

Scientific, Technical and Economic Committee for Fisheries (STECF) – 79th Plenary Report (STECF-PLN-25-02)

Nord, J., Prellezo, R., Doerner, H. (eds.)

2025

This document is a publication by the Joint Research Centre (JRC), the European Commission's science and knowledge service. It aims to provide evidence-based scientific support to the European policymaking process. The contents of this publication do not necessarily reflect the position or opinion of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of this publication. For information on the methodology and quality underlying the data used in this publication for which the source is neither Eurostat nor other Commission services, users should contact the referenced source. The designations employed and the presentation of material on the maps do not imply the expression of any opinion whatsoever on the part of the European Union concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The Joint Research Centre: EU Science Hub

<https://joint-research-centre.ec.europa.eu>

JRC145115

PDF ISBN 978-92-68-35300-4 ISSN 2467-0715 doi:10.2760/2126843 KJ-01-25-667-EN-N

Luxembourg: Publications Office of the European Union, 2025

© European Union, 2025



The reuse policy of the European Commission documents is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of photos or other material that is not owned by the European Union permission must be sought directly from the copyright holders.

How to cite this report: European Commission, Joint Research Centre, *Scientific, Technical and Economic Committee for Fisheries (STECF) – 79th Plenary Report (STECF-PLN-25-02)*, Nord, J., Prellezo, R. and Doerner, H. (editors), Publications Office of the European Union, Luxembourg, 2025, <https://data.europa.eu/doi/10.2760/2126843>, JRC145115.

CONTENTS

Abstract.....	2
1. INTRODUCTION.....	3
2. LIST OF PARTICIPANTS.....	3
3. INFORMATION TO THE PLENARY	3
4. STECF INITIATIVES	4
5. ASSESSMENT OF STECF EWG REPORTS	5
5.1 EWG 25-03 & 25-07: Annual Economic Report on the EU Fishing Fleet	5
5.2 EWG-25-05: FDI methods	10
5.3 EWG 25-06: Ad-hoc hake assessment	18
5.4 EWG 25-08: Evaluation of the Annual Reports for data collection and data transmission issues ..	26
5.5 EWG 25-18: Outermost Regions	30
6. ADDITIONAL REQUESTS SUBMITTED TO THE STECF PLENARY BY THE COMMISSION	48
6.1 Evaluation of the Common Fisheries Policy (CFP) Regulation	48
6.2 Assessment of the Joint Recommendation for fisheries management measures in six Marine Protected Areas on the Dutch North Sea	63
6.3 Assessment of the Joint Recommendation on conservation measures for Finngrundén, Svenska Högarna, Norra Midsjöbanken and Ottenby rev in the Baltic Sea sessment of Joint recommendation on conservation measures in Nordvästra Skånes havsområde in the Kattegat	82
6.4 Joint recommendation on conservation measures in 10 MPAs of the Baltic and 1 MPA of the Kattegat	91
6.5 Assessment of the situation relating to the TACs for pollack in ICES divisions 8abde, 8c and 9-10	109
6.6 Assessment of delegated TACs	120
6.7 Assessment of measures in the Compensation Mechanism, West Med MAP	138
6.8 Evaluation of updated JR and MP for transparent goby in Gulf of Manfredonia	151
6.9 Withdrawn	155
6.10 Assessment of Spain Med Reg derogation Catalonia	156
7. ITEMS/DISCUSSION POINTS FOR PREPARATION OF EWGS AND OTHER STECF WORK ..	168
7.1 EWG 25-14: implementation of the Technical Measures Regulation	168
7.2 EWG 25-09: West Med stock assessment	170
7.3 CFP monitoring	171
7.4 New STECF - Discussion and possible agreement on STECF rules of procedure.....	183
8. CONTACT DETAILS OF STECF MEMBERS AND OTHER PARTICIPANTS	184

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 79th plenary from 7 to 11 July 2025.

79th PLENARY REPORT OF THE SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (PLEN-25-02)

7-11 July 2025

1. INTRODUCTION

The STECF held its summer plenary on 7-11 July 2025 at the Centre Borschette, Brussels. The meeting was held as a hybrid meeting. This was the 1st plenary meeting of the newly appointed STECF.

