that the terms "in balance" and "out of balance" and analogous terms, are here used strictly in relation to the criteria given in the Commission guidelines (COM (2014) 545 Final and COM (2024) 223 FINAL). STECF further notes that according to the clarification given by the Commission in COM(2024)

223, for a given fleet segment, if any one of the indicator values prescribed in the CG indicates an imbalance, then this fleet segment is deemed by the Commission to be out of balance with fishing opportunities.

However, STECF notes that Member States' assessments regarding whether fleet segments are in or out of balance may not be solely based on the status of only one of the indicators specified in the guidelines. Additional information and/or analyses may be taken into account by Member States in assessing whether a segment is in or out of balance. However, the EWG does not have an objective framework to evaluate such information and comments only on whether the balance indicators provided in the Member States' fleet reports are based on DCF information in line with the Commission's guidelines. STECF agrees with the rationale of the EWG.

Comments on the inclusion of two SAR indicators for fleets comprising vessels less than 12 metres in length in the OMRs

STECF observes that the inclusion of two SAR indicators for vessels less than 12 metres in length is useful to illustrate any differences in the number of stocks at risk as a result of the different thresholds applied. STECF notes that adopting different thresholds (10% or 20% of the total landings from a stock) meant that out of 56 segments under 12 metres in the OMRs, the indicated balance status changed (from 'out of balance' to 'in balance') for one fleet segment only (FR OFR PSVL0010), for which the number of stocks at risk contributing to the indicator changed from 1 to 0. In all other under 12 metres fleet segments in the OMRs, the number of stocks at risk contributing to the indicator values remained the same.

Comments on inclusion of an alternative Vessel Utilisation Ratio

The inclusion of both the VUR and VURnn indicator values (if provided by Member States), facilitates an assessment of whether the indication of balance for a fleet segment using the Member States' preferred indicator (VURnn), is the same or different to that indicated by the VUR based on observed maximum sea days.

In the fleet reports submitted in 2025, only France provided values for VURnn, and the basis for the values for fleet segments in the French OMRs, differs from that for other regions. In the case of France, for the North Atlantic Ocean (NAO), Mediterranean and black Seas (MBS), other fishing regions (OFR), and two French outermost regions (Mayotte and Saint Martin) the 90th percentile of the distribution of days at sea per segment is used as the denominator (theoretical maximum sea days) in the vessel utility ratio, hence the indicator is referred to as VUR_{90}. For the remaining French OMR regions, a different theoretical maximum is used for all fleet segments within a single OMR (Table 5.3.1).

Table 5.3.1. Theoretical maximum number of sea days (T.max) for French OMRs used by the Member State to compute VURnn.

OMR	T.max
French Guiana	123
Guadeloupe	122
Martinique	86
Reunion	121
Mayotte	90%*
Saint Martin	90%*

* 90% = the 90th percentile of the distribution of days at sea for each segment

Source: STECF PLEN 25-03 based on EWG 25-12 results.

Numbers of active fleet segments from the mainland and outermost regions of France indicated to be out of balance according to the VUR, VUR_{90} and VURnn indicator values are compared in Table 5.3.2.

Table 5.3.2. Numbers of active French fleet segments indicated to be out of balance according to the VUR, VUR_{90} and VURnn indicator values.

Mainland Fleet segments					
	VUR	VUR_{90}*			
NAO	32	24			
MBS	15	8			
OFR	0	0			
Outermost region's fleet segments					
	VUR	VUR_{90}*	VURnn	Delta +	Delta -
French Guiana	4		2	2	0
Guadeloupe	15		8	7	1
Martinique	6		8	1	3
Reunion	1		3	1	3
Mayotte	2	2			
Saint Martin	2	2			

*VUR90 = The theoretical maximum sea days is based on the 90th percentile of the distribution of days at sea for each segment.
delta + = number of segments where VUR indicates 'out of balance' and VURnn indicates 'In balance'
delta - = number of segments where VUR indicates 'In balance' and VURnn indicates 'out of balance'

Source: STECF PLEN 25-03 elaboration based on EWG 25-12 report.

For the NAO, MBS and OFR French fleet segments, VUR_{90} indicates fewer fleet segments to be out of balance than VUR (or equal for the two French OMR regions using this indicator). The reason for this observation is trivial; the 90^{th} percentile of the maxseadays is lower than the observed maxseadays for each

fleet segment and a lower denominator in a ratio will give a higher ratio for a given numerator.

For the French OMRs the situation is not quite so straightforward and varies by segment and OMR. Some segments which are indicated to be 'in balance' according to the VUR indicator are indicated to be 'out of balance' according to VURnn (delta -). The opposite is also true (delta +).

However, irrespective of how fleet segments are indicated either by the VUR, VUR_{90} or the VURnn indicators, STECF has no objective basis to judge which indicator is the most informative in the assessment of whether a fleet segment is in or out of balance with fishing opportunities.

Comments on the use of international landings for the calculation of the SAR indicator

STECF notes that, in order to flag a stock at risk (SAR) for a fleet segment according to the guidelines, one of the following two criteria needs to be fulfilled:

i) The landings from a stock at risk by the fleet segment account for more than 10% of the total landings by the fleet.
or
ii) The landings from a stock at risk by the fleet segment account for more than 10% of the total catches from the stock at risk. The 10% threshold is increased to 20% for segments from the OMR that comprise vessels less than 12 metres in length.

STECF has previously concluded (PLEN 24-03) that the calculation of SAR using only EU landings for criterion ii) might be misleading, especially for fisheries in OMRs or in fishing areas with shared stocks. The 10% or 20% threshold in (ii) is a proxy for the amount of fishing mortality exerted by a fleet on a stock at risk relative to the total fishing mortality on the stock at risk. Hence to derive the appropriate value for the SAR indicator the landings by the fleet and the total international landings from the stock are required. On the other hand, STECF also observes that there is a risk that SAR indicator values are underestimated in certain regions as the OMRs and OFRs for which there are few stock assessments and management advice available, because criteria i and ii for selecting stocks at risk cannot be considered in the absence of relevant information.

STECF notes that during the data compilation EWG that takes place ahead of the Balance EWG, attempts were made to compute the SAR indicator using total international landings for stocks exploited by fleets in the OMRs. For a number of reasons relating primarily to sources of landings data and a lack of time, this could however not be completed by the EWG 25-12. Hence, the SAR indicator values in the EWG 25-12 report are still based only on total EU landings of the stocks at risk. STECF also notes that while the French fleet report contains SAR indicator values based on international landings from stocks deemed to be at risk, the number of stocks at risk considered by the French report to compute the SAR indicator is not the same as that used by the EWG 25-12. The outcome is that the SAR indicator values in the French fleet

report and those computed by the EWG 25-12 are not directly comparable. STECF considers that if indicators are to be directly compared, there is a need to agree a common list of data sources for landings data and a common list of stocks at risk.

Comments on the provision of economic data at the clustered fleet segment level

STECF notes that in the majority of cases where Member States provide economic data at the clustered fleet segment level because of confidentiality issues, landings are also reported separately for each of the fleet segments that make up the cluster. However, in a minority of cases, the landings for the individual fleet segments are not reported separately. It is highly desirable that such cases are identified by the Member States in their data submission in response to the fleet economic data call, so that the EWG can identify cases where the relevant landings' data are not available for separate fleet segments. The information required is described in section 2.3 of the EWG 25-12 report.

2. Summary of the outcomes of the EWG

On the request from DG MARE during the plenary week, STECF produced four summary tables compiling the results of the EWG; mainland fleet balance indicator values (Table 5.3.3), OMR fleet balance indicator values (Table 5.3.4); comments on whether the national fleet reports provided in the Member States' fleet reports are based on DCF information (Table 5.3.5) and comparison table of indicator values (Table 5.3.6). Finally, Table 5.3.7 provides an overview of action plans and was inserted from the EWG report.

Overview of the European mainland fleet and by region

Table 5.3.3 presents the number of segments for the EU mainland and in each supra region (North Atlantic Ocean, Mediterranean and Black Seas and Other Fishing Regions) and for each indicator (SHI, SAR, CR/BER, RoI / RoFTA, VUR and IV), the number of segments for which an indicator value could be computed for the year 2023. It also includes the numbers of segments that according to the criteria in the Commission's Guidelines, are indicated to be in balance or out of balance, together with an assessment of the trend of the indicators, as reported by EWG 25-12.

Compared to the result of EWG 24-13 referring to 2022 the number of active fleet segments decreased in 2023 in NAO and OFR, from 355 to 304 fleets and from 63 to 20 fleets respectively compared to 2022, while the number of active fleets remained unchanged in MBS (201).

The proportion of fleets for which a meaningful SHI could be calculated has decreased from 47% to 40% in the MBS and from 62% to 50% in OFR, while it remained stable in NAO at about 40 %. STECF further notes that out of the meaningful SHI indicated fleet segments, the proportion of fleet segments that were assessed to be in balance with fishing opportunities decreased from 80 % to 72% in NAO and from 45% to 43% in MBS, while it increased from 85 % to 100 % in OFR, compared to the results of EWG 24-13 referring to 2022.

As regards the SAR for mainland fleets, STECF observes that the number of segments for which a SAR indicator could be computed has increased from 72% to 75% in NAO and from 76% to 83% in MBS compared to the results of EWG 24-13. In OFR the proportion has remained similar changing from 76 % to 75% The proportion of SAR fleet segments that were assessed to be in balance with fishing opportunities increased from 49% to 60% in NAO and from 42% to 62% in MBS, while it decreased from 44% to 40% in OFR, compared to 2022.

The proportion of segments assessed to be in balance based on the economic indicators have decreased in NAO and OFR while remained closed to unchanged in MBS in comparison to 2022.

The technical indicator Vessel Utilisation Ratio (VUR) indicates that about 40% of the segments to be in balance in the NAO and MBS, which is a decrease from about 50% in 2022. As was also the case in 2022 in the OFR, almost all fleet segments are indicated to be in balance according to the VUR.

Table 5.3.3 Summary table of balance indicator values for 2023 and trends over the period 2019-2023 at mainland EU and regional level (NAO, MBS and OFR). The number of fleet segments in balance, out of balance with improved, worsened and no trends are shown.

Area			N active segments	Indicators						
				Biological		Economic			Technical	
			Total	SHI	SAR	Cr/BER	RoFTA	RoI	VUR	IV
EU	Coverage	Total	**525**	**216**	**409**	**338**	**338**	**67**	**463**	**27%**
	Balance	In balance		135	245	166	179	21	203	
		Out of balance		81	164	172	159	46	260	
NAO	Coverage	Total	**304**	**125**	**228**	**196**	**196**	**54**	**251**	**33%**
	Balance	In balance		90	136	92	100	15	99	
		Out of balance		35	92	104	96	39	152	
	Trend	Deteriorating		13		70	81	21	10	
		Improving		44		54	75	10	24	
		No trend		54		33	1	0	188	
		Flat		0		0	0	0	5	
		Could not be calculated		14		39	39	23	24	
MBS	Coverage	Total	**201**	**81**	**166**	**131**	**131**	**11**	**194**	**17%**
	Balance	In balance		35	103	70	75	5	87	
		Out of balance		46	63	61	56	6	107	
	Trend	Deteriorating		1		59	67	9	19	
		Improving		43		37	47	1	12	
		No trend		19		18	0	0	114	
		Flat		5		0	0	0	14	
		Could not be calculated		13		17	17	1	34	
OFR	Coverage	Total	**20**	**10**	**15**	**11**	**11**	**2**	**18**	**8%**
	Balance	In balance		10	6	4	4	1	17	
		Out of balance		0	9	7	7	1	1	
	Trend	Deteriorating		0		2	3	0	2	
		Improving		2		3	4	2	2	
		No trend		5		3	1	0	10	
		Flat		0		0	0	0	0	
		Could not be calculated		3		3	3	0	4	

Source: STECF PLEN 25-03 elaboration based on EWG 25-12 report.

Overview of the outermost regions' fleet and by Member State

Table 5.3.4. Summary table of balance indicator values for 2023 for the Outermost regions

	Fleet segments (total)		SAR	SHI	VUR	VUR_{90}	VURnn	Fleet segments (clustered)		Rofta	CR/BER
France	48	Assessed FS	46	35	47	4	42	23	Assessed FS	21	21
		Out of balance	13	4	30	4	21		Out of balance	8	8
	% out of balance		**28**	**11**	**64**	**100**	**50**	**% out of balance**		**38**	**38**
Portugal	18	Assessed FS	18	10	18			16	Assessed FS	16	16
		Out of balance	7	0	3				Out of balance	4	3
	% out of balance		**39**	**0**	**17**			**% out of balance**		**25**	**19**
Spain	11	Assessed FS	11	6	11			6	Assessed FS	6	6
		Out of balance	8	0	3				Out of balance	4	4
	% out of balance		**73**	**0**	**27**			**% out of balance**		**67**	**67**
Total	77	Assessed FS	75	51	76	4	42	45	Assessed FS	43	43
		Out of balance	28	4	36	4	21		Out of balance	16	15
	% out of balance		**37**	**8**	**47**	**100**	**50**	**% out of balance**		**37**	**35**

Source: STECF PLEN 25-03 elaboration based on EWG 25-12 report.

STECF acknowledges that the report provides an extensive assessment of fishing fleet capacity, activity, and balance between fishing opportunities and effort across the outermost regions of France, Portugal, and Spain. It analyses vessel numbers, tonnage, engine power, and levels of inactivity, and evaluates biological, economic, and technical indicators for each fleet segment.

For the French outermost regions, STECF notes that most segments in Guadeloupe, Martinique, La Réunion and Mayotte were generally indicated to be in balance according to the biological indicators, although for French Guiana several segments were indicated to be out of balance. While many segments displayed favourable economic outcomes, in French Guiana and Guadeloupe the economic indicators for some segments were less favourable. VURnn indicator pointed to the majority of segments to be out of balance.

STECF observes that the EWG 25-12 report highlights increased data availability, allowing broader use of biological indicators, and notes varying alignment between Member State and expert-group calculations. In its fleet report, France identifies several segments as structurally imbalanced and proposes an action plan targeting capacity limits, restrictions on new entrants, and additional management measures, especially in French Guiana and Guadeloupe.

In Portugal's outermost regions, STECF notes that in general, fleets from Madeira and the Azores fleets are indicated to be in balance, although some segments in both regions exploit species at risk. Economic indicator values results were largely positive, with only a minority of segments showing low profitability. Technical indicators suggested most segments were in balance. STECF observes some discrepancies between national and expert-group calculations, partly due to differences in stock assessments and effort data.

Portugal presents an action plan for two Madeiran segments involving permanent vessel cessation, while the Azores are considered not to require any adjustment measures.

For Spain's Canary Islands, STECF notes that the SHI indicator placed all assessable segments in balance, but the SAR indicator showed that most segments depended on stocks at risk. Economic indicators suggest that the majority of fleet segments are profitable, although some segments showed deteriorating trends in profitability over the most recent three years. Technical indicators values indicate imbalance in three out of 11 fleet segments. Spain regards several segments as structurally imbalanced and stresses limitations of current guidelines for assessing small, multispecies fleets.

Summary of the alignment of the Member States fleet reports with the CG

STECF considers that 10 out of 22 Member States provided balance indicators that were based on DCF information in line with the Commissions guidelines. The other 12 Member States followed the guidelines to a varying degree (reported as "No" in table 5.3.5 below).

Table 5.3.5 Summary of the EWG remarks as to whether the balance indicators provided in the Member States' fleet reports are based on DCF information fully in line with the Commission's guidelines (CG).

Member State	In line with the CGs (2025)	EWG comments
Belgium	Yes	–
Bulgaria	Yes	–
Croatia	Yes	-
Cyprus	No	Not all the indicators are provided for all fleets
Denmark	Yes	–
Estonia	No	Some indicators are provided in a different segmentation (for 2 segments <12m) from that reported to DCF.
Finland	No	None of the economic or technical indicators requested were presented in the fleet report.
France	No	Improvements have been made but not all segments are in line with DCF.
Germany	Yes	–
Greece	No	Does not provide an assessment of balance between fleet capacity and fishing opportunities for all fleet segments in accordance with the Commission guidelines
Ireland	No	MS has used values for the biological indicators taken from the previous year's balance report (in this case EWG 24-13 report).
Italy	No	Not all the indicators are provided; some for a different segmentation or different years
Latvia	No	One indicator (SAR) is missing
Lithuania	Yes	–
Malta	No	Biological indicators not provided
Netherlands	Yes	–
Poland	Yes	–
Portugal	No	Improvements have been made but MS's values for all indicators differ from those calculated by the EWG 15-12.
Romania	Yes	–
Slovenia	No	Not all the indicators are provided for all segments
Spain	Yes	–
Sweden	No	EWG 24-13 and EWG 25-12 noticed that the fleet segments are not identified in accordance with the fleet classification specified in the fleet economic data call under the DCF.
Total	**10**	

Source: STECF PLEN 25-03 elaboration based on EWG 25-12 report.

Summary of the discrepancies between Member States' fleet reports and those calculated by the EWG

In Table 5.3.6 below each fleet segment, the biological, economic and technical indicator values that were computed by the EWG were compared with the equivalent values and trends in the fleet reports submitted by the Member State under Article 22.2 and 22.3 of Regulation (EU) 1380/2013. Discrepancies

between such values were highlighted and where possible the reasons for such discrepancies were identified.

A summary of the differences found in the indicator values between Member States' fleet reports and those calculated by the EWG is presented in Table 5.3.6. The categorisation of these differences is based on the following criteria decided by STECF in the PLEN 22-03 report:

- Similar (Sim). If the indicator values calculated by the EWG and those provided by the Member States are the same or slightly different, but they indicate the same balance/imbalance assessment.
- Discrepancies (Discr). If the indicator value calculated by the EWG and those provided by the Member States differ and they indicate a different balance/imbalance assessment.
- Not Provided (NP): If the indicator value is not provided in the Member State's fleet report.
- Not Comparable (NC): If the fleet segmentation used by the Member State differs from the one used by the EWG; and/or if the indicator provided is not that computed by the EWG.
- Not Undertaken (NU): There were issues relating to data concerning inactive vessels and especially regarding the calculation of inactive GT and kW, which meant that comparisons between the EWG estimates and those provided by Member States in their fleet reports could not be undertaken

Table 5.3.6. Differences in the indicator values between Member States' fleet reports and those calculated by the EWG.

	Biological		**Economic**			**Technical**		**EWG comments**
MS	**SHI**	**SAR**	**CR/BER**	**RoI**	**RofTA**	**VUR**	**IV**	
Belgium	Sim	Discr	Sim	NU	Sim	Discr	NU	SAR discrepancies in three fleet segments. VUR discrepancies for one fleet segment.
Bulgaria	Discr	Sim	Discr	NU	Sim	NC	NU	SHI different because MS did not follow the calculation method set out in the Guidelines. CR/BER differences due to different clustering.
Croatia	Discr	Discr	Discr	NU	Discr	Discr	NU	SHI and SAR different number of fleet segments and evaluation of balance. CR/BER discrepancies for 1 fleet segment. RofTA and VUR differences for 2 fleet segments.

Cyprus	Sim	Discr	Discr	NU	Discr	NC	NU	Different SAR list. CR/BER and RofTA different number of fleet segments and 1 with different assessment of balance.
Denmark	Discr	Discr	Discr	Discr	NU	Discr	NU	SHI differences for 5 fleet segments. SAR differences for 11 fleet segments. CR/BER and ROI differences in the status of balance. For 11 fleet segments no VUR data provided in the MS report.
Estonia	NC	NC	Sim	Discr	NP	NC	NU	ROI different segmentation.
Finland	Discr	NP	NP	NP	NP	NP	NU	SHI calculated in different way.
France	Discr	Discr	Sim	NU	Sim	Sim	NU	SHI discrepancies for few fleet segments due to the use of different stock assessments. MS used a subset of the SAR stock list.
Germany	NC	Discr	Sim	NU	Sim	Discr	NU	SAR discrepancies in one fleet segment. VUR discrepancies for five fleet segments. No VUR values for five fleet segments in the fleet report.
Greece	NC	NP	NP	NP	Discr	NC	NU	RofTA discrepancy for 1 fleet segment.
Ireland	NC	NC	Discr	NP	Discr	Discr	NU	CR/BER and RofTA discrepancies due to different input data. VUR discrepancy for 1 fleet segment.
Italy	NC	NC	NC	NP	NC	NC	NU	SHI and SAR segmentation by GSA.
Latvia	Discr	NP	Discr	NC	NP	Discr	NU	SHI in the MS report 2 fleet segments missing. CR/BER 2 fleets with differences in the status of balance. VUR with 1 fleet with differences in the status of balance.
Lithuania	Sim	Sim	Discr	Discr	Discr	Discr	NU	CR/BER and VUR with differences in the status of balance.
Malta	NP	NP	Discr	NC	NC	Sim	NU	CR/BER with differences in the status of balance.
Netherlands	Sim	Discr	Sim	Sim	Sim	Sim	NU	SAR 3 fleets with differences in the status of balance.
Poland	Discr	Discr	Discr	Sim	Sim	NU	NU	SHI discrepancy for 1 fleet. SAR and CR/BER discrepancies for 2 fleets.

Portugal	Sim	Discr	Discr	NP	Discr	Discr	NU	No SAR found by the Member State, while 9 found by the EWG. CR/BER discrepancies for 3 fleets. RofTA discrepancies in the calculation and status. VUR discrepancies in the balance status.
Romania	NC	Sim	NC	NC	NP	Discr	NU	VUR discrepancies due to different calculation.
Slovenia	Sim	Discr	Discr	Sim	Sim	Discr	NU	SAR, CR/BER and VUR discrepancies due to different balance status.
Spain	Discr	Discr	Discr	NP	Discr	Discr	NU	SHI and SAR discrepancies due to different balance status. CR/BER and RofTA discrepancies for 1 fleet segment. VUR discrepancies for few fleets balance status.
Sweden	NC	NC	Discr	NP	Sim	Sim	NU	CR/BER discrepancies for 1 fleet segment for balance status.

Source: STECF PLEN 25-03 elaboration based on EWG 25-12 report.

Summary of the current status of Action Plans as reported in 2025 with those submitted or ongoing in 2024

Table 5.3.7. summarises for each Member State, the current status of Action Plans submitted with the fleet reports submitted in 2025 in relation to Action Plans already included or identified as on-going in the fleet reports submitted in 2024.

STECF notes that, Belgium, Estonia, Finland, Greece, Ireland Latvia, the Netherlands and Sweden did not present an action plan in 2025.

Table 5.3.7. Summary for each Member State, the current status of Action Plans submitted with the fleet reports submitted in 2025 in relation to Action Plans already included or identified as on-going in the fleet reports submitted in 2024.

MEMBER STATE	Year*	Action plan presented?	Status	Appropriately targeted?	Timeframe described	Tools described	EWG comments
Belgium	2024	No	NA	NA	NA	NA	The MS considered all segments to be in balance. No action plan presented.
Belgium	2025	No	NA	NA	NA	NA	The MS considered all segments to be in balance. No action plan presented.
Bulgaria	2024	yes	update	No	No	No	The provided action plan is not based on the MS's overall assessment in fleet report and comparison of technical, economic and biological indicators for 2018-2022. The explanation provided about the planned measures is general and does not give enough information about specific MS actions to balance fleet capacity.
Bulgaria	2025	yes	update	No	Yes	No	The updated action plan is provides a list of measures aiming at improving the balance of the Bulgarian fleet. The measures were added to the AP related to the EMFAF activities and does not have a link to the segments considered out of balance in the MS Fleet report. It is unclear how the proposed measures will improve the balance of the fleet.
Cyprus	2024	yes	Update	yes	yes	yes	Updated from 2023. Nevertheless, the time frame target for permanent cessation has been shifted from 2023 to 2024, due to delays in the preparation of the methodology to be used for compensating the owners for the permanent cessation. The related time frames for replacing the diamond meshed trawl net at the cod end, and for closing an area for trawling, have been moved from 2024 to 2025. The MS identified the concern regarding one fleet segment.
Cyprus	2025	yes	Update	yes	yes	yes	Updated from 2024. Nevertheless, the time frame target for permanent cessation has been shifted from 2024 to 2025, due to delays in the preparation of the methodology to be used for compensating the owners for the permanent cessation. The related time frames for replacing the diamond meshed trawl net at the cod end, and for closing an area for trawling, have been moved from 2025 to 2026.
Croatia	2024	yes	Continuation	yes	yes	yes	MS will continue to implement the actions prescribed in the 2023 action plan concerning the imbalance fleet segments. The actions are based on temporary and permanent cessations and completed with supplementary measures. The timeframe and targets are also defined for main actions.
Croatia	2025	yes	Continuation	yes	yes	yes	MS will continue to implement the actions prescribed in the 2023 action plan concerning the imbalance fleet segments. The actions are based on temporary and permanent cessations and completed with supplementary measures. The timeframe and targets are also defined for main actions.
Denmark	2024	yes	update	no	no	no	No new action plan with with a clear timeframe or targeted to specific imbalanced fleet segments was proposed. Only very general measures are included.
Denmark	2025	yes	update	yes	yes	no	No new action plan with with a clear timeframe or targeted to specific imbalanced fleet segments was proposed. Note was made of a fishery improvement plan carried out in 2024 with the objective to improve the Danish coastal fleet. No new action plan was deemed to be required.
Estonia	2024	no	/	/	/	/	The MS considered all segments to be in balance. No action plan was presented.
Estonia	2025	no	/	/	/	/	The MS considered all segments to be in balance. No action plan was presented.
Finland	2024	no	/	/	/	/	No action plan proposed by MS. The MS considers its fishing fleet to be in balance with fishing opportunities, with no identified structural overcapacity.
Finland	2025	no	/	/	/	/	No action plan proposed by MS. The MS considers its fishing fleet to be in balance with fishing opportunities, with no identified structural overcapacity.
France	2024	yes	update	yes	yes	yes	The AP was updated with 4 new segments. The actions for these segments do not relate to fleet capacity reduction. The plan contains a wide range of general as well as more-specific measures for imbalanced fleet segments. Objectives are clearly described.
France	2025	yes	update	yes	No	yes	The AP was updated including new imbalanced segments (Area 27 and Other regions), segments assessed to be in balance were removed. The plan contains a wide range of general as well as more-specific measures for imbalanced fleet segments. Objectives are clearly described but the timeframe and targets are not clear.

MEMBER STATE	Year*	Action plan presented?	Status	Appropriately targeted?	Timeframe described	Tools described	EWG comments
Germany	2024	yes	Update	yes	yes	yes	Updated from 2023. The AP includes a range of general measures (i.e., shifting relevant fishing opportunities to coastal fisheries, marketing support, suspension of fishing to protect cod stocks in the western Baltic Sea, suspension of fishing to protect herring stocks in the western Baltic Sea, and permanent cessation of fishing activities targeting cod and herring in the western Baltic), applicable to seven fleet segments for which problems have been identified.
Germany	2025	yes	Update	yes	yes	yes	Updated from 2024. The AP addresses structural imbalances mainly in small-scale coastal fisheries in the Baltic Sea and shrimp fisheries in the North Sea. To restore economic and biological balance, Germany intends to decommission up to one-third of its shrimp fleet from 2025, using public funding. The targets and tools are defined clearly and are the same as those described in the report submitted in 2023. The timeframe for implementation (starting and ending years) is described by fleet segment and measure.
Greece	2024	no	/	/	/	/	MS considers that certain fleet segments are not in balance with their fishing opportunities. An Action plan is in preparation but was not submitted with the annual fleet report. It is proposed to complete the action plan by the end of 2024
Greece	2025	no	/	/	/	/	No action plan proposed by the MS, justifications are provided in the fleet report
Ireland	2024	No	/	/	/	/	Based on the available information, Ireland considers that structural imabalance does not exist in with the fleet and no action plan is proposed.
Ireland	2025	No	/	/	/	/	Based on the available information, Ireland considers that structural imabalance does not generally exist with the fleet and no action plan is proposed.
Italy	2024	Yes	Update with some new actions added	Fleet segments provided by GSAs	Mostly	Mostly	The action plan (AP) presented in this year´s fleet report is a revised version of last year´s action plan. Specific tools for a reduction in fishing pressure have been adjusted, the MS presents a table with the scrapping targets per GSA by segment (period 2021-2027). The measures in the action plan presented by the MS are mostly GSA-specific. In the scrapping plan, the minimum tonnage to be withdrawn is provided by fleet segment per GSA, however, the number of vessels affected cannot be determined
Italy	2025	Yes	Update with some new actions added	Fleet segments provided by GSAs	Mostly	Mostly	The action plan (AP) presented in this year´s fleet report is a revised version of last year´s action plan. Specific tools for a reduction in fishing pressure have been adjusted, the MS presents a table with the scrapping targets per GSA by segment (period 2021-2027). The measures in the action plan presented by the MS are mostly GSA-specific. In the scrapping plan, the minimum tonnage to be withdrawn is provided by fleet segment per GSA, and the number of vessels affected is reported.
Latvia	2024	No	/	/	/	/	MS stated that the measures to balance the fleet segment VL2440, included in Annex VII of the Annual Report on the Latvian Fishing Fleet 2022, are in the implementation phase and the effect of the reduction of the segment should be evaluated in the following years.
Latvia	2025	No	/	/	/	/	MS stated that the measures to balance fleet segment VL2440, included in Annex VII of the Annual Report on the Latvian Fishing Fleet 2022, are in the implementation phase and the effect of the reduction of the segment should be evaluated in the following years.
Lithuania	2024	Yes	New	Yes	Yes	Yes	The AP foreseen 4 vessels of the NAO DTS VL2440 fleet segment would be withdrawn in 2024 with public compensation for permanent cessation, resulting in a 40% reduction in the fleet segment's total tonnage and a 42% decrease in power. The Lithuania Programme for the European Maritime Fisheries and Aquaculture Fund 2021–2027 aims, by the end of 2029, to withdraw vessel capacity expressed in gross tonnage (GT) of 468.00 and kW of 884.00 in terms of power.
Lithuania	2025	Yes	Update	Yes	Yes	Yes	The targets from the previous AP were partially achieved, the updated AP aims to continue the capacity reduction targeting the removal of one vessel in another fleet segment (NAO TM VL2440) using public compensation.
Malta	2024	yes	new	no	yes	Yes	The proposed action plan is largely a statement of intent to improve monitoring activities. Some measures have been specified such as equipping vessels with a tablet (to transmit catches electronically), a sampling plan for lampara), obliging all vessels to be equipped with VMS or GPRS tracking devices, prohibition of fishing in certain bays from middle of february to middle of july, etc.).
Malta	2025	yes	new/updated	no	yes (2024-onward)	yes	The proposed action plan is largely a statement of intent to improve monitoring activities. Some measures have been specified such as equipping vessels with a tablet (to transmit catches electronically), FIS (Fisheries Information System) for improving the data collection, a sampling plan for lampara), obliging all vessels to be equipped with VMS or GPRS tracking devices, prohibition of fishing in certain bays from middle of february to middle of july, etc.). Also proposed to utilize the activity level indicator to clarify the segments that are economicaly profitable or improving.

MEMBER STATE	Year*	Action plan presented?	Status	Appropriately targeted?	Timeframe described	Tools described	EWG comments
Netherlands	2024	No	/	/	/	/	The rationale given for not including any action plan is given as follows: "The consequences of the North Sea sole stock benchmark and the ongoing negotiations between the Coastal States on the pelagic stock management."
Netherlands	2025	No	/	/	/	/	No rationale for not presenting AP is given in the fleet report.
Poland	2024	yes	Update	yes	yes	yes	Updated from 2023. The AP clearly specifies the targets and tools. However, no specific implementation date was indicated, only that the plan is to be implemented over the 3-5 year period 2023-2027 . The MS identified the concern regarding seven fleet segments operating in the Baltic Sea. The EWG 24-13 is unable to assess the extent to which the measures in the action plan are likely to redress the imbalance in the fleet segments concerned.
Poland	2025	yes	Update	yes	yes	yes	Updated from 2024. The revised AP identifies structural overcapacity in seven fishing fleet segments. It focuses on reducing the number of vessels in segments deemed permanently inefficient or economically imbalanced, optimising the distribution of fishing rights to support biological sustainability, and improving data collection and modelling to enhance long-term balance assessments. The implementation period remains unchanged, covering 2023–2027. EWG 25-12 notes that although the plan is coherent and clearly structured, it lacks specific implementation dates beyond the general three to five-year timeframe. Moreover, EWG notes some inconsistencies regarding the action on permanently withdrawn vessels from segments VL1218TM, VL1824TM and VL2440TM, for which such actions were not considered in the action plan.
Portugal	2024	yes	Update	yes	yes	yes	Action Plan from 2022 and extended to the end of 2025 which provides permanent cessation of activity of 16 vessels from the fleet HOK >12m. The AP is strengthened by temporary cessation measure in 2023 for 40 vessels from the same fleet. The AP is clear, targeted and limited in time.
Portugal	2025	yes	Continuation	yes	yes	yes	An ongoing Action Plan from 2022, extended to the end of 2025, is in place. The AP foresees the permanent cessation of activity of 18 vessels from the fleet HOK >12 m (VL1218 - 14 vessels, VL1824 - 3 vessels and VL2440 -1 vessel) and a temporary cessation measure, which in 2024 is expected to
Romania	2024	yes	update	no	no	no	The action plan is largely a statement of intent to imprive monitoring activities. The action plan proposed the previous year is still ongoing and ends in 2027. The action plan does not specifically target any fleet segments
Romania	2025	yes	update	no	no		The current Action plan proposes economic and technical measures for the fisheries sector in general and does not indicate any measures specific to fleet segments found to be out of balance. These measures are broad-
Slovenia	2024	No	/	/	/	/	Slovenia considers that MS fishing activity is extremely low and have insignificant impact, but is committed to achieving a a sustainable balance between fishing capacity and fishing opportunities. MS considers that all segments of Slovenian fleet are in balance and did not present an action plan.
Slovenia	2025	Yes	new/updated	yes	yes(2025-2029)	no	Slovenia considers that MS fishing activity is extremely low and have insignificant impact, but is committed to achieving a a sustainable balance between fishing capacity and fishing opportunities. MS continues to implement the existing National Management Plans, regulations and measures for small pelagic and demersal stocks. MS considers that all segments of Slovenian fleet are in balance and adopted a new Multiannual management plan was adopted (Recommendation GFCM/44/2021/20 on a multiannual management plan for the sustainable exploitation of small pelagic stocks in the Adriatic Sea (geographical subareas 17 and 18)). The plan will be implemented from 2025 to 2029, after the end of the transitional fishing regime that was prolonged until 2024. Vessels actively fishing for anchovy and sardine stocks are subject of the management measures of this plan
Spain	2023	Yes	New	Yes	Yes	Yes	New AP. The objectives are clearly defined and the measures to achieve them are described. The objectives are appropriately targeted to the fleet segments which are out of balance.
Spain	2024	Yes	Update	Yes	Yes	Yes	Updated from 2023, with some new measures, targets and tools for some segments. The objectives are clearly defined and the measures to achieve them are described.
Sweden	2024	no	/	/	/	/	The MS considered all segments to be in balance. No action plan was presented.
Sweden	2025	no	NA	NA	NA	NA	No new action plan or update has been presented.

Source: EWG 25-12 report.

STECF conclusions

STECF concludes that given the available data and information, the EWG 25-12 answered the ToRs provided by the Commission.

STECF concludes that further effort is necessary to ensure that where possible, the SAR indicator is computed using total international landings from a stock rather than total EU landings as is currently the case.

Regarding the utility of the vessel utility ratios VUR and VURnn, STECF concludes that there is no objective scientific basis to judge which of such indicators is more informative in assessing whether a fleet segment is in or out of balance with fishing opportunities.