2. LIST OF PARTICIPANTS

The meeting was physically attended by 28 members of the STECF and four JRC personnel. Seven STECF members and five JRC personell attended online. Several Directorate General Maritime Affairs and Fisheries (DG MARE) attended parts of the meeting physically or online. Section eight of this report provides a detailed participant list with contact details.

3. INFORMATION TO THE PLENARY

Ms Charlina Vitcheva, Director-General of DG MARE, addresses STECF

Ms Charlina Vitcheva, Director-General of DG MARE, addressed the STECF Committee on the first day of its plenary meeting. She welcomed the newly appointed Committee and outlined the work agenda for its upcoming three-year mandate. The Director-General reaffirmed the central role of STECF in the implementation of the Common Fisheries Policy (CFP), emphasizing its function as a key provider of credible scientific advice underpinning the Commission's policies.

Ms Vitcheva stressed the importance of independence, integrity, and impartiality in the Committee's work. She highlighted both ongoing and emerging priorities, particularly in light of the recently adopted Ocean Pact, which is expected to increase the demands on STECF. She also called for the Committee's support on a number of politically significant and emerging topics, including:

- Continued support concerning fishing fleets in the outermost regions;
- Vulnerable Marine Ecosystems (VMEs) and assessments of the socio-economic impacts of protective measures;
- Implementation of Article 11 of the CFP Regulation, related to Natura 2000 sites and Marine Protected Areas; and
- The energy transition in the fisheries sector.

These new priorities will complement STECF's ongoing advisory work, which remains vital for:

- Stock assessments and specific measures in the Mediterranean and Black Sea;
- The implementation and evaluation of the Data Collection Framework (DCF), including planning and reporting;
- Evaluation of Joint Recommendations under the landing obligation and technical measures regulation;
- Socio-economic aspects of fisheries management;
- Monitoring and reporting on CFP implementation and potentially supporting its overall evaluation.

The upcoming mandate presents a demanding work schedule for STECF. DG MARE will continue to rely on the STECF Committee for scientific advice that is in a flexible, independent, and impartial way. STECF members were reminded that they are appointed in their personal capacity and should act, as per the STECF Decision, independently and in the public interest.

Presentation on STECF

The STECF Secretariat gave a presentation and organized a session dedicated to new committee members explaining the STECF rules, the work programme and procedures, declarations of interest DOIs, report publishing, data issues, and reimbursement procedures. It was highlighted that STECF members are appointed in their personal capacity, as independent experts, and that STECF advice needs to continue to reflect this legal obligation. STECF members were asked to observe the revised Rules of Procedures of the group and give approval.

Renewal of the STECF – Election of the STECF board

Following the appointment of the new Committee for a three-year term, elections for the positions of chair and two vice-chairs of the STECF were held. One nomination for the chair position and two nominations for the vice-chair positions were received by the Secretariat. Before the election, the candidates presented themselves to the plenary in the afternoon of 9 July. The STECF members attending the meeting unanimously decided to waive the secrecy requirement for the ballot (see STECF Rules of Procedure) and vote by show of hands. The STECF members attending elected Raúl Pallezo as chair. Jenny Nord and Alessandro Ligas were elected vice-chairs. Elections were chaired by the Commission/STECF secretariat.

4. STECF INITIATIVES

No STECF initiatives were discussed during the meeting.

5. ASSESSMENT OF STECF EWG REPORTS

5.1 EWG 25-03 & 25-07: Annual Economic Report on the EU Fishing Fleet

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 25-03 took place online 7-11 April 2025 (AER I) and EWG 25-07 took place in Ispra, Italy 16-20 June 2025 (AER II). The two EWGs addressed all the ToRs.

STECF observes that the 2025 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of the EU Member States fishing fleets. STECF notes that 2025 AER supersedes all previous AERs. Comparisons across AER reports should not be made.

STECF also notes that the reference and base year for the report is 2023 (including the forecast and nowcasting procedures for 2024 and 2025), which implies that all the values reported are inflated to this year based on the methodology explained in the AER.

STECF notes that the AER report includes the following five chapters: 1) A structural and economic overview of the EU fishing fleet in 2023, with nowcasts for 2024 and 2025, and trend analyses for the years 2013-2023; 2) A regional analysis of the EU fishing fleet by sea basin; 3) A detailed structural and economic overview of each Member State fishing fleet, including qualitative economic performance assessments for 2023 and nowcasts for 2024 and 2025, 4) A glossary, definition of indicators, an outline of the methodology and nowcast model used to estimate economic indicators for 2024 and 2025 and, 5) Data Coverage and Quality.