STECF notes that in cases where Member States, because of confidentiality issues, provide data on landings at the cluster level only, it is highly desirable that such cases are identified in the data submission in response to the fleet economic data call, so that cases where the relevant landings' data are not available for separate fleet segments can be readily identified. STECF therefore concludes that the following are specified in future fleet economic data calls:

1- Regarding confidentiality issues:

country/supra region /fishing tech /vessel length /geo indicator /activity / year /data provided (True or False).

2- Regarding clustering:

country/supra region /fishing tech /vessel_length /geo indicator /activity / year / fs_name

STECF concludes that there are no objective scientific criteria to assess whether the analysis of balance between fleet capacity and fishing opportunities in the fleet reports submitted by Member States is in accordance with the Commission's Guidelines. STECF concludes that this is a value judgement that needs to be based on multiple criteria which lay outside the scope of a scientific body.

Finally, if summary Tables 5.3.3 - 5.3.6 are needed in the future, STECF suggests that a future EWG on Balance Capacity prepare them instead of addressing this during the STECF plenary. The Commission should include this request in the EWG's ToRs.

5.4 EWG 25-15 Economic Report on the fish processing industry

Request to STECF

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments and recommendations to the Economic report on the fish processing industry.

Overview of the EWG

EWG 25-15 met virtually between 20 and 24 October 2025 with 27 experts, 4 JRC staff and the DG MARE focal point. The group prepared the 2025 edition of the Economic Report on the EU Fish Processing Industry, covering the period 2013 to 2023 and, where data permitted, producing indicative projections for 2024 and 2025. This report supersedes previous editions and provides the main evidence base on the structure, performance and outlook of the EU processing sector.

The analysis draws primarily on Member State submissions under the 2025 EU-MAP data call for processing, complemented by Eurostat Structural Business Statistics (SBS) and PRODCOM data to ensure full coverage for Member States that do not report data under the voluntary processing data call. EU-wide aggregates were compiled in accordance with the imputation principles established in PLEN 19-02, adjusted to maintain a homogeneous sample over time and transparent treatment of missing data.

The EWG report delivers a comprehensive overview of the economic and social performance of the EU fish-processing industry notwithstanding the issues with data coverage and availability. The report describes structural developments, cost and revenue composition, profitability, investment trends, and employment patterns, including comparisons between SMEs and large enterprises where data allowed. It also provides an in-depth analysis of raw-material use, disaggregated by species, origin and production environment, and introduces an experimental nowcasting framework to project key indicators for 2024 and 2025 using PRODCOM and ComExt. The report includes national chapters for 25 Member States, each highlighting specific trends, data quality considerations, and policy context. Socio-economic aspects, notably labour productivity, wage trends, and gender composition, were also examined in line with the ToR.

Summary of Main Findings

- In 2023 the EU fish processing industry comprised 3 245 main-activity enterprises, employing around 102 000 FTE and generating turnover of EUR 33.5 billion up 12% from 2021.
- The sector recovered strongly after the pandemic, with gross value added up 48% and operating cash flow doubling between 2022 and 2023. Labour productivity rose by about 50%.

- Raw materials remain the dominant cost component (71% of production costs). Energy costs stabilised in 2023 after the sharp 2022 increase linked to the energy crisis.
- Non-main processing enterprises (900) account for about EUR 1.6 billion in turnover, demonstrating the importance of secondary processing within broader food industries.
- The EWG identified continued heterogeneity and data gaps in the raw-material module notably the use of non-standard species names, missing origin information (70 % unspecified), and inconsistent use of the fishery/aquaculture classification.
- Overall, the report highlights that 2023 was an exceptionally positive year for the sector, marked by simultaneous increases in productivity, margins, and profitability, likely reflecting a combination of production efficiency, higher selling prices, and market consolidation in the post-pandemic phase.
- The nowcast exercise provided a plausible baseline for 2024–2025 but highlighted the need for a standard projection protocol to improve comparability and timeliness.

STECF comments

STECF considers that the EWG satisfactorily addressed all Terms of Reference. The report presents a coherent and well-structured overview of the EU fish-processing sector and successfully integrates quantitative analysis with qualitative interpretation of the drivers shaping recent performance.

Process feedback

STECF notes that the work of the EWG was significantly constrained by limited time availability due to time having to be committed to resubmission of data sets and data verification. As a result, experts were delayed in preparing the final drafts of national chapters. This situation also affected the EU-level analysis which could only proceed once Member States data were finalised. This situation hindered in-depth discussion during the week on key trends and challenges for the sector. Consequently, much of the report's content is based on individual work carried out outside the meeting which is not ideal.

Comments on the data

STECF notes that the 2025 EU-MAP data call for processing still presented issues especially with data heterogeneity and data coverage. Not all Member States reported economic data for the main and non-main segments. Furthermore, not all the Member States followed the RCG Econ recommended categories (as detailed in the Regional Work Plan) for the provision of raw material volume. Specifically, the analysis carried out by experts was impacted by the following data issues:

- 16 Member States provided data under the EU-MAP data call for processing, while Eurostat SBS and PRODCOM data were used to cover the remaining Member States that did not submit information.
- Eurostat data was available at the start of the meeting. There was a delay in fixing the dataset due to the further resubmission of DCF data by Member States because data checks were not conducted in time before the meeting. Some Member States were resubmitting DCF data as late as the Thursday.
- Raw-material data were provided by a limited number of Member States, but the data was not always reported in a standardised way across all Member States with frequent gaps in species coding, country of origin, and production environment.
- Data on non-main processing enterprises were reported inconsistently.

These data issues, combined with the voluntary nature of the processing data collection, continue to restrict comparability and the depth of analysis across Member States. STECF notes that the EWG applied the PLEN 19-02 imputation protocol and included a detailed annex on data coverage and quality.

STECF agrees with the EWG's recommendation to schedule future processing EWGs later in the year (e.g. November or December) to align with Eurostat data release schedules and to organise work in two phases for data validation and EU analysis to allow sufficient time for cross-checking.

STECF notes that the inclusion of a distinct raw-material section, since the 2023 report, represents a significant methodological advance. STECF further notes that previous initiatives (including the SECFISH Project, Döring et al, 2019) aimed at improving raw-material reporting including efforts to link catching and processing activities encountered limited success, in part due to industry reluctance to share commercially sensitive information on sourcing. However, as highlighted by the EWG persistent data gaps particularly the use of non-standard species naming, missing origin information, and inconsistent classification of fishery versus aquaculture sources present difficulties in providing quality data analysis and report content. STECF welcomes and stresses the importance of the alignment with RCG Econ recommendations and supports the continued adoption of standard categories for species (FAO 3-letter codes), production environment, and country of origin (domestic / other-EU / non-EU with ISO codes), as well as the collection of information on processing typology (fresh, frozen or semi-processed).

Comments on the methodology

STECF stresses that projection methods should be fully documented and harmonised, with uncertainty measures clearly reported, before they are used operationally in EU-level monitoring. STECF notes that the nowcast exercise linking PRODCOM and ComExt data provides a short-term baseline for 2024 and represents an important step towards improving the timeliness of processing-sector indicators.

STECF agrees with the EWG that the development of a harmonised protocol for projecting turnover, GVA, and gross profit using PRODCOM data should be undertaken ideally through a dedicated expert task or ad-hoc contract given that such methodological design work falls outside the remit of the RCG Econ.

Once developed, the protocol should be tested and refined by a relevant future processing EWGs (2027) using updated data and case studies. The protocol should draw on the work undertaken by EWG 25-15 and include:

- a detailed assessment of PRODCOM product codes relevant to fish processing, identifying gaps, abnormal patterns or single-year observations, and determining whether these should be excluded or recoded,
- transparent criteria for the inclusion or exclusion of codes, including possible weighting approaches for highly volatile series,
- standardised guidance for projecting core indicators such as turnover, GVA and gross profit,
- further exploration of ComExt import–export flows as a potential early-warning indicator for current-year turnover estimates, and
- the use of case studies from selected Member States with different industry profiles to validate and stress-test the projection method.

STECF further agrees with the EWG suggestion for a dedicated RCG Econ workshop on processing. This meeting should happen in 2026 in time to accommodate any recommendations that need to be actions prior to the next processing data call in 2027. STECF suggests that this dedicated workshop should address the following topics:

Raw-material methodology: The current data available, particularly for raw material, is inadequate for meaningful analysis. There needs to be an exploration of other options to obtain these data. There also needs to be discussion on standardise reporting formats for raw-material volumes by species, origin and production environment, fully aligning with FAO ASFIS and ISO code lists and clarifying conversion from commodity to species level.

- Processing segmentation: discuss the possibility of defining and applying a common typology of processing activities (filleting, freezing, canning, smoking) to improve comparability and policy insight.
- Future data collection: examine the voluntary nature of data collection, progress on harmonisation, and the feasibility of including key processing variables as mandatory items in the forthcoming EU-MAP revision.

STECF conclusions

STECF concludes that all terms of reference were successfully addressed by EWG 25-15, noting the data issues highlighted and the lack of homogeneity between the data submitted, especially concerning raw material.

STECF agrees with the EWG that the development of a harmonised protocol for projecting turnover, GVA, and gross profit using PRODCOM data should be undertaken ideally through a dedicated expert task or ad-hoc contract.

STECF agrees with the EWG and supports a dedicated RCG Econ workshop on processing to address several key issues raised in the EWG 25-15 report. Specifically, as stated above, STECF suggests that this dedicated workshop should address the raw-material methodology, the segmentation and the future data collection.

STECF agrees with the EWG's recommendations to adjust meeting schedules and consider splitting meetings to enhance data availability and report quality. To address these issues, STECF proposes the following improvements for future reports:

- Ensure enough time to perform preliminary data checks and obtain initial feedback from Member States prior to the EWG meeting.
- Split the next EWG in two. The first half of the meeting should be focused on verifying national data and drafting national chapters, and the second dedicated to preparing the EU-level overview.
- Allocating time between the two meetings to allow the chair(s) to consolidate and construct the EU-wide dataset.
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References

Döring R. et al., (2019) Strengthening regional cooperation in the area of fisheries data collection – Socio-economic data collection for fisheries, aquaculture and the processing industry at EU level (SECFISH), D 0.3 Final Technical Report Project Coordinator: Ralf Döring (Thünen-Institute) Partners involved: NISEA, SEAFISH, COISPA, WR, BIM, LUKE, EV-ILVO, UCPH. AGREEMENT NUMBER – MARE/2016/22 (Thünen) - SI2.768889, July 15th, 2019.

5.5 EWG 25-16 Evaluation of Work Plans for data collection and data transmission issues

Request to STECF

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments and recommendations.

STECF comments

EWG 25-16 met virtually from 3 to 7 November 2025, with a sub-group of five experts (on ToR 3), meeting physically in Oostende, Belgium.

STECF considers that the EWG adequately addressed the TORs and has the following specific comments on the process and the four ToRs addressed by EWG 25-16:

Process feedback

STECF acknowledges that the EWG provided a draft report with draft annexes for STECF immediately following the EWG meeting.

STECF notes that the hybrid set-up for ToR 3 was a challenge, as it demanded substantial effort to cover all the different topics and necessitated fundamental discussions and a broad range of expertise.

1. ToR 1. Evaluation of Member States' Work Plans 2026–2027 (and 2026–2028 for Austria)

The EWG evaluated the amended Work Plans (WPs) submitted by seven Member States and the new Work Plan submitted by Austria. The evaluation followed Article 10 of Regulation (EU) No 2017/1004 and focused on consistency with Regional Work Plans (RWPs), conformity with the EU-MAP, scientific relevance and the use of appropriate methodologies.

STECF observes that biological data sections were generally compliant, with two Member States showing minor issues which were resolved during the EWG. Three Member States introduced adjustments to their diadromous fish data collection plans; improvements were noted in methodology documentation and the addition of new monitoring components, though several Member States lacked documentation and detailed annexes in English. Sections on surveys and the impact of fisheries on marine biological resources were updated appropriately. Revisions to protected, endangered, and threatened species (PETS) monitoring and baseline surveys were positively received by the EWG. The socio-economic and transversal data sections showed consistency, with no significant deviations or new issues. Austria's new WP (2026–2028) was assessed as fully compliant.

2. TOR 2. Evaluation of Data Transmission Issues (DTi)

STECF notes that the EWG assessed 81 low and medium-severity Data Transmission Issues (DTi) from the 2024 data calls covering IOTC, ICES, FDI, Aquaculture, and Mediterranean & Black Sea datasets. The DTMT (Data Transmission Monitoring Tool) Guidance (Version 2025.03.24) was applied.

Overall, 25 issues required follow-up (responsible for follow-up was Member State, DG MARE, or END-USER), while 23 were considered satisfactory, 17 unsatisfactory and 16 unsatisfactory – to be revised. Contradictions between Member States and end-user inputs and inconsistent issue classification (coverage vs. timeliness) complicated the assessments. STECF observes that the information provided in the columns *"End User check"* and *"End User comment"* was very helpful for the assessment of the DTi.

3. TOR 3. Finalisation of STECF Input to Guidelines and Templates

This TOR summarised the EWG discussions and the suggestions for improvement regarding:

1. Annual Report assessment grid and guidance for evaluators.

   STECF observes that the EWG developed a consolidated Annual Report (AR) assessment grid (Annex 3 of the EWG report) together with accompanying guidance (Annex 4 of the EWG report), forming a single, integrated framework with clearer instructions, examples and evaluation logic.

2. Work Plan and Annual Report guidelines for Member States.

   STECF notes that the guidelines for WP/AR templates have been reviewed and included in Annex 6 of the EWG report.

3. Evaluation of Data Transmission issues and guidance for DTMT.

   STECF notes that the EWG proposed several revisions to the DTMT guidance. These included: modifications to the definition of severity, the addition of two cases in the decision tree, and the introduction of standardized responses in the "End User check" column. Further improvements were also suggested to streamline the DTMT workflows and enhance notifications to Member States.

STECF notes that the EWG also discussed the revision and the evaluation of the AR 'quality' Annexes 1.1 and 1.2 and drafted a roadmap with suggestions for follow-up steps during 2026:

- The first step in this roadmap should involve consultation with RCGs to ensure input from the relevant ISSG RWPs, ISSG End-users and technical coordination groups.
- Building on these contributions, as well as on the work already undertaken by RCG ECON during the 2024 workshop on quality issues, which initiated

collaboration with ESTAT[1], a proposal for the revision and evaluation of Annexes 1.1 and 1.2 could be developed through one or more ad hoc contracts.

- The resulting proposal should then be presented and tested during the October EWG on the evaluations of RWP and NWP.

STECF observes that the EWG agreed to incorporate refusal rates into the AR as this would add value for assessing cases of unachieved sampling. As the modification of Table 2.5 of the WP/AR template by adding an additional column for refusal rate reporting was judged too cumbersome at this stage, the EWG suggested that Member States may report refusal rates in the 'AR comments' column of Table 2.5 and may use Text Box 2.5 to provide additional explanation, where necessary. STECF also observes that EWG suggested that Member States should follow the methodology as described in the ICES SGPIDS Report 2012, Chapter 2.4: Quality Indicator 2 "Non-response and Refusal Rates", to ensure consistent application of the methodology for probability-based sampling.

STECF notes that the EWG also produced an overview table of recommendations (Annex 5 of the EWG report) to ensure the continuity between EWGs and the follow-up in a transparent way.

4. TOR 4. Input on the DCF IT Platform

STECF notes that the IT platform was used successfully for WP submissions and assessments. EWG 25-16 identified a set of validation checks to enhance AR submission consistency, including reference year validation, sampling scheme logic and consistency across population totals and sampling rates.

STECF conclusions

STECF endorses the outcomes of EWG 25-16 presented during PLEN 25-03 and concludes that all ToRs were appropriately addressed.

STECF concludes that for the future, EWGs handling fundamental aspects of the DCF, WP, AR and related topics, should preferably be set up fully in-person.

STECF concludes that the revised assessment grid and the guidance for evaluators can be applied in 2026 for the evaluation of the ARs for the 2025 WP implementation year.

STECF concludes that the DTMT guidance should be amended to include the revisions proposed by the EWG.

[1] www.fisheries-rcg.eu/wp-content/uploads/2024/06/REPORT-ISSG-Quality-March-2024_v1.pdf

STECF concludes that refusal rates should be optionally integrated in the ARs as suggested by the EWG. With regard to the revision and evaluation of Annexes 1.1 (Quality report for biological data sampling scheme) and 1.2 (Quality report for socioeconomic data sampling scheme), STECF agrees with the roadmap suggested by the EWG.

STECF concludes that the overview table of recommendations (Annex 5 of the EWG report) should be maintained by DG MARE as a living document, allowing for tracking all STECF recommendations and monitoring their implementation.

STECF concludes that proposals for the improvement of the IT platform as reported in the EWG report (Table 4.1) should be considered for implementation by the Commission.

6 ADDITIONAL REQUESTS SUBMITTED TO THE STECF PLENARY BY THE COMMISSION

6.1 Remedial measures for sole in subdivisions 20–24 (Skagerrak and Kattegat, western Baltic Sea)

Background provided by the Commission

The spawning stock biomass for common sole in ICES subdivisions 20–24 (Skagerrak and Kattegat, western Baltic Sea) is below Blim and is not expected to rebuild above it in the short term. In addition, the recruitment is at an historic low. ICES for the first time issued a 0-catch advice for 2026. The Council is therefore legally obliged to close the targeted fishery and to adopt remedial technical measures as safeguards, to help rebuild this stock (Article 7 of the North Sea Multiannual Plan, Regulation (EU) 2018/973 of the European Parliament and of the Council).

Taking into account the difficulty of fishing all stocks at MSY at the same time, especially in situations where that leads to a premature closure of the fishery, and taking into account the by-catches and discards in the fishery for Norway lobster in ICES division 3a / Functional Units 3 and 4 (Skagerrak-Kattegat), by-catch quotas will need to be set for sole.

In addition, it should also be taken into account that the spawning stock biomass of cod in ICES subdivision 21 (Kattegat) is considered to be below possible biomass reference points. ICES has issued a 0-catch advice since 2019 (for 2020) and remedial measures have been introduced.

Background documents are published on:

https://stecf.ec.europa.eu/document/0ad54569-90a8-4b1d-8a23-8bd648296112

Request to the STECF

STECF is requested to provide:

1. An overview of the fishery for common sole (Solea solea) in ICES subdivisions 20–24 (Skagerrak and Kattegat, western Baltic Sea). The overview should provide quantitative information on the number of vessels by country (EU and non-EU), as well as by area, season, and fishing gear (at métier level 6, or the lowest possible level), including selectivity devices. The period to cover is 2021–2024. In addition, to map the fishing effort deployed, at Member State level, using those gears at c-square resolution of at least 0.1x 0.1 degree.
2. An overview of the current technical measures in place at both EU and national levels. Specify, for each measure, the country, area, seasonality, and gears concerned. Where applicable, indicate cases in which Member States or fishers may choose among different measures (e.g. as

provided under Article 19 of Council Regulation (EU) 2025/202), and, if available, identify the option selected.

3. An overview of the current state of selectivity developments, including information and data on the effectiveness of different fishing gears (at métier level 6, or the lowest possible level) in reducing sole bycatches, both above and below the minimum landing size (MLS). Given that sole is caught in mixed fisheries, assess whether these selectivity measures have a positive or negative impact on the other species caught. The review should also identify promising selectivity measures implemented in other EU fisheries that could potentially be applied to sole indicating whether these selectivity measures would have a positive or negative impact on the other species caught in case of a mixed fishery.

In the event that the above cannot be addressed due to data gaps, STECF is requested to inform and propose how these could be addressed.

Summary of the information provided to STECF

A number of background document was supplied to STECF, an *ad-hoc* contract report (no. 25108) providing an overview of the sole fishery in subdivisions 20–24, baseline legislation covering EU derogations in place, the multi annual plan, technical measures regulation, fisheries opportunities for 2025, and the single species stock assessment for sol.27.20-24 in 2025. The *ad-ho*c contract utilised FDI data to explore spatial trends in landings and effort of sole in subdivisions 20 - 40.

STECF comments

STECF notes that the *ad-hoc* contract and the request to STECF had different requirements. While STECF was asked to review vessel numbers, effort, remedial measures, and their effectiveness, the *ad-hoc* report (no. 25108) only summarized vessel numbers, effort, and targeting practices. As the *ad-hoc* report was the main source of information, this mismatch limited what STECF could review and address.

1. ToR 1. Overview of the fishery for common sole

STECF observes that the *ad-hoc* contract report provided an overview of the fishery for common sole (*Solea solea*) in ICES subdivisions 20–24 (Skagerrak and Kattegat, western Baltic Sea) using spatial landings (Table H) and effort (Table I) reported to the Fisheries Dependent Information (FDI) database (STECF, 2025).

This overview provided a summary of the fishery for sole over the last four years (2021-2024) in subdivisions 20-24. Sole has been landed by seven gear types: beam trawls (TBB), dredges (DRB), otter trawls (OTB, OTM, OTT, PTB),

pots (FPO), set nets (GND, GNS, GTR, FPN, FYK), seine nets (SDN, SSC), long lines (LLS). This diversity resulted in 102 unique categories of fishing behaviour (métiers), though with three métier accounting for more than 50% of sole landed (GNS_DEF_110-156_0_0, GNS_DEF_120-219_0_0 and OTB_MCD_90-99_1_300).

STECF notes a strong spatial pattern in the métier operating in this fishery, with GNS_DEF_110-156_0_0 operating in Kattegat (SD22) targeting plaice with catches of turbot, flounder, cod, dab. The other main gillnetter métier, GNS_DEF_120-219_0_0, mainly operates in Skagerrak (SD20) and target cod, hake and plaice. While otter trawlers present a more heterogenous distribution throughout the area.

STECF agrees with the *ad-hoc* report that the FDI spatial effort table (Table I) alone cannot be used to estimate the number of unique vessels at the level of country, season, area, or métier as requested. However, for future analyses, FDI data can provide useful summaries of vessel numbers if the appropriate methodology is applied. Specifically, the FDI capacity table (Table J) or the Annual Economic Report (AER) Fleet Segment data (FS_data) should be considered. The advantage of the AER capacity data is that it consistently includes inactive vessels.

Therefore, STECF highlights that future analyses should use capacity data wherever possible to inform these discussions. This should include a methodology for constructing fleet segments within FDI and summarizing them in relation to AER data. It should be noted, however, that this information will not cover non-EU countries. To access data for non-EU fleets, the RDBES (https://rdbes.ices.dk/#/) effort table (CE) would need to be used.

STECF notes that the effort maps provided in the *ad-hoc* report indicate spatial differences in total effort by Member States operating in this region, with Denmark accounting for the highest and most widespread distribution of effort in métiers which catch sole, while other countries operate in a more spatially restricted area.

However, STECF highlights that future analyses should include a comprehensive description of the methods used to estimate effort, with particular attention to the rationale for selecting the effort metric. There are a number of effort metrics available within the FDI dataset, each with unique variation in estimation, some of which are more relevant for the description of set nets operating in the area as they capture the soak time of these nets. It is also unclear whether differences for set nets and references to national chapters should be considered, as there are specific notes for Denmark, which represents the key fishery in the area.

2. ToR 2. Overview of the current technical measures

STECF is aware of three EU articles of the 2025 TAC and Quota Regulation in 2025 (Council Regulation 2025/202) (Articles, 16, 19 and 20) and the Annex V of the technical measures regulation (EU Regulation 2019/1241) which could impact sole fisheries in subdivisions 20–24 (Skagerrak and Kattegat, western

Baltic Sea). The specific measures are described below, however STECF notes that additional national regulations could have impact on the technical measures in force.

Article 16: Remedial measures for cod in the North Sea

2. Fishing vessels fishing with bottom trawls and seines with minimum mesh size of at least 70 mm in ICES divisions 4a and 4b or at least 90 mm in ICES division 3a, and longlines shall be prohibited from fishing in Union waters of ICES division 4a, north of latitude 58°30'00"N and south of latitude 61°30'00"N, and in Union waters of ICES divisions 3a.20 (Skagerrak), 4a and 4b, north of latitude 57°00'00"N and east of longitude 5°00'00"E.

By way of derogation from paragraph 2, fishing vessels referred to in that paragraph may fish in the areas referred to in that paragraph provided that they fulfil at least one of the following criteria

(a), (b), (c),

(d) for fishing vessels fishing with bottom trawls and seines with mesh sizes equal to or larger than 70 mm in ICES division 4a and 90 mm in ICES division 3a, and less than 100 mm (TR2), the following highly selective gears are used: (i) horizontal sorting grid with maximum 50 mm bar spacing separating flatfish and roundfish, with an unblocked fish outlet for roundfish; (ii) seltra panel with 300 mm square-mesh size; (iii) sorting grid with maximum 35 mm bar spacing, with an unblocked fish outlet.

STECF notes that it was not possible to assess the impact of measures identified in Article 16 with the background information provided. Primarily because there was no information on the catch composition per métier or at the spatial resolution identified. STECF suggests that future fisheries overviews include detailed information on catch composition by métier to enable a more comprehensive evaluation.

Article 19: Remedial measures for cod in the Kattegat

1. Union fishing vessels fishing in the Kattegat with bottom trawls with minimum mesh size of 70 mm shall use one of the following selective gears:

(a) sorting grid with maximum 35 mm bar spacing, with an unblocked fish outlet;

(b) sorting grid with maximum 50 mm bar spacing separating flatfish and roundfish, with an unblocked fish outlet for roundfish;

(c) SELTRA panel with 300 mm square-mesh size;

(d) regulated highly selective gear, the technical attributes of which shall result, according to a scientific study assessed by the STECF, for fishing vessels exclusively carrying on board such a gear, in less than 1,5 % of catches of cod.

2. Union fishing vessels participating in a project run by a Member State and having functioning equipment for fully documented fisheries may use a gear in accordance with Part B of Annex V to Regulation (EU) 2019/1241. By 31 March, the Member State concerned shall communicate a list of such vessels to the Commission.

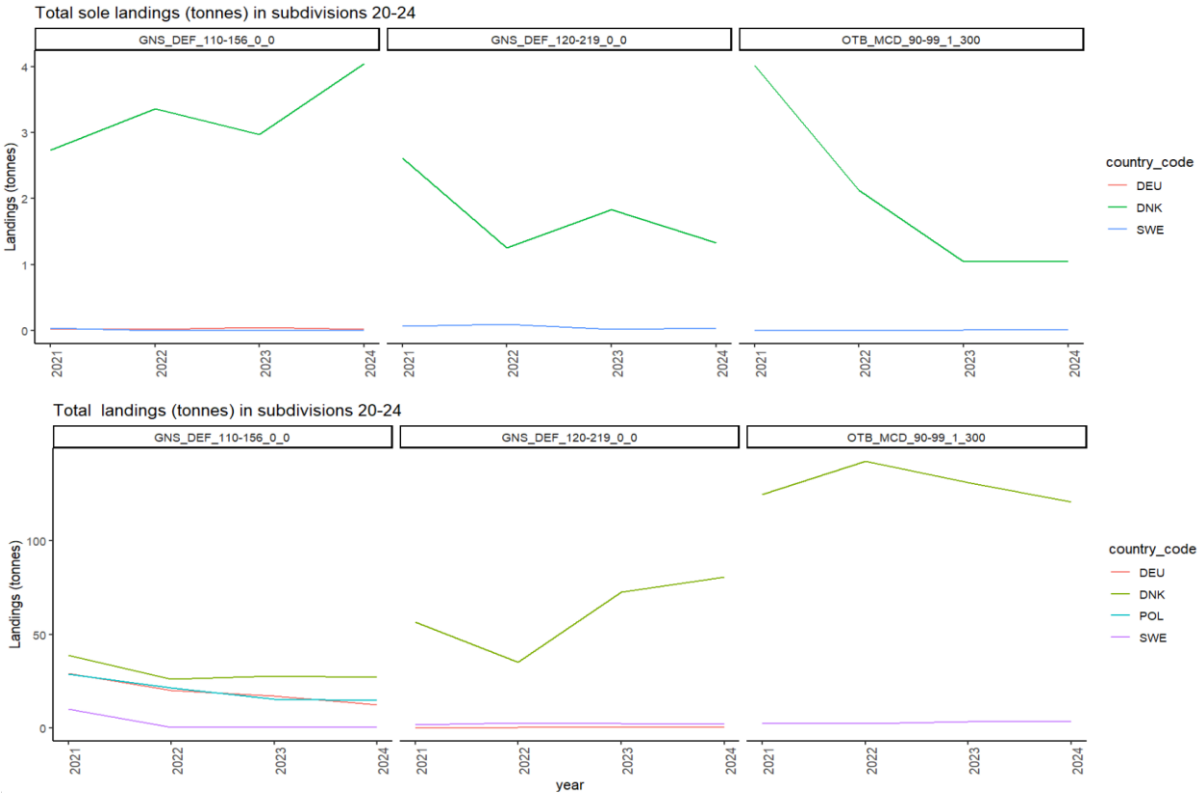
3. This Article does not apply to fishing operations conducted for the exclusive purpose of scientific investigations, provided that those investigations are carried out in compliance with Article 25 of Regulation (EU) 2019/1241."

STECF notes that vessels operating in Kattegat participating in a project run by a Member State and having functioning equipment for fully documented fisheries in accordance with Regulation (EU) 2025/202 may use: 90 mm codend with one of the following large mesh escape panels mounted in the upper panel: i) a 270 mm diamond mesh or a 180 mm square mesh escape panel located 4–7 m from the codline or ii) a 120 mm square mesh panel located 3–6 m from the codline (only allowed during October–December)(DK-BEK no. 1659/11/12/2023).

STECF notes that the otter trawls (OTB) targeting mixed demersal crustacean fisheries (MCD) represent one of the dominant métiers in this area, using one of the mesh and selectivity ranges highlighted in measure 1c of Article 19 (OTB_MCD_90-99_1_300). The proportion of sole caught by this métier has declined significantly over the past four years (Figure 6.1.1a), with Denmark accounting for the majority of sole landings. Despite this decline in sole landings, total landings for this métier have remained high during the same period (Figure 6.1.1b).

STECF notes that it was not possible to assess the impact of all measures identified in Article 19 with the background information provided. Primarily because there was no information on the catch composition per métier. STECF suggests that future fisheries overviews include detailed information on catch composition by métier to enable a more comprehensive evaluation.

Figure 6.1.1. Summary of landings reported to FDI Table A for the main metiers catching sole. Landings in tonnes are described for a) sole only (top) and b) all species landed.



Source: PLEN 25-03 elaboration based on EWG 25-10 FDI data.

Article 20: Closure to protect common sole spawning in ICES subdivisions 20 to 24

It shall be prohibited from 15 May to 15 June for Union fishing vessels to target common sole in ICES subdivisions 20 to 24.

STECF notes that this article was implemented in 2025.

STECF notes that it is not possible to assess the potential impact of the closure on sole fisheries in this area as the information in the *ad-hoc* is provided at the level of quarter (using FDI) with a summary of the percentages of sole landings for the main métiers operating in this fishery (Table 6.1.1). While this offers some insight into potential landings, it does not indicate the distribution of landings during the closure period. STECF notes that a data request to Member States would be required to get such information.

Table 6.1.1. Percentage of total sole landings by metier in subdivisions 20-24 from 2020 - 2024 for the main métier operating in the fishery

Metier/Quarter	1	2	3	4
GNS_DEF_>=157_0_0	0%	1%	0%	0%
GNS_DEF_>0_0_0	1%	6%	2%	1%
GNS_DEF_100-119_0_0	0%	2%	2%	0%
GNS_DEF_110-156_0_0	1%	7%	8%	8%
GNS_DEF_120-219_0_0	2%	10%	1%	1%
OTB_DEF_90-104_0_0	1%	1%	0%	6%
OTB_MCD_90-99_0_0	0%	0%	0%	1%
OTB_MCD_90-99_1_140	1%	0%	0%	6%
OTB_MCD_90-99_1_270	2%	1%	0%	3%
OTB_MCD_90-99_1_300	5%	1%	1%	8%
TBB_DEF_>=120_0_0	2%	0%	0%	7%

Source: ad-hoc report 25108.

STECF notes that at a national level, there are variations to this Article 20 of the TAC and Quota Regulation due to additional national measures. Sweden prohibits sole fishing with static nets <160 mm except for the the use >140 mm nets for 15 vessels with a special permit between 15 May and 15 June. STECF notes that this additional prohibition is intended to save the small and often limiting Swedish sole quota to unavoidable by-catches in the trawl fishery and avoid potential quota chokes.

Technical Measures Regulation Annex V

Technical Measures Regulation (EU Regulation 2019/1241) in the Annex V (Part B) sets out the baseline mesh sizes of towed gears in this area.

The baseline mesh sizes for towed gears within the Skagerrak and Kattegat are as follows:

1.1 Without prejudice to the landing obligation, vessels shall use a mesh size of at least 120 mm, or at least 90 mm in Skagerrak when fishing with otter trawls, or at least 90 mm in Kattegat when fishing with otter trawls or seines.

- *When fishing in sub-divisions Skagerrak and Kattegat with otter trawls with a mesh size of less than 120 mm, a diamond mesh top panel of at least 270 mm mesh size or a square mesh top panel of at least 140 mm mesh size shall be fitted. Alternatively, in sub-division Kattegat, a square mesh panel of at least 120 mm may be fitted in the period from 1 October to 31 December.*
- *When fishing in sub-division Kattegat with seines with a mesh size of less than 120 mm, a diamond mesh top panel of at least 270 mm mesh size or a square mesh top panel of at least 140 mm mesh size shall be fitted.*

Alternatively, a square mesh panel of at least 120 mm may be fitted in the period from 1 August to 31 October

1.2 Without prejudice to the landing obligation, and notwithstanding point 1.1, vessels may use smaller mesh sizes as listed in the following table for the North Sea, Skagerrak and Kattegat provided that:

- *the associated conditions set out in that table are complied with, and by-catches of cod, haddock and saithe do not exceed 20 % of the total catch in live weight of all marine biological resources landed after each fishing trip;*
- *or other selectivity modifications are used which have been assessed by STECF upon request of one or more Member States and approved by the Commission. Those selectivity modifications shall result in the same or better selectivity characteristics for cod, haddock and saithe as that of 120 mm.*

In addition, STECF notes other technical measures established in the North Sea that could affect the sole stock in Skagerrak and Kattegat (Table 6.1.2).

Table 6.1.2. Technical measures for towed gears established in the North Sea that could affect the sole stock in Skagerrak and Kattegat provided that by-catches of cod, haddock and saithe do not exceed 20 % of the total catch in live weight of all marine biological resources landed after each fishing trip.

Mesh Size	Geographical Areas	Conditions
At least 70 mm (square mesh) or 90 mm (diamond mesh)	Skagerrak and Kattegat	Directed fishing for Norway lobster (Nephrops norvegicus). A sorting grid with a maximum bar spacing of 35mm or equivalent selectivity device shall be fitted.
At least 40 mm	Whole area	Directed fishing for squid (Lolignidae, Ommastrephidae).
At least 35 mm	Skagerrak and Kattegat	Directed fishing for Northern prawn (Pandalus borealis). A sorting grid with a maximum bar spacing of 19mm or equivalent selectivity device shall be fitted.
At least 16 mm	Whole area	Directed fishing for small pelagic species which are not covered elsewhere in the table. Directed fishing for Norway pout. A sorting grid with a maximum bar spacing of 35 mm in the Norway pout fishery shall be fitted. Directed fishing for common and Aesop shrimps. A separator trawl or sorting grid must be fitted in accordance with nationally or regionally established rules.
Less than 16 mm	Whole area	Directed fishing for sandeel.

Source: STECF from the Annex V (Part B) of the EU Regulation 2019/1241.

STECF notes that in the demersal otter trawl fisheries in Kattegat and Skagerrak, minimum mesh sizes have increased over the last two decades, and additional selective devices have been implemented in legislation aiming at reducing unintended bycatch of cod (Madsen and Valentinsson, 2010).

STECF further notes that as provided by EU Reg 2019/1241 it shall be prohibited to fish with beam trawls in the Kattegat.

STECF notes that Technical Measures Regulation (EU Regulation 2019/1241) in the Annex V (Part B) sets out the baseline mesh sizes of static gears in this area.

STECF notes that baseline mesh sizes for static nets and driftnets are of at least 120 mm and may use smaller mesh sizes in Skagerrak and Kattegat (Table 6.1.3) provided that by-catches of cod, haddock and saithe do not exceed 20% of the total catch in live weight of all marine biological resources landed after each fishing trip.

Table 6.1.3. Technical measures for static gears established in the North Sea that could affect the sole stock in Skagerrak and Kattegat provided that by-catches of cod, haddock and saithe do not exceed 20% of the total catch in live weight of all marine biological resources landed after each fishing trip.

Mesh size	Geographical areas	Conditions
At least 100 mm	Whole area	directed fishing for haddock, whiting, dab and bass.
At least 90 mm	Whole area	directed fishing for flatfish or species not subject to catch limits and which are not covered elsewhere in the table
At least 50 mm	Whole area	directed fishing for small pelagic species which are not covered elsewhere in the table

Source: STECF from the Annex V (Part B) of the EU Regulation 2019/1241.

3. ToR 3. Overview of the current state of selectivity developments

STECF notes that the *ad-hoc* and supporting background material provided no information on the current state of selectivity developments in terms of reducing sole by-catches, both above and below the minimum conservation reference size (MCRS), or quantitative information on the mixed fisheries outcomes of these fisheries. Therefore, it was not possible for STECF to comment on positive or negative impact of these measures on species caught.

STECF notes that limited scientific evidence exists on sole selectivity in commercial mesh sizes, with available studies focusing on beam trawl (Bayse et al., 2016; Fonteyne and M'Rabet, 1992; van Beek et al., 1981) and demersal trawl fisheries (Frandsen et al., 2024; Krag et al., 2025).

Frandsen et al. (2024) showed that both 90mm mesh size codend and the 90mm mesh size codend combined with a 270mm diamond mesh size panel retained less than 0.4% of undersized soles and showed low retention of marketable individuals (13.09 % and 9.48 %, respectively), revealing a mismatch between codend size selectivity and the 24 cm MCRS.

Krag et al. (2025) showed that, based on predictive model of fish and mesh morphology, a 90 mm diamond mesh codend corresponds to an MCRS of 27 cm. STECF notes that ICES recommends that L25 should correspond to the MCRS of the target species (Anon., 1979). This relationship suggests an optimal diamond mesh size of approximately 80 mm for a 24 cm MCRS. Sole is caught in multispecies fisheries and a mesh size of 80 mm would result in substantial bycatch of undersized cod, haddock, and plaice (Krag et al. 2025).

STECF notes that the EU established technical measures for a number of sole stocks around Europe, however the effectiveness of these measures has not been reviewed, therefore STECF could not identify promising selectivity measures that could potentially be applied to sole in SD 20-24. There is neither information whether these selectivity measures would have a positive or negative impact on the other species caught in case of a mixed fishery.

4. General comments and future work

STECF highlights the following general comments on the direction future work could take:

- **Definitions:** STECF emphasises that in the absence of standardised definitions of by catch and targeting it is difficult to address requests on this subject. STECF highlights that true targeting behaviour occurs at the haul level and therefore cannot be identified using highly aggregated FDI data. However, inferences can be made about the drivers for the fishery by reviewing catch profiles. STECF observes that the main aspect missing from the *ad-hoc* is a quantification of the key species driving these fisheries over this time period.
- **Complete fisheries overview:** STECF highlights that future work on describing the overview of these fisheries would benefit from the inclusion of summaries of total landings, effort, vessel numbers and value. When using FDI data, it's important to make sure that small-scale fleets are included. Therefore, highly detailed data (as reported in Table I & Table H) should always be compared with the official landings recorded (Table A). Where possible, these transversal variables should be summarised in terms of space and time. This overview should include aggregated catch composition summaries to facilitate the detection of the stocks driving these mixed fisheries. Understanding target species will support management effective management.
- **Minimum conservation reference size (MCRS):** STECF highlights that future work should explore the relevance and effectiveness of the current length at which the MCRS is set. STECF notes that maturity at length for this stock is noted as being between 25 and 35 cm (ICES, 2025c), which is above the current MCRS value of 24 cm (Regulation (EU) 2019/1241). Such a mismatch could potentially increase the risk of recruitment overfishing as

individuals are removed by the fishery before they have had chance to reproduce. The maturity at age relationship for this stock also seems to be highly uncertain, and in the absence of any empirical data, a knife edge maturity ogive is used in the stock assessment with all individuals from age 3 onwards assumed to be mature (ICES 2025 c). Both maturity at age and maturity at length are key metrics to inform the stock assessment and the relevance of any future management measures, and therefore further scientific work is needed in this area.

- **Spawning closure:** STECF highlights that current scientific knowledge on the timing and location of sole spawning in the area is lacking, but it is stated in the ICES stock annex that spawning typically occurs in late May/early June (ICES 2025c). Scientific research on common sole in different areas of the North Sea has, however, shown that the timing of spawning is sensitive to warming winter temperatures, and has been estimated to have advanced at a rate of 1.5 weeks per decade since 1970 (Fincham et al. 2013). Such impacts of warming sea temperatures, risks a potential temporal mismatch between spawning and the current timing of the temporal closure, and further monitoring of spawning behaviour would be beneficial.
- **Management measures:** STECF observes that this stock has not been constrained by TAC since 2014 (ICES 2025a) and is the subject of several ongoing management measures (MCRS and spawning closures). Despite this, the stock's SSB and recruitment show a continued decline, as does the estimated abundance at age in the survey index (ICES, 2025a). These trends suggests that the current management measures are not constraining the fishery and are not contributing to the recovery of the stock. The productivity of the stock may have also changed over time, with both temperature and salinity being identified as possible drivers (Nielsen & Richardson, 1996).
- **Mixed fisheries:** STECF is aware that work had been initiated at ICES to develop a mixed fisheries considerations for part of this area (sub-divisions 22-24) (ICES, 2023). This work was used to produced fleet description in the fisheries overview (ICES 2024). This work has though ended since then, due to lack of expert engagement and availability. Such a framework would have provided valuable insight into the fishery behaviour in the region and could have been expanded to include additional subdivisions and species.

STECF conclusions

STECF concludes that the background documents supplied were insufficient to fully address the request submitted to STECF. Furthermore, due to time constraints during the plenary session, it was not possible to analyse any data that had not been provided in advance.

STECF concludes that in the absence of standardised definitions of by-catch and targeting it is difficult to assess the impacts of measures. As previously concluded by PLEN 20-02, estimating bycatch is not straightforward as they rely on several aspects including i) the conservation objectives and targets for the sensitive populations, ii) the timescale over which such objectives and targets are to be met and iii) available estimates of population size.

STECF concludes that future requests for fisheries overviews should incorporate all key fishery descriptor variables (landings, effort, value, and vessel numbers). Any request using FDI data should clearly describe the methodology applied and the quality control steps taken (i.e. reading national chapters and assessing completeness of data set when compared with Table A).

STECF concludes that a number of EU and national gear and area-based management measures are currently in place in sub-divisions 20-24, which although generally directed at cod, may impact catches of sole. Despite this, STECF was not provided with sufficient information to quantitatively assess the development of these measures nor their individual impact.

STECF concludes that there is evidence that several current management measures (TAC and MCRS) may not be contributing to the recovery of the stock.

STECF concludes that future work should be done to assess the relevance and effectiveness of the timing of the spatial closure as it may not match the current spawning period of this stock.

STECF concludes that future work should be done to assess the relevance and effectiveness of the length value at which MCRS is currently set. This process should also include a review of the maturity at age and maturity at length relationships for this stock.

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6.2 Joint recommendation on fisheries conservation measures for the protection of reef structures in five Danish Natura 2000 Areas in the North Sea and Skagerrak (pilot fishery)- Article 11 CFP

Background provided by the Commission

On 17 July 2024, the North Sea Member States (with Denmark as initiating Member States) submitted to the Commission a joint recommendation on conservation measures for four Natura 2000 sites located in the Danish EEZ: Thyborøn Stenvolde (EU site code: DK00VA348), Jyske Rev, Lillefiskerbanke (EU site code: DK00VA257), Store Rev (EU site code: DK00VA258), Gule Rev (EU site code: DK00VA259; and for one Natura 2000 sites located in the Danish part of the Skagerrak (between the baseline and 12 nm): Lønstrup Rødgrund (EU site code: DK00VA301). The measures entail a prohibition to fish with mobile bottom contacting gears. The management measures are supported by specific control measures.

STECF assessed the joint recommendation during PLEN 24-03 and raised some concerns on the pilot study to carry out precision fishing to avoid sensitive reef structures in the southern part of the Natura 2000 site Gule Rev. The STECF is requested to only assess this point. The STECF should also consider point 6.2 of PLEN 25-02, that refers to another evaluation of similar characteristics and where there are exemptions for scientific fisheries.

Background documents are published on:

https://stecf.ec.europa.eu/document/0ad54569-90a8-4b1d-8a23-8bd648296112

Request to the STECF

Following the conclusions and comments of STECF PLEN 24-03 on the pilot study, the STECF is requested to:

1. Review the new information provided in the updated joint recommendation and assess whether it addresses the lack of data identified by STECF as regards number of participating vessels in the pilot project, their intended fishing effort, gear description, the duration of the pilot study or measurable performance targets.
2. In light of this new data, assess whether new conclusions can be taken on the pilot fishery with scientific purposes in the Southern part of the Gule Rev.
3. In the event that STECF identifies shortcomings in the pilot fishery, where possible, it is requested to provide guidance on whether these can be overcome through further work and if so, the specific elements that should be further considered.

Summary of the information provided to STECF

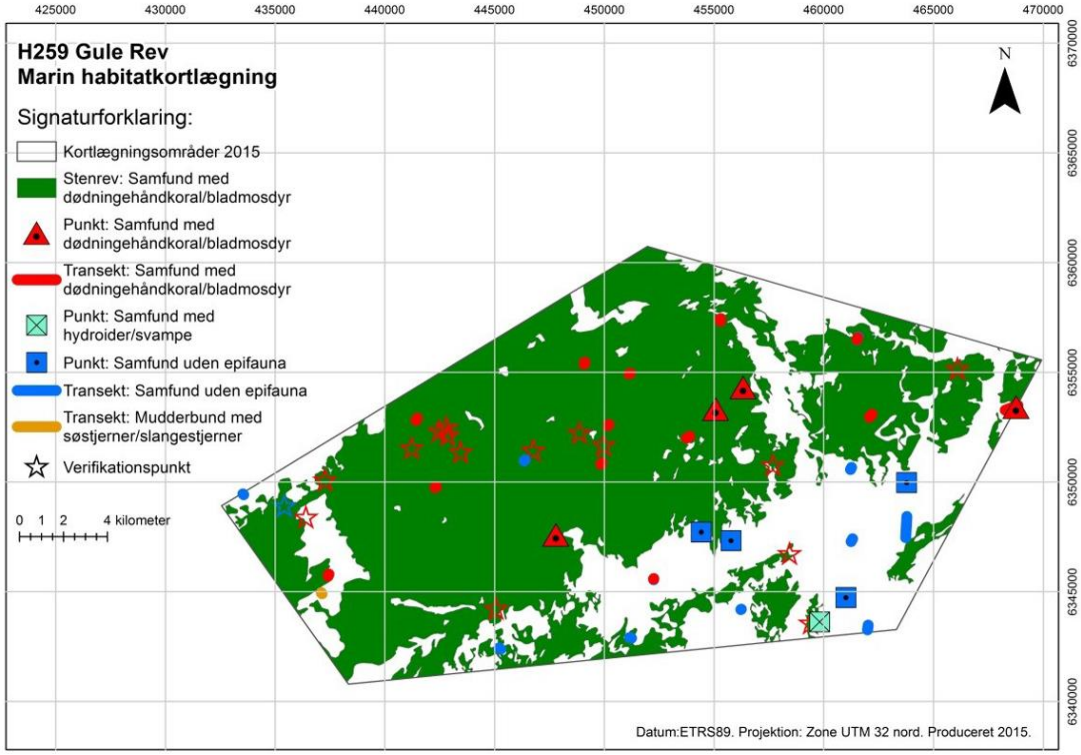
The overall objective of the joint recommendation (JR) proposal is to ensure adequate protection of designated reef structures from fishing activities. The proposal therefore seeks to contribute to the obligation of achieving favourable conservation status for the habitat types with habitat codes H1170 (Reefs) and H1180 (Submarine structures made by leaking gases, i.e.'bubbling reefs') in accordance with Article 6 (2) of the Habitats Directive.

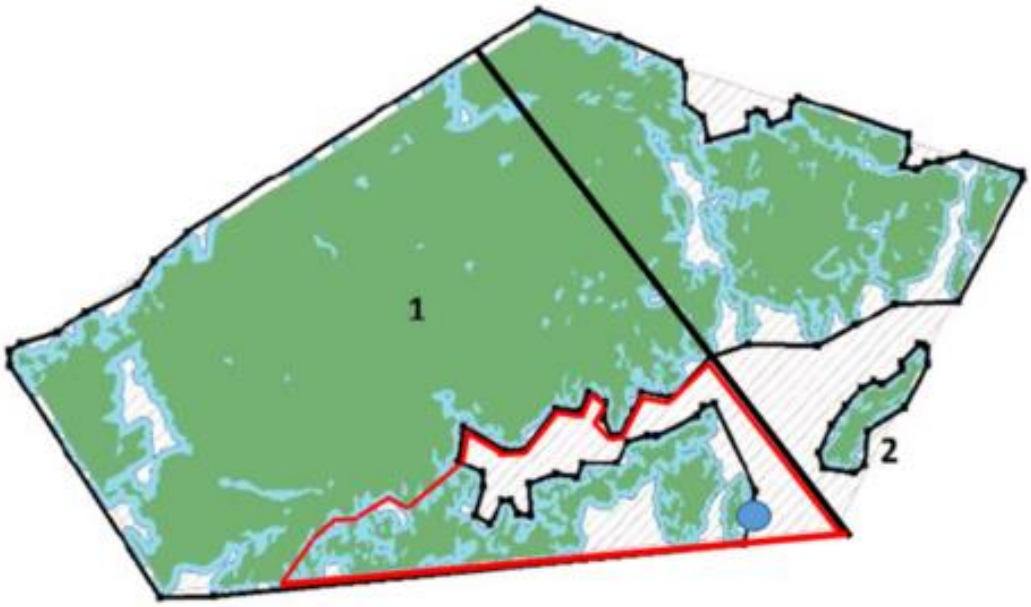
The JR was provided as background document to STECF together with a supportive document from ILVO, Belgium ("Annex II").

The first version of the JR was already evaluated by the PLEN 24-03. STECF observes that the same JR is now submitted again with the difference that the supportive document for a pilot study proposal has been amended.

This supporting document made by ILVO, Belgium, describes some details of a proposal for a pilot study to test whether sensitive reef structures can be avoided using trawl-related detection technology. The general ambition of the pilot project is to show that by using the latest technology in the beam trawl fishery and conducting what is called "precision fishing", it would be possible to detect the most sensitive areas and hence avoid fishing on them. This would take place by carrying out some trials for "precision fishing" using the VISTools system and WASSP multibeam sonars developed at ILVO to potentially avoid sensitive reef structures in the southern part of the Natura 2000 site Gule Rev (Habitat No. H259) using Belgian beam trawls. The main objectives of the pilot project are to: 1) Show the performance of precision fishing methods in Gule Rev and 2) allow continuation of fisheries with less impact on sensitive gravel beds than under the current fishery.

Figure 6.2.1 Maps describing the sensitive habitats' occurrences within the Gule Rev Natura 2000 site (Top). Note: the legend of the map is in Danish and not understandable for a non-native speaker, and the colouring is not explained). Description of the red area where the commercial activities under the pilot study would occur (Bottom) Note: no information is given on the habitats that exist on the red polygon





Source: ILVO supportive document describing the project for a beam trawl related pilot study (version September 25) attached to the JR.

STECF comments

STECF observes that a Beam trawl (TBB) is a mobile bottom contacting fishing gear. Typically, two beam-trawl gears are towed by each vessel. Depending on the target species the length of the beam, the weight of the gear and towing speeds may differ. The larger (>300HP) flatfish fisheries outside the 12 nm zone targeting sole may use a beam length up to 12 metres, with the gear weighing up to 9 tonnes depending on the number of tickler chains or the type of chain mats used. Towing speeds range from 2.5 knots for the brown shrimp fishery to 7 knots for the flatfish fishery. Beam trawling is generally conducted at depths of less than 100 metres.

Summary of the comments from previous STECF plenaries

PLEN 24-03 noted that the JR included a proposal for a pilot study to carry out precision fishing to avoid sensitive reef structures in the southern part of the Natura 2000 site Gule Rev (Habitat No. H259) using Belgian beam trawls. The general ambition of the pilot project was to show that by using the latest technology in the beam trawl fishery and conducting precision fishing, it was possible to avoid and safeguard the most sensitive areas. The main objectives of the pilot project were to: 1) Show the viability of precision fishing methods in Gule Rev and 2) minimize disturbance to sensitive gravel beds during fishery.

While the pilot study proposed to collect data, PLEN 24-03 noted that the intended fishing effort, gear description, the duration of the pilot study or measurable performance targets was lacking from the provided information.

In addition, PLEN-24-03 concluded that it seemed nonsensical to permit such a study in an area that is designated to protect reef structures. It was not clear to PLEN 24-03 why this technological project is not carried out in an area that is not classified as a Natura 2000 protected area. Furthermore, the success of such an approach would depend heavily on the skills of skippers and can also be influenced by other factors e.g. varying weather conditions or emergency situations relating to gear deployment and retrieval. Additionally, any damage caused during the pilot study could be irreversible. The technology effectiveness has also not been demonstrated in other areas.

STECF notes that within the context of another JR (one proposing fisheries conservation measures and associated control measures for six marine protected areas located within the Dutch EEZ of the North Sea, PLEN 25-02), a proposition was put forward to exempt certain fishing activities, related to scientific research that is necessary to comply with legal obligations, from the banning to use prohibited gears if the research complies with article 25 of Regulation (EU) 2019/1241. PLEN-25-02 understood that this proposal for exemption was related to the possibility to continue the scientific surveys for stock assessment and environmental assessment purposes in these areas. The JR explained that this permission will be granted for a limited period. Also in this context, STECF recalls that few details were provided to justify this exemption and to assess its consequences.

New information provided for PLEN 25-03

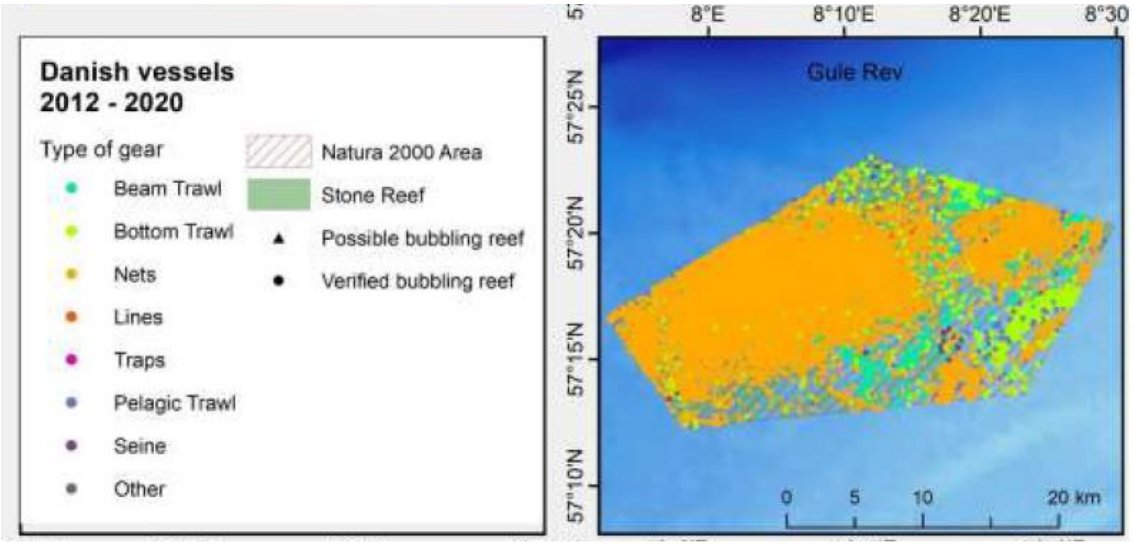
STECF acknowledges receipt of updated information indicating that the initial pilot project may involve up to three vessels, with continuous scientific data collection over a period not exceeding three years. Participating vessels will employ the same fishing gear as currently used by the Belgian fleet within the designated project area.

However, STECF observes that the Belgian scientific project still lacks information, as it does not provide appropriate information detailing what the pilot study will aim to achieve and how; including the technical aspects of the tested technologies, and scientific monitoring aspects. There is e.g. no description of the type of scientific data to be collected, nor of the statistical sampling and analysis that the project intends to implement, as required in a scientific survey.

In addition, STECF underlines that demonstrating the effectiveness of “precision fishing” will likely need a counterfactual, i.e. baseline control hauls performed in the sensitive areas vs avoidance hauls, in order to get statistically significant contrast between the two types of fishing. STECF notes that, such control hauls would imply having a negative impact in the sensitive areas.

The justification provided as regards to the objectives of the pilot such as "making fishing activities more sustainable, including improving gear selectivity and reducing the impact of fisheries on species," and "reducing the impact of fisheries on the seabed" is little informative in this context of testing innovations on sensitive habitats, and does not seem to be well aligned with the CFP article 2 objectives where the precautionary approach to fisheries management is to be followed. Moreover, the supporting document provides no evidence from the industry showing whether fishing in this specific area is desired in this fishery. STECF observes that Figure 6.2.2, which presents historical fishing effort, does not provide a clear indication of the intensity of fishing within the survey area. Additionally, it does not specify the proportion of total fishing effort occurring inside versus outside the area.

Figure 6.2.2. Accumulated VMS points per type of gear.



Source: JR DK North Sea Annexe 1 background document.

A new aspect of the JR is the inclusion of detailed boundaries and coordinates for the section of the Natura 2000 site designated for the pilot study. However, the description of the pilot study does not explain why this particular area (marked by the red polygon on the map) was chosen, nor does it clarify why the study could not take place on nearby grounds outside the Natura 2000 zone. The maps show that the Natura 2000 boundaries cross over sensitive habitats, suggesting that similar habitats may exist in adjacent areas as well.

CFP Basic Regulation Art. 11

STECF observes that Art 11.1 of the CFP stipulates that Member States can propose to adopt conservation measures “that are necessary for the purpose of complying with their obligations under Article 13(4) of Directive 2008/56/EC, Article 4 of Directive 2009/147/EC or Article 6 of Directive 92/43/EEC, provided that those measures are compatible with the objectives set out in Article 2 of this Regulation”, which require the JR to be compatible with the CFP objectives.

A scientific study for an innovative gear (Technical Measures Regulation. Art 25)

STECF notes that fishing activities related to scientific research using a prohibited gear can be exempted to comply with legal obligations if the research complies with article 25 of Regulation (EU) 2019/1241 (Technical Measures Regulation, TMR).

STECF notes that the amended supporting document for the pilot study proposal, specifies the involvement of up to three vessels over three years, followed by a project that could include up to 10 vessels. STECF also points out that 10 vessels exceed the six vessels beyond which an additional justification will be required with an additional STECF consultation as stipulated in the TMR Article 25.

Beam trawling has been considered by the submitting Member States as a fishing technique having significant impact to warrant an exclusion of its use from the Gule Rev Natura 2000 as proposed in the JR, an impact that is in line with the PLEN 24-03 advice.

STECF understands from the description in the ILVO project that 'precision fishing' would be classed as a modification of the usual beam trawling practice and therefore can be considered as an innovation, in a similar way that using multibeam echosounders for pre-catch identification in pelagic purse seine fisheries is considered innovative (factsheet No 25 in ICES 2023).

However, as stipulated in the preamble of the TMR "The use of innovative fishing gear should not be permitted where scientific assessment indicates that their use would lead to significant negative impacts on sensitive habitats and non-target species."

Innovative fishing gear (Technical Measures Regulation; Art 20.1 and Art 20.2)

STECF observes that the Article 20.1 of the TMR stipulates that a JR submitted for the purpose of adopting the measures referred to in Article 15.2 in relation to the use of innovative fishing gear, within a specific sea basin, shall contain an assessment of the likely impacts of using such gear on the targeted species and on sensitive species and habitats. The Member States concerned shall collect the appropriate data necessary for such assessment.

The supporting document to the JR states that a clear image distinguishing the reefs from other areas could be provided through scientific imaging, such as the WASSP system. However, STECF notes there is no evidence provided to demonstrate that the system would work as the study is precisely aimed at gathering such evidence. STECF remarks that, in the case that the pilot would be successful and the system would perform as expected, the decision to fish or not on the reefs would remain a skipper's choice, based on the information provided by the sensors. This decision depends on both the skills of the skipper to manoeuvre the trawling equipment outside of the reefs and of the skipper's commitment to do so; both aspects being impossible to monitor and control to demonstrate full compliance.

STECF also considers that possible adverse effects may occur, whereby "precision fishing" could, under certain economic incentives, increase rather than reduce fishing impacts. For instance, if some valuable species are attracted to specific reef substrates, more precise gear could potentially encourage targeted harvesting.

Overall, STECF observes that the supportive document does not bring enough information to guarantee that fishing will not impact the reefs, both during the pilot study and during the intended fishery afterwards. The revised document does provide only limited new information compared to the previous version.

STECF also recalls that Article 20.2 of the TMR stipulates that the use of innovative fishing gear shall not be permitted where the assessments referred

to in paragraph 1 indicate that their use will lead to significant negative impacts on sensitive habitats and non-target species.

STECF acknowledges that it remains challenging to define what the term “significant negative impacts” means for most marine habitats. However, STECF notes that, as mentioned in the ETC BE Report 2025/2 defining what constitutes a “physical loss” in the Commission Decision (EU) 2017/848 following the Directive 2008/56/CE (MSFD), any impact is significant if the recovery time exceeds 12 years as is the case for reef habitats.

Regarding the proposed Pilot study to test whether it is possible to distinguish and map the reef and associated gravel areas to permit precision fishing with beam trawls in the Natura 2000 site Gule Rev, STECF reiterates its PLEN 24-03 remarks that it was not clear why this technological project is not carried out in an area that is not classified as a Natura 2000 protected area. The pilot study proposal justifies this saying that the area has been extensively studied which would make it suitable for testing the new technology. However, STECF considers that these tests could take place in other less sensitive locations, where advanced models can be developed to incorporate the complexities of seabed interactions and innovative gears and practices. This approach echoes the methodology of clinical studies, where trials are initially conducted under experimental conditions rather than on real subjects. By conducting such investigation, researchers can better understand the implications of their methods while protecting vulnerable ecosystems.

Effect of beam trawling and significant negative impacts

STECF acknowledges the efforts to improve beam trawl gears to reduce their impact. However, certain habitats require a very low-impact approach as a goal (see e.g. PLEN 25-01) as stipulated by 2009 FAO guidelines (FAO, 2009). If the management target for such habitats is very low impact, there is very limited possibility to allow deployment of any impacting fishing technique even if less impactful than others.

STECF notes that the supplemented JR proposal does not introduce any new information regarding the effects of beam trawling or the risks these fishing techniques pose to the habitats that need protection as warranted by the JR. STECF reviewed the existing documentation to address this issue, acknowledging that mobile bottom-contact fishing gears displace, capture, and level seabed structures while stirring up bottom substrates and organic materials. Beam trawls penetrate deeper into the sediment, mobilizing approximately 7 to 10 times more sediment per square meter than otter trawls and demersal seines (Vinther et al. 2025 and references herein). In the North Sea, beam trawlers operating outside the 12 nautical miles zone typically have higher engine power and utilize heavier gears compared to smaller <3000HP beam-trawlers, otter trawlers and demersal seines. As a result, they are more capable of fishing in coarser seabed habitats with mixed sediments consisting of sand, gravel, pebbles, boulders, and reefs. These seabed habitats are particularly sensitive and have a high risk of permanent damage due to physical disturbance.

Vinther et al. (2025) highlighted that the most sensitive seabed habitats include biogenic reefs and areas formed by living organisms, as well as hard bottom seabeds like bedrock and mixed sediment habitats containing pebbles, boulders, and boulder reefs. These sensitive biogenic habitats are created by long-lived suspension-feeding species that develop complex structures on the seabed, as described in the JR. These habitats are significantly impacted even by a single passage of bottom trawling and may take over 12 years or more to recover. In areas with boulder reefs, beam-trawls tend to deploy a chain mat at the net opening to maintain contact with the seabed while minimizing the catch of large stones. The use of SumWing technology, which replaces the steel beam with a hydrofoil wing that hovers just above the seabed, indeed reduces both bottom contact and fuel consumption (Rijnsdorp et al., 2020). Nevertheless, this technology is still used in combination with tickler chains or chain mats, hence seafloor contact and disturbance still occur on the ground.

While the area swept by a beam trawl is smaller than that of an otter trawl or demersal seine, the penetration and physical impacts on the seabed and benthic fauna from various components of the gear are generally greater with beam trawls compared to other types of gear (Eigaard et al., 2016). Therefore, even if beam trawling are smaller gears than otter trawls, beam-trawling may impact more local areas per unit of effort (one vessel in one day), including the benthic epifauna and the infauna of the swept areas.

STECF conclusions

STECF concludes the revised document accompanying the JR has provided some additional elements on the intended pilot study i.e. the number of vessels that would engage in the scientific study, the duration (up to three years), the coordinates of the area where this study would occur within the Natura 2000 site, and some more general statements about the aim and possible expected outcomes of the study.

STECF concludes that no sampling plan is described (number of hauls, locations, and gear specifications) for these three vessels and the experimental statistical plan that will capture the performance effects.

STECF concludes that the advanced detection technology is not a guarantee that fishing will not occur on reef habitats. STECF further concludes that the intended use of this technology cannot be easily monitored and controlled for compliance.

Testing innovative gears or practices with scientific protocol and in real-time situations is a way forward to minimise the impact of fishing techniques in agreement with CFP Art. 2 Objectives. However, STECF concludes that it remains unclear why experiments aimed at refining fishing techniques and utilizing imaging for detection are being carried out in highly sensitive ecological zones. Accordingly, STECF reiterates the conclusions of PLEN-24-03, noting that it seems nonsensical to permit such a study in an area that is designated to protect reef structures.

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6.3 Spanish Management Plan (Catalonia mechanised & boat dredges)

Background provided by the Commission

The evaluation of national management plans prepared in line with the Mediterranean Regulation (Regulation (EC) No 1967/2006) and the CFP is a recurrent task for the STECF. The management plans for boat dredges *("rastel de cadenes")* and mechanised dredges *("gàbies")* in Catalonia (Spain) were previously assessed by the STECF during Plenary 16-01, Plenary 18-01, Plenary 19-01 and more recently Plenary 24-02. In October 2025, the Spanish authorities submitted (i) an adapted management plan for the mechanised dredges taking into account recommendations from STECF PLEN 25-02 and (ii) a new proposal for the management plans for boat dredges, currently in force until 3 November 2025, accompanied by technical documents.

In view of facilitating STECF work, the Commission asked Spain to ~~that~~ complement the information provided for STECF assessment in PLEN 25-02 and answer the different recommendations of STECF.

Background documents are published on:

https://stecf.ec.europa.eu/document/0ad54569-90a8-4b1d-8a23-8bd648296112

Request to the STECF

ToR 1: Building on previous STECF reports, including STECF PLEN 24-02 and 25-02, assess the new information provided for each management plan and whether it answers the recommendations and guidance on how to obtain improved scientific/technical supporting material for each of the plans.

ToR 2: Advise and assess whether the new management plan for boat dredges and the updated one for mechanised dredges in Catalonia both contain adequate elements in terms of fisheries description, safeguards and conservation measures as well as any other aspects deemed relevant in the context of Regulation (EC) No 1967/2006 (the Med Reg).

Summary of the information provided to STECF

1. Management plan for mechanised dredges

Annex 1_Informe_Justificativo_PGDM_octubre2025

Spain, through the Generalitat de Catalunya, submitted a revised Management Plan for the mechanised dredge fishery targeting bivalves in Catalan waters. The document responds to the European Commission and STECF conclusions following their PLEN 25-02.

Spain proposes to maintain two distinct frameworks: one for mechanised dredging and another for hand-operated “rastrillo” fishing. The latter activity

does not require a formal management plan, as it has been regulated independently by the Generalitat de Catalunya under a specific framework since 2014. Although both activities target the same resource (*Donax trunculus*), their methods of extraction and management requirements differ significantly, making a unified approach neither practical nor efficient. Furthermore, the legal foundations governing the two fisheries are separate and not compatible. Consequently, the Catalan fisheries administration recommends maintaining two separate management plans while ensuring integrated scientific monitoring and a joint evaluation of results to support coordinated resource management.

In response to the request for sustainability reference points, Spain acknowledges that the current data are not yet sufficient to establish robust quantitative thresholds. However, it commits to developing these progressively through enhanced biological and fisheries monitoring coordinated by ICATMAR. As new information becomes available, sustainability indicators and operational thresholds will be defined and integrated into future revisions of the Management Plan, ensuring a more data-driven and adaptive approach to resource management.

To address concerns over bycatch and ecological impacts, Spain reports that a new quarterly study coordinated by ICATMAR will evaluate the effects of mechanised dredging on benthic communities.

Moreover, the Directorate-General for Maritime Policy and Sustainable Fisheries will conduct a socio-economic assessment of the fishery, combining fleet activity data with auction sales information to provide a comprehensive analysis of its performance and economic relevance.

Concerning scientific and technical monitoring, the Directorate-General for Maritime Policy and Sustainable Fisheries (DGPMPS) has led an extensive five-year monitoring programme (2020–2025) with the University of Barcelona (UB), including:

- BIVALCAT (2019–2021): identified low stock recovery despite minimal fishing pressure; detected high parasitic infection (*Bacciger bacciger*).
- REINVENTAT (2020–2021): found potential for commercial exploitation of white clam (*Mactra stultorum*).
- LO DELTA VIU (2021): demonstrated no short-term recruitment impacts from fishing and migration of larger individuals to deeper waters.
- DONAX (2022): mapped wedge clam distribution and density in the Ebro Delta.
- CHIRLA and FINE COCHA (2023–2025): ongoing studies on *Chamelea gallina* and *Callista chione*; the latter shows partial recovery after long closure.

All the above projects have been already being reviewed by STECF.

The Ebro Delta and Central South areas remain the only zones open to mechanised dredging; the Maresme and Northern Catalonia areas remain closed.

Between 2025 and 2030, the Directorate-General for Maritime Policy and Sustainable Fisheries, in collaboration with ICATMAR, will implement a

scientific monitoring programme for bivalve fisheries along the Catalan coast. The plan covers mechanised dredges, hand rakes, and boat dredges, focusing mainly on the Ebro Delta and Central South areas, with flexibility to sample closed zones if stock recovery is observed. Monthly surveys will collect biological and environmental data on key species such as *Donax trunculus* and *Chamelea gallina*, including stock structure, recruitment, and bycatch composition. Economic performance will also be assessed through continuous analysis of fleet activity and sales data to evaluate dependency on target species. All data will be integrated and validated within ICATMAR's databases, and results will be reviewed quarterly by the Management Plan's Monitoring Committee to guide adaptive management.