STECF notes that following PLEN 24-02 the proposed new fleet group definitions were used in 2025. That includes change of the name of “Long Distance Fisheries” (LDF) to “Distant Water Fleet” (DWF) as in the 2024 report (EWG 24-07) and separation of the “Large Scale Fleet” (LSF) into two groups: “under 12m vessels using active gears” (L12AG), and LSF that excludes under 12m vessels.

STECF observes that the AER results indicate that the net profitability of the EU fleet decreased in 2023, registering a net profit of EUR 59 million, down 61% from 2022. The Gross Profit was also lower than in 2022 down 12% compared to 2023. Value of landings (in real terms) decreased by 13.4% compared to the previous year while energy cost decreased sharply by 23.6%. Nowcast estimates indicate that the performance of the fleet will improve in 2024, and in 2025, compared to the 2023 values.

STECF also notes that in 2023, the EU fishing fleet numbered 70,280 vessels. There were 17,020 inactive vessels, bringing the number of active vessels to 53,260. These active vessels had a combined gross tonnage of 1.15 million and engine

power of 4.36 million kW. Of the active vessels, 77% were SSCF vessels, 5.8% L12AG, 16.5% LSF and less than 0.5% DWF.

STECF notes that while the total number of active vessels in the EU fishing fleet continues to decline over the whole time series, the decline stabilised in 2023. However, other fleet capacity indicators, such as engine power and gross tonnage, demonstrated different trends compared to 2022: total fleet power and tonnage decreased by 2.8% and 4.2% respectively, compared to 2022.

STECF also notes that engaged crew was estimated at 119,479 fishers, corresponding to 73,974 FTEs in 2023. These values follow a similar trend as the capacity indicators (2% lower than in 2022). Almost 30% of the employed persons were estimated as being unpaid labour (similar to 2022). Average personnel cost per FTE (EUR 29 447) decreased by 7.5% in comparison with 2022. Of note, is the large variation in average personnel costs among Member States.

In order to operate, the EU fishing fleet consumed 1.56 billion litres of fuel and spent 5.2 million Days-at-Sea in 2023. This combination produced 3.39 million tonnes of seafood landings with a value of EUR 6.1 billion (a decrease of -13.4% compared to 2022).

STECF observes that the AER EWG raised a question on the consistency of the employment definition reported under the AER data call and EUMAP legislation. As it stands in the current guidelines indicator 'totjob' should include unpaid labour (see RCGECON guide https://dcf.ec.europa.eu/guidelines/socio-economic-variables_en?prefLang=it), however in the EUMAP the employment indicator is separated into number of paid and unpaid employees. The EWG proposed to align next year's data call with the EUMAP, clearly indicating in the official letter and in the templates that employment should be reported separately by paid labour and unpaid labour. The EWG also suggested that RCG_Econ (Regional Coordination Group for Economics Issues) should separately define paid labour indicator in the guidance document for the fleet economic variables to ensure consistency with the data call requirements and the legislation.

STECF further notes that the EWGs made a proposal to replace 'totjob' with "paid labour" in the data call templates.

STECF observes that development of the JRC web dashboard made a significant improvement to the quality checks of the data and facilitated the analysis this year. The EWGs provided detailed feedback to the JRC and suggested to move from Excel files analysis for the report to Dashboard in the future years. That should facilitate efficiency and improve processes during the EWGs.

STECF notes that in addition to reporting new issues associated with 2025 data call to DTMT, the EWG also, for the first time, reviewed the DTMT issues raised for the 2023 and 2024 data calls.

STECF notes that for the 2025 data call there were 25 data issues identified. These issues concern data submitted by 12 Member States with 9 issues ranked as 'medium severity' and 16 as 'low severity'. Of these, 7 issues related to coverage were reported by EWG, the remaining 18 were issues related to quality.

STECF notes that for the 2023 and 2024 data calls, a total of 60 historical issues were reviewed: 31 from the 2023 data call and 29 from the 2024. A total of 11 issues were checked as 'not OK' for the 2023 data call and 20 issues for the 2024 data call. STECF notes, that assessment of historical issues proved to be time-consuming, especially those related to quality. These last required not only detailed knowledge of the datasets and regulatory provisions but also familiarity with navigating the dashboard.

The EWG 25-07 was informed that the 2024 issues were included in the TORs for the pre-screeners of the Annual Reports (AR) evaluation. This will imply that both comments from the EWG 25-07 and for the pre-screeners on the same ID issue have been made available for the EWG 25-08 on AR assessment. In order to streamline the procedure, EWG suggested that in the future:

1. The AER EWG should assess the previous year issues in the second EWG meeting because: a) the deadline for Member States to comment is the 31st of May; b) the Member States have the possibility to re-upload the data after the first meeting.
2. The AER EWG should only consider the issues for which Member States commented that data have been resubmitted in the current year data call. The rest of the issues should be assessed by the pre-screeners.

STECF notes that the amended workflows for data issues assessments are:

Data issues of the current year (n) data call

AER I:

1. Each national expert to check the data sent in the current year (n) data call and include data issues in the excel template.
 - data issues to be identified on the basis of: dashboard/data checks during the EWG/expert knowledge.
 - recurrent issues to be identified by comparison with the list of previous issues made available by JRC in the STECF working space
 - make use of the DTMT guidance (latest available version) on filling in issues
 - for each MS, the list of issues to be revised by at least another expert to ensure fully independence in the identification of data issues

AER II:

1. Revision of the data issues from AER I:
 - JRC to provide update on the Member States/data sets resubmitted between the two EWGs.
 - Two experts to be appointed as focal for the revision of the list from AER I on the basis of the updated dashboard.
2. New issues to be included in the excel template, on the basis of the regional data analysis, following the DTMT guidance. The focal person of each region/section is responsible for such updated.

3. Final assessment of the issues by the plenary session of the EWG.

Data issues of the n-1 year data call

The aim of this task is to follow up on issues for which the Member States informed that correct or missing data have been submitted in the data call of the following year (n).

AER II:

1. JRC to provide the list of issues for which Member States confirmed that data was resubmitted. This list should also include the comments by the Member States (that should have been received by the 31st of May).
2. Two or three experts to be appointed as focal for a) verifying whether missing data have been resubmitted, or previously uncovered fleet segments have been included and b) re-evaluating the issues related to “quality”. For the latter cases, input from national experts would be particularly needed.
3. Appointed experts will include their assessment in the columns: “End User Check (issue status)” and “End User Comment”.
4. Final assessment will be presented and discussed by the plenary session of the EWG.

STECF notes that some Member States resubmitted several past years of the time series during 2025 data call. That resulted in changes to the data and analysis compared to previous report, including the EU overview and regional sections. The EWG raised data resubmission as an issue due to uncertainty of impacts on the whole report and analysis, especially when compared to previous AER releases.

STECF notes that the nowcast for the Atlantic remains to be reliant on an *ad hoc* contract and individual expertise that might cause a risk for the EWG and the AER in the future. STECF also notes that on a voluntary basis Member States should be able to provide data for the nowcast t+1 (2024 in the AER 2025). A workshop facilitated by RCG ECON on methodology for this nowcast was proposed in 2024 by the AER EWG and supported by the plenary.

STECF conclusions

STECF concludes that the two EWGs addressed all TORs and STECF endorses the report.

STECF concludes that in the case of previously submitted data resubmission, Member States should provide an explanation of scale of changes and reasoning. This requirement could be added to the data call text for next year.

STECF concludes that further development of the Dashboard by JRC continues improving quality checks and analysis. The development and improvements based on EWGs feedback should continue with the aim to fully move analysis from the Excel files to the dashboard in the medium-term future.

STECF concludes that update of the employment definition will improve data call consistency with EUMAP and suggests clearly indicating in the official letter and in the templates that employment should be reported separately by paid labour and unpaid labour, therefore 'totjob' indicator should be changed to "paid labour". These changes should also be implemented in relevant RCGECON guidelines.

STECF concludes that checking the data issues of previous years could be carried out by the EWG AER II if specified in an additional TOR for the EWGs.

STECF reiterates its conclusion from PLEN 24-02 that a workshop could be facilitated by RCGECON to develop a common method for nowcasting for the year t+1. Such a methodology could be applied by Member States to provide the nowcast for the year t+1 in the yearly data call. STECF concludes that nowcast for t+2 relies on one person and model, therefore suggests moving calculations to the JRC database in the near future.