Most articles retain the same wording as in the previous plan, maintaining existing fishing areas, vessel specifications, licence conditions, and monitoring structures. The main novelties include the introduction of geolocation-based control of fleet activity, allowing the Monitoring Committee to define fishing ground entry times once tracking devices are fully operational, an important step toward more accurate monitoring of real fishing effort. Another key change is the adjustment of dredge gear design with an 11x11 mm mesh, in response to sector demands and to align with the new minimum catch size for *Donax trunculus* (7 mm width, about 19 mm length). The plan also introduces a third additional provision enabling the Directorate-General for Maritime Policy and Sustainable Fisheries, with approval from the Monitoring Committee and the European Commission, to amend technical aspects of the plan through administrative resolution, allowing for adaptive management based on changing resource conditions.

2. Management plan for boat dredges

Annex Informe_Justificativo_PGDE_octubre2025

The first version of the boat dredge management plan was submitted by the Generalitat de Catalunya (Catalan administration) in 2015, assessed by the STECF during its EWG 15-16 and subsequently reviewed in PLEN 16-01. Both EWG 15-16 and PLEN 16-01 concluded that the information included in the plan was not sufficient for assessing the sustainability of the activity neither under biological nor socio-economic points of view.

To comply with EU regulatory requirements, the Autonomous Community of Catalonia developed the management plan for boat dredges (PGDE), initially approved by the European Commission and implemented through Order ARP/188/2020 of 28 October 2015. As this order expired on 2 November 2025, the Directorate-General for Maritime Policy and Sustainable Fisheries revised the plan, updating several measures based on monitoring results, discussions with the fishery sector and the plan's Monitoring Committee, and scientific and technical evaluations. The report therefore presents and justifies the proposed amendments introduced in the updated version of the plan.

The report on the management plan for boat dredges in Catalonia provides an updated technical and scientific justification for the continuation and adjustment

of the fishery's regulatory framework. The plan covers dredging activity limited to the Sant Carles de la Ràpita area, which was previously identified as having lower environmental impact, higher economic performance, and healthier shellfish stocks.

Monitoring between 2021 and 2025 showed a progressive reduction in the number of active vessels (from 21 to 14) and consistent compliance with spatial, temporal, and technical restrictions, supported by the installation of vessel tracking systems (Geoblau and AIS). The fleet demonstrated high profitability and low bycatch of finfish (below 10%), confirming the sustainability of operations within the restricted fishing ground. Three out of the four main species show stable catches since 2021, while the fourth one (barrel, *Bolinus brandaris*) show a decreasing tendency shown to be linked to a commercial strategy of the fleet (of increasing discards of the smallest fraction caught).

The report includes results from a pilot plan for the exploitation of venus clam (*Chamelea gallina*), launched after the species' recovery following a three-year closure. The pilot, carried out under strict effort control (one fishing day per week, 20-minute hauls, and seasonal closures), indicated rather stable CPUE (though slightly decreasing) and an increasing size structure of the harvested population, suggesting effective management and sustainable exploitation.

To strengthen the scientific foundation of the management plan, a comprehensive monitoring programme for 2026–2030 will be implemented in coordination with ICATMAR, involving bimonthly sampling of target and bycatch species, analysis of sales data, and georeferenced monitoring of fishing activity. This programme aims to generate robust biological, ecological, and socio-economic data to support adaptive management.

The report indicates that the venus clam fishery will formally reopen under controlled conditions after a three-year closure. Catch data collected in 2023 in the Ebro Delta showed abundances over 100 times higher and biomasses more than 300 times greater than those recorded in 2017. A monitoring programme covering November 2023 to September 2025 accompanies the reopening. The pilot plan stipulates that, to continue, catches must remain stable relative to the fishing effort. To verify this, the Plan Secretariat analyses catch data monthly, ensuring that (1) each vessel participates in the fishery only one day per week, and (2) the catch per unit of effort (CPUE) remains stable over time and (3) including precautionary clauses by which, with equal effort invested, when the catch falls below 50 % of the maximum weight recorded, the bank shall be closed as a precautionary measure and shall be closed for a period of 3 months. The recovery will be carried out sequentially, in a manner agreed with the Plan Monitoring Committee. Comparison between pre-opening and exploitation-phase samples shows that, by 2024, the population consisted of larger-sized individuals, indicating positive biological development.

Finally, the report proposes minor legislative amendments, maintaining most existing provisions.

3. Summary of conclusions from PLEN 24-02 and PLEN 25-02 on mechanised dredges

STECF in its PLEN 24-02 and PLEN 25-02 reports, supported the development of a unified management plan for the wedge clam (*Donax trunculus*) fishery in the Ebro Delta, encompassing both mechanized and hand-operated dredges to ensure cohesive and effective resource management.

STECF suggested enhancing the monitoring program for mechanized dredge fisheries, particularly through improved reporting of monthly size distributions and discards below the 25 mm MCRS and emphasized the need to establish clear management targets and CPUE-based reference levels to guide decision-making.

STECF also called for additional studies to assess the ecological impacts of mechanized dredging on benthic communities and habitats, as no new habitat data have been provided. From a socio-economic perspective, STECF noted the absence of detailed analyses on the fleet's dependency on clam fisheries, including the contribution of alternative fishing gears to overall income.

Finally, STECF endorsed the continued use of the BIVALCAT survey methodology to maintain consistent, long-term stock monitoring, enabling reliable comparisons of current and future stock conditions and supporting adaptive management of the fishery.

4. Summary of conclusions from PLEN 18-01 on boat dredges

STECF in its PLEN 18-01 report, concluded that the objective of the management plan was to adjust fleet capacity to fishing opportunities, however, the levels of fishing opportunities should be consistent with the MSY objective of the CFP.

STECF found it justified to restrict the use of boat dredges to the area south of the Ebro river mouth (Sant Carles de la Ràpita), given the lower finfish bycatch and higher shellfish yield and value observed there compared to other areas.

The revised plan introduced additional controls on fishing effort, such as limiting the number of authorised vessels, total fishing days, and daily fishing hours. However, PLEN 18-01 noted that maintaining a similar total number of fishing days despite a smaller fleet and reduced fishing area could lead to increased fishing pressure in Sant Carles de la Ràpita, with uncertain impacts on target stocks.

STECF suggested that catch and CPUE trends, stock status of key species (*Bolinus brandaris* and *Chamelea gallina*), and harvest control rules be provided to ensure sustainable exploitation.

STECF highlighted significant information gaps, including the absence of data on landings, fishing effort, and CPUE trends for the target species, as well as the lack of stock assessments and economic indicators (PLEN 18-01). In light of these shortcomings, STECF emphasised that fishing opportunities should align with the MSY objective of the CFP but noted that the plan did not establish

quantifiable management targets, such as reference points for fishing mortality or biomass, nor specific measures to achieve and maintain MSY. STECF also observed that no information was available on discard survival rates and that the plan lacked measurable indicators for tracking progress toward its objectives.

STECF comments

STECF comments are provided separately for mechanised and boat dredges.

1. Management plan for mechanised dredges

1.1. TOR 1. Assessment of new information and response to STECF recommendations

STECF notes that Spain's revised management plan addresses most of the STECF's previous comments, introducing new elements that are expected to further strengthen scientific monitoring, data collection, and adaptive management in the near future. Although the overall structure of the plan remains largely consistent with the earlier version, the updated information shows a clear commitment to implementing STECF's guidance, particularly through enhancements in research design, socio-economic assessment, and operational control.

Regarding the development of a unified management plan, Spain has decided to maintain two distinct frameworks, one for mechanised dredging and another for hand-operated "rastrillo" fishing, citing the legal and operational incompatibilities between the two activities. STECF notes that, although this approach falls short of a single unified plan, it aligns with the underlying objective of ensuring cohesive management of shared resources.

STECF observes that the plan acknowledges that quantitative sustainability benchmarks, such as CPUE-based reference points, are not yet defined due to limited data availability. Nevertheless, STECF acknowledges that Spain commits to developing these progressively through enhanced biological and fisheries monitoring, coordinated by ICATMAR within the 2025–2030 scientific monitoring framework. STECF considers that this approach represents a gradual but significant step toward establishing measurable sustainability indicators for future revisions of the plan.

STECF notes that a notable improvement is the inclusion of a new quarterly study to evaluate the ecological effects of mechanised dredging on benthic communities and sediment characteristics. This initiative directly responds to STECF's request for research into habitat impacts and introduces a dedicated mechanism to gather long-term environmental data. Complementing this, STECF also notes that the Directorate-General for Maritime Policy and Sustainable Fisheries will undertake a comprehensive socio-economic analysis integrating fleet activity and auction sales data, thereby addressing the previous lack of detailed information on the economic dependency of the fleet on clam fisheries.

STECF observes that the monitoring programme for 2025–2030 significantly strengthens the scientific foundation of the plan. It covers both the Ebro Delta and Central South fishing areas, with monthly biological and sediment sampling, while allowing flexibility to sample closed areas should recovery be detected. All data will be incorporated into ICATMAR's databases and validated quarterly, ensuring consistency and transparency. This long-term, standardised monitoring strategy builds on the BIVALCAT methodology, fulfilling STECF's recommendation to maintain continuous data collection for reliable assessment of stock trends.

Operationally, the revised plan improves management and enforcement mechanisms. The design of the dredging gear has been adapted with an 11×11 mm mesh, aligning with the updated minimum catch size for *Donax trunculus*. Additionally, the introduction of geolocation systems will enable precise control over entry times to fishing grounds, enhancing monitoring of actual fishing effort. The inclusion of a new provision authorising the Directorate-General, in agreement with the Monitoring Committee and the European Commission, to amend technical aspects of the plan by administrative resolution represents a key step toward adaptive management. This mechanism introduces flexibility and allows the plan to evolve in line with scientific evidence and changing resource conditions.

1.2. TOR 2. Evaluation of mechanised dredges Management Plan under the Mediterranean Regulation (EC) No 1967/2006

STECF notes that the revised management plan for mechanised dredges in Catalonia largely mirrors the version previously reviewed in PLEN 25-02, with only limited new additions. As already discussed in ToR 1, STECF observes that the updated plan introduces some new commitments in future scientific monitoring, socio-economic assessment, and adaptive management, while maintaining separate frameworks for mechanised and hand-operated fisheries.

STECF acknowledges that, although quantitative reference points are still lacking, Spain has committed to developing them through the 2025–2030 monitoring programme, which also includes new studies on benthic impacts and fleet economics. Overall, most of the issues raised in PLEN 25-02 should be addressed through the measures planned in the forthcoming monitoring cycle.

2. Management plan for boat dredges

2.1. TOR 1. Assessment of new information and response to STECF recommendations

STECF notes that Spain's revised Management Plan addresses only part of the concerns previously identified in PLEN 18-01, introducing a few improvements aimed at strengthening scientific monitoring and data collection, particularly devised for a better monitoring during the 2026-2030 period. In the revised plan, trends in fishing effort, revenues, and landings for the main target species are now described in detail, representing an improvement over the previous

version. However, a key gap remains: CPUE trends are still missing, and no assessment of stock status or relevant economic indicators have been included. Although the scientific monitoring programme for 2026–2030 foresees the evaluation of CPUE for the main target species, it does not specify any methodology or framework for assessing their stock status.

2.2. TOR 2.2 Evaluation of boat dredges Management Plan under the Mediterranean Regulation (EC) No 1967/2006

2.2.1. Description of the fisheries

Recent and historical data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such as catch-per-unit-effort.

The number of vessels authorized to fish with boat dredges and their fishing days is reported for the period 2021–2025, showing a declining trend over the five years, from 21 vessels in 2021 to 14 in 2025 (Table 6.3.1).

Table 6.3.1. Trends of the number of permits for boat dredging in Catalonia.

Number of permits for boat dredging					
Ports	**2021**	**2022**	**2023**	**2024**	**2025**
La Ràpita	16	16	16	13	13
Le Cases d'Alcanar	1	1	1	0	0
L'Ametlla de Mar	1	1	1	1	1
L'Ampolla	3	1	0	0	0
TOTAL	**21**	**19**	**18**	**14**	**14**

Source: Annex Informe_Justificativo_PGDE_octubre2025

Table 6.3.2. Trends of the boat dredges' fishing effort (fishing days) in Catalonia.

Number of fishing days					
Ports	**2021**	**2022**	**2023**	**2024**	**2025**
La Ràpita	1807	1905	1928	1966	1454
Le Cases d'Alcanar	0	0	0	0	0
L'Ametlla de Mar	15	45	28	44	25
L'Ampolla	155	69	0	0	0
TOTAL	**1977**	**2019**	**1956**	**2010**	**1479**

Source: Annex Informe_Justificativo_PGDE_octubre2025.

Fishing days showed similar values in the period 2021-2024, with an evident decrease in 2025 (Table 6.3.2).

Monthly landings data for the main target species, *Penaeus kerathurus* (caramote prawn), *Sepia officinalis* (common cuttlefish), *Squilla mantis* (mantis shrimp), *Bolinus brandaris* (spiny dye-murex), and *Acanthocardia tuberculata*

(rough cockle), as well as for finfish (both Osteichthyes and Chondrichthyes), are provided for the reference year 2022. Throughout the year, caramote prawn and common cuttlefish dominated total landings.

Landings are provided for the period 2021-2024 and show increasing trends for caramote prawn (from 30 to 47 tonnes), common cuttlefish (from 13 to 19 tonnes), and mantis shrimp (from 9 to 14 tonnes), while spiny dye-murex landings declined from 8 tonnes in 2021 to 4 tonnes in 2024.

The Spanish administration considers that the decline in spiny dye-murex landings is likely driven by socio-economic factors rather than biological causes. Based on consultations with the Catalan fisheries sector, it was concluded that the reduction in landings stems mainly from two factors: first, a shift in fishing effort toward caramote prawn, a higher-value species that has attracted increased attention in recent years, thereby reducing pressure on spiny dye-murex; and second, an agreement within the fleet to increase the market price of spiny dye-murex by landing only larger individuals and discarding medium-sized specimens, which has deliberately lowered the overall volume of landings. For this species, monthly landings data for the period 2021–2024 indicate that catches peak in December, reaching approximately 80 tonnes.

Table 6.3.3 presents the cumulative landings (kg) from 2021 to 2024 for the main species caught by boat dredges and other gears used in small-scale fisheries. The proportion of finfish in total landings is very low for boat dredges (around 5%), whereas it is much higher for other gears (approximately 50%).

Table 6.3.3. Overall landings (kg) of the main species landed by boat dredges and other gears used by small-scale fisheries in the period 2021-2024. Finfish are in bold.

Species	Boat dredge	Species	Other gears
Penaeus kerathurus	151,718	*Octopus vulgaris*	26,406
Sepia officinalis	77,871	***Euthynnus alletteratus***	18,433
Squilla mantis	43,646	*Callinectes sapidus*	15,155
Bolinus brandaris	24,730	***Sparus aurata***	13,319
Octopus vulgaris	23,326	***Thunnus thynnus***	8,903
Acanthocardia tuberculata	20,697	***Pomatomus saltatrix***	5,408
Solea solea	17,286	*Sepia officinalis*	5,316
Chamelea gallina	15,902	*Donax trunculus*	4,786
Callinectes sapidus	8,552	***Solea solea***	2,548
Mullus barbatus	863	***Coryphaena hippurus***	2,308
Finfish	**~5%**	**finfish**	**~50%**

Source: *Annex Informe_Justificativo_PGDE_octubre2025*

Regarding the 2023–2025 monitoring programme for the exploitation of the venus clam (*Chamelea gallina*), weekly data on catches, number of active vessels, and CPUE have been provided.

Data on length-frequency distribution of the catches, with particular reference to the species subject to minimum sizes in accordance with Annex III of the MEDREG.

Only data on the length–frequency distribution of the venus clam (*Chamelea gallina*) (which accounts only for about about 4% of the catches) have been provided within the framework of the 2023–2025 monitoring programme for the exploitation of this species.

An updated state of the exploited resources

The status of the exploited resources has not been evaluated in the management plan.

Information on economic indicators, including the profitability of the fisheries.

Incomes for boat dredging and other gears used by small-scale fisheries were provided for the period 2021–2025 (Table 6.3.4). Comparative information indicates that earnings from boat dredges are approximately five times higher than those from other gears.

Table 6.3.4. Incomes for boat dredging and other gears used by small-scale fisheries for the period 2021-2025.

Income by fishing modality (EURO)			
Year	**Other gears**	**Boat dredges**	**TOTAL**
2021	420,816	1,006,557	1,427,373
2022	218,460	1,230,402	1,448,862
2023	161,142	1,225,678	1,386,820
2024	166,037	1,420,788	1,586,826
2025	150,567	1,167,119	1,317,687
TOTAL	**1,117,025**	**6,050,546**	**7,167,571**

Source: Annex Informe_Justificativo_PGDE_octubre2025.

2.2.2 Objectives, safeguards and conservation/technical measures

Objectives consistent with Article 2 of the CFP and quantifiable targets, such as fishing mortality rates and total biomass;

Measures proportionate to the objectives, the targets and the expected time frame. In particular, the proposed modifications of the plan i.e. closure of certain fishing grounds, fishing effort reductions and the duration of plan;

Safeguards to ensure that quantifiable targets are met, as well as remedial actions, where needed, including situations where the deteriorating quality of data or non-availability places the sustainability of the main stocks of the fishery at risk;

Other conservation measures, in particular measures to fully monitor catches of the target species, to gradually eliminate discards and to minimise the negative impact of fishing on the ecosystem.

The number of permits for operating boat dredges has decreased over time, with only 14 vessels currently authorised. Fishing activity is regulated spatially and temporally through the use of Geoblau and AIS vessel tracking systems.

The plan does not establish quantifiable management targets for the main target species, such as reference points for fishing mortality or biomass, nor does it define specific measures to achieve and maintain the MSY objective.

The plan stipulates that bivalves and gastropods below the legal minimum size or weight must be returned to the sea immediately after sorting to enhance survival; however, no data are provided on the actual survival rates of discarded individuals.

Regarding the reopening of the Venus clam bank, the authorised fishing area for shellfish dredging is defined in Order ARP/188/2020, allowing exploitation of the *Rosselló* bank within specific geographic limits. All the 14 vessels with special permits are authorised to fish there. Fishing is allowed four days a week (Monday–Thursday), with each vessel operating only one day per week and limited to a 20-minute haul. Fishing is closed from March to May during the spawning season, and if catches drop below 50 % of the maximum recorded weight, the bank is closed for three months as a precaution. Monthly monitoring is carried out using AIS and GEOBLAU systems, and scientific sampling involves one vessel providing 2 kg of unsorted catch each month for laboratory analysis. The management system follows an adaptive approach to ensure both biological and socio-economic sustainability.

STECF conclusions

Management plan for mechanised dredges

STECF concludes that Spain demonstrates its commitment to addressing most of the issued raised by PLEN 25-02 through the revised Management Plan for mechanised dredges. The plan proposes significant improvements in future data collection, the upcoming introduction of benthic impact studies, and the implementation of adaptive management tools, supported by additional studies aimed at further strengthening scientific monitoring, economic evaluation, and management measures in the near future.

STECF concludes that the main remaining shortcoming is the lack of fully developed quantitative reference points for sustainability.

STECF acknowledges that the lack of data currently impairs the development of reference points, but STECF concludes that their future developments should

be prioritized. Establishing these benchmarks will complete the evidence base needed for sound, data-driven management and future STECF assessments.

Management plan for boat dredges

STECF concludes that Spain's monitoring of the Management Plan for boat dredges only partly addresses the issues identified in PLEN 18-01. While the monitoring of the plan provides more detailed information on fishing effort, revenues, and landings, it still omits key elements for the main target species, including CPUE trends, catch composition and length-frequency distributions of the main target species, stock assessments, discard survival rates, and detailed economic indicators.

STECF concludes that the new management plan includes adequate elements regarding the description of the fisheries, as well as trends in vessel numbers, fishing effort, incomes, species-specific landings, length-frequency distributions of the main target species.

However, STECF also concludes that the plan lacks essential components, including information on the stock status of these resources, and quantifiable management targets, such as reference points for fishing mortality or biomass. It also does not define specific measures to achieve and maintain the MSY objective.

STECF further concludes that the reopening of the Venus clam bank should strictly follow the monitoring programme proposed by Spain to ensure sustainable exploitation of this bivalve.

6.4 Spanish Mediterranean Regulation (2 derogations Murcia & Baleares)

Background provided by the Commission

In accordance with Article 13(1) of Regulation (EC) No 1967/2006 (henceforth the Med Reg), the use of towed gears is prohibited within 3 nautical miles of the coast or within the 50 m isobath where that depth is reached at a shorter distance from the coast. At a request of a Member State, derogation from Article 13(1) shall be granted, provided that the conditions set in Article 13(5) and (9) are fulfilled.

In Murcia waters, a Med Reg derogation for boat seines has been last extended in 2023 (Implementing act 2023/2230) and Spain has requested in October 2025 its extension for the period 2026-2029.

In Balearic waters, a Med Reg derogation for boat seines has been last extended (Implementing act 2024/755) in 2023 and Spain has requested in October 2025 its extension for the period 2026-2029.

A general condition for all derogations is that the fishing activities concerned are regulated by a management plan in accordance with Article 19 of the Med Reg. According to paragraph 5 of Article 19, the measures to be included in the management plan shall be proportionate to the objectives, the targets and the expected time frame and shall consider:

− the conservation status of the stock or stocks;

− the biological characteristics of the stock or stocks;

− the characteristics of the fisheries in which the stocks are caught;

− the economic impact of the measures on the fisheries concerned.

Commission Implementing Regulation (EU) No 1233/2013 granted a derogation from article 13(1) of the Mediterranean regulation for boat seines fishing for transparent goby and Ferrer’s gobies (Aphia minuta and Pseudaphia ferreri) and Lowbody picarel (Spicara smaris) in the Spanish territorial waters of the Balearic Islands. Based on STECF assessment in PLEN 16-03 and PLEN 20-01, this derogation was extended twice. The derogation was further extended by Commission Implementing Regulation (EU) 2024/755 in 2023, based on the STECF opinion of PLEN 23-02, until 30 April 2026.

Commission Implementing Regulation (EU) No 773/2013 granted a derogation from article 13(1) of the Mediterranean regulation for boat seines fishing for transparent goby and Ferrer’s gobies (Aphia minuta and Pseudaphia ferreri) and Lowbody picarel (Spicara smaris) in the Spanish territorial waters of Murcia. This derogation was extended twice. The derogation was further extended by Commission Implementing Regulation (EU) 2023/2230 in 2023, based on the STECF opinion of PLEN 23-01, until 1 March 2026.

In October 2025, the Spanish authorities submitted draft management plans accompanied by technical documents.

Background documents are published on:

https://stecf.ec.europa.eu/document/0ad54569-90a8-4b1d-8a23-8bd648296112

Request to the STECF

ToR 1. Advise and assess whether the supporting information transmitted for each derogation renewal contains adequate elements in terms of:

1.1. The description of the fisheries

- Biological characteristics and state of the exploited resources with reference in particular to long-term yields.

- Description of the fishing pressure and measures to accomplish a sustainable exploitation of the main target stocks.

- Data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such as catch-per-unit-effort (or CPUE).

- Catch composition in terms of size distribution, with particular reference to the percentage of catches of species subject to minimum sizes in accordance with Annex IX of Regulation (EU) 2019/124113.

- Information on the social and economic impact of the measures proposed.

- Potential impact of the fishing gear on the marine environment with particular interest on protected habitats (i.e. seagrass bed, coralligenous habitat and maërl bed);

1.2. Objectives, safeguards and conservation/technical measures

- Objectives that are consistent with the objectives set out in Article 2 and with the relevant provisions of Articles 6 of CFP Regulation and quantifiable targets, such as fishing mortality rates and total biomass.

- Objectives for conservation and technical measures to be taken in order to achieve the targets set out in Article 15 of Regulation (EU) No 1380/2013, and measures designed to avoid and reduce, as far as possible, unwanted catches.

- Measures proportionate to the objectives, the targets and the expected time frame.

- Safeguards to ensure that quantifiable targets are met, as well as remedial actions, where needed, including situations where the deteriorating quality of data or nonavailability places the sustainability of the main stocks of the fishery at risk.

- Other conservation measures, in particular measures to gradually eliminate discards, taking into account the best available scientific advice or to minimise the negative impact of fishing on the ecosystem.

1.3. Other aspect

- Quantifiable indicators for periodic monitoring and assessment of progress in achieving the objectives of the plan.

ToR 2: If deemed necessary, provide any recommendations and guidance on how to obtain improved scientific/technical supporting material for each of the fisheries and their management. This could be done in terms of collection of data, evaluation of the status of the target stocks, evaluation of conservation measures, impact on the marine ecosystem and monitoring programme.

ToR 3: If provided, assess whether the management plans associated to the derogation provide a robust overview of the catch composition of boat dredges and mechanised dredges, in particular whether the catch of species other than shellfish does not exceed 10 % of the total live weight of the catch (in accordance with Article 13(1) of the MEDREG).

ToR 4: Evaluate whether the following conditions set by the Mediterranean Regulation are fulfilled - Derogation to the distance from the coast (Article 13 – Paragraphs 5, 9 and 10)

- There are particular geographical constraints, such as the limited size of the continental shelf along the entire coastline;

- The fisheries have any significant impact on the marine environment;

- The fisheries involve a limited number of vessels and do not contain any increase in the fishing effort;

- The fisheries cannot be undertaken with another gear;

- The fisheries are subject to a management plan and carry out a monitoring of catches as requested in Article 23;

- The vessels concerned have a track record of more than 5 years;

- The fisheries do not interfere with the activities of vessels using gears other than trawls, seines or similar towed nets.

Summary of the information provided to STECF

Murcia

One document was provided to PLEN 25-03: " Scientific Monitoring Report. Management Plan for the traditional fishery of transparent goby (*Aphia minuta*) in the waters of the Region of Murcia, Spain. 2024–2025 Fishing Season" (original in Spanish " Informe Eguimiento Científico. Plan de Gestión para la pesca tradicional del chanquete (*Aphia minuta*) en aguas de la Región de Murcia, España. Campaña 2024-2025").

The extension of the derogation as regards the minimum distance from the coast and depth to boat seines fishing for transparent goby (*Aphia minuta*) was granted in October 2023 (Commission Implementing Regulation (EU) 2023/2230). It is indicated, among other obligations, that Spain shall communicate a report drawn in accordance with the monitoring plan, for the first

time by 1 June 2024 and, thereafter, every 12 months. The document provided corresponds to the monitoring report covering the period 2024-2025.

The report outlines the administrative controls and scientific monitoring undertaken by the Directorate-General for Agricultural, Livestock and Fisheries Production of the Region of Murcia, and provides an assessment of the results obtained during fishing season 2024-2025 (catches, CPUEs, LFDs, activity of the fleet, economic value of catches, control inspections on board, maps with the haul position and catch).

Results of the monitoring are also presented for the period 2021-2022 to 2023-2024, which provides an overview of the performance of this fishery and allows comparison of the current situation with previous fishing seasons.

Previous STECF review (Murcia)

STECF reviewed the National Management Plan for boat seines in certain territorial waters of Spain (Murcia) regarding the minimum distance from the coast and depth to boat seines fishing transparent goby in PLEN 23-01.

STECF concluded that the implementation of the management plan met the conditions upon which the derogation was granted and that the management plan contained the elements necessary for limiting the level of exploitation of transparent goby in the Murcia region.

The specific conclusions from PLEN 23-01 were the following:

- The implementation of the boat seine management plan in the Murcia Region in the period 2021/2022 meets the conditions upon which the derogation regarding minimum distance from the coast and depth was granted in 2020.
- The Plan contains the elements necessary for limiting the level of exploitation of transparent goby in the Murcia region, including limits on licenses, fishing periods, fishing effort, maximum yearly catches, Harvest Control Rules (HCR) and monthly CPUE thresholds below which the fishery should be limited or closed.
- In the 2021/2022 fishing season the above management mechanisms were applied. In December, the CPUE value was below the reference level, and the weekly fishing day reduction (from 4 to 5 days) was adopted in January. Subsequently, as the January CPUE value was still below the reference value, the fishery was closed early. The above-mentioned management mechanisms were similarly applied in the 2022/2023 fishing season.
- The adaptive management measures in place may need to be strengthened if the signs of degradation in the stock observed in the last two fishing seasons continue to be seen in the next 2-3 years.

STECF also reviewed the monitoring report of the management plan for transparent goby in certain territorial waters of Spain (Murcia) (PLEN-24-02).

STECF concluded that the documentation provided reported appropriately the fishing activity during the fishing season 2023-2024, the control measures in force, the characteristics of catches, income and the impact on the environment.

In the fishing season 2023-2024 the mean CPUE 27.6 kg/day/vessel was higher than the safeguard threshold (18.5 kg/day/vessel) and the fishery was closed in advance when the season TAC (18.0 tonnes) was exhausted, which would point to higher abundance of the resource in relation to the two previous seasons, when the fishery was closed in advance because the monthly CPUE was below the reference level.

STECF concluded that the management mechanisms were applied appropriately and as agreed in the plan.

Baleares

One document was provided to PLEN 25-03: “Informe de la pesca con artes de tiro tradicional en aguas de las Illes Balears. Campaña 2024-2025” “Report on fishing with “tirada” (Boat seine) in waters of the Balearic Islands. Campaign 2024-2025” - 27 pp. The report updates the supporting information for the derogation from Council Regulation (EC) No 1967/2006 as regards the minimum distance from the coast and the minimum sea depth for boat seines fishing for transparent and Ferrer’s gobies (*Aphia minuta* and *Pseudaphia ferreri*) and Lowbody picarel (*Spicara smaris*) in certain territorial waters of Spain (Balearic Islands).

The extension of the derogation as regards the minimum distance from the coast and depth to boat seines fishing for transparent and Ferrer’s gobies (*Aphia minuta* and *Pseudaphia ferreri*) and Lowbody picarel (*Spicara smaris*) was granted on February 2024 (Commission Implementing Regulation (EU) 2024/755). It is indicated, among other obligations, that Spain shall communicate a report drawn in accordance with the monitoring plan, for the first time by 30 September 2024 and, thereafter, every 12 months.

The report includes information on the management, regulation, and monitoring of traditional tirada (boat-seine) fisheries in the Balearic Islands during the 2024-2025 fishing season. It covers:

- Regulatory framework and derogations from EU and national legislation governing the fishery.
- Fishing effort data, including the number of authorised and active vessels, fishing days, and port distribution.
- Catch and CPUE statistics for the main target species (*Aphia minuta*, *Pseudaphia ferreri*, and *Spicara smaris*), as well as economic performance and spatial distribution of hauls.
- Environmental considerations, particularly interactions with *Posidonia oceanica* meadows.
- Preliminary results from the REMAR project, including the use of

electronic monitoring (VMS) and modelling approaches to improve data collection and fishery assessment.

- In October 2025 the Directorate-General for Fisheries of the Balearic Islands therefore requests a further extension of the derogation from Council Regulation (EC) No 1967/2006 concerning the minimum distance from the coast and the minimum sea depth for boat-seine fisheries targeting for transparent and Ferrer's gobies (*Aphia minuta* and *Pseudaphia ferreri*) and Lowbody Picarel (*Spicara smaris*) in certain Spanish territorial waters (Illes Balears).

Previous STECF review (Baleares)

STECF reviewed the National Management Plan for boat seines in certain territorial waters of Spain (Balearic) regarding the minimum distance from the coast and depth to boat seines fishing transparent goby and Picarel during PLEN- 22-01 and PLEN 23-01.

STECF recognised that the implementation of the management plan met the conditions upon which the derogation was granted and that the management plan contains the elements necessary for limiting the level of exploitation of transparent goby in the Murcia region

The conclusions were the following:

- STECF concluded that no data from onboard observations (catches, bycatches, discards, size compositions) were presented in the report for the 2021-2022 fishing period of the boat seine fisheries in the Balearic Islands. This is contrary to the MP which requires the deployment of onboard observers and port sampling to collect biological data from the fishery.
- STECF concluded that in updating the management plan particular emphasis should be given to the onboard monitoring of catch and size compositions (catches of all species, discards); further robust evidence for the limited impact of the boat seines on Posidonia beds, representative of the standard fishing operations; the periodic estimation of the degree of spatial overlap between the boat seine fishing grounds and areas covered by Posidonia, e.g., for the 2019-2023 period of the current plan; periodic revision of the annual TACs in line with recent fishing exploitation level and; improvement of stock assessments for the target species.

STECF further reviewed the National Management Plan for boat seines in the Balearic Islands in PLEN 23-02.

The conclusions were the following:

- The report submitted by the Spanish authorities for the 2022–2023 fishing season provides no new information on onboard inspections, environmental impact assessments, or data collection on target and non-

target species. The absence of onboard observations is inconsistent with the Management Plan (MP), which requires observer deployment and port sampling to collect biological data and monitor environmental impacts.

- The updated MP place greater emphasis on onboard monitoring and reporting of catches, size composition, discards, and the presence of marine vegetation and benthic organisms, as current information relies solely on self-declarations.
- The impact of fishing activities on Posidonia meadows remained unassessed. Additional evidence, such as detailed haul maps, quantitative impact evaluations, and data representative of normal operations, should be collected. Implementing vessel monitoring systems on all vessels would be a positive step toward impact assessment.
- The next MP should improve the stock assessment of Lowbody picarel (*Spicara smaris*) by including trawler catches and analysing environmental effects on gobiid population dynamics.

Since the publication of the second *Multi-Island Management Plan for Traditional Tirada Artes Fishing in the Balearic Islands*, the European Commission has extended the derogation provided for under Regulation (EC) No 1967/2006 with:

- Commission Implementing Regulation (EU) 2019/662 of 25 April.
- Commission Implementing Regulation (EU) 2020/1243 of 1 September
- Commission Implementing Regulation (EU) 2024/755 of 29 February 2024

STECF comments

STECF comments are provided separately for Murcia and Baleares.

Murcia

In response to the ToRs, STECF has the following comments:

1. Advise and assess whether the documents transmitted by Spain contain adequate elements in terms of:

1.1. The description of the fisheries

Biological characteristics and state of the exploited resources with reference in particular to long-term yields.

STECF notes that information on the target species transparent goby (*Aphia minuta*), Ferrer's goby (*Pseudoaphia ferreri*) and crystal goby (*Cristalogobius linearis*) is described in the report.

STECF notes that no standard analytical stock assessment is available for gobies.

In the 2024-2025 fishing season the percentage in number of individuals of *A.*

minuta represented 85.6 % of the fishes in the fishery, *P. ferreri* represented 14.3 %, while the presence of *C. linearis* this year was minimal, with only a single specimen detected (0.1%), which is in line with the average composition of the last 12 years. A total of 1,284 individuals of *A. minuta,* 215 *P. ferreri* and only one *C. linearis* were examined. Information on sizes, weight, life cycle and maturity (juvenile, pre-spawning and reproductive) is provided.

STECF notes that the status of the target species *A. minuta* during the 2024–2025 fishing season, inferred from total catch and CPUE values, showed a sharp decline resulting the worst in the last 22 years.

Description of the fishing pressure and measures to accomplish sustainable exploitation of the main target stocks.

STECF notes that the management of *A. minuta* fishery is based on catch limits (for fishing season and daily by vessel) and monthly CPUE threshold. Starting from the 2023–2024 season, and in line with -PLEN-23-01, the maximum catch limit per season was revised to 18,000 kg, using available data from the 2001–2023 time series. Once this limit is reached, the fishing season is closed until the following season. In addition, CPUE, calculated as catch per vessel and day, serves as a practical indicator for assessing the status of the resource and its trend over the fishing season. If the minimum monthly CPUE threshold is not achieved, fishing effort is reduced by one day per week in the following month. If the threshold is still not met, the fishery is closed.

STECF notes that an analysis of the fisheries for the previous 10 years (2013-2014 to 2022-2023), using the 25th percentile of the cumulative frequencies of yields was applied to obtain the minimum average monthly catch threshold per vessel. A fixed value of 18.5 kg/vessel/day was applied uniformly across all three months of the fishing season. This threshold was adjusted to account for vessels operating with two or three fishers. A daily catch limit of 40 kg applies to vessels manned by two crew members onboard, whereas vessels with three or more are authorized for a daily quota of 50 kg.