STECF reiterates its conclusion from PLEN 24-02 that it is fundamental to provide the EWG experts with a manual on the database structure with a description of the different data aggregation and codes that will be available to them in the two AER EWGs. This would avoid misinterpretation of datasets and facilitate the involvement of new experts. This manual could be prepared before AER I with *ad hoc* contracts for the chairs with support from the JRC.

5.2 EWG-25-05: FDI methods

Request to STECF

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

STECF comments

EWG 25-05 met online from May 19 to May 23, 2025. EWG 25-05 was the third in a biennial series of STECF EWGs dedicated to reviewing the methodology applied by Member States in responding to the FDI data call, propose common practices, and follow up on future development of the FDI database and data dissemination.

STECF considers that the EWG adequately addressed the TORs and has the following specific comments on the four ToRs addressed by EWG 25-05:

TOR 1. Review approaches used by Member States responding to the FDI data call and if possible, propose common best practice.

STECF notes that, as in previous meetings, the experts presented the methodology used to prepare the Member States data as the response to the FDI data call, along with the changes since EWG 23-05. In addition, specific questions were formulated to collect targeted information directly from the Member States. These contributions are very valuable for gaining an overview of the approaches used by Member States.

STECF notes that the EWG received input from 17 Member States, reflecting increased engagement compared to the previous meeting of this series. In 2023 (EWG 23-05), only 13 Member States provided information, while in 2021 (EWG 21-10), 21 responses were received (including the United Kingdom). However, an effort by the missing Member States would be desirable to obtain a complete overview.

TOR 1.1. Any differences in definition of metier and related fields such as GEAR_TYPE, TARGET_ASSEMBLAGE and MESH_SIZE_RANGE as well as issues in preparing the data(call) with the new metier definitions.

STECF observes that no major issues were anticipated in applying the métier list agreed by the RCG ISSG on Métier and transversal variable issues, since the list had already been implemented during the 2023 FDI data call without significant difficulties.

STECF observes that mismatches between METIER and the related fields GEAR_TYPE, TARGET_ASSEMBLAGE and MESH_SIZE_RANGE, identified by EWG 23-05, were mapped in greater detail during the EWG. GEAR_TYPE mismatches often arise as it is derived directly from logbooks, whereas the gear component of METIER may have been adjusted during data processing. This

contrasts with TARGET_ASSEMBLAGE, which is in most cases derived directly from METIER. This was confirmed by the quality checks of the data sets from 2013 to 2023, which showed clearly more mismatches involving GEAR_TYPE than TARGET_ASSEMBLAGE. For MESH_SIZE_RANGE, comparisons are difficult because in some cases the coding of mesh size ranges in METIER and in MESH_SIZE_RANGE do not align. According to the experts, in some cases MESH_SIZE_RANGE was extracted from METIER, while in others it was reported directly from logbooks, with subsequent adjustments made to the mesh size range code in METIER.

TOR 1.2. Methodology applied to define EEZ indicator.

STECF observes that the methodology used to derive EEZ indicators remains broadly in line with what was defined by the EWG 23-05. Member States mainly use logbooks and sales notes or landing declarations. Where EEZ boundaries are not available from logbooks, they are derived from VMS data or fixed proportions per statistical rectangle. No significant increase was observed in the use of the marine regions shapefile to promote standardization. Only a few minor methodological changes, seen as improvements, were introduced.

STECF notes that it remains unclear whether Member States are using the hierarchical decision tree established during EWG 23-05. Only three Member States stated clearly that they followed this decision tree. STECF agrees with the EWG on encouraging Member States to apply this approach. STECF further suggests that including details in the National Chapter on the experience of using the decision tree could be valuable in assessing its effectiveness in supporting data quality improvements.

TOR 1.3. Use of table B and refusal rates reported during submission.

STECF observes that the EWG 25-05 agreed to discontinue the Table B in the future FDI data calls. Refusal rates are estimated based on the sampling frame, but most Member States cannot report them consistently due to non-probability-based designs and lack of non-participation records. Since discard estimates in the FDI tables are not provided by sampling frame, refusal rates are not meaningful or applicable in this context. However, the EWG suggests reporting the refusal rates in the AR/WPs.

ToR 1.4. Use of quality indicators requested by FDI data call and issues arise during data submission.