Data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such as catch-per-unit-effort (or CPUE).

STECF notes that the catches of transparent goby show great variability from year-to-year.

STECF notes that in 2024-2025, landings amounted to 2,089 kg (11.6% of the maximum catch limit of 18 tonnes), well below the recent three-year average (around 10 tonnes). As the minimum daily catch threshold (18.5 kg/vessel/day) was not reached in the first two months of the 2024-2025 fishing season, the fishery closed early. Compared with the latest 10-year average (5,199 kg), catches declined by around 72%, and CPUE dropped by around 47–64% (first two months).

STECF notes that these findings suggest both a poor fishing season and a

declining state of the resource. STECF further highlights the possible combined influence of natural climate fluctuations and fishing activities. Results of the following fishing season 2025/2026 would serve to evaluate the persistence of this poor population status.

STECF notes that catch and CPUE time-series (2001–2025) and vessel-level data for 2024-2025 are reported. The target species is not discarded. Bycatch species are composed of *Spicara* sp, *Coris julis*, *Boops boops*, *Serranus scriba*, *Syngnathus tyhple*, *Loligo* sp. Bycatch species are immediately returned to sea, and survival is reported to be high according to visual observations (83.8%). STECF considers that this percentage refers to immediate vitality rather than demonstrated survival. However, the fact that the fishing gear does not involve entangling or enmeshing the fish indeed suggests a high likelihood of survival.

STECF acknowledges that over the past 10 years, the amount of bycatch and discarded species has been very limited; bycatch accounted for approximately 0.33% in number and 8.01% in weight, while discards represented 0.32% in number and 4.58% in weight.

STECF notes that in 2024–2025, out of more than 27 authorized vessels, only 21 were active in month 1, and 9 in month 2. The ratio fishing days/potential fishing days was 32.8% and 10.1% in months 1 and 2 of the fishing season, respectively. STECF highlights that only 13.5% of potential fishing days were used, reflecting the low resource availability.

STECF notes that the fishing season of transparent goby lasts three months. Until 2023 the fishing season spanned from December to February; starting from season 2023-2024 this period was slightly modified, from mid-December to mid-March (provision of the Regional Ministry of Water, Agriculture, Livestock and Fisheries). Fishing is allowed from Monday to Friday.

STECF notes that given the biology of *A. minuta* and the lack of an analytical stock assessment, CPUE remains the key indicator to assess the status of the resources. Therefore, STECF stresses the need to continue full monitoring of CPUE during the fishing season and maintain the current CPUE monitoring to assess the status of the resource.

Catch composition in terms of size distribution, with particular reference to the percentage of catches of species subject to minimum sizes in accordance with Annex IX of Regulation (EU) 2019/124113.

STECF notes that the size distributions are presented for the three gobid species, for the fishing season 2024-2025 and by month. The average size was 27.2 mm, which is in line with the values observed in the last 22 years.

STECF also notes that the catch of other species was observed in only four hauls. The proportion of individuals caught below the legal size (Regulation (EU) 2019/1241) is minimal, remaining below 0.05% by number and 0.8% by weight.

Information on the social and economic impact of the measures proposed.

STECF notes that information is provided in terms of catch and income for the fleet and by individual vessel. The income from landings in 2024-2025 was EUR 122,538, the lowest recorded in the past 20 years, compared with an average of about EUR 300,000 over the previous decade. Conversely, the average price reached 58.66 €/kg, the highest level in the past 22 years, driven by the limited availability of transparent goby. The mean income by vessel in 2024-2025 was around EUR 5,835 (around EUR 13,000 in the previous decade), and income from landings by fishing day was estimated at 536.9 €/vessel (in line with the mean value of previous decade). The income from transparent goby represents 24.2% of the total income of the vessels that fish transparent goby.

Potential impact of the fishing gear on the marine environment with particular interest on protected habitats (i.e., seagrass bed, coralligenous habitat and maërl bed).

STECF notes that during the 2024-2025 fishing season, only four hauls were directly monitored to classify and count the species caught other than the transparent gobies. The presence of sediment, stones, algae, *Posidonia oceanica* and sessile organisms was checked. Sessile and benthic organisms, as well as sediment remains or stones were not observed. No specimens of protected species were found in the four hauls monitored. The report indicates that there is no impact on the seabed, particularly on the protected *P. oceanica* meadows. Dead *P. oceanica* leaves, with signs that they were dead days in advance the fishing operation (black, in state of decomposition), appeared in one haul. Its presence is reported to be a consequence of currents during the sampling, not due to the fishing operation. These results are in line with those obtained in 2023-2024 fishing season. However, STECF considers that there is not sufficient scientific evidence of this low impact, and therefore uncertainties remain regarding the possible impact of this fishery on Posidonia seagrass beds.

STECF notes that the sampling effort to monitor impacts on sensitive habitats, such as Posidonia meadows, is insufficient and relies mainly on qualitative information and self-reporting. STECF stresses the need for an in-depth mapping to analyse the overlap between sensitive habitats and fishing tracks.

1.2. Objectives, safeguards and conservation/technical measures

Objectives that are consistent with the objectives set out in Article 2 and with the relevant provisions of Articles 6 of Regulation (EU) No 1380/2013 and quantifiable targets, such as fishing mortality rates and total biomass.

STECF notes that the fishery is managed through seasonal (18 tonnes until 1 March 2026) and daily catch limits. The 25th percentile of the daily CPUE series (2013–2023) is used as an indicator of stock status (18.5 kg/day/vessel). Daily catch limits were increased to 40 kg for vessels with two fishers and 50 kg for

those with three or more, at the sector's request due to rising costs (previously they were 35 and 45 kg, respectively). If the CPUE threshold of 18.5 kg/day/vessel is not met, fishing is reduced by one day per week in the following month, and the fishery closes if the shortfall persists. In 2024–2025, mean CPUE was 11.7 kg/day. Transparent goby (*Aphia minuta*) was classified as juvenile (≤15 mm), pre-spawning (16–33 mm), or reproductive (≥34 mm) following Reina & López (2005). Most were juvenile adults (stages 2–3), with 19.1% in the reproductive phase, consistent with historical proportions though with a slightly higher share of stage-1 individuals. Two main spawning periods occur in spring and autumn. The three-month fishing season (mid-December to mid-March) allows transparent goby to reproduce undisturbed during part of the spring and autumn. Most studies report a higher abundance of females than males in winter and early spring (December–March), sometimes representing up to 100% of total catches.

STECF notes that in addition, a new safeguard measure has been introduced to regulate the fishery, consisting on the possibility of suspending the fishing season if a percentage of transparent goby mature females with eggs is found to exceed 50% (Order of 21 September 2023 of the Regional Ministry of Water, Agriculture, Livestock and Fisheries). The highest percentage for 2024-2025 season was found in February (34.6%).

Objectives for conservation and technical measures to be taken in order to achieve the targets set out in Article 15 of Regulation (EU) No 1380/2013, and measures designed to avoid and reduce, as far as possible, unwanted catches.

STECF notes that the technical characteristics of the boat seine and the fishing practices (low towing speed, hauling method, etc.) make this technique highly selective by species, and therefore almost the entire catch consists of the three target species. Member State's report highlights that the good practices on board allow high survival of bycatch species. STECF notes that, since only visual assessments were available, it is more appropriate to state that the discarded species exhibited high vitality, with approximately 83% showing signs of vitality. Bycatch species with MCRS represented 0.05% by number and 0.8% by weight.

Measures proportionate to the objectives, the targets and the expected time frame.

STECF considers that the measures are proportionate to the objectives, targets and expected time frame. The fishery is managed on a monthly basis. When CPUE thresholds are not met, fishing effort is reduced and the fishery may be closed, as occurred in 2024–2025. The fishery is also closed once the seasonal catch limit is reached, which was the case in 2023–2024. STECF considers that the management measures included in the Management Plan are implemented in a timely manner However, STECF notes that the seasonal total catch limit (18 tonnes) has been reached only in 2 out of the last 12 fishing seasons. STECF therefore considers that this reference level, and consequently the

associated daily catch limits, should be revised.

STECF considers that a more adequate way to revise the yearly maximum catch limit is to base it on the most recent 10 years of data, rather than on the full historical series back to 2001. The productivity of the *A. minuta* fishery has clearly declined in recent years, and catches from older, more productive periods may no longer reflect the current state of the stock. Using a 10-years moving window allows the maximum yearly catch to adapt to the present regime. For the seasonal catch limit, the total landings from the last 10 completed seasons can be used to calculate robust statistics such as the 75th percentile of the seasonal catches.

Safeguards to ensure that quantifiable targets are met, as well as remedial actions, where needed, including situations where the deteriorating quality of data or non-availability places the sustainability of the main stocks of the fishery at risk.

STECF notes that if the safeguard threshold (CPUE of 18.5 kg/day/vessel) is not met, fishing effort is reduced the following month to four fishing days per week. If the threshold is still not reached, the fishery is closed, as occurred in February-March 2025. Similarly, once the seasonal catch limit of 18.0 tonnes is reached, the fishery closes, a measure applied in the 2023–2024 season. The data quality is considered good. Moreover, the Directorate-General for Agricultural, Livestock and Fisheries Production may suspend all or part of the fishing season if more than 50% of females of the target species are found to be in spawning condition.

STECF notes that the low CPUEs recorded in the most recent fishing seasons starting from 2021 (except 2023-2024) may indicate a declining trend in goby stock abundance. STECF notes that although the current regulatory management measures have been properly applied, they may need to be revised if signs of stock decline persist.

Other conservation measures, in particular measures to gradually eliminate discards, taking into account the best available scientific advice or to minimise the negative impact of fishing on the ecosystem.

STECF notes that discards reported in the Member State's report are low. According to the sampling of four hauls examined in 2025 discards represented 0.092 % of the catch in number and 6.2% in weight. 59.5 % of by-caught specimens are discarded. The average discarded portion for the entire observed period (2012-2025) is 0.32% in number and 4.58% in weight. The fishing gear is very selective, gobies represented around 90% of the catch in 2024-2025 (95% in the previous year 2023-2024). Concerning the commercial catch of target species, *A. minuta* represented 85.6% of the catch, *P. ferreri* the 14.3%, while *C. linearis* contributed only 0.1%.

1.3. Other aspects

Quantifiable indicators for periodic monitoring and assessment of progress in achieving the objectives of a management plan.

STECF notes that the Member State reports a statistically significant negative correlation between water temperature and catches in December. The delayed decrease in water temperature observed at the start of the 2024–2025 fishing season may have led to low recruitment success or, at least, a shift in the timing of recruitment.

STECF notes that environmental factors in critical seasonal windows likely drive much of the year-to-year variability in catches. CPUE indicator is influenced by environmental conditions, which can drive fluctuations in catch rates. However, given the short lifespan of the transparent goby, distinguishing fishing impacts from environmental influences remains challenging. As highlighted in -PLEN-23-01 and 24-02, STECF considers that the Management Plan should include regular reviews of these CPUE values.

2. Evaluate whether the following conditions set by the Mediterranean Regulation are fulfilled - Derogation to the distance from the coast (Article 13 – Paragraphs 5, 9 and 10)

There are particular geographical constraints, such as the limited size of the continental shelf along the entire coastline

STECF notes that this fishery is subject to specific geographic constraints, due to the small continental shelf and the limited extent of exploitable grounds. In addition, the target species is confined to coastal areas shallower than 50 metres, further restricting the available fishing zone. A derogation is therefore essential to allow this fishery to operate in shallow waters, as more than 99.75% of catches are taken at depths under 30 metres, and 100% at depths below 44 metres.

The fisheries have any significant impact on the marine environment

STECF notes that the *A. minuta* fishery is highly selective in terms of species caught, resulting in very limited bycatch and discards. Moreover, the species released at sea appear to have high vitality. Finally, according to the report and given the nature of the fishing operation (low towing speed, hand operations), the physical impact of boat seines on the seabed appears to be minimal and does not affect coralligenous habitats or seagrass beds. However, STECF considers that this aspect should be further investigated through dedicated studies.

The fisheries involve a limited number of vessels and do not contain any increase in the fishing effort

STECF notes that a total of 21 vessels applied to participate in the fishery for the 2024–2025 season and met all the necessary eligibility requirements. Vessels engaged in this fishing activity are required to hold a specific authorization. STECF therefore considers that this type of fishery does not imply an increase in fishing effort, and that the activity is in any case subject to strict control through the vessel tracking system.

The fisheries cannot be undertaken with another gear.

Given the characteristics of the target species (small size and high fragility), the fishery can only be conducted commercially using the boat seine.

The fisheries are subject to a management plan and carry out a monitoring of catches as requested in Article 23.

STECF notes that the fishery is currently managed under a management plan, which also provides for monitoring of the activity. STECF notes that the measures established under the plan appear to be effectively implemented. In addition, monthly monitoring of mean daily CPUE allowed for an early closure of the fishing season 2024/2025, as the CPUE threshold value was not reached within the first two months.

The vessels concerned have a track record of more than 5 years.

STECF notes that the vessels are listed in the Spanish National Operational Fishing Fleet Census and have a fishing history of more than five years in this fishery. Vessels are required to install and operate the TETRAPES tracking system which regulates the monitoring and tracking system for fishing vessels (TETRAPES) operating in the inland waters of the Region of Murcia, in accordance with Decree No. 32/2016 of 4 May 2009.

The fisheries do not interfere with the activities of vessels using gears other than trawls, seines or similar towed nets.

The Member State report does not mention potential interactions with other fisheries. However, given the very slow towing speed, the fact that fishing can only take place during daylight hours (from 08:00 until entry into port at 17:00), and that it occurs in strict coastal waters, interactions with other are presumed to be negligible.

Baleares

In response to the ToRs, STECF has the following comments:

1. Advise and assess whether the documents transmitted by Spain contain adequate elements in terms of:

1.1. The description of the fisheries

Biological characteristics and state of the exploited resources with reference in particular to long-term yields.

STECF notes that the Member State report provides an overview of the biological, technical, and economic aspects of these small-scale fisheries to support the continuation of the management plan and associated EU derogation. The goby (*Aphia minuta* and *Pseudaphia ferreri)* targeted fishery is carried out in Mallorca, while the boat seine fleet targeting picarel (*Spicara smaris*) is based on the islands of Ibiza and Formentera.

STECF notes that no stock assessments are available and the stock status is inferred from the fluctuations in the total catch and CPUE rates of the fisheries. The management of the stocks is based on TACs (for fishing season and daily by vessel) and setting monthly CPUE threshold limits.

Catch and CPUE rate fluctuations over the recent years indicate a rather stable situation.

Description of the fishing pressure and measures to accomplish sustainable exploitation of the main target stocks.

STECF notes that the fisheries are highly seasonal, concentrated mainly between December and April, and regulated through daily catch limits, annual quotas, and designated landing ports.

STECF notes that for transparent and Ferrer's gobies only a small fraction of the authorised fleet (around 11 vessels out of 34 authorized vessels) has been active in recent years, resulting in limited overall effort. In the 2024-25 season, six vessels were active in the Pitiusas Islands for the catch of Picarel.

STECF notes that the MP includes catch limits and monthly CPUE thresholds. The latter triggers effort reduction measures (in terms of fishing days) if not met. During the 2024-2025 season catches remained well below the established yearly quotas (18 tonnes for *Aphia minuta* and *Pseudaphia ferreri;* 30 tonnes for *Spicara smaris*). CPUE thresholds were consistently met or exceeded for the transparent and Ferrer's gobies targeted fisheries, while they were not met in three months (December, March and April) for the picarel fisheries. In the latter case, effort reductions were implemented. However, it is likely that the observed relatively low CPUE rates are not directly related to stock abundance, as limited effort, bad sea conditions and interactions with marine mammals have affected catch rates in several cases.

STECF notes that the continuous monitoring through sales data, VMS ("green boxes"), and co-management committee oversight helps ensure compliance

and adaptive management.

STECF notes that the report indicates that fishing pressure is well controlled, and the management measures currently in place are effective in maintaining the sustainable exploitation of the main target stocks.

Data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such as catch-per-unit-effort (or CPUE).

STECF notes that the MP establishes monitoring through sales data, daily catch forms, and co-management committee oversight, enabling early detection of any deviation from sustainability targets. STECF considers that monitoring through onboard observation remain essential to guarantee scientific consistency.

STECF notes that according to the Member State report, the data on catches, fishing effort, and abundance indices (CPUE) show a stable and sustainable fishery for the target species.

Previous STECF evaluations have raised concerns about catch data derived from self-reporting. In 2024–2025, it is unclear how these data were collected, and the same concerns expressed in earlier assessments remain. The monitoring of daily catch continues through logbooks for *Spicara smaris*.

STECF notes that for Mallorca, total landings of *Aphia minuta* (39% of the catch) and *Pseudaphia ferreri* (61% of the catch) in 2024–2025 reached 12.15 tonnes, a 4% increase compared to the previous season, corresponding to 413 fishing trips by 11 active vessels. 4% of increase also reflects the improved fishing effort (4%). The average CPUE was 29.4 kg/vessel/day, with higher productivity in southern ports (average 35 kg/day) than in the north (25 kg/day).

STECF notes that for the Pitiusas Islands (Eivissa and Formentera), *Spicara smaris* catches totalled 11.6 tonnes, also below the annual quota (30 tonnes), with an average CPUE ranging between 75 and 185 kg/vessel/day depending on the month. The highest catch was recorded in February, reaching 5,141.9 kg.

STECF notes that, according to the report, discards were minimal and mainly consisted of small amounts of other fish and cephalopods; elasmobranchs were generally released alive. Decree 52/2024 of 20 December 2007 lifted the ban on catching cephalopods with boat seine, classifying them as non-target coastal species. The capture of any elasmobranch species, except for skates and rays, remains prohibited.

STECF notes that catch levels, effort, and CPUE values remain similar with previous years, indicating stable stock abundance and effective control of fishing effort within the framework of the Management Plan.

Catch composition in terms of size distribution, with particular reference to the percentage of catches of species subject to minimum sizes in accordance with Annex IX of Regulation (EU) 2019/124113.

STECF notes that the report did not provide any information on the size

distribution of the target species. According to the report, the catch composition by size indicates that the fishery mainly targets small coastal species with sizes consistent with their life cycles and legal requirements. The catches are composed almost entirely of the authorized target species (*Aphia minuta*, *Pseudaphia ferreri*, and *Spicara smaris*) all of which are exempted from the minimum size provisions under Annex IX of Regulation (EU) 2019/1241.

STECF notes that the fishery for *Aphia minuta* and *Pseudaphia ferreri* operates during the period when these species form dense, mature shoals close to shore, resulting in selective catches dominated by adult individuals.

STECF notes that occasional bycatches of non-target species (e.g., *Atherina spp.*, small cephalopods, and benthic fish) were reported, but they represent small quantities and do not include species under minimum size restrictions. Catches of *Atherina spp.*, were regulated for the first time by Decision of the Director-General for Fisheries of 23 October 2024, that has defined the localities where this fishery can be done.

Information on the social and economic impact of the measures proposed.

STECF notes that some economic data are presented, taken from the Fisheries Traceability System (TRAZAPES) of the Ministry of Agriculture, Fisheries and Food. The total revenues from the goby fisheries were EUR 232,924, and variation among vessels is quite high, depending on their catch volume and fishing time. The total revenue from the picarel fisheries was around to EUR 58 000, and variation among vessels is again high, mainly depending on the size composition of the catch (picarel price varies with size).

Potential impact of the fishing gear on the marine environment with particular interest on protected habitats (i.e., seagrass bed, coralligenous habitat and maërl bed).

STECF notes that according to the report, the potential impact of traditional *tirada* (boat-seine) gears on the marine environment is considered very limited, particularly regarding protected habitats such as *Posidonia oceanica* meadows, coralligenous formations, and maërl beds. According to the report, fishing operations take place exclusively on sandy bottoms adjacent to, but not within, *Posidonia* meadows, in order to avoid plant material and maintain catch quality. No evidence of damage to coralligenous or maërl habitats was reported, as these habitats do not overlap with the areas where boat seines operate.

STECF recalls the findings of PLEN 23-02 regarding the 2022–2023 report; it included information on the position and depth of hauls, as declared by the skippers. The report presents the positions of 1,442 hauls overlaid on a map of *Posidonia* beds, and STECF observes that some fishing operations appear to have taken place over areas covered by *Posidonia*. The contour of the Posidonia meadows is highly irregular, and vessels tend to target sandy-bottom areas along their edges. STECF notes that the spatial distribution of the hauls indicates a concentration of tows around the margins of the *Posidonia* meadows. Approximately 9% of fishing operations (127 out of 1,442) occurred

over *Posidonia* meadows, all located close to their edges. STECF considers that, at a minimum, the spatial overlap between the boat seine fishing grounds and areas covered by *P. oceanica* should be assessed each time the management plan is updated. This assessment is necessary to ensure compliance with Article 4.5 of the Med Reg. Based on the current information; it is not possible to estimate the proportion of *Posidonia* beds affected by the fishery.

STECF acknowledges that the ongoing REMAR project continues to collect and analyse spatial data to refine the evaluation of habitat interactions and ensure compliance with environmental protection requirements. The final report is not yet available for further considerations.

1.2. Objectives, safeguards and conservation/technical measures

Objectives that are consistent with the objectives set out in Article 2 and with the relevant provisions of Articles 6 of Regulation (EU) No 1380/2013 and quantifiable targets, such as fishing mortality rates and total biomass.

STECF notes that the objectives of the Management Plan are consistent with Article 2 and Article 6 of Regulation (EU) No 1380/2013 on the Common Fisheries Policy (CFP), aiming to ensure environmentally sustainable, economically viable, and socially responsible exploitation of marine resources. The overarching goal is to exploit the stocks in line with the maximum sustainable yield (MSY) principle.

STECF notes that the MP's quantifiable targets include maintaining:

- Catches and CPUE rates above the minimum monthly thresholds defined in the Management Plan.
- Total annual catches below the established maximum quotas (18 tonnes for *Aphia minuta* and *Pseudaphia ferreri*, and 30 tonnes for *Spicara smaris*).
- Fishing mortality at levels that ensure long-term stock stability.

Objectives for conservation and technical measures to be taken in order to achieve the targets set out in Article 15 of Regulation (EU) No 1380/2013, and measures designed to avoid and reduce, as far as possible, unwanted catches.

STECF notes that the MP's primary objective is to ensure selective and environmentally responsible fishing through the use of traditional boat-seine gears (*tirada*) that operate on sandy bottoms, targeting dense aggregations of small pelagic species and minimising bycatch.

STECF notes that fishing is restricted to specific areas, periods (December-April), and depths and it is conducted and monitored in such a way to minimize interactions with sensitive habitats such as *P. oceanica* meadows.

STECF considers that operational practices (short hauls, manual handling, and small vessel size) significantly limit the risk of unwanted catches. In fact, bycatch levels are very low and mainly consist of small quantities of other teleosts, cephalopods, or invertebrates; elasmobranchs are released alive and are not retained.

Measures proportionate to the objectives, the targets and the expected time frame.

STECF considers that the measures established in the MP are proportionate to the stated objectives, biological targets, and expected timeframe for achieving sustainable exploitation. Catch and effort limits (daily quotas, annual total allowable catches, and vessel authorisations) are appropriately scaled to the size of the fishery (small, seasonal, and artisanal) ensuring that regulation is effective without being unnecessarily restrictive.

STECF notes that the plan applies a graduated and adaptive approach, linking management measures directly to biological indicators such as CPUE, total catches, and fishing effort. When monthly CPUE values fall below pre-defined thresholds, effort reduction measures (e.g., limiting fishing days) are automatically implemented.

STECF considers as positive the co-management committee meetings, and VMS tracking ("green boxes"), to ensure continuous feedback and the capacity to adjust measures in real time if needed.

STECF acknowledges the expected timeframe for maintaining stock stability and habitat protection is short to medium term, consistent with the scale and resilience of the targeted species, which are short-lived and highly productive.

STECF considers that monitoring through onboard observation remains essential to guarantee scientific consistency as regards catches of target species, bycatches and effect on sensitive benthic communities. The regular monitoring of fishing activities during the fishing season is essential to also guarantee the measures provided by the plan are effectively applied in an adaptive manner (e.g. closing the fishing season in due time).

Safeguards to ensure that quantifiable targets are met, as well as remedial actions, where needed, including situations where the deteriorating quality of data or non-availability places the sustainability of the main stocks of the fishery at risk.

STECF notes that the MP includes safeguards and remedial mechanisms to ensure that quantifiable targets, such as catch limits, CPUE thresholds, and environmental protection objectives, are met.

STECF notes that regular monitoring and reporting are mandatory: vessels must submit daily catch forms and sales data, which are analysed monthly by the Directorate-General for Fisheries and discussed in the Co-management Committee, ensuring ongoing assessment of stock status and compliance.

STECF notes that corrective measures are triggered when performance indicators fall below defined thresholds. For instance, if CPUE values drop below the minimum monthly benchmarks, the plan requires an effort reduction, typically by limiting the number of fishing days.

STECF notes that according to REMAR project (final report not available) Vessel Monitoring Systems (VMS or "green boxes") and sales note cross-

checks will provide independent verification of fishing effort and spatial activity, reducing the risk of data inaccuracy or underreporting.

STECF considers that the Co-management Committee, comprising fishers, scientists, and administration representatives, serves as a safeguard body to identify anomalies, recommend adaptive actions, and ensure corrective steps are implemented promptly.

Other conservation measures, in particular measures to gradually eliminate discards, taking into account the best available scientific advice or to minimise the negative impact of fishing on the ecosystem.

STECF considers the boat seine used for the catch of transparent goby as a fishing gear not selective for size. However, the low towing speed and hauling practices strongly reduce the possibility of catching huge amount of other species. In fact, discard levels are minimal, consisting mainly of small quantities of non-commercial teleosts, cephalopods, and invertebrates; elasmobranchs and other protected species are released alive.

STECF notes that the recent update to the regulatory framework (Decree 52/2024) allows additional minimal catches of non-target species, such as cephalopods to be landed when caught incidentally, reducing unnecessary discarding.

STECF considers that the continuous monitoring through sales data, logbooks, and VMS is useful to assess that fishing operations remain within authorised areas and do not expand into ecologically sensitive zones.

STECF stresses that the real time analysis of VMS data cross-checked with maps of sensitive habitats (*P. oceanica* meadows) would guarantee a better application of adaptive management measures.

1.3. Other aspects

Quantifiable indicators for periodic monitoring and assessment of progress in achieving the objectives of a management plan.

STECF acknowledges the Management Plan establishes a set of quantifiable indicators to enable periodic monitoring and assessment of progress toward its biological, environmental, and economic objectives (CPUE, Total annual catches and effort, Number of active vessels, Spatial distribution of hauls monitored via VMS, Economic performance). These indicators are regularly reviewed through the Co-management Committee and reported annually.

2. Evaluate whether the following conditions set by the Mediterranean Regulation are fulfilled - Derogation to the distance from the coast (Article 13 – Paragraphs 5, 9 and 10)

There are particular geographical constraints, such as the limited size of the continental shelf along the entire coastline.

The Balearic Islands have a narrow continental shelf, with limited shallow areas

suitable for fishing. Fishing grounds for *Aphia minuta, Pseudaphia ferreri,* and *Spicara smaris* are located in coastal areas, where these species aggregate seasonally. Fishing further offshore is rather meaningless as the target species are confined to shallow waters.

The fisheries have any significant impact on the marine environment.

The fishery has no significant impact on the marine environment. Operations are conducted on sandy bottoms, in proximity to *P. oceanica* meadows. VMS data confirm limited direct interaction with seagrass beds; however, the assessment of the fishery's impact on Posidonia beds should be strengthened. The light, manually operated gear causes minimal disturbance to the seabed.

The fisheries involve a limited number of vessels and do not contain any increase in the fishing effort.

The fleet consists of a small, stable number of artisanal vessels (approximately 40 authorised, with 10–12 active in Mallorca and 6-7 in the Pitiusas). There has been no increase in fishing effort in recent years, and total fishing days remain consistent with previous seasons.

The fisheries cannot be undertaken with another gear.

The target species are small, fragile pelagic fish that form nearshore shoals; no alternative fishing gears are technically or economically feasible to catch them selectively without causing higher bycatch or environmental impact.

The fisheries are subject to a management plan and carry out a monitoring of catches as requested in Article 23.

The fishery operates under a Multi-Island Management Plan, which includes detailed monitoring of catches and effort through sales data, daily catch forms, and VMS ("green box") tracking. Regular reviews are conducted by a Co-management Committee including fishers, scientists, and authorities.

The vessels concerned have a track record of more than 5 years.

All participating vessels have a longstanding track record, with more than five years of activity in this traditional fishery, ensuring continuity and compliance with the regulation.

The fisheries do not interfere with the activities of vessels using gears other than trawls, seines or similar towed nets.

The fishing areas are restricted and well defined, used exclusively by vessels with tirada gears. There is no interference with other fishing activities or gear types such as trawls or fixed nets.

STECF Conclusions

STECF conclusions are provided separately for Murcia and Baleares.

Murcia

STECF concludes that the documentation provided offers an adequate and comprehensive account of the 2024–2025 fishing season (and previous years), covering fishing activity, control measures, catch characteristics, revenues, and environmental impacts.

STECF concludes that the plan includes the key elements required to limit the exploitation of transparent goby in the Region of Murcia, including restrictions on licenses, limited fishing periods, effort, annual catch limits, harvest control rules, and monthly CPUE thresholds triggering limitations or closure of the fishery.

STECF concludes that the above-mentioned management measures were applied during the 2024/2025 fishing season and during the 2021-2022, 2022-2023 and 2023-2024 fishing seasons.

STECF concludes that in absence of standard analytical stock assessment for *A. minuta*, CPUE remains a key indicator for assessing the status of the resources. Therefore, STECF emphasizes the need to maintain comprehensive monitoring of CPUE throughout the fishing season.

STECF concludes that the adaptive management measures in place may need to be strengthened considering the repeated signs of degradation in the stock observed.

STECF concludes that the yearly maximum catch limit should be revised, for instance by using a 10-year retrospective moving window as reference.

STECF reiterates the need to perform data collection on bycatch of other species.

STECF concludes that uncertainties remain regarding the potential impact of boat seines on Posidonia seagrass beds. STECF therefore suggests that the Member State provides evidence to clarify this interaction, for example through dedicated studies enabling spatial mapping and analysis of the overlap between Posidonia distribution areas and boat-seine fishing activity.

STECF concludes that the implementation of the boat seine management plan in the Murcia Region in the period 2023/2025 meets the conditions upon which the derogation regarding minimum distance from the coast and depth was renewed in 2023.

STECF concludes that the conditions for further extension for a period of three years of the derogation from Council Regulation (EC) No 1967/2006 as regards the minimum distance from the coast and the minimum sea depth for boat

seines fishing for transparent goby in the Spanish territorial waters of the Autonomous Community of Murcia are fulfilled.

Baleares

STECF concludes that the report provides information on the management framework, fishing activity, catch and effort data, and environmental monitoring in accordance with the conditions for the derogation under Article 13 of Regulation (EC) No 1967/2006. However, no information is provided on biological sampling or onboard observation data, limiting the capacity to validate species composition, size distribution, and bycatch estimates.

STECF concludes that the co-management framework functions effectively, involving authorities, scientists, and fishers. The use of sales data, VMS (“green boxes”), and the REMAR project (final report not yet available) provides a sound monitoring base for adaptative management.

STECF reiterates that potential impacts of the gobiid fishery on *P. oceanica* remain a concern for boat seines in the Balearic Islands. Fishing takes place on sandy bottoms adjacent to *P. oceanica* meadows, and monitoring of interactions relies largely on indirect evidence from VMS data. STECF concludes the need for targeted studies to assess the impact of boat seines on *P. oceanica*. The spatial overlap between fishing grounds and *P. oceanica* meadows should be evaluated at each revision of the management plan

STECF suggests that future Management Plans should put emphasis on: (a) onboard data collection schemes for both target and non-target species, including size-frequency distributions (b) providing robust evidence to support for the limited impact of the boat seines on Posidonia beds, (c) improved assessment estimates for *Spicara smaris*, considering total species catches from all gears.

STECF concludes that for the traditional tirada fishery in the Balearic Islands the conditions for the coastal distance derogation are fulfilled. However, STECF highlights the need for enhanced biological and environmental data collection, independent verification of catch composition, and continued development of quantitative indicators to further substantiate the sustainability of these fisheries. STECF considers that the existing co-management framework provides a platform for fishers, scientists, and authorities to design an appropriate and cost-effective process to address the identified needs.

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6.5 West Med MAP compensation mechanism

Background provided by the Commission

In adopting the Western Mediterranean Multiannual Management Plan (West Med MAP), Member States agreed to its objective of achieving Fmsy for all demersal stocks by 1 January 2025 at the latest.

Since 2022, a compensation mechanism has been added to the trawling effort regime in the West Med MAP. It rewards trawling vessels with additional fishing days when they adopt more sustainable fishing practices, such as efficient closure areas, change fishing gear for increased selectivity.

STECF PLEN 25-02 looked at the information available during the first years of implementation of the compensation mechanism to review the mechanism's criteria and their use by the concerned Member States.

Request to the STECF

ToR 1: Management measures to achieve and maintain MSY

In view of the latest STECF assessments in particular on the state of stocks and outcomes of management scenarios of previous STECF analyses, STECF is requested to review and identify possible new management measures that would be applicable to stocks in the western Mediterranean to support a rapid achievement of MSY. These measures, should include, inter alia:

a) Management of the fishing mortality stemming from fixed gear (GNS, GTR, LLS)

b) Identification of clear bathymetries and periods where targeted closures would ensure a decrease in fishing mortality and/or catches, in particular for Norway lobster.

c) Increase in mesh size in the codend sensu stricto and the codend extension as well as their minimal respective lengths

d) Other management measures to be identified by STECF.

ToR 2: STECF is requested to clarify the results interpretation of EWG 25-09 regarding hake biological reference points and identify possible remedial measures for all West Med stocks currently assessed having an SSB below Blim or Bpa and thus requiring the activation of safeguard measures stemming from Art 6 of the West Med MAP.

STECF comments

STECF did not receive any particular background information for this ToR. Instead, it referenced the PLEN 24-02 and PLEN 25-02 reports, as well as

materials from STECF EWG 25-11 and earlier EWG reports (see ToR 5.2 of this STECF plenary report).

STECF notes that the request does not mention explicitly a compensation mechanism, despite the background and title suggesting otherwise. STECF understands the management measure on which the request focus could implicitly be relevant in the context of the compensation mechanism. Therefore, STECF only addressed the specific request. More comprehensive information about compensation mechanisms is available in the PLEN 24-02 and PLEN 25-02 reports, as well as in STECF EWG 25-11 and previous EWGs reports.

STECF has the following comments regarding each ToR:

1. ToR 1: Management measures to achieve and maintain MSY

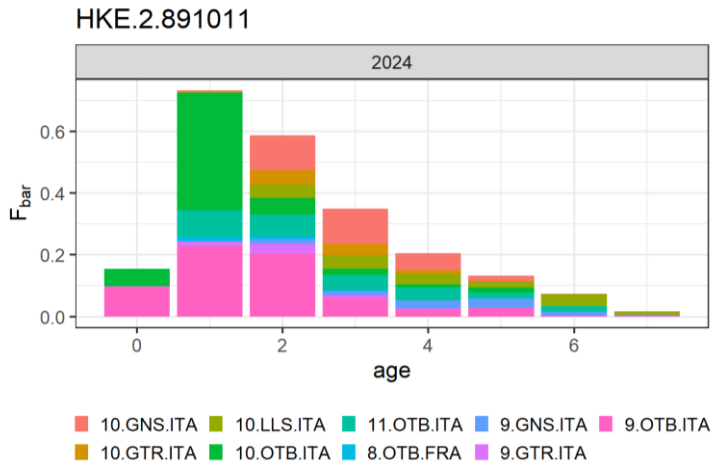
STECF observes that according to EWG 25-09 results, 11 out of the 13 stocks for which assessment and reference points were available, still have a fishing mortality above F_{MSY}.