STECF observes that there is considerable variation among Member States in both the methodologies used to calculate quality indicators (QIs) and the extent to which they are provided. Some have submitted discard estimates with associated coefficient of variations (CVs), often based on simplified methods. Nonetheless, there

is growing interest in improving estimation techniques, with several Member States exploring more robust approaches such as bootstrapping for future reporting. Others reported discards data without CVs, for example due to zero observations in sampled strata, which make CV calculations statistically invalid. Several Member States did not submit any discard estimates or CVs for Tables C, D, and K, citing reasons such as ongoing development of data systems like RDBES, absence of regular discard monitoring under the DCF, limited resources, or work still in progress.

STECF observes that the EWG has raised concerns regarding the use of CVs reported in the biological tables (C, D, and K) in relation to the discard estimates in Table A. Since CVs are calculated at the DOMAIN_DISCARDS level and based on specific sampling designs (e.g. métier, season, fishery), they cannot be partitioned or aggregated in the same way as discard estimates in Table A. Although QIs were included in the biological tables to support the evaluation of the reliability of Table A estimates, the EWG advises against including these indicators in public data dissemination, as this could lead to incorrect assumptions about the quality or uncertainty of the reported discard estimates. In this context, the reporting of QIs should be made optional and the absence of CVs should not be flagged as a failure in the Data transmission monitoring tool.

ToR 1.5. Definition of DEEP indicator.

STECF observes that the DEEP indicator, characterising fisheries interacting with deep-water species listed in the legislation has been generally reported correctly and aligns with expected patterns, with most deep-water landings originating from otter trawlers and long liners that do not specifically target deep-water species. This is supported by expert input indicating that most Member States do not issue deep-water licences.

STECF observes that the EWG suggests adding a new appendix to the Annex of the FDI data call to clarify that it applies only to areas 27 and 34, as some records have been reported from other regions. The appendix should also specify that a fishing trip, including all species caught and the associated effort, should be classified as DEEP when the catch of at least one deep-sea species listed in the regulation exceeds 100 kg.

ToR 1.6. Definition of TOTVALLANDG indicator and how it relates to AER indicators totlandinc and totvallandg

STECF observes that most Member States calculate TOTVALLANDG by multiplying landed weight by the average price per species or segment, often combining landing declarations with sales notes. This reflects a consistent approach across Member States.

STECF notes that comparisons between the two data calls should focus solely on the variable "TOTVALLANDG," as "TOTLANDGINC" (AER) is reported by fleet segment and not by species. In some Member States, landing values for certain

segments are not reported due to confidentiality. Moreover, unsold landings (e.g. discards or by-products) and non-commercial uses (e.g. bait or own consumption) are explicitly excluded in the AER definition of TOTLANDGINC. Therefore, STECF agrees with the EWG on the suggestion to delete the term “estimated” from the FDI definition, as it adds little value and its removal would enhance the comparability of this variable across the FDI and AER data calls.

STECF observes divergent approaches regarding the alignment of data sources and procedures between the FDI and AER data calls in relation to the TOTVALLANDG indicator (FDI+AER) and TOTLANDGINC indicator (AER). While some Member States reported no issues and confirmed the use of the same sources, others noted differences such as the use of logbooks for FDI and sales notes or surveys for AER. Even when data originate from the same system, variations in extraction timing, specifications, and aggregation levels can lead to inconsistencies. The comparison of the “totvallandg” indicator between AER and FDI data calls will be performed during the EWG 25-10 in September.

ToR 1.7. *Spatial data coverage and confidentiality rules*

STECF notes that most Member States reported spatial data availability for the entire fleet population, although one Member State reported that Small-Scale Coastal Fisheries (SSCF) are currently not covered.

STECF observes that most Member States indicated that certain data submitted under the FDI data call are considered confidential, typically when derived from less than three vessels. However, some Member States reported applying no confidentiality restrictions or using different criteria than the “less than three vessels” rule.

ToR 2. Dissemination of aggregated data tables and spatial information

ToR 2.1. Define dissemination formats for more disaggregated data and spatial information, taking into account confidentiality concepts (resulting from the confidentiality workshop as recommended by RCG NANSEA & Baltic 2024 to the Commission) and be validated by National Correspondents.

STECF notes that the EWG defines more disaggregated data as including the country level, and that the country-level FDI data currently available on the dissemination page are incomplete due to confidentiality restrictions.