STECF observes that EWG 25-11 is the 14th of a series of experts working groups dedicated to the evaluation of the fishing effort and catch limit regime in the Western Mediterranean Sea, during which many different management measures have been evaluated through simulation testing, including selectivity improvements, closure areas, catch limits and effort reductions. STECF notes that in most cases, including those in the latest EWG 25-11, the simulations carried out suggest that, while some of those management measures might contribute to further reduction of fishing mortality, further reduction of fishing effort might be required to achieve F_{MSY} for all stocks.

Management of the fishing mortality stemming from fixed gear (GNS, GTR, LLS).

According to EWG 25-11, STECF notes that most stocks experience much less fishing pressure from static gears than they do from demersal trawlers, based on partial fishing mortality estimates. STECF observes that the stock for which static gears seem to have the largest impact is the European hake in EMU 2 (Figure 6.5.1).

Figure 6.5.1. Partial fishing mortality at age estimates by country, gear and GSA for the hake stock in EMU 2 (source STECF EWG 25-11) in 2024.



Source: STECF EWG 25-11.

STECF observes that for many fishing gears, the link between fishing effort and fishing mortality is complex and non-linear. This was confirmed by the recent analysis carried out by EWG 25-11. Moreover, for static gears, PLEN 23-02 noted that available data, measured at vessel level (such as number of vessels, days or hours at sea) are not the most pertinent to set fishing effort baseline and that additional variables at gear level, currently not reported, would be more relevant (e.g. soak time, length of gears, number of hooks). STECF acknowledges that this is likely to hinder the effectiveness of a fishing effort management system for these gears.

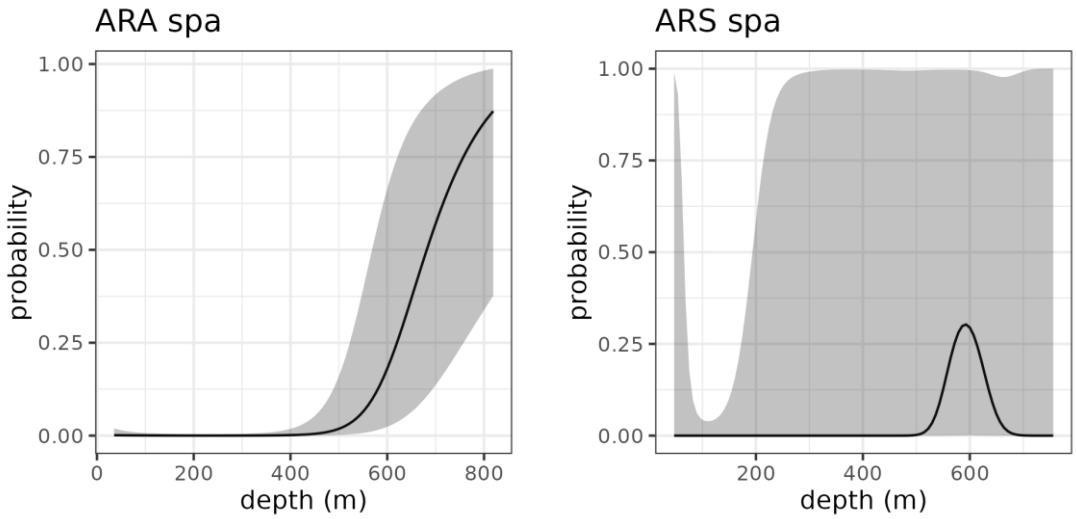
STECF PLEN 24-02 discussed the possibility of setting maximum catch limits (MCL) for West Med stocks. STECF observes that such catch limits have indeed been enforced by the Council Regulation (EU) 2025/219 for hake caught by netters. Their effects were assessed by STECF EWG 25-11, which tested both the effect of current 2025 MCL (all scenarios but F) and the effect of a further 25% reduction of the hake MCL for netters (scenario F). Results show that in EMU 1, MCL for hake might have important socio-economic impacts if the MCL is not adjusted to the level of biomass: hake might turn into a limiting species with gillnetters reaching the catch limit early in the year. In EMU 2, while further reduction of MCL (scenario F) proved to enhance the reduction of fishing mortality, this also comes at the cost of increasing economic impacts. STECF suggests that testing the effect of different harvest control rules to set MCL might be relevant to explore how they would contribute to the reduction of F, while limiting detrimental socio-economic impacts on this mixed fishery.

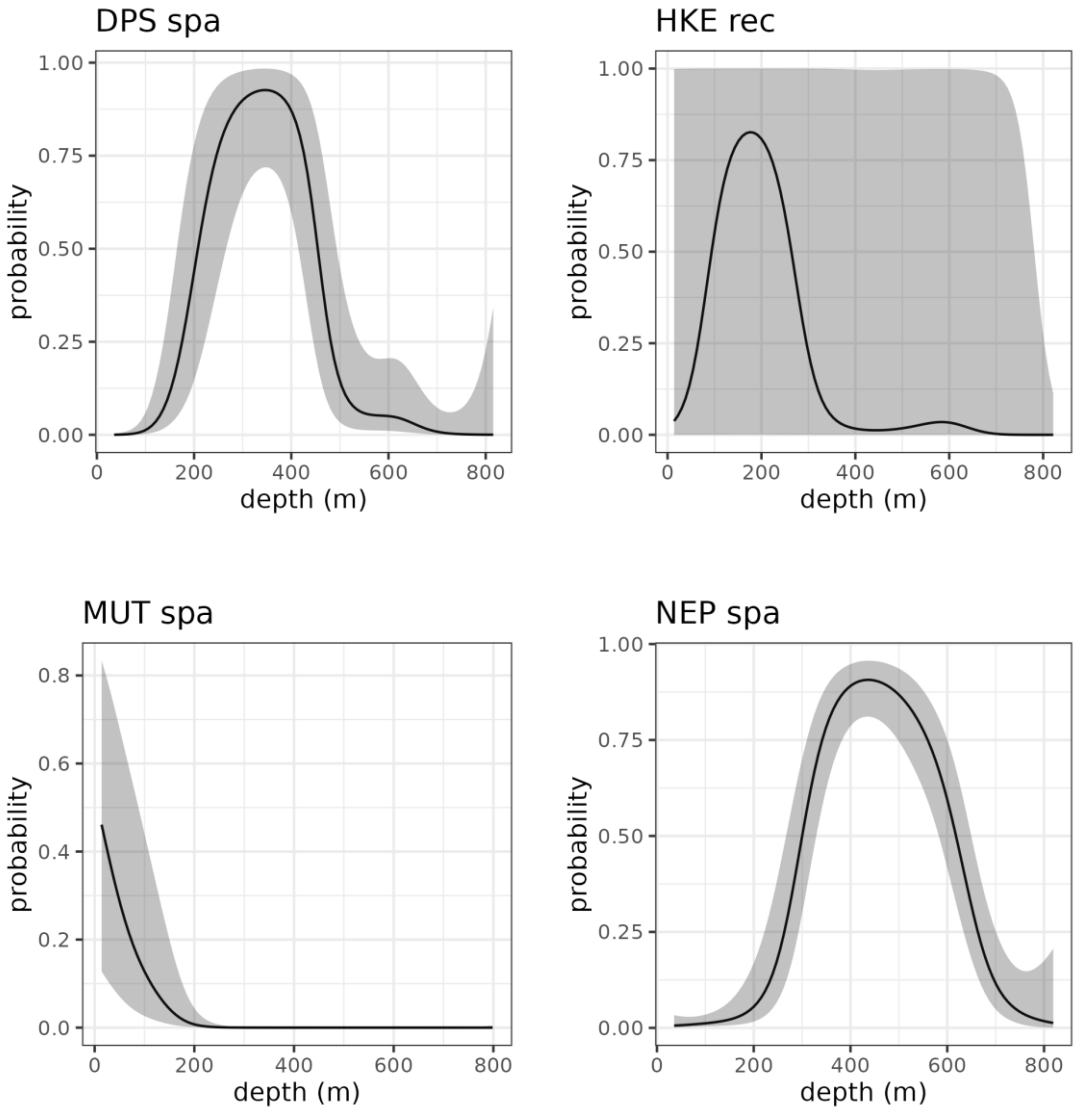
Identification of clear bathymetries and periods where targeted closures would ensure a decrease in fishing mortality and/or catches, in particular for Norway lobster.

STECF notes that many types of closures have been evaluated by different EWGs. STECF further notes that PLEN 24-02 reviewed the bathymetries that would ensure a decrease of fishing mortality on hake juveniles, suggesting that closures areas in depths 0-200m from May to September could be a way to protect ages 0 and 1, even though hake are widespread along the whole continental shelf. This was based on observations of the spatial distribution of hake discards by the commercial fishery in GSA 6 (ICATMAR 2023; Blanco et al. 2023).

STECF observes that species distribution models (SDM) have been developed by *ad-hoc* contracts STECF 2301, 2302, 2345 and 2346 (background document of ToR 6.9 from PLEN 24-02), and describe how the density of the species vary with environmental covariates including depth. As such, the models can be used to describe how the presence and density of hake and other species from the WestMed MAP vary with depth depending on their life stage (Figure 6.5.2).

Figure 6.5.2. Marginal effect of depth on the presence-absence probability of the species distribution models developed by *ad-hoc* contracts STECF 2301, 2302, 2345 and 2346 (adapted from *ad-hoc* contracts) in EMU 1. For each species, two models were fitted in each region (EMU1, Tyrrhenian, and Sardinia): one presence-absence model and one density model. Here, only presence-absence models in EMU 1 are presented since models in EMU 2 and density models provide very consistent insights. Each panel corresponds to a species and lifestage (spa: spawner, rec: recruits). For “adult” Norway lobster, this suggests that the highest densities occur at depth between 200 and 600 m with a peak around 400m).

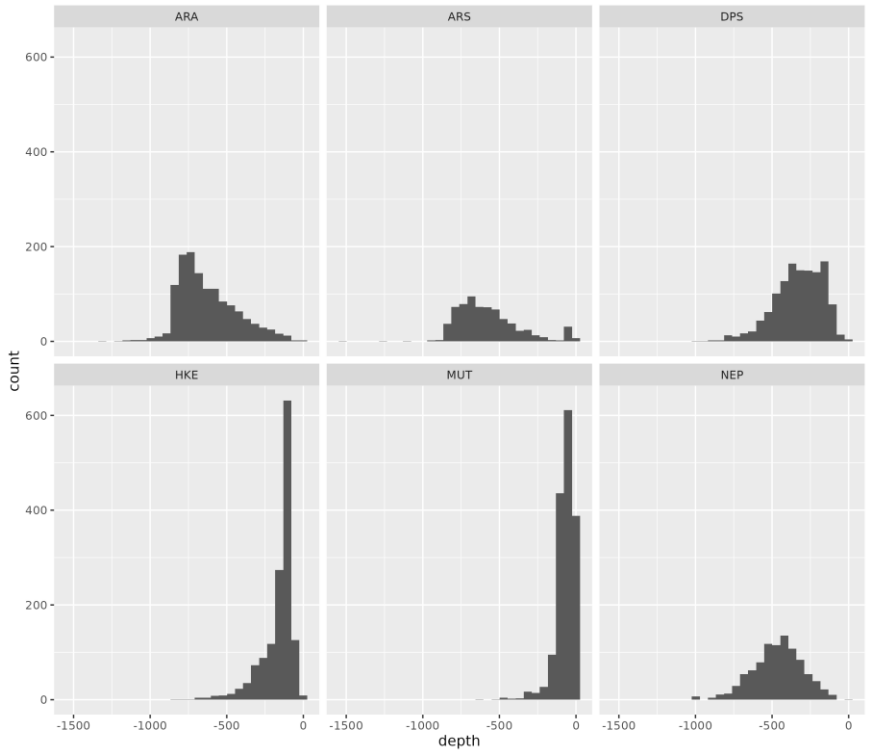




Source: Adapted from ad hoc contracts STECF 2301, 2302, 2345 and 2346.

STECF observes that these SDM were used by the same *ad-hoc* contracts to identify persistent hotspots of density (i.e. areas in which high-density of individuals are recurrently identified among years), that were used by EWG 23-01 to propose closures (the method to identify recurrent hotspots is detailed in the EWG 23-01 report). Figure 6.5.3 shows how those identified hotspots are distributed among depth for the different species.

Figure 6.5.3. Depth (meters) distributions of the persistent hotspots identified by *ad-hoc* contracts STECF 2301, 2302, 2345 and 2346 in EMUs 1 and 2, and later used by STECF EWG 23-01 to propose new closure area (own elaboration). Each panel stands for the species.



Source: Adapted from STECF EWG 23-01.

STECF reiterates its observations from PLEN 24-02 report, underlying that those models and maps were based on MEDITS data which are collected during a single season (theoretically, from May to July), and that as such they cannot necessarily be used for other seasons.

STECF notes that two recent papers have explored the spatial distribution of the Norway lobster and the seasonal distributions of landings in the Catalan waters of GSA 6 (Vigo et al., 2021, 2024). They confirm the results of the SDM models showing that the abundance of the species peaks at depth between 300 and 600 metres and landings peak in late spring and summer months. Previously, Sbrana et al. (2019) explored the distribution of the Norway lobster and deep-water rose shrimp in the full western Mediterranean Sea based on MEDITS data, i.e. the same dataset used by *ad-hoc* contracts STECF 2301, 2302, 2345 and 2346, and provided a consistent picture.

STECF observes that EWG 25-11 and *ad-hoc* contract 25103 (background information of ToR 5.2 of this plenary report) simulated the effect of a closure of fishing ground below 600 metres in both EMU 1 and EMU 2 on different stocks of the WestMED MAP, as well as a closure of 5% of fishing grounds between 200 and 500 metres in EMU 2. STECF also observes that *ad-hoc* contract 25105 reviewed the potential effects of a closure of areas under 600 metres

depth. STECF notes that simulations in EMU 1 using ISIS-Fish showed a limited effect on the fishing mortality of a closure of grounds below 600 metres, but that the model used in the area only accounts for the European hake dynamics, which is not the species most impacted by such closures. In EMU 2, the SMART model predicted that a closure under 600 metres would significantly decrease the fishing mortality of giant red shrimp (ARS), while closures between 200 m and 500 m would contribute to a reduction of F for deep-water rose shrimp (DPS). The SMART simulation predicted limited effects of those closures on Norway lobster (NEP).

STECF notes that data in depth under 800 metres are scarce (for example, MEDITS do not cover area below 800 metres), likely impairing an assessment of closure areas in deeper grounds, where some of the species (e.g. blue and red shrimps, giant red shrimps) or life stage (adult hakes) are found. Moreover, following PLEN 24-02 and PLEN 25-02, STECF notes that different results (Certain et al. 2023; ICATMAR 2023b; EWG 23-11) suggest that permanent closures could be more efficient than seasonal closures to reduce fishing mortality and contribute to stock recovery.

Increase in mesh size in the codend sensu stricto and the codend extension as well as their minimal respective lengths

STECF observes that 'codend' is defined in the Regulation (EU) 2019/1241 as "the rearmost part of the trawl, having either a cylindrical shape, with the same circumference throughout, or a tapering shape. It can be made up of one or more panels (pieces of netting) attached to one another along their sides and can include the lengthening piece which is made up of one or more panels located just in front of the codend "*sensu stricto*". The "extension" is defined in Regulation (EC) No 1967/2006 as "the untapered section, made of one or more panels, between the trawl body and the codend". Article 8(1) in Regulation (EU) 2019/1241 states that "For the purpose of Annexes V to XI, the mesh size of a towed gear as set out in those Annexes shall mean the minimum mesh size of any codend and any extension piece found on board a fishing vessel and attached to, or suitable for attachment to, any towed net.". Regulation (EU) 2019/1241 stipulates that in the Mediterranean Sea, trawlers should use "at least 40 mm square mesh codend. A diamond mesh codend of 50 mm may be used as an alternative to the 40 mm square mesh codend at the duly justified request of the vessel owner" and that "only one type of net (either 40 mm square mesh or 50 mm diamond mesh) is allowed to be kept on board or deployed.

The final part of a trawl net is the part of the net where the catch accumulates and where the size selection process normally takes place. A too short codend + extension piece length hinders this selection process and consequently, the achievement of the desired selectivity. Although Regulation 1967/2006 nor Regulation (EU) 2019/1241 do not explicitly prescribe the codend length, the requirement for identical mesh size in the codend and the extension must

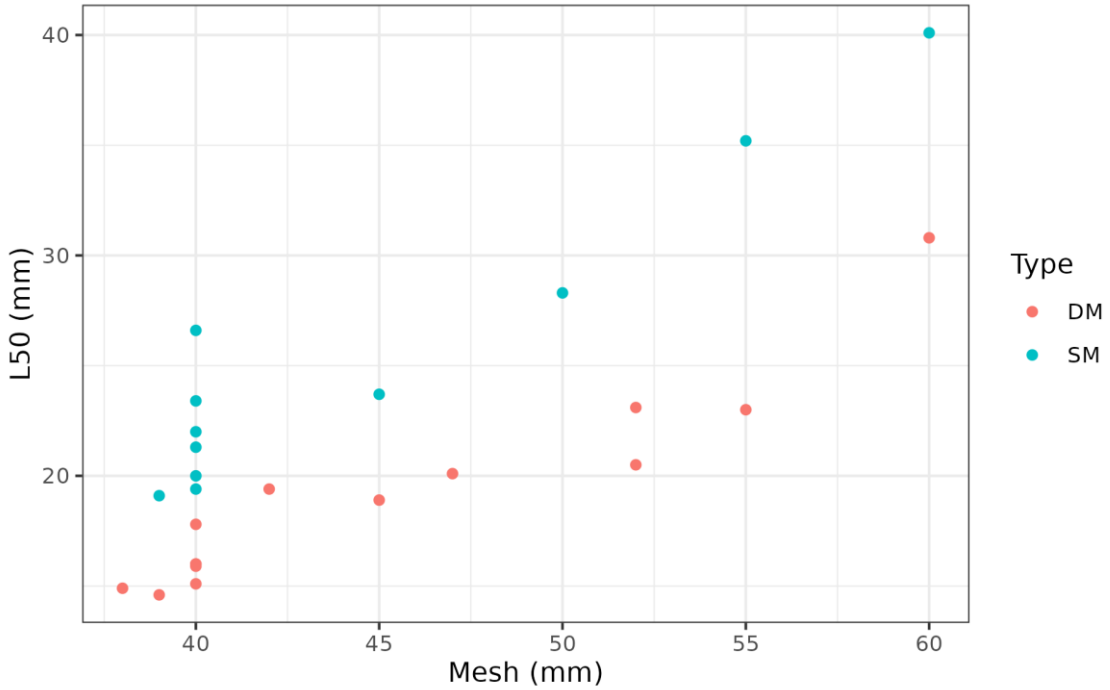
inherently ensure that the catch is effectively subjected to the size selection process. Therefore, STECF considers that the use of the same mesh size in both the codend and the extension piece would overcome these issues. STECF also reiterates its suggestion from PLEN-25-02, that future regulations should define the total length of the terminal part of the net (i.e. codend plus extension). This could for example use the findings of the MyGears project, that found codend lengths in Mediterranean trawl fisheries generally measured between 5 and 7 metres prior to the implementation of EC Regulation 1967/2006.

STECF observes that the relevance of an increase in mesh size has been discussed in PLEN 24-02 and PLEN 25-02 and simulated during different EWGs. PLEN 24-02 discussed the potential benefit of increasing the Norway lobster minimum conservation reference size (MCRS), which was effectively increased in GSA 6 following Council Regulation (EU) 2025/219. EWG 25-11 confirmed that enhancement in the selectivity has contributed to the decrease of the fishing mortality and that removing the measures would hinder such a decrease (scenario B).

PLEN 25-02 noted that the use of 45mm or 50mm square mesh (SM) codend can reduce catches of small-sized individuals, especially of European hake and Norway lobster. However, a significant fraction of undersized fish would still be retained. Based on results of Lucchetti et al. (2021), PLEN 25-02 also noted that achieving an L50 of 20 cm for hake would require a 55 mm SM codend, but that it would strongly affect catches of other species. PLEN 25-02 also reviewed how other modifications (e.g. grid, T90) could contribute to selectivity enhancements, as well as tools that could be used to identify optimal mesh sizes.

Bahamon et al. (2024) and Lucchetti et al. (2021) reviewed the insights of different selectivity experiments on various species in the Western Mediterranean Sea. More specifically, regarding Norway lobster, results confirmed that (1) square mesh enhance the selectivity compared to diamond mesh and (2) that enhanced selectivity can be achieved by increasing further the mesh size (Figure 6.5.4).

Figure 6.5.4. L50 of Norway lobster as a function of mesh size (x-axis) and type of mesh (color, DM: diamond mesh - SM: square mesh) resulting from experiments listed by Bahamon et al. (2024) in the Mediterranean Sea and other regions.



Source: Adapted from Bahamon et al. (2024.)

STECF emphasises that an MCRS increase for Norway lobster without any change in the gear is not likely to decrease the catch of undersized individuals. However, as pointed out by PLEN 24-02, the species is under a high survival landing obligation exemption from January to June and September to December for trawlers (Commission Delegated Regulation (EU) 2024/2992). STECF notes that García-De-Vinuesa et al. (2020) estimated a 74% discard survival in winter, though EWG 18-06, EWG 21-05 and EWG 24-04 noted that Norway lobster survival is challenged by depth. Therefore, STECF notes that that part of undersized individuals could be discarded and survive.

Other management measures to be identified by STECF.

STECF notes that this issue overlaps with ToR 2; therefore, supplementary measures are addressed in the subsequent section.

2. ToR 2a: interpretation of EWG 25-09 regarding hake biological reference points

STECF acknowledges that DGMare provided clarification on this ToR, specifying that the interpretations concern the status of hake in EMU 1 (HKE_1_5_6_7). The biomass for this stock is projected to be below Blim in 2024 and at the end of 2024/start of 2025, above Blim but still below Bpa.

STECF observes that, for most stock assessments, biomass estimates are determined as of January 1st of a given year. These estimates reflect the cumulative effects of a full year of biological processes (including growth, recruitment, maturity and mortality) as well as fisheries activities (total annual catches). Consequently, the biomass calculated at the beginning of each year is based on data obtained during prior years.

However, when the assessment was carried out by EWG 25-09, all catch data and abundance indices until and including 2024 were already available. The stock assessment model estimates biomass at the beginning of 2024 based on survey indices and catch data up to 2024. Since catch data of 2024 was available, the model outcomes included fishing mortality estimates for 2024, which allowed to calculate the status of the population at the end of 2024. (1st January 2025). This estimate does not include the 2025 recruitment, but hake of age 0 is not mature, therefore, it can still be used to provide an estimate of SSB at the end of 2024/start of 2025. STECF also notes that the stock status of hake was estimated to increase during 2024, and that the estimated SSB on the 1st of January 2025 is the most recent stock status estimate derived from the stock assessment, and accounts for the latest development of the fishery.

3. ToR 2b: identify possible remedial measures for all West Med stocks currently assessed having an SSB below Blim or Bpa

STECF notes that Article 6 of the West Med MAP (Regulation (EU) 2019/1022) requires to enforce remedial measures for any stocks for which scientific advice shows that the spawning stock biomass is below Bpa (Art 6.1). This includes measures on fishing effort (Article 7), recreational fisheries (Article 8), closure areas (Article 11), landing obligation (Article 14) or emergency measures defined in Articles 12 and 13 that include technical measures (e.g. selectivity enhancement or MCRS). Further remedial measures shall be taken for stocks below Blim (Art 6.2), including suspending the targeted fishery for the stocks concerned and the adequate reduction of the maximum allowable fishing effort.

STECF observes that remedial measures should be activated for six stocks of target species under the West Med Map (Table 6.5.1), including two stocks that are still assessed to be below Blim at the start of 2024, according to EWG 25-09 results. Among those stocks, two are expected to be above Bpa in 2027 if fished at F_{MSY} (Table 6.5.1).

Table 6.5.1. Status of stocks in 2024 that are assessed below reference points by the EWG 25-09, and status in 2027 forecasted by the EWG 25-09 if fished at F_{MSY}.

		2027 status according to short term forecast		
		below Blim	**above Blim, below Bpa**	**above Bpa**
2024	**below Blim**		Norway lobster 6	Hake 1_5_6_7*
	above Blim, below Bpa		Norway lobster 9 Norway lobster 11 Hake 8_9_10_11	Blue and red shrimp 6_7**

* SSB is expected to be above Blim but below Bpa at the start of 2025
** SSB is expected to be above Bpa at the start of 2025
Source: STECF EWG 25-09.

STECF already addressed a similar request during PLEN 24-02, listing potential remedial measures to decrease fishing mortality affecting stocks below Bpa or Blim. Since the set of species is almost the same, most candidate measures from PLEN 24-02 could still be considered:

- For hake:
  - The potential benefit of a 50 mm square mesh codend.
  - The potential definition of MCL for fixed gears, which were effectively enforced by Council Regulation (EU) 2025/219.
  - The potential benefit of seasonal closure to reduce the catch of undersize hake in fishing grounds 0-200m.
- For Norway lobster:
  - The potential benefit of increasing the MCRS 25 mm CL, which was effectively enforced by Council Regulation (EU) 2025/219 in GSA 6.
- For Blue and red shrimp:

  STECF underlined the potential benefit of an increase of the MCRS to reduce catch of shrimps below 25mm, but with potential important economic loss. PLEN 24-02 also reminded that shrimp fishery in EMU2 is a mixed-fishery where vessels target simultaneously blue and red shrimp and giant red shrimp so that, so that having different MCRS for both species would not be justified in practice. STECF also noted that the use of a 50 mm SM codend could significantly reduce the catch of shrimps under 25mm and that results from ICATMAR (2021) suggested a limited impact in GSA 6. Moreover, STECF reminded that the distribution of the species extends to 3000 metres depth, areas for which data are scarce and, consequently, that simulating the dynamics of the species is complex and uncertain.

STECF observes that the increase of MCRS of Norway lobster could be extended to GSA 9 and 11, as discussed in ToR 1. The potential benefits of closures at specific bathymetries were discussed in ToR 1. STECF considers that MCL for this stock might also be an option to consider.

STECF suggests that any additional remedial measures should ideally be tested/simulated before being implemented and compared to counterfactual simulations that would not include the measure. Such simulations are especially critical in a mixed fishery context since any measures aiming to decrease the fishing mortality of a given species might lead to an effort reallocation affecting other species. Typically, STECF suspects that the implementation of a MCL for Norway lobster or the closure of bathymetries between 200-600 metres might lead to a fishing effort redirection towards other stocks that could be difficult to anticipate.

STECF conclusions

STECF concludes that reducing fishing effort appears to be needed to reach MSY for all stocks but notes that the models assume a linear link between effort and mortality.

STECF concludes that simulations from EWG 25-11 indicate that additional remedial measures including selectivity enhancements, MCRS change, closure areas can and have contributed to reducing fishing mortality.

STECF concludes that explicitly clarifying the implementation context of the Regulation (EU) 2019/1241 that the mesh size in both the codend and the extension piece should be the same and defining the total length of the codend "*sensu stricto*" and extension, would overcome possible inconsistencies among Member States and ensure a more effective selection.

STECF concludes that STECF EWG 25-09 results indicate that the hake stock spawning stock biomass was estimated to be below Blim at the start of 2024, but that, given the catches observed in 2024, it was estimated to be above Blim but below Bpa at the end of 2024/start of 2025.

STECF concludes that for Norway lobster, further measures should be applied according to Article 6 of the West Med MAP (Regulation (EU) 2019/1022). STECF concludes that MCL and seasonal closures could be considered and notes that permanent closures are more effective in reducing fishing mortality than seasonal ones. However, STECF suggests that such measures should be analysed further before being implemented since they might lead to effort reallocation that could affect other stocks.

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6.6 Derogation for 'Volantina' demersal otter trawls in the territorial waters of Slovenia

Background provided by the Commission

In accordance with Article 13(1) of Regulation (EC) No 1967/2006 (hereafter the MedReg), the use of towed gears is prohibited within 3 nautical miles of the coast or within the 50m isobath where that depth is reached at a shorter distance from the coast. At a request of a Member State, derogation from Article 13(1) may be granted, provided that the conditions set in Article 13(5) and (9) are fulfilled.

In addition, a general condition for all derogations is that the fishing activities concerned are regulated by a management plan provided for under Article 19 of the MedReg. Under this provision, Member States are expected to adopt management plans for fisheries conducted by trawl nets, boats seines, shore seines, surrounding nets and dredges within their territorial waters.

In 2013, the Common Fisheries Policy (CFP) introduced new elements for conservation such as the target of maximum sustainable yield (MSY) for all the stocks by 2020 at the latest, the landing obligation and the regionalisation approach.

In line with these two regulations, the plans shall be based on scientific, technical and economic advice, and shall contain conservation measures to restore and maintain fish stocks above levels capable of producing MSY. Where targets relating to the MSY (e.g. fishing mortality) cannot be determined, owing to insufficient data, the plans shall provide for measures based on the precautionary approach, ensuring at least a comparable degree of conservation of the relevant stocks.

The plans may contain specific conservation objectives and measures based on the ecosystem approach to achieve the objectives set. In particular, it may incorporate any measure included in the following list to limit fishing mortality and the environmental impact of fishing activities: limiting catches, fixing the number and type of fishing vessels authorized to fish, limiting fishing effort, adopting technical measures (structure of fishing gears, fishing practices, areas/period of fishing restriction, minimum size, reduction of impact of fishing activities on marine ecosystems and non-target species), establishing incentives to promote more selective fishing, conduct pilot projects on alternative types of fishing management techniques.

Commission Implementing Regulation (EU) 2017/2383 granted a derogation to Article 13(1) of the Mediterranean Regulation for ‘volantina’ demersal otter trawls in the territorial waters of Slovenia. This derogation applies until 27 March 2020. Based on STECF advice in 2020-21, the derogation was further extended until 27 March 2026 by Commission Implementing Regulation (EU) 2023/974 of 16 May 2023 extending the derogation from Council Regulation (EC) No 1967/2006 as regards the minimum distance from coast and the minimum sea depth for the ‘volantina’ trawlers fishing in the territorial waters of Slovenia.

Slovenia, taking into account the STECF Opinion of PLEN 19-03 and 20-02, has re-submitted a request to prolong this derogation after its expiry on 27 March 2026.

Background documents are published on:

https://stecf.ec.europa.eu/document/0ad54569-90a8-4b1d-8a23-8bd648296112

Request to the STECF

On the basis of prior STECF evaluations of the national plans at the basis of the existing derogations, STECF should confirm its prior advice, if possible, and in detail:

ToR 1. Assess whether the management plan contains adequate elements in terms of:

1.1. The description of the fisheries:

- Recent and historical data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such as catch-per-unit-effort;
- Data on length-frequency distribution of the catches, with particular reference to the species subject to minimum sizes in accordance with Annex IX of Regulation (EU) No 2019/1241;
- An updated state of the exploited resources; and
- Information on economic indicators, including the profitability of the fisheries.

1.2. Objectives, safeguards and conservation/technical measures:

- Objectives consistent with Article 2 of the CFP and quantifiable targets, such as fishing mortality rates and total biomass;
- Measures proportionate to the objectives, the targets and the expected time frame;
- Safeguards to ensure that quantifiable targets are met, as well as remedial actions, where needed, including situations where the poor quality of data or non-availability places the sustainability of the main stocks of the fishery at risk; and
- Other conservation measures, in particular measures to fully monitor catches of the target species, to eliminate discards and to minimise the negative impact of fishing on the ecosystem.

1.3. Other aspects:

- Quantifiable indicators for periodic monitoring and assessment of progress in achieving the objectives of the plan.
- If deemed necessary, provide any recommendations and guidance on how to obtain improved scientific/technical supporting material for the plan. This could be done in terms of collection of data, evaluation of the status of the

target stocks, evaluation of conservation measures, impact on the marine ecosystem and monitoring programme.

ToR 2. Evaluate whether the following conditions concerning the derogation to the minimum distances and depths (Article 13, paragraphs 5 and 9) are fulfilled:

- There are particular geographical constraints, such as the limited size of coastal platforms or limited fishing grounds;
- The fisheries have no significant impact on the marine environment;
- The fisheries involve a limited number of vessels, with a track record of more than 5 years, and do not contain any increase in the fishing effort;
- The fisheries cannot be undertaken with another gear;
- The fisheries are subject to a management plan and carry out a monitoring of catches as requested in Article 23;
- The fisheries do not operate above seagrass beds of, in particular, *Posidonia oceanica* or other marine phanerogams;
- The fisheries do not interfere with the activities of vessels using gears other than trawls, seines or similar towed nets;
- The fisheries are regulated in order to ensure that catches of species mentioned in Annex IX of Regulation (EU) No 2019/1241 are minimal; and
- The fisheries do not target cephalopods.

ToR 3. Evaluate the implementation report of the current derogation and any additional documents provided to support the Slovenian request to renew the derogation.

Summary of the information provided to STECF

Five documents were submitted by the Slovenian National Authority (in Slovenian, then machine translated to English by the Commission), and made available to STECF, which are summarized below.

- Official Letter from Slovenia on the Request to extend the derogation for volantina trawls under the Mediterranean Regulation.

This is the official request from the Slovenian Administration for a renewal of the derogation for the *volantina* fishery in Slovenian waters. The document addresses and provides clarifications to the issues raised by PLEN 19-03.

- Report on fishing activities with the volantina trawls in the strip between 1.5 and 3 miles from the coast in the years 2022, 2023 and 2024.

This is a report of a recent study performed by FRIS (Fisheries Research Institute of Slovenia). The study was carried out in 2022, 2023 and 2024, and was made at the request of the European Commission to monitor catches with volantina type bottom trawls. The main objective of the study was to obtain data on the catch composition in volantina type bottom trawls in the strip between 1.5 and 3.0 nautical miles from the coast. The report documents the catches

observed during the monitoring of 28 fishing operations (65 hours of fishing in total) onboard one of the vessels involved in the volantina fishery in the strip 1.5-3.0 NM off the coast.

- Current management plan for marine commercial fishing in the territorial waters of the Republic of Slovenia.

This is the current version of the management plan for marine commercial fishing in the territorial waters of the Republic of Slovenia (hereafter referred to as the MP) implemented since 2021 and expiring in March 2026.

- Decision of the Government of the Republic of Slovenia No. 34200-1/2021/3 from 18 August 2021 approving the Management plan for marine commercial fishing in the territorial waters of the Republic of Slovenia.

This is the official act of the Slovenian National Authority adopting the current management plan (expiring in March 2026).

- Proposed revision of the Management plan for marine commercial fishing in the territorial waters of the Republic of Slovenia, which will be adopted by a government decision after its consideration by the Scientific, Technical and Economic Committee for Fisheries (STECF).

This is an updated version of the management plan for marine commercial fishing in the territorial waters of the Republic of Slovenia (hereafter referred to as the MP). It contains updated data and time series following from the requests by STECF (PLEN 22-03).

STECF comments

In response to the ToRs, STECF has the following comments:

1. ToR 1. Assess whether the management plan contains adequate elements in terms of:

1.1. The description of the fisheries:

Recent and historical data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such as catch-per-unit-effort.

Data presented in the MP is related to the OTB fishing gear in general (OTB_DEF_>=40_0_0), and in all Slovenian waters. In the period 2013-2024, the average landings by bottom trawl fisheries accounted for about half (49%) of the total landings in Slovenian waters. In 2024, landings by OTB amounted to 48% of the total landings by weight and 47% of the value of total landings in Slovenian waters. In the period 2013-2024, the metier OTB_DEF_>=40_0_0 landed 87 species (or higher taxonomic categories). The main target species were whiting (*Merlangius merlangus*), 28.8% of total landings in weight, musky Octopus (*Eledone moschata*), 19.2%, and common (*Loligo vulgaris*), 11.9%.

Discards by bottom trawling decreased from about 30 tonnes in 2013 to 4.7 tonnes in 2024. Landings show a decreasing trend from more than 100 tonnes in 2013 to about 50 tonnes in 2024. The highest discard rates were in non-target species, such as anchovy (*Engraulis encrasicolus*), which represents about 34% of total discards by OTB in weight, and sardine (*Sardina pilchardus*), about 10%. The discards of these two species are mainly due to damaged specimens that are not suitable for landing. For the other species, discards are mostly represented by undersized individuals, below the MCRS.

In 2024, 10 trawlers were active, 4 in the segment VL0612, and 6 in the segment VL1218, compared to a total of 12 vessels operating in 2014. It is though not clear whether all of these 10 vessels are using *volantina*, and if they are using it all year round or in specific periods of the year. The extension of the derogation to fish in the 1.5-3.0 nm strip that Slovenia submitted is related to 11 vessels.

Fishing effort is monitored through the VMS data and by means of fleet observers monitoring program. Fishing effort data (fishing hours and length of fishing routes, km) of *volantina* fishery in the strip 1.5-3.0 nm is provided. Fishing effort slightly decreased over the period 2014-2024.

Data on length-frequency distribution of the catches, with particular reference to the species subject to minimum sizes in accordance with Annex IX of Regulation (EU) No 2019/1241.

The attached FRIS report provides length Frequency Distributions (LFDs) for whiting only, which is considered as the target species of the *volantina* fishery. Despite the onboard monitoring program implemented by FRIS in the period 2022-2024 allowed to identify 18 species listed in Annex IX of Regulation (EU) 2019/1241 in the catches of the v*olantina* fishery, no LFD is provided.

STECF acknowledges that a relevant amount of effort has been deployed to monitor several fishing operations in the period 2022-2024. However, STECF notes that very few size (as well as biological) data have been collected during the monitoring activity. STECF suggests more attention is devoted in collecting size information on both the target species and the bycatch (with special focus on species included in the Annex IX of Regulation (EU) 2019/1241). The monitoring of more than one vessel could also be advisable.

An updated state of the exploited resources.

STECF notes that in the MP, Slovenia presented updated information on the status of the stocks. Most of the species caught by the Slovenian fleet are shared stocks in the Adriatic Sea (GSAs 17 and 18), so the assessment refers to the evaluations performed under the GFCM umbrella until 2024 (reference year 2023). GFCM provided advice for eight stocks, one of them, deep-water rose shrimp (*Parapenaeus longirostris*) is not exploited by the Slovenian trawl fleet.

According to the assessments presented in this MP, with the exception of red mullet (*Mullus barbatus*) and common sole (*Solea solea*), which are sustainably exploited, the remaining small pelagic (anchovy and sardine) and demersal stocks (mantis shrimp, common cuttlefish and hake) are either overexploited or in overexploitation. In line with these observations, the objective proposed for all the priority species in the Slovenian MP is to reduce fishing mortality. No assessment is available for whiting.

Information on economic indicators, including the profitability of the fisheries.
STECF notes that in the MP, Slovenia provides updated information on economic indicators for the whole national fishing fleet up to 2023. Landing values by gear are provided up to 2023.

The MP also includes Information on the fishing fleet characteristics (e.g., tonnage, engine power, days at sea, fuel consumption), including information on economic indicators, such as number of crew employed, total income, and profitability.

1.2. Objectives, safeguards and conservation/technical measures:

Objectives consistent with Article 2 of the CFP and quantifiable targets, such as fishing mortality rates and total biomass.
The management measures proposed in the MP are based on EU regulations, and the GFCM recommendations and management plans for small pelagic and demersal stocks.
At a national level, Slovenia will implement in the coming period: 1) measures provided for by the latest amendment to the Marine Fisheries Act aimed at regulating the fishing fleet and aligning fishing capacity with fishing opportunities; 2) measures to promote sustainable fisheries and the conservation of marine resources in connection with the implementation of the European Maritime, Fisheries and Aquaculture Fund; 3) measures related to the protection of marine ecosystems, which will contribute to the implementation of the provisions of the European Ocean Pact, as well as the recently adopted Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration.

Measures proportionate to the objectives, the targets and the expected time frame.
STECF notes that the objectives included in the MP have biological basis and target reference points according to the GFCM adopted Recommendation GFCM/43/2019/5 on a multiannual management plan for sustainable demersal fisheries in the Adriatic Sea and Recommendation GFCM/44/2021/20 on a multiannual management plan for the sustainable exploitation of small pelagic stocks in the Adriatic Sea. However, STECF notes that the GFCM

Recommendation GFCM/43/2019/5 is applicable until 2026. Therefore, the new Slovenian MP shall take into account the updated GFCM Recommendation on the multiannual management plan for sustainable demersal fisheries in the Adriatic Sea.

Safeguards to ensure that quantifiable targets are met, as well as remedial actions, where needed, including situations where the poor quality of data or non-availability places the sustainability of the main stocks of the fishery at risk;
STECF notes that safeguards and remedial actions set by the GFCM adopted Recommendation GFCM/43/2019/5 are taken into account in the revised MP. In particular, fishing effort shall be set at levels consistent with producing a fishing mortality lower than F_{MSY}, taking into account the decrease in biomass. Remedial measures include suspending the targeted fishery for the concerned stocks and an adequate reduction of fishing effort or catch limit. According to the MP, given that the role of Slovenia of shared stocks in the Adriatic Sea can be considered as negligible, when compared with their neighbouring countries, it is not possible to determine quantifiable targets of the management/conservative measures implemented at the national level.

Other conservation measures, in particular measures to fully monitor catches of the target species, to eliminate discards and to minimise the negative impact of fishing on the ecosystem.
In addition to the monitoring of landings and discards under the Slovenian national work plan on the EU-MAP, STECF notes that to ensure compliance with relevant discard plans, fishers have to fill in fishing logbooks for all quantities and species of fish caught and discarded, including vessels below 10 metres in length.

STECF notes that concerning the implementation of the landing obligation for small pelagic and demersal species subject to minimum size, the Commission Delegated Regulation (EU) 2023/2460 and the Commission Delegated Regulation (EU) 2023/2918 as regards the establishment of *de minimis* exemptions to the landing obligation for small pelagic and demersal fisheries, respectively, in the Adriatic are applicable until the end of 2027.

1.3. Other aspects:

Quantifiable indicators for periodic monitoring and assessment of progress in achieving the objectives of the plan.
STECF notes that quantifiable indicators for the periodic monitoring and assessment of progress in achieving the objectives of the plan are not provided in the MP.

If deemed necessary, provide any recommendations and guidance on how to obtain improved scientific/technical supporting material for the plan. This could be done in terms of collection of data, evaluation of the status of the target stocks, evaluation of conservation measures, impact on the marine ecosystem and monitoring programme.

STECF notes a more robust sampling design for the monitoring of the implementation of the management plan would be beneficial. A comparison between the catches with *volantina* and *tartana* could be helpful to understand whether the *volantina* has different ecosystem impacts. A comparison between catches in the strip 1.5-3.0 nm, and outside this strip would also be informative. STECF notes that the application of data-limited assessment methods could be investigated to assess the stock status of whiting.

2. ToR 2. Evaluate whether the following conditions concerning the derogation to the minimum distances and depths (Article 13, paragraphs 5 and 9) are fulfilled:

There are particular geographical constraints, such as the limited size of coastal platforms or limited fishing grounds.

STECF notes that the information provided in the previous versions of the Slovenian management plan evaluated by PLEN 19-03, PLEN 20-02, and PLEN 22-03, and the updated version provided to PLEN 25-03 is sufficient to conclude that this condition has been met by Slovenia.

The fisheries have no significant impact on the marine environment.

STECF recalls its conclusion from the evaluation of the Management plan in PLEN 20-02 which stated that “The strip 1.5-3.0 nm exploited by the *volantina* fishery is characterized by muddy grounds. Maps are provided to support that the fishery is not performed on sensitive habitats. There is evidence that the impact of *volantina* fishery on seabed habitats is negligible.” STECF considers this is still the case.

STECF notes that discards rates presented in the 2020-2021 report are quite high (40% of the catches in weight were discarded in the onboard samplings of 2020-2021).

The fisheries involve a limited number of vessels, with a track record of more than 5 years, and do not contain any increase in the fishing effort.

The fisheries involve a limited number of vessels, with a track record of more than 5 years. STECF observes that the number of vessels authorized to use the *volantina* trawl is limited to eleven. These vessels have a long track record in the fishery. There is also no evidence of any increase in fishing effort. Therefore, STECF considers that this condition has been met.

The fisheries cannot be undertaken with another gear.

According to the MP, the use of the *tartana* demersal trawl is prohibited in the strip between 1.5 and 3 nm off the coast. The *tartana* demersal trawl is heavier than the *volantina*, and is designed to catch bottom living species, such as common cuttlefish (*Sepia officinalis*) and musky octopus (*Eledone moschata*). STECF notes that the *volantina* trawl has a higher vertical opening and is rigged to have lighter bottom contact and target species swimming higher in the water column such as whiting. However, STECF cannot definitely conclude that the fisheries cannot be undertaken with another gear.

The fisheries are subject to a management plan and carry out a monitoring of catches as requested in Article 23.

The *volantina* fishery in Slovenian waters is subject to a management plan (adopted for the first time in November of 2013) and monitoring of the catches is carried out routinely by the Fishery Research Institute of Slovenia (FRIS). According to the evaluation of the updated MP and the report provided by FRIS for the period 2022-2024, STECF observes that this condition continues to be met.

The fisheries do not operate above seagrass beds of, in particular, Posidonia oceanica or other marine phanerogams.

No new information is provided in relation to seagrass beds. However, STECF recalls its conclusion from the evaluation of the MP by PLEN 20-02: *"... that information provided on Posidonia spatial distribution shows that this condition has been fulfilled*."

STECF notes that the maps provided in the updated MP shows that there is no overlapping between the fishing activities performed with the *volantina* trawl net in the strip between 1.5 and 3.0 nm off the cost and Natura 2000 areas and other protected areas.

The fisheries do not interfere with the activities of vessels using gears other than trawls, seines or similar towed nets.

STECF notes that the information provided in the updated MP is sufficient to conclude that otter trawl fisheries in Slovenia do not interfere with the activities of vessels using gears other than trawls, seines or similar towed nets. The MO explains that Slovenia has established a corridor where a temporal schedule for fishing with demersal trawls and different types of bottom-set nets has been prescribed: fishing with towed fishing gears is only allowed during the night in this corridor. Outside of the corridor, fishing is permitted only if skippers ensure that there is no risk of encountering passive fishing gears.

The fisheries are regulated in order to ensure that catches of species mentioned in Annex IX of Regulation (EU) No 2019/1241 are minimal.

STECF notes that according to the information collected by means of the onboard monitoring program implemented by FRIS in the period 2022-2024, the *volantina* fishery in the 1.5-3.0 nm strip is a multispecies fishery, and a large part of the catch is composed of species listed in Annex IX of Reg. (EU) 2019/1241, with a 4% of the total catches represented by juveniles (e.g., individuals below the MCRS). STECF recalls its comment from PLEN 20-02: “It cannot be considered that the condition that demersal fisheries are regulated in order to ensure that catches of these species are minimal is fully met. Nevertheless, STECF notes that given the limited size of the volantina fishery, these catches of species mentioned in Annex IX of Regulation (EU) 2019/1241 sum up to a total volume of a few tens of tonnes, which represent only a very small amount of the total catches of these species in the area”.

The fisheries do not target cephalopods.

According to the new information provided in the FRIS report on the monitoring of the *volantina* fishery in the period 2022-2024, STECF notes that cephalopods represent a relevant bycatch of the *volantina* fishery in the 1.5-3.0 nm strip (18% of catches and 25% of landings), being musky Octopus (*Eledone moschata*) the second most abundant species in the catches and landings (8 and 12% of total catches and landings, respectively). Common squid (*Loligo vulgaris*) is also a relevant part of the landings of the *volantina* fishery in the strip 1.5-3.0 nm, accounting for 10% of landings in weight; to a less extent, common cuttlefish (*Sepia officinalis*) accounts for 3.5% of the landings. However, STECF cannot conclude that the fishery does not target cephalopods. STECF notes (see also PLEN 20-02 and PLEN 22-03 reports) that given the limited size of the *volantina* fishery, the respective catches of cephalopods represent a small proportion of the total catches of these species in the northern Adriatic (GSA 17), while representing an important source of income for the Slovenian fleet

In addition, STECF notes no advice is available for musky octopus and common squid at the Adriatic level. Only common cuttlefish has a quantitative advice, resulting as ecologically unbalanced and with low fishing mortality.

3. ToR 3. Evaluate the implementation report of the current derogation and any additional documents provided to support the Slovenian request to renew the derogation.

Slovenia provided PLEN 25-03 with a document entitled “Catch structure of bottom-set *volantina* trawls (2022, 2023 and 2024 reports)”. This report contains data collected under the framework of the implementation of the derogation on

volantina fishery in the period 2022-2024 in the strip between 1.5 and 3 nm off the Slovenian coasts.

STECF acknowledges the new information provided by the Slovenian authorities. STECF notes that the updated MP provided by Slovenia is comprehensive and addresses most of the comments previously raised by STECF.

STECF conclusions

STECF acknowledges the new information provided by the Slovenian authorities for the period 2022-2024 to support the MP.

STECF concludes that most of the conditions to justify the renewal of the MP have been met.

STECF concludes that more effort shall be devoted to the collection of size data from the catches of the *volantina* fishery, both for target and bycatch species, with particular attention to the species listed in the Annex IX of Regulation (EU) 2019/1241.

STECF concludes that the proportion of catches of species mentioned in Annex IX of Regulation (EU) 2019/1241 remains substantial. However, as previously advised by STECF, given the limited size of the *volantina* fishery, these catches sum up to a total volume of a few tonnes, which represent a small proportion of the total catches of these species in the northern Adriatic.

STECF concludes that, although it is uncertain whether cephalopods are targeted by the fishery, the proportion of the catch made up of cephalopods is relatively high (around 18% in catches and 25% in landings). However, STECF concludes that the catches of cephalopods in Slovenian waters represent a small fraction of total catches of these species in the northern Adriatic, while providing a relevant source of income for the Slovenian fishing fleet.

6.7 Recommendations of the Regional Coordination Groups

Background provided by the Commission

The Liaison Meeting brings together the chairs of the Regional Coordination Groups (RCGs), end users (ICES, STECF, Regional Fisheries Management Organisations) and the Commission. On the first day of the Liaison Meeting, the main end users are invited to present their data needs and planning of forthcoming activities. On the second day, the RCG chairs exchange on data collection activities, with special reference to regional coordination. This year's Liaison Meeting took place on 23 and 24 September 2025 in Brussels and was chaired by Lucia Zarauz from Spain. Previous Liaison Meeting reports can be accessed through the DCF website.

The RCGs and the Liaison Meeting have put forward numerous recommendations and herewith are selected those that are relevant for STECF. These are either directly addressed to STECF, relate to issues of data collection and/or reporting, relate to data calls that are handled by STECF, and/or STECF EWGs (past or future), highlight possible data gaps or relate to data availability.

Background documents are published on:

https://stecf.ec.europa.eu/document/0ad54569-90a8-4b1d-8a23-8bd648296112

Request to the STECF

Previously, STECF was requested to discuss the RCG recommendations and commented on the relevant recommendations (STECF PLEN 24-03, 23-03, 20-03, 18-03, 17-03). Therefore, for PLEN 25-03, STECF is requested to analyse the recommendations of the RCGs in the light of their possible impact on the scientific advisory process (stock assessment, annual economic report, social data, management measures assessment) and to inform the Commission on the possible effect of the recommendations on the data coverage, quality and availability.

The STECF opinion, after publication of this report, will be communicated to the RCG chairs, the RCG Secretariat and the Liaison Meeting chair, as well as to other end users, where a common task is proposed.

Summary of the information provided to STECF

Three background documents were supplied to STECF:

- The report of the RCG Decision Meeting (held in Brussels, 24 Sep 2025) was provided as background document by the Commission, containing RCG recommendations of 2025.
- The report named "RCG ISSG Métier and transversal variables' response to

STECF on Traplines, November 2025".

- Upon request of STECF, DG MARE marked 10 (out of 30) recommendations and decisions as "priority" for STECF to review.

STECF comments

STECF considered primarily each of the RCG recommendations and decisions selected by DG MARE as "priority" and commented on them in the tables below.

Table 6.7.1. Recommendations from the RCG ECON.

Recommendation 03. Feedback ISSG Methodological Issues - Energy transition of EU fisheries and aquaculture.	
ECON_2025_R03	The end users (EC and STECF) are to provide feedback on whether the suggested activities to cover the end users' data on energy consumption in fisheries and aquaculture align with their needs to monitor energy transition in fisheries and aquaculture. If additional actions are needed to increase knowledge on energy consumption and the link with energy consumption and emissions, this should be done before MSs take action.
Justification	To follow recommendation 2, as decided in the RCG ECON 2024, a specific session on methodological issues under ToR 2 was organised during the ISSG meeting in May 2025, in Kavala, Greece. The objective was to recommend ways to monitor this transition through the existing DCF. At first, a comparison of the national work plan methods was organised. Presentations of data collection on fuel/energy use from specific MS (Netherlands, Greece, and Belgium) were followed by a discussion on the distinction of energy transition between fleet and aquaculture. The analysis of national work plans showed a broad diversity in how data on fuel and energy use are collected across EU MSs. For the fisheries sector, fuel consumption and costs are relatively well covered in most countries, especially when compared to aquaculture. This is often done through direct measurements in some MSs (e.g. blue diesel registries, tax refund records), detailed questionnaires, or administrative data sources. However, the methods differ substantially, and data on fuel types (e.g., diesel, LNG, biofuels) are currently rarely collected, even though this information becomes increasingly relevant in light of energy transition policies. Adding fuel type fields to questionnaires is feasible and already implemented in some cases (e.g., RCG ECON report 2025 for fuel use). For countries without such instruments, a dedicated supplementary questionnaire could be introduced. Where financial accounts are the only source, this information is not accessible without additional data collection.
Follow-up actions needed	The end users are to provide feedback on Whether the suggested activities to cover the end users' data on energy consumption in fisheries and aquaculture align with their needs to monitor energy transition in fisheries and aquaculture. If additional actions are needed to increase knowledge on energy consumption and the link with energy consumption and emissions, this should be done before MSs take action.
Responsible persons for follow-up actions	DG MARE
Time frame / Deadline	By TM 2026
Comments	Agreed
Comments Decision Meeting 2025	No further comments

STECF comments	STECF notes that information on fuel types (e.g. diesel, LNG, biofuels) is becoming increasingly relevant in the context of energy transition policies. However, such data are currently not included in the EU-MAP. In addition, Regulation (EU) 2023/1805 on the use of renewable and low-carbon fuels in maritime transport does not apply to “fish-catching vessels”. Member States could therefore consider including a pilot study in their national Work Plans to improve understanding of the relationship between energy use and emissions in fisheries. However, such initiatives would remain voluntary, which will not ensure consistent and comprehensive information that can be used to compare developments in Member States. STECF therefore suggests that pilots are coordinated between Member States and the methods for collecting data on fuel use are discussed at RCG ECON.
Recommendation 09. Feedback from the ISSG Methodological Issues – Low active and active vessels.	
ECON_2025_R09	The RCG ECON group recommends that the current definition and interpretation of the VUR [vessel utilisation rate] is reassessed and tailored specifically for small-scale fleets by the STECF, as the group acknowledges that these current definition and interpretation does not work well for the small-scale fleet. Guidelines for the analysis of the balance between fishing capacity and fishing opportunities should be amended.
Justification	For the 2022 data reference year, inconsistencies were identified in the AER database regarding the reporting of DaS [days at sea]. In some cases, values exceeded 365 days, while in others, the reported maximum sea days was unusually low (fewer than 50 days) for a significant number of fleet segments. Some of these anomalies can be attributed to sub-segmentation based on activity levels. These reporting issues undermine the reliability of the VUR indicator. To address these inconsistencies, it is essential to strengthen quality control measures and ensure more accurate and comprehensive reporting of both total DaS and maximum sea days, which were missing for several segments. Statistical analysis of VUR indicates that a large proportion of segments (73%) involving vessels under 12 metres fall below the 70% threshold, with variations observed across supra-regions. Although vessels under 12 meters are generally less active than those over 12 meters, they exhibit greater variability in their Days at Sea, contributing to lower VUR values. This variability should be taken into account when defining appropriate VUR thresholds for these segments, i.e. when determining whether a segment should be regarded as ‘in balance’ or not in the context of the STECF Balance Capacity EWG. Maximum days at sea and VUR are mainly used in the context of the STECF Balance Capacity EWG.
Follow-up actions needed	The RCG ECON and ISSG ToR Chair propose that the STECF Expert Working Groups on Annual Economic Report (AER), Fisheries Dependent Information (FDI) and Balance capacity of the fleet assess the impact of the Maximum Days at Sea calculations in relation to fleet activity levels and VUR calculations. The RCG ECON group recommends that the current definition and interpretation of the VUR is reassessed and tailored specifically for small-scale fleets by the STECF, as the group acknowledges that these current definition and interpretation does not work well for the small-scale fleet.
Responsible persons for follow-up actions	STECF EWGs on AER, FDI, Balance Capacity
Time frame / Deadline	EWG meetings in 2026
Comments	Agreed
Comments Decision Meeting 2025	No further comments

STECF comments	STECF considers that the current interpretation of the Vessel Utilisation Rate (VUR) may not adequately capture the operational characteristics of small-scale coastal fleets, which exhibit higher variability and lower activity levels than larger vessels (PLEN 25-02). STECF notes that the Vessel Utilisation Indicator is currently applied in the context of the STECF Balance Capacity EWG and is referenced in the Commission Guidelines for the analysis of the balance between fishing capacity and fishing opportunities (COM(2014) 545 final). Any revision of the VUR methodology should therefore be coordinated with the relevant expert working groups to ensure consistency with existing balance indicators. Apart from the use and interpretation of the VUR, STECF supports the proposal to reassess the definition and methodology for calculating the variable "maximum sea days" that is requested in the AER and FDI data calls. STECF suggests that this task should be accomplished by the RCG ISSG on "Metier and transversal variables issues" which covers tasks related to the definition and calculation of transversal variables and best practices. This work should be conducted in close collaboration with the EWG on Fisheries-Dependent Information (FDI, cf. ToR 5.1 of this Plenary report).
Recommendation 10. Feedback from the ISSG Methodological Issues – Data collection of social aspects.	
ECON_2025_R10	The RCG ECON group recommends that the new social indicator "Financial Position" should be renamed to avoid overlap with an existing Annual Economic Report (AER) economic indicator.
Justification	The STECF EWG 25-02 on social variables clarified 12 new social data indicators among which is the social indicator for "Financial Position". However, this is the name of an indicator that has been already in use for the AER where the financial situation of the European fleet is reported. Overlap in terminology of economic and social analyses may lead to confusion for data collectors, providers and end-users. Consequently, different terminology/names should be considered.
Follow-up actions needed	Next year's STECF EWG dedicated to social analysis should rename the social indicator and notify the RCG ECON when the new name is decided. The RCG ECON will notify MS so that they can update their National Work Plan, accordingly, if needed.
Responsible persons for follow-up actions	STECF EWG Social Aspects
Time frame / Deadline	EWG meeting in 2026
Comments	Agreed
Comments Decision Meeting 2025	No further comments
STECF comments	STECF agrees that "fishers wage index" can be used instead of "financial position". This terminology reflects what the indicator measures - comparing the average wage of fishers with the average wage in the primary sectors (agriculture and forestry) and across all sectors at Member State level. STECF suggests that the EWG on Social Data discusses the limitations of this index in terms of: 1. Capturing income from self-employed fishers 2. Problems identified by EWG 25-13: differences in how Member State report wages; use of salary vs. labour cost from Eurostat data for comparison across sectors.
Recommendation 11. Feedback from the ISSG Methodological Issues – Data collection of social aspects	
ECON_2025_R11	The RCG ECON group recommends that MSs that have included a pilot study on collection of new social data in their WP should provide results of their year-long pilot study or first year work at a dedicated RCG ECON ISSG workshop on social aspects.

Justification	In term of social data collection, seven MSs have included pilot studies in their national WPs; four MS aim to collect data for the full suite of the 12 new social indicators, while three MS have selected to focus on specific social variables. MSs have either indicated a pilot study of one year or the full WP-cycle of three years. In both cases, MSs will accumulate valuable experiences in social data collection. Data sources and methods of data collection should be shared and discussed to define and harmonise guidelines for data collection. Given the increasing end-user demand for comprehensive social data, enhanced effort in data collection is essential to organise, discuss, and review data sources, methodologies employed, context-specific considerations, and challenges faced. The workshop will facilitate the sharing of experiences and assist MSs in identifying, harmonising, and adopting best practices and guidelines for effective social data collection. Further, the workshop will review outcomes and potential new indicators from the upcoming STECF EWG 25-13, "Social Data in EU Fisheries 2: Analysis and Evaluation," as well as from a potential STECF EWG on Social Data anticipated in 2026, if it materialises prior to the ISSG workshop. This approach will facilitate feedback between the ISSG and STECF EWG, enhancing future data collection efforts.
Follow-up actions needed	Organising an ISSG workshop specifically where MSs with case studies to collect social data share and discuss their experiences, data sources and data collection methodologies. Feedback should happen between the ISSG and the STECF EWG on social aspects.
Responsible persons for follow-up actions	RCG ECON and ISSG Chairs with STECF EWG Social Aspects
Time frame / Deadline	March-April 2026
Comments	Agreed
Comments Decision Meeting 2025	No further comments
STECF comments	STECF supports the recommendation for Member States to report back on pilot studies and social data collection at a dedicated RCG ECON ISSG workshop on social aspects. STECF notes the need to review outcomes and potential new indicators from STECF EWG 25-13, "Social Data in EU Fisheries 2: Analysis and Evaluation," and the final report from this group, as well as any potential STECF EWG on Social Data anticipated in 2026, if it materialises prior to a planned ISSG workshop. This approach will facilitate feedback and discussion between the ISSG and STECF EWG, enhancing future data collection efforts and align social data collection and social indicator formulation.
Recommendation 12. Feedback from the ISSG Methodological Issues – Data collection of social aspects	
ECON_2025_R12	The RCG ECON group recommends that the ToR for the STECF EWG on Social Data include analyses of Aquaculture and Fish Processing social data.
Justification	The RCG ECON group recognises the critical importance of social sustainability within the seafood value chain. Although considerable progress has been made in a fisheries context, similar efforts in aquaculture and fish processing remain limited. Expanding enhanced social data analysis into these sectors will provide valuable social implications and support more comprehensive and knowledge-based policy-making. Initiating dedicated discussions will facilitate knowledge-sharing MSs, harmonise methodologies, identify challenges, and develop best practices tailored specifically to aquaculture and fish processing. Furthermore, it is essential to explore potential opportunities for integration or harmonisation of methodologies, definitions, and contextual frameworks across all three sectors (i.e., fisheries, aquaculture, and fish processing) to ensure consistency and comparability. Ultimately, enhancing the scope and depth of social analysis.
Follow-up actions needed	Including an additional ToR in the proposed RCG ECON ISSG social meeting regarding this recommendation.
Responsible persons for follow-up actions	STECF EWG Social Aspects
Time frame / Deadline	Next EWG in 2026

Comments	Agreed
Comments Decision Meeting 2025	No further comments
STECF comments	STECF notes that EWG 25-03 designed the structure of the Annual Social Report (ASOR), which includes the Social Dimension of Fishing, Aquaculture and Processing. The EWG 25-13 ToR stated that “For this first report, due to time and resources limitations, the social analysis of the processing and aquaculture sectors will be limited to a description of the data gathered. Future ASORs will broaden the scope of the analysis.

Source: Own elaborations based on the RCG Decision Meeting report.

Table 6.7.2. Recommendations from the RCG LP.

Recommendation 03. New code for the Longline gear using traplines	
LP_2025_R03	To the Metier code and transversal issues ISSG to add a new code for the Longline gear using traplines
Justification	The LL gear using traplines in addition to hooks is increasingly being used by the EU fleets and data is needed to assess the implications for the exploitation of large pelagic species in particular swordfish.
Follow-up actions needed	ISSG Metiers and transversal issues to work intersessionaly and propose codes (tentatively LLT) to STECF and ICCAT. RCG LP Chairs in collaboration with SISG metiers to consult MSs for fishery specific details to make the information available before RCG LP TM 2026.
Responsible persons for follow-up actions	ISSG Metiers, RCG LP chairs and MSs for the information
Time frame / Deadline	Immediate reaction by ISSG Metier on the tentative code and Intersessionally before RCG LP TM 2026 for the MSs information.
Comments	
Comments Decision Meeting 2025	No further comments
STECF comments	STECF notes that the ISSG Métier and transversal variables group has already responded to this request, by discussing the proposal with the RCG LP and ICCAT SCRS and suggesting inclusion of the code TPL in the métier Level 6. STECF agrees with the ISSG proposal.

Source: Own elaborations based on the RCG Decision Meeting report.

Table 6.7.3. Recommendations from the RCG Med & BS.

Recommendation 01. Review the list of stocks included in the Med&BS Data Call and propose amendments	
Med&BS_2025_D01	The RCG Med&BS agrees to review the list of stocks included in the Med&BS Data Call and propose relevant amendments, for the list to correspond only to stocks included in Table 2.1 of the Med&BS RWP, as a basic criterion. The RCG Med&BS will consider additional criteria, including national landings, management relevance (GFCM priority list and EU multi-annual plans) and data availability, for a possible further refinement of the list of stocks in the Med&BS Data Call.
Justification	The current list of species included in the Med&BS Data Call is extensive, covering more than 60 species. Several of these species are not even included in Table 2.1 – List of stocks of the RWP Med&BS, for which biological sampling is required. The inclusion of such a high number of species burdens the MS and hinders the submission of reliable and robust data that are suitable to be used for evaluating the status of the stocks.
Follow-up actions needed	•The ISSG RWP should review the current list of species included in the Med&BS Data Call and make proposal for its revision to the RCG Med&BS. •The RCG Med&BS should agree on the final proposed list and communicate it to DGMARE, for considering this proposal when preparing the next Med&BS data call.
Responsible persons for follow-up actions	ISSG RWP experts, RCG Med&BS chairs, MS
Time frame / Deadline	Before the end of 2025 for the review. Agreement on the list: March 2026 (NCs meeting).
Comments	
Result Decision Meeting 2025	Agreed
Comments Decision Meeting 2025	No further comments
STECF comments	STECF supports this recommendation and considers that the review of the species list for the Med & BS Data Call could be also of interest to the FDI EWG. STECF notes that an updated list of species can streamline the data collection and submission processes, while reducing the workload on the Member States. STECF further notes the importance of avoiding as much as possible the interruption of time series of biological data that may hamper the provision of advice on certain stocks in the future.
Recommendation 02. Joint technical meeting between DG MARE, ICES, GFCM, ICCAT, RCG Med&BS and RCG LP on the collection and reporting of incidental catch of protected species	
Med&BS_2025_R02	RCG Med&BS recommends the organisation of a joint technical meeting between DG MARE, ICES, GFCM, ICCAT, RCG Med&BS and RCG LP. The meeting will focus on the collection and reporting of incidental catch of protected species, including methodologies used for raising bycatch data, aligning data structures & formats, and sharing good practices & addressing obstacles.

Justification	Improved coordination among MS, DG MARE, GFCM, ICES and ICCAT was identified as a priority to address the growing complexity, fragmentation, and time pressure related to the collection and reporting of incidental catch of protected species. Med&BS MS have expressed difficulties in managing multiple and uncoordinated data requests — especially those coming from ICES WGBYC, GFCM DCRF. Specific challenges include: • Lack of common templates or agreed metadata structure, • Unclear expectations regarding the precision, extrapolation, or raising of observed data, • Inconsistencies in spatial/temporal stratification and treatment of effort data, • Difficulty explaining or justifying apparent “zero” reporting when no interaction is observed. To address these issues, the group agreed on the need for organising a joint technical meeting between all relevant actors (DG MARE, ICES, GFCM, ICCAT, RCG Med&BS and RCG LP) concerning methodologies used for raising and extrapolation of data, aligning data structures & formats, and sharing good practices & addressing obstacles.
Follow-up actions needed	•Initiation of discussions during the Liaison Meeting 2025 on the proposal of organising a joint technical meeting. •Organisation of the joint technical meeting.
Responsible persons for follow-up actions	DG MARE, ICES, GFCM, ICCAT, RCG Med&BS and RCG LP
Time frame / Deadline	Discussions of the proposal: Liaison Meeting 2025 Joint technical meeting: Preferably, before the next RCG Med&BS Annual Meeting.
Comments	
Comments Decision Meeting 2025	No further comments
STECF comments	STECF supports this recommendation which is aimed at harmonizing the collection of data on the incidental by catch of vulnerable species and streamlining the submission of the data avoiding possible duplications among the currently existing data calls.

Source: Own elaborations based on the RCG Decision Meeting report.

Table 6.7.4. Recommendations from the RCG NANSEA Baltic.

Recommendation 02	
NANSEA BALTIC_2025_R02	Recommendation to add to the NWP/RWP/AR Annex 1.1 [quality documentation for biological data] the following questions: 'Was there an effort to optimize the sampling design and sampling protocols?' 'Documentation of efforts to optimize the sampling design and sampling protocols'
Justification	During the RCG TM, optimization of sampling was discussed, this was identified as a suggestion to promote optimization.
Follow-up actions needed	COM to add these questions to the NWP/RWP/AR Annex 1 templates.
Responsible persons for follow-up actions	COM
Time frame / Deadline	Beginning of 2026
Comments	
Comments Decision Meeting 2025	No further comments
STECF comments	STECF refers to the EWG 25-16 where this recommendation has been dealt with in detail (cf. ToR 5.5 of this plenary report). The EWG suggested that the RCG should provide a revised template for Annex 1.1 that can be further considered for the next multi-annual period (2028-2030).

Source: Own elaborations based on the RCG Decision Meeting report.

Table 6.7.5. Decision from the ISSG National Correspondents.

Decision 01. Data confidentiality, data calls and aggregation level	
NANSEA BALTIC_2025_D01	Details on the decision between the National Correspondents on data confidentiality in relation to data submission obligations and next steps, September 2025
Justification	Having regard: – EU Regulation No 1380/2013 consolidated on 01/01/2023 (the Common Fisheries Policy, CFP) stipulating that the EU manages the fisheries resources and the European fishing fleet through the Common fisheries policy, which relies on scientific advice that builds on reliable and solid data collection. – Article 2 and 25 of the CFP that outline the objectives and the requirements for data collection in the fisheries sector. – The Data Collection Framework Regulation sets out the basic principles and the general rules on the collection, management and use of data, in line with the CFP. It contains provisions on: • the multiannual Union program and its implementation by Member States, • communication between the Commission and Member States through the national correspondents, • the role of regional coordination groups, • the storage and sharing of data and • the support to scientific advice. – Article 17 of EU regulation 2017/1004 stipulating that MS shall ensure appropriate safeguards towards data containing (potentially) sensitive information and the provisions to withhold the data. – The outcomes of the RCG-meeting June 2025 in Lysekil Sweden and NC-meeting on 25 June 2025 on data confidentiality in relation to data use, storage and publication Having acknowledged: – The presentations given to NCs during the RCG-meeting in June 2025 related to suggestions to streamline data-calls under the EU data collection framework – The outcome of the EU-questionnaire on data confidentiality on data usage, storage and publication (dissemination). – The discussion and agreement on developing a common template for data-calls in relation to 'projects' to streamline access to DCF-data. – The wish by MS to streamline and unify the steps from data requesters to MS and the subsequent decision making process concerning the response to the request
Follow-up actions needed	Next steps: – NC-decision on drafted template in relation to data requests regarding scientific projects (annex 1) – Further discussions on data confidentiality in relation to ○ Level of aggregation of data (e.g. landings by species, area, MS etc.) (annex II)
Responsible persons for follow-up actions	BEL, BGR, CZE, DNK, DEU, EST, IRL, GRC, ESP, FRA, HRV, ITA, CYP, LVA, LTU, HUN, MLT, NLD, AUT, POL, PRT, ROU, SVN, FIN, SWE national correspondents.
Time frame / Deadline	November 2025
Result Decision Meeting 2025	Agreed
Comments Decision Meeting 2025	No further comments
STECF comments	STECF supports the proposed next steps and emphasizes that this guidance will facilitate FDI discussions on aggregated data publication and dissemination (*cf.* ToR 5.1 of this Plenary report).