STECF notes that the EWG highlighted the importance of disseminating a complete data set on an agreed aggregation level including country to ensure a robust and meaningful analysis.

STECF notes that applying the level of aggregation proposed by EWG 24-11 for the data dissemination would still result in an incomplete dataset. This proposal follows the principle that aggregated data are not confidential if combined with non-

confidential data, however, remains confidential if all underlying data are marked as confidential.

STECF observes that the EWG prepared tables outlining various aggregation levels for the FDI data dissemination, to be assessed by National Correspondents in collaboration with individuals familiar with the FDI data structure. For each aggregation level, a data sensitivity scale (1–3) will be applied: (1) data are publishable; (2) data may be publishable with justification and reference to agreements; (3) data are not publishable and require a legal reference. This assessment would support the identification of the lowest feasible aggregation level for disseminating landings (weight and value), discards, and effort variables in FAO areas 27 and 37 and will not involve long-distance fisheries, where data often remain sensitive. The EWG notes that landings weight by country, year, area, and species (suggested aggregation level 1) are already publicly available in other fora and should generally be considered acceptable.

STECF notes that the proposed tables with a data sensitivity scale, as outlined above, also include suggestions for the spatial dissemination of landings and effort. However, these tables currently lack dimensions such as country, metier level 7, EEZ indicator, and GEO indicator—on the dissemination page.

STECF notes that the EWG did not further discuss or develop the dissemination approach outlined by EWG 24-11, which proposed combining Table I, Table G, and Table H to check and disseminate species- and country-specific spatial landings data.

STECF notes that the EWG conducted an initial exploration of disseminating spatial data by EEZ indicator. This revealed inconsistencies in the allocation of the EEZ within the FDI data and highlighted the need for a method to properly divide c-squares along EEZ borders, as well as the requirement for accurate shape files.

STECF notes that the EWG identified duplicated entries within the spatial data and suggests implementing a duplicate check during the uploading process of spatial tables.

ToR 2.2. Provide guidance on dissemination of refusal rate information (Table B).

STECF observes that the EWG agreed to discontinue the provision of Table B in the FDI data call; therefore, the related dissemination guidance is no longer applicable.

ToR 3. Monitor use and dissemination impact of FDI data

ToR 3.1. Propose a method to monitor the use of FDI data, including both publicly available and restricted datasets. This may include solutions such as DOIs (Digital Object Identifier), Creative Commons licences, or citation tracking.

STECF notes the EWG proposal to use a DOI to track scientific citations, with a new DOI created annually upon data publication, starting with the 2025 FDI data call response.

STECF further notes that the EWG recommends using an interactive website to make the FDI variables more understandable, following the approach used in the Work Plan (WP) and Annual Report (AR) guidelines. The EWG suggests highlighting in the dissemination page's introductory text that the data are reviewed and quality-assured during the annual STECF Expert Working Group on FDI. Additionally, it suggests referencing the National Work plans and Annual reports in the metadata file of the FDI data on the dissemination pages. All these measures aim to enhance data accessibility and usability.

ToR 3.2. Establish an inventory of downloads from the dissemination platform, to provide a quantitative indicator of data usage.

STECF notes that the EWG reported the number of unique downloads for each FDI table and spatial data set from the dissemination platform over the one-year period following data publication (1 December 2023 - 1 December 2024).

ToR 4. Finalise the process and scripts to facilitate the process of estimating landings and discards for each exemption of the landing obligation without ad hoc preparatory contract.

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

STECF notes that the EWG reviewed the coding table, which aligns legal acts with their corresponding FDI codes and has been used since FDI data extractions began related to LO exemptions. The EWG agreed to adopt this table as a standardized template to ensure systematic and consistent updates for any amendments or newly introduced exemptions by DG MARE.

STECF notes that the revised coding table will be used during the 2025 summer test phase to track changes related to 2026 exemptions. DG MARE will update the table in parallel with the existing ad hoc legislative review process, allowing for validation of the new approach while ensuring continuity in data provision.

STECF observes that script 1, which aims to fully automate the translation of legal texts into FDI extraction codes, will need to be finalized following the validation of the coding table template.

STECF notes that script 2, which merges FDI Table A with the extraction code table and extracts FDI data for exemptions, has been developed and integrated into the workflow. This improves data merging, cleaning and pre-processing, ensuring that high-quality input data feed into the visualization and summary tools.