Source: Own elaborations based on the RCG Decision Meeting report.

STECF conclusions

STECF concludes that the RCG recommendations selected by DG MARE are relevant for the STECF work and their follow-up will improve the harmonisation and documentation of data collection, improve data quality and robustness of the advice.

STECF suggests that it would be beneficial for the communication between the STECF and the RCGs if the STECF representative at the Liaison Meeting would provide STECF feedback on the RCG recommendations.

7. ITEMS/DISCUSSION POINTS FOR PREPARATION OF EWGS AND OTHER STECF WORK

7.1 West Med MAP work programme in 2026

Request to the STECF

Following previous discussions on stock assessments in the West Med (including in Plenary and during relevant EWGs), STECF is requested to discuss the organisation of EWGs and possible associated data calls for in 2026 and clarify the best possible workflow.

STECF comments

STECF notes that the work undertaken in support of the WestMed MAP in 2025 has been particularly intense and challenging, with increased work burden and difficulties encountered by the various experts. STECF notes then that significant risk may arise when the planning process for delivering advice under the West Med MAP is not effectively aligned with STECF Rules of Procedure. Such misalignment could lead to producing advice that lacks robustness or, in the worst case, failing to provide the requested advice altogether. Additionally, it introduces a risk of demotivating long-standing experts potentially reducing their willingness to keep committing to future EWGs, while also lowering the attractiveness for new experts to join EWGs.

The following comments are intended to constructively outline how the process should be shaped in 2026, so that the intended outcomes can be provided but in a smoother and less stressful way than in 2025.

Comments on the Stock assessment in the West Med (EWG 25-09)

STECF notes that the requirement of a methodological EWG was addressed by organizing two dedicated EWGs in 2025: the methodological EWG (EWG 25-01) and the *ad-hoc* hake EWG (EWG 25-06). STECF considers that both EWGs represented a step forward in streamlining the stock assessment of demersal stocks in the western Mediterranean Sea.

STECF notes that the introduction of *ad-hoc* contracts for data preparation before the stock assessment EWG improved the assessment process.

However, STECF notes that despite these improvements, there are still procedural and methodological issues that need further development. These should include, at least:

- Consider the methodological issues as identified by EWG 25-09 and previous EWGs related to the stock assessment in the West Med.

- For stocks in 2026 that require specific data preparation, it is advisable to continue with the arrangement of *ad-hoc* contracts prior to the assessment EWG. STECF notes that the ToRs of these contracts should explicitly outline the required outcomes for the stock assessment EWG as well as the methodologies to be used during the data preparation process.

- Restructuring the EWG's stock assessment ToRs for clarity and for removing non-essential tasks for the advisory process that could overload the group. Deliverables should be clearly defined, recipients specified, report restructured and ToRs agreed upon several weeks in advance, per STECF rules of procedures.

STECF notes that these measures will help reduce the identified risks, enhance methodologies, and improve communication of the advice given. As a result, STECF believes that holding a dedicated EWG in the first half of 2026 could address these methodological and procedural issues. Additionally, since the stock assessment and effort regime EWGs are closely linked, the coordination between them should also be included in this discussion. Therefore, STECF suggests discussing the draft ToRs of this potential EWG during its 2026 spring plenary.

***Comments on fishing effort regime for demersal fisheries in West Med (EWG* 25-11)**

STECF notes that the final ToRs for this EWG arrived the first day of the EWG itself. This misalignment with the STECF Rules of Procedures introduced some limitations to the production of advice:

- Unable to fully address all theToRs.
- The EWG and STECF was unable to quality control all the results produced.
- Although experts strived to deliver results, outcomes only became available at the end of the EWG. This process heightened workloads and may undermine confidence in the findings.

STECF observes that, in previous years, draft ToRs and preliminary scenarios were reviewed during the summer STECF plenary. This early discussion enabled chairs to initiate the work with modellers on scenario implementation at an early stage. STECF considers reinstating this process for the 2026 timeline, potentially incorporating a wide range of scenarios so modellers can prepare their models ahead of time. STECF is of the opinion that it may be easier for modellers to cope with anticipating a wider range of scenarios, to prepare the models, even if all scenarios may not be required in the final ToRs, than to require new unanticipated scenarios at short notice (e.g. spatial scenario in EWG 25-11). STECF notes that this preparation can be done even before knowing the results of the stock assessment EWG.

STECF considers that *ad-hoc* contracts for the modelling groups should be held before the WestMed MAP evaluation EWG, allowing the EWG to focus on running the models and reviewing the results.

STECF notes that in 2025, the SMART modelling team, due to time constrains, only could run their model during a separate *ad-hoc* contract after the WestMed MAP evaluation EWG. The experts expressed positive feedback as they had more time to work than they usually have during the EWG; and they also benefitted from having had the ToRs clarified during the EWG. It should be noted though that all *ad-hoc* contracts should be built in a coordinated manner across modelling groups and in agreement with the EWG chairs.

Comments on European hake in GSA 1567 assessment revision EWG 25-06 and GFCM European hake benchmark

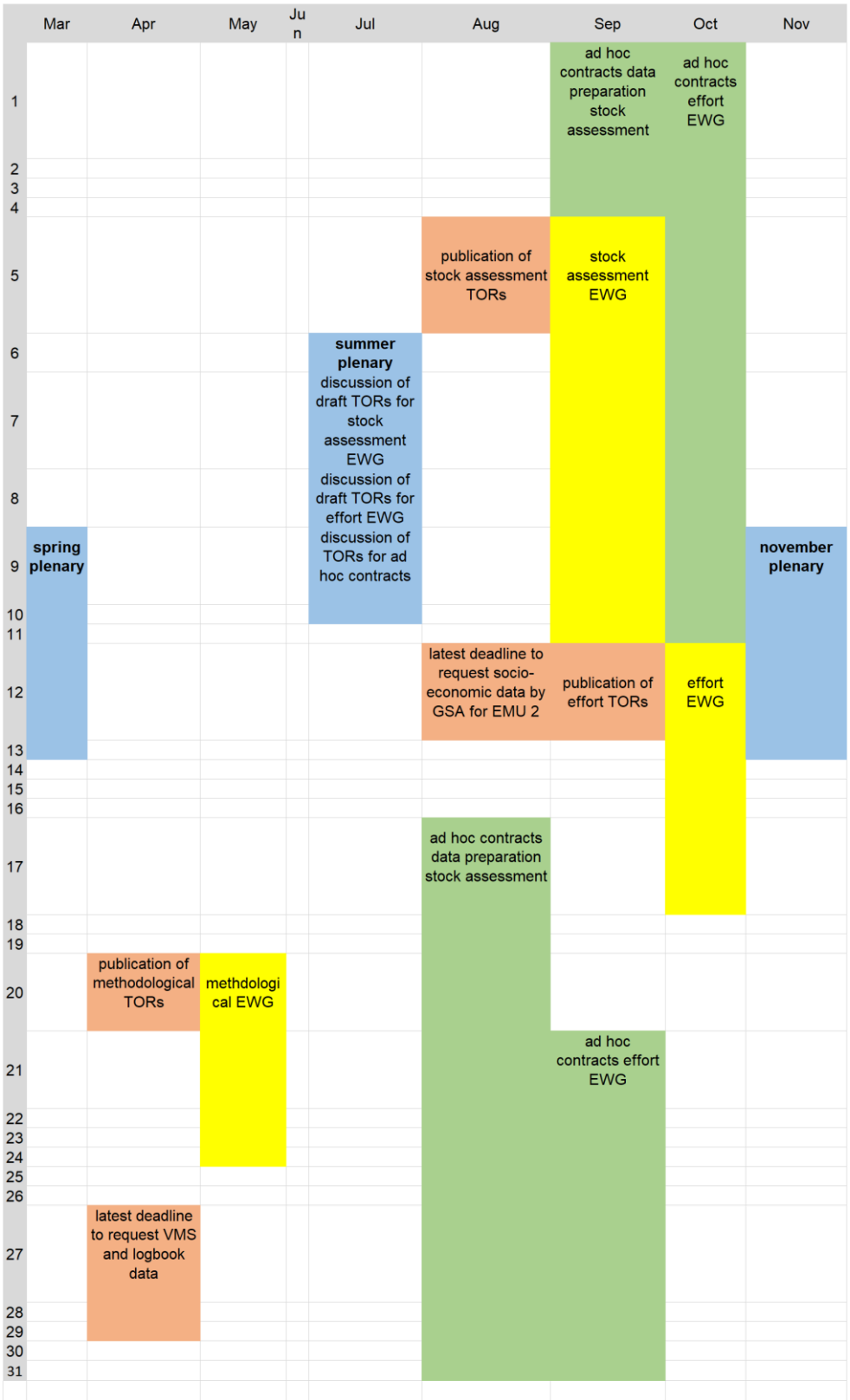
STECF is tasked with providing advice to support the implementation of the West Mediterranean Multiannual Plan (MAP). As part of this process, STECF has been actively involved in the stock assessment process for European hake in GSAs 1, 5, 6, and 7, providing scientific advice and contributing to the improvement of assessment methodologies and data quality through EWGs 25-01, 25-06, 25-09 and participating in the GFCM WG on hake in 2025.

STECF acknowledges the draft agenda for the November 2025 data preparation meeting, which will review data, address methods, and compile datasets for the European hake benchmark assessment in GSAs 1, 5, 6, and 7 planned for February 2026 by GFCM. STECF notes that there are several topics related with the assessment of the hake stock already identified (EWG 25-09). However, it remains unclear what role STECF (and JRC) will have in the development of ToRs for the benchmark meeting.

Irrespectively, STECF considers that if changes in the current stock assessment process (e.g. changes to the estimator or configuration of stock units, etc.) are going to be made, they should first be tested through simulations in a MSE (management strategy evaluation), to evaluate their impact on the management of the relevant stock and their robustness to miss-specifications of assumptions.

STECF notes the uncertainty regarding the future process to follow if STECF is unable to incorporate its input or considerations (dates, review process, etc.) into the benchmark ToRs. This lack of clarity could hinder effective coordination between STECF and GFCM. STECF notes that if it is to remain accountable for the advice, it must have a paramount role in the assessment setup and adoption of results.

Figure 7.1.1. Suggested timeline of EWGs and deadlines for 2026



Source: own elaboration at PLEN 25-03.

Comments on Long-term timeline

STECF observes that re-running the data preparation and stock assessment procedure for all the stocks targeted by the WestMed MAP every year is overloading the EWG. Therefore, revising the list of stocks identifying the ones in need of specific data preparation in 2026 and those for which stocks assessment is necessary in 2026, may reduce this overload. Such selection or the potential introduction of a biennial evaluation system could be evaluated during the previously proposed methodological EWG.

STECF observes that a better understanding from the Committee on how and which outcomes produced by the WestMed EWGs are translated into the annual Fishing Opportunity regulations would improve the quality and communication of the advice provided.

STECF notes that an earlier timing of the Med and Black Sea data call would allow modifying the timeline of the WestMed MAP EWGs, thereby giving more time between the stock assessment and MAP evaluation EWGs; which could help in the workflow for both EWGs (see Figure 7.1.1).

Comments on Long-term strategy

STECF notes that the need of a strategy concerning the planning of work related to scientific advice on the West Med MAP was first highlighted by the STECF committee in 2022 (PLEN 22-03) and was then further developed and expanded in a short and a long-term strategy plan between December 2024 and January 2025.

STECF notes that some of the points within the short-term strategy, such as dealing with methodological issues highlighted by EWG 24-10 during EWG 25-01 and the implementation of *ad-hoc* contracts for data preparation in view of EWG 25-09, were implemented during 2025.

STECF notes that the suggestion of introducing stock coordinators within the STECF framework was discussed in PLEN 25-02 and considered to not be suitable and would not improve the process.

STECF notes that the introduction of an external revision process for the stock assessment procedure in STECF was not implemented in 2025 but could be considered for 2026.

STECF notes that the ideas in the long-term strategy will need a dedicated discussion to determine whether, and how, the framework for STECF stock assessments and MAP evaluations should be revised. The points are the following:

- Ways to ensure innovation and improvement in the assessment process that does not necessarily rely on creating a benchmark process that STECF is not well suited to because of the nature of its functioning.
- Improving expert knowledge and availability for STECF EWGs particularly in the Mediterranean area.
- Continue developing the best/cutting edge science by refining methodologies and procedures to tailor the STECF advisory process according to regional, environmental, and fisheries-specific characteristics. Additionally, implement a backup system to ensure advice can still be provided when circumstances change.

STECF conclusions

STECF concludes the spring plenary 2026 could plan data preparation needs, both for the stock assessment EWG and for the WestMed MAP evaluation EWG.

STECF concludes that the data preparation for the stock assessment in the West Med EWG should be done under *ad-hoc* contracts as in 2025.

STECF concludes that *ad-hoc* contracts should be developed to allow modellers to parameterize and run models for the WestMed MAP evaluation EWG. This will enable the EWG to concentrate on running models and discussing results.

STECF suggests holding an EWG dealing with methodological and process related issues identified by the stock assessment EWG and the WestMed MAP evaluation EWGs, and to discuss the draft ToRs during the STECF spring plenary. This discussion should also include the coordination and alignment between the two EWGs.

STECF concludes that the EWG dedicated to the evaluation of the WestMed MAP (which is generally held in the autumn) builds on all the work developed by other EWGs (WestMEd MAP methodologies, stock assessment methodologies, stock assessment of West Med stocks) during the year and on the discussions held during the spring and summer plenaries. Therefore, it is of high importance that the information necessary for the correct implementation of the EWG are available at the time requested by the proposed 2026 timeline. Specifically, having the discussion of preliminary TORs in the summer plenary and the definition of final TORs a month in advance of the EWG (as per STECF Rules of Procedure) is crucial to maintain a high quality in the delivery of advice. STECF concludes that respecting such a timeline will reduce the risk of impairing the delivery of advice on the WestMed MAP.

STECF concludes that the possibility of obtaining information from DG MARE regarding the resubmission of historical time series by stock from Member States for the Western Mediterranean area during the official data collection process should be ideally addressed at the spring plenary in 2026. Incorporating this streamlined information flow would facilitate improved planning for stock assessments within the West Med EWG, including updates to the list of stocks requiring assessment and identification of historical data needing revision.

STECF concludes that the timing of stock assessments and MAP evaluations should be considered alongside possible changes to the MedBS datacall, so that there is a longer time lag between the two working groups.

STECF concludes that not knowing the ToRs of the GFCM benchmark on European hake in EMU 1 that will be held in February 2026 and not knowing what the role of STECF will be in that context impairs the possibility of building coordination between STECF and GFCM.

STECF concludes that the long-term strategy presented should be discussed among STECF, DG MARE and JRC to determine its potential for phased development. Should this strategy prove unsuitable within the STECF framework, alternative approaches ought to be considered to enhance stock assessment and WestMed MAP evaluation processes within STECF.

7.2 CFP monitoring

Background provided by the Commission:

In 2026, DG MARE will continue to request STECF to report on the performance of the CFP with regards to achieving the MSY. For that purpose, JRC will compute a series of indicators that will be presented in an adhoc report.

At the July plenary the JRC presented some intersessional work and discussed the results with the STECF regarding the following points:

1. Inclusion of a Selectivity Indicator in the set of indicators for the future CFP Monitoring reports.
2. Alternative mean estimators that could be applied to the model-based indicators.
3. Improvement of the inclusion of stocks assessed with Surplus Production.

Request to the STECF:

The STECF is requested to review JRC's inter-sessional work following feedback received at the PLEN 25-02 regarding:

1. The development of a selectivity indicator to be tested in the CFP Monitoring report 2026.
2. The modification of model-based indicators.

This will be used as a basis to make adjustments to the protocol to compile the CFP monitoring report 2026.

Summary of the information provided to STECF

In accordance with the advice provided by STECF (PLEN 25-02), the JRC presented at PLEN 25-03 the inter-sessional work performed. This work, included as background documentation under the title "CFP Monitoring Model Based Indicators", forms the basis of the subsequent sections.

The work presented dealt with five items:

- Further investigations into the selectivity indicator
- Using the median instead of the geometric mean in the model-based indicators
- Standardising the input data for biomass model-based indicator
- Separating Age Structured Models (ASM) and Surplus Production Models (SPM) in the F/F_{MSY} indicator

- Maintaining a constant set of stocks used in the F/F_{MSY} model-based indicator.

1. ToR 1. The development of a selectivity indicator to be tested in the CFP Monitoring report 2026

Following the conclusions of PLEN 25-02, JRC conducted inter-sessional work comparing the three versions of a selectivity indicator: Fjuv/Fbar, Fjuv/Fadult, and Fjuv/Fapical. The analysis was carried out on a set of publicly available stocks provided by the FLR repository. The time series of these stocks extended up to 2020. The amount of overlap between juvenile ages and Fbar and Fapical ages was examined. Substantial overlap was observed between Fbar and juvenile ages (36 out of 62 stocks), while the overlap between Fapical and juvenile ages was quite significant (14 out of 62 stocks). This was found to hinder the quality of these two indicators because they are expressed as ratios. Further comparisons were performed, and a pairwise correlation was computed for all three indicators by stock. The indicators were highly correlated, indicating that they perform similarly in describing the trajectory of selectivity.

2. ToR 2. The modification of model-based indicators

Median vs Geometric mean

The first set of results was in relation to the replacement of the geometric mean by the median as a mean estimator in the model-based indicators. JRC presented all the indicators that are usually produced in the annual report and showed that using the median will not change the overall trend perspective and will comply better with the assumption of the modelling. This result was already presented at PLEN 25-02.

Standardising the input data for the biomass indicator

This issue is especially relevant for the Category 3 stocks indicator but also to a lesser extent for the two other B/B_{2003} indicators (Category 1-2 for the north-east Atlantic (NEA) and the Mediterranean and Black Sea (MED)). The presence of large values and short time series used as input data creates an increase in the indicator, which is considered not robustly representative of actual trends. To address this issue, and in the absence of a B_{MSY} estimate for all the stocks considered in this indicator, the report produced by the JRC proposed to standardise the input data by:

- Blim (when available)
- Bpa (when available)
- the average of the available time series
- an intercept estimated via a linear model fitted to the available time series

The standardisation by reference points (Blim and Bpa) gave results that could have been considered for standardization. However, these reference points are not available for all the stocks in the Mediterranean and for any of the ICES Category 3 assessments. Therefore,

JRC considered that it would be more feasible to standardise by the average or by the intercept of a linear model fitted to the time series. Both were considered viable options. Using the average was deemed easier to interpret while the intercept seemed to be better suited to account for different time series lengths.

The results indicate that standardising the input dataset with different constants (Blim, Bpa, mean, or intercept) minimally affects the indicator trajectory in both sea basins.

In the NEA Category 1-2 assessments, the results of using a standardised input dataset does not change the trajectory of the indicator.

For NEA Category 3 as well as for the MED indicators, some time series start later than 2003. In the MED, standardising the input time series changed the biomass decreasing trend over the years 2003-2009. In the NEA Category 3 assessments, standardising the input time series led to a smaller increase of the indicator over the years 2010-2015.

In conclusion, standardising the time series leads to a more consistent indicator when the input dataset includes large differences in the scale of the time series (especially when the time series starts after 2003).

Separating Age Structured Models (ASM) and Surplus Production Models (SPM) in the F/F_{MSY} indicator

The JRC presented the indicator F/F_{MSY} for the NEA and the MED using as input all the stocks together and then separating the Age-Structured Models (ASM) from the Surplus Production Models (SPM). Results showed that for both sea basins, the indicator including only ASM assessments was higher than the indicator including only SPM. The difference was larger in the MED than in the NEA. It is to be noted that SPM are increasingly used to provide quantitative advice on fishing opportunities in both sea basins.

Maintaining a constant set of stocks as input to the F/F_{MSY}

During PLEN 25-02, it was proposed to evaluate the effect of the inclusion of new stocks in the input dataset of the model-based indicators F/F_{MSY}. An analysis was run using the stocks that had an assessment for all the years since 2021. The same exercise was subsequently run for the years 2022, 2023 and 2024 and compared to 2025. The number of stocks considered depending on the baseline year used is as follow:

- 2021: NEA (42) and MED (29)
- 2022: NEA (51) and MED (31)
- 2023: NEA (57) and MED (54)
- 2024: NEA (59) and MED (60)

The analysis was run for the NEA and the corresponding MED using the 2025 dataset. The results showed that maintaining the same stocks as input of the F/F_{MSY} indicators did not change dramatically the trend and level of the indicators. However, it creates a risk of dropping stocks following a benchmark that would lead to a downgrade of the assessment or a change in the stock identity.

STECF comments

STECF discussed the materials presented by the JRC, with the objective of updating the CFP monitoring protocol (Gras et al., 2023) for the 2026 exercise.

Current open issues referred to the inclusion of an indicator for changes in selectivity, use of the median to summarize JARA's outcomes, standardization of data inputs to compute the biomass indicator for Category 3 stocks, and aggregation of surplus production models and analytical models' outcomes in a single indicator.

1. ToR 1. The development of a selectivity indicator to be tested in the CFP Monitoring report 2026

STECF considers that the indicator for selectivity is mature enough to be included in the body of the report. This indicator has been in development since 2018, it was the subject of a scientific paper (Vasilakopoulos et.al 2020) and of several investigations in recent years (EWG 20-02, EWG 21-07, EWG 22-19 and Mantopoulou Palouka et al., 2024), also in support of the Technical Measures Regulation.

Of the candidates presented by JRC, STECF decided to select the indicator Fjuv/Fadults. This indicator is more stable, as both quantities do not overlap in terms of age range and is easier to communicate than the alternatives.

STECF notes the operational constraint for the calculation of this indicator in terms of data availability. Calculating Fjuv/Fadults, requires stock specific data on maturity at age and fishing mortality at age, which aren't always available although they may be reported in the annual stock assessment reports. STECF notes that a solution will have to be found between ICES, GFCM and STECF to make these data available to the JRC and updated on an annual basis.

2. ToR 2. The modification of model-based indicators

Median vs Geometric mean

In relation to the use of the median to compute the indicator instead of the geometric mean, STECF notes that it was previously decided to use the median (PLEN 25-02).

Standardising the input data for the biomass indicator

The biomass indicator for Category 3 stocks that uses JARA takes as inputs the unscaled time series of the stocks (e.g., survey abundances or CPUEs), which is afterwards standardised by the average of the 2003 biomass. This situation can introduce instability in the indicator, as the scale of the individual time series can be very different. The JRC provided a portfolio of tests on this subject. STECF discussed the opportunity of replacing this indicator for the 2026 exercise and supported JRC's suggestion to move forward with standardizing input data by its mean before adjusting JARA. Using the mean is easier to interpret and does not require fitting a model to get the intercept, which in itself has limitations and assumptions.

Separating Age Structured Models (ASM) and Surplus Production Models (SPM) in the F/F_{MSY} indicator

STECF notes that the aggregation of outcomes from both Surplus Production Models (SPMs) and analytical models into a single indicator, such as fishing mortality trends, has been discussed for some time. This issue became particularly prevalent in recent exercises, due to the wider use of the surplus production model SPiCT for European stocks to provide quantitative assessments making it a significant component of the stocks included in these indicators. STECF recognizes that this characteristic of the model-based indicators for F is not straightforward to resolve. The tests presented by the JRC show a significant difference between the outcomes of the two model types. Because of this difference, the indicator, which takes an average across all stocks, may end up giving a value that is very unlikely, something that often happens when the data follow a bimodal distribution.

Nevertheless, even when splitting between two indicators, the interpretation of results remains difficult; this indicates that it is still not possible to definitively disentangle the model effect from the stock effect. For example, the observed difference in F might be due to two potential causes: the models estimate different biological or management quantities; or stocks assessed with SPMs have more recent exploitation histories and are consequently not as over-exploited as the traditional demersal stocks, which typically have more extensive data and longer time series.

STECF notes thus that further work is still needed to fully understand the reason why SPM report substantially lower Fs. However, STECF considers that while the differences are not fully understood they are large enough and should be reported, to make sure the trajectories of the two groups of stocks are known. Therefore, STECF is of the opinion that the indicator split by model type should be included in the main body of the report.

Maintaining a constant set of stocks used in the F/F_{MSY} model-based indicator

Regarding the stability of the sampling frame, based on the results presented by the JRC, STECF notes that there is no need at this time to change the methodology currently used since there's no difference between the two cases studied.

Other comments

In addition to the points analysed by the JRC in the inter-sessional work, STECF notes that the revision of the recruitment indicator still needs to be done.

STECF conclusions

STECF concludes that the CFP protocol to be followed for the 2026 exercise be updated on the following items:

- Include the selectivity indicator Fjuv/Fadults in the main body of the report, provided that the necessary age-based data are made available.
- Use the median instead of the geometric mean for all model-based indicators.
- Update the biomass model-based indicators using input data standardized by the mean of the whole available time series for stocks with time series starting after 2003, and the time series starting in 2003 for stocks with time series starting before 2003.
- Include in the main part of the report the model-based indicators for F computed for surplus production models and analytical models, separately.

Regarding the stability of the sampling frame, based on the results presented by the JRC, STECF concludes that there is no need at this time to change the methodology currently used.

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7.3 EWG 25-17 Apprehending, assessing and predicting climate change impacts on international fisheries

Background provided by the Commission:

In the PLEN 25 01 STECF acknowledged the critical importance of incorporating climate change considerations into the management of fisheries resources within the framework of RFMOs. STECF suggested considering a phased approach to this topic where the first phase would be taking stock of the current scientific knowledge and the procedures employed by RFMOs (phase 1), followed by a discussion to identify which questions that can be addressed expediently to support DG MARE's needs (phase 2). The final phase was suggested to focus on developing a process to enact this advice (phase 3).

STECF suggested that the first phase to be carried out intersessionally and reported in the STECF Plenary. The JRC has taken on this work and has completed a review to address the points below that were drafted in the STECF PLEN 25-01 advice.

1. **Phase 01 – Take stock of scientific findings on impact and mitigation of climate change in fisheries management in RFMOs**
    a. Compile a snapshot of the current state of the art knowledge on climate change for each of the listed RFMOs.
    b. Compile current scientific approaches capturing the potential effects of climate change on each of the RFMO's fisheries and fish stocks.
    c. Compile the current data collection and scientific processes in each of the RFMOs addressing climate change impacts.
        i. Highlight the EU contribution to these processes and EU's role in defining policies.
    d. Compile current procedures used in each of the listed RFMOs that contribute to accounts for impacts of climate change
    e. Do a literature review regarding climate change impacts in fisheries targeting species managed by RFMOs.

The review addresses the integration of climate change considerations into the management frameworks of four Regional Fisheries Management Organizations (RFMOs) in which the European Union (EU) is a contracting party: ICCAT, NAFO, IATTC, and IOTC. These considerations are key for sustainable fisheries management, as climate change poses significant challenges to the sustainability of fisheries and the effectiveness of existing conservation and management measures. This report provides a snapshot of the current state of knowledge on how RFMOs currently incorporate climate change considerations into their scientific and management processes. It is intended to support the EU in shaping a

strategic, science-based approach to further integrate climate change considerations into the management frameworks of RFMOs.

Request to the STECF:

The STECF is requested to:

1. Review the intersessional work (report) done by JRC: Review of climate change integration in Regional Fisheries Management Organizations (RFMOs) – Phase 1
2. Based on the findings and outcomes of the report on climate change integration in RFMOs, the STECF is invited to discuss and draft the Terms of Reference for an Expert Working Group.

Summary of the information provided to STECF

The report “Review of climate change integration in Regional Fisheries Management Organizations (RFMOs) – Phase 1” provides a snapshot of the current state of knowledge on how the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Inter-American Tropical Tuna Commission (IATTC), the Northwest Atlantic Fisheries Organisation (NAFO) and the Indian Ocean Tuna Commission (IOTC) currently incorporate climate change considerations into their scientific and management processes. The authors compare the incorporation across RFMOs using seven dimensions : “Legal/Policy recognition of climate change (CC)”, “Dedicated scientific research on CC”, “Climate integration into stock assessment and MSE”, “Use of climate and ecosystem indicators”, “Roadmaps/Workplans for climate adaptation”, “Institutional integration and governance” and “Data collection” (Table 4 of the report). They also explore the integration of CC considerations for a selection of specific stocks in more details (Annex 1). They thus find that RFMOs are at varying stages of integration, from formally recognizing the importance of considering climate change and the planning of future actions; to having endorsed a full plan of action where climate change is fully embedded in policy and currently implementing, at least in some cases, climate change in scientific advice.

The report also identifies the main types of EU’s contribution to RFMOs, including financial support, capacities provision, active political engagement and valuable scientific data and expertise, and identify further sources to check to have a more comprehensive overview of EU’s contributions by RFMOs.

The report concludes on the need to establish a dedicated expert working group to guide deeper analysis and expand coverage to additional RFMOs. The deeper analysis may consist in (1) further assess the degree of progress across RFMO, emphasizing the best practices in policy, research, advice and management (2) more detailed examination of actual implementation through the examination of stock assessment reports and direct engagement with additional RFMO experts, to capture not only published and established work but also ongoing and emerging initiatives, (3) identify challenges faced such as gaps in data collection, monitoring and modelling to inform climate-adaptive decision making and identify additional priorities.

STECF comments

STECF notes that in PLEN 25-01 a three-phase approach was proposed:

Phase 1 – Take stock of scientific findings on impact and mitigation of

climate change in fisheries management in RFMOs, i.e. the review phase;

Phase 2 - Considering outcomes of phase 1, discuss research questions that needs to be addressed and decide on the method to achieve the product described in phase 3;

Phase 3 – Design a science-based approach for the integration of climate considerations into fisheries management to be promoted by the EU in RFMOs.

STECF considers that the final objective of this process is to support the Commission in designing a science-based approach to be promoted by the EU in RFMOs, and that the list of 11 RFMO's was given by DGMARE according to their strategic needs. In these lines, STECF considers the three-phase-approach is still valid, and that Phase 1 needs to be completed before progressing to subsequent ones.

1. ToR 1 Review the inter sessional work (report) done by JRC: *"Review of climate change integration in Regional Fisheries Management Organizations (RFMOs) – Phase 1"*

The review produced by JRC provides a good compilation of the state of the art in four RFMOs: ICCAT, IATTC, NAFO and IOTC. It proposes a methodology for the completion of the work, including the organisation of an STECF EWG.

STECF considers that Phase 1 should be completed in the same mode as was initiated and that the EWG should rather be envisaged for Phase 2.

STECF suggests completing the review with the remaining seven RFMOs as it was done for the four RFMOs with the same structure as is in the report. These remaining RFMOs are: the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Western and central Pacific Fisheries Commission (WCPFC), the South Indian Ocean Fisheries Agreement (SIOFA), the North Pacific Fisheries Commission (NPFC), the South Pacific Regional Fisheries Management Organisation (SPRFMO), the Conservation of Antarctic Marine Living Resource (CCAMLR), and the South-East Atlantic Fisheries Organisation (SEAFO).

STECF proposes some suggestions to facilitate and complete the review:

- The categories "Legal/Policy recognition of CC", "Dedicated scientific research on CC", Roadmaps and workplans for Climate Adaptation" and "Institutional Integration & Governance" are relevant and should be explored for the remaining seven RFMOs as they have been for the first four ones. It was noted that the third category might be expanded to "Roadmaps and workplans for climate adaptation and climate mitigation".
- To design and carry out semi-structured interviews with key members of the scientific bodies of the RFMO, to capture not only published and established work but also ongoing and emerging initiatives, to understand bottlenecks (scientific or others -e.g. resources,

institutional inertia, etc.-), and to apprehend the contribution of EU, in a cost-effective manner. This could be achieved by the mean of an ad-hoc contract running parallel to the review by JRC so that both deliverables are available by the next plenary.

- The category “Use of climate and ecosystem indicators” and “Climate integration into stock assessment (SA) and MSE” might be reorganised into “Production/availability of climate and ecosystem indicators” and “Climate integration in the advice”. In the first category should be listed climate indicators of long-term trends but also of short-terms events and acute shocks. Habitat assessments are also important to record. The second category “Climate integration in the advice” should be broadener to reflect that climate considerations may be incorporated not only by adding climate drivers in SA and MSE, but also through other approaches, such as using a climate indicator to trigger some procedures.
- Beyond the exploration just mentioned, the category “Climate integration in advice” is also explored at a finer scale for a selection of stocks in the JRC report (Annex 1). STECF suggests to:
  - limit the filling of the column “Knowledge on CC” to the knowledge presented by the RFMO as the rationale for integrating climate change in the advice (as opposed to reviewing outside of RFMO’s documentation);
  - use a categorization to facilitate the filling of the second column “integration of Climate effects into the advice process” based on the figure 1 in Bessel-Browne et al (2025). Where explicitly mentioned in the documents reviewed, recording whether the stock is part of a mixed fishery and, if so, whether there is a management framework at the level of the mixed fisheries would be useful (e.g. NAFO).
- STECF considers that the table assessing the stages of the different RFMOs (advanced, intermediate or early) is not essential to retain. The multidimensional analysis previously described, provided in the report in Table 4, seems sufficient.

2. ToR 2. Based on the findings and outcomes of the report on climate change integration in RFMOs, the STECF is invited to discuss and draft the Terms of Reference for an Expert Working Group

STECF suggests that the EWG should be discussed during Phase 2, once Phase 1 has been completed and further exchanges with DGMARE have taken place in light of Phase 1 outcomes.

STECF notes that Phases 2 and 3 were partly discussed. It is important to consider valuable science, new insights, and RMFO-specific climate integration pathways found in RFMOs not reviewed in Phase 1 (NEAFC, GFCM, NASCO, CCBSP) to achieve the final objective.

STECF conclusions

STECF concludes that the three-phase approach proposed in PLEN 25-01 remains valid, with Phase 1 needing completion before starting subsequent phases.

STECF concludes that Phase 1 should be finalized using the methodology outlined in their report and incorporating, where feasible, the suggestions provided above.

STECF concludes that the review would be effectively complemented by a series of semi-structured interview with key members of the Scientific bodies as detailed in the previous section. This work could be carried out as an ad-hoc contract in full coordination with the authors of Phase 1 report.

STECF suggests the following timeline for the three phases:

Phase 1 – Take stock of scientific findings on impact and mitigation of climate change in fisheries management in RFMOs - completed by PLEN 26-01

Phase 2 - Considering outcomes of phase 1, discuss research questions that needs to be addressed and decide on the method to achieve the product described in phase 3 - During PLEN 26-01.

Phase 3 – Design a science-based approach for the integration of climate considerations into fisheries management to be promoted by the EU in RFMOs – Timing to be decided during PLEN 26-01.

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8. CONTACT DETAILS OF STECF MEMBERS AND OTHER PARTICIPANTS

[1] - Information on STECF members and invited experts' affiliations is displayed for information only. In any case, Members of the STECF, invited experts, and JRC experts shall act independently. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs.

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