STECF observes that two procedures have been developed to visualize the output by species, area and exemption. The first is an R script (script 3), building on the EWG 24-11 foundation, which enables users to explore data at various levels of aggregation. The alternative is a standalone, browser-based interactive HTML dashboard designed to maximize accessibility and transparency for all users, regardless of their technical expertise or IT limitations.

STECF conclusions

STECF concludes that EWG 25-05 adequately addressed all ToRs except the follow-up on the comparability between AER and FDI data calls. This was postponed to EWG 25-10 due to limited involvement of economists, as attendance restrictions at EWG 25-05 led to prioritizing data submitters over economists.

STECF reiterates its previous conclusion (PLEN 21-03 and PLEN 23-02) that sharing and integrating FDI methods applied by Member States is essential for achieving a unified approach and improving data quality. The inputs received from 17 Member States show increased engagement compared to the previous meeting and supports better alignment of applied methods. STECF observes the need to increase the attendance limit from 20 to 25 to ensure full representation of all reporting countries, along with necessary coordination and expert support. Full Member States participation is key to ensure consistency, transparency and progress in this methodology process.

STECF concludes that the methodological presentations prepared for the EWG often trigger valuable additional data analyses across the full FDI time series. These are key to identifying and resolving inconsistencies and enhancing both data quality and documentation.

Based on Member States' responses, STECF also concludes that, overall, there have been no significant changes in the approaches used by Member States in response to the FDI data call since the 2023 review.

Regarding newly raised items by the EWG, the DEEP indicator is generally reported correctly, though STECF supports the EWG's proposal to add a new appendix to the Annex of the FDI data call to give extra guidance on its geographic scope and threshold criteria. Similarly, the TOTVALLANDG variable is generally calculated consistently across Member States. STECF also supports the EWG's recommendation to delete the term "estimated" from the FDI definition, as it adds little value and its removal would enhance the comparability of this variable across the FDI and AER data calls.

STECF supports the EWG proposal to apply a three-level data sensitivity scale: (1) data are publishable; (2) data may be publishable with justification and reference to agreements; (3) data are not publishable and require a legal reference) to assess FDI data dissemination across different aggregation levels by National Correspondents. This process will help identify the lowest feasible aggregation level for publishing landings (weight and value), discards, and effort data in FAO areas 27 and 37.

STECF supports the EWG proposal to exclude the dissemination of some quality indicators (DISCARD_CV, DISCARD_CI_UPPER, DISCARD_CI_LOWER) from the discard age and length tables, as they may misrepresent uncertainty of discard estimates in Table A, which are not necessarily based on the same sampling frame.

STECF supports the EWG proposal to discontinue Table B and the reporting of refusal rates in the FDI data call, as these relate to the sampling frame and not to discard estimates in Table A. Furthermore, most Member States cannot report refusal rates consistently due to non-probability sampling and missing non-participation data. However, STECF agrees that refusal rates remain valuable and supports the EWG suggestion to include them in Annual Reports and Work Plans, where they can provide useful context on sampling quality and coverage.

In line with the JRC FAIR Data Guidelines requiring persistent identifiers for data products, STECF concludes that the EWG proposal to use DOIs to assess the visibility and dissemination impact of FDI data, should be explored in the near future. As an initial step, STECF further concludes including citation guidance on the dissemination page, as done for spatial data. It also endorses the following improvements to data accessibility and usability provided by the EWG: an interactive website for exploring FDI variables (aligned with the Work Plan and Annual Report guidelines); a note in the dissemination page's introduction stating that the data are reviewed and quality-assured by the annual STECF EWG on FDI; and referencing National Work Plans and Annual Reports in the FDI metadata.

STECF concludes that the EWG has made significant progress in developing automated processes to estimate landings and discards for each exemption under the landing obligation. The script for fully automating the translation of legal texts into FDI extraction codes will be finalized following the validation of the coding table template at EWG 25-10. In preparation for EWG 25-10, the template will need to be updated by DG MARE in parallel with the ongoing legislative review conducted under the ad hoc contract. During EWG 25-10, a comparison will be made between the final outputs generated by the automated and standard (*ad hoc* contract-based) procedures.

5.3 EWG 25-06: Ad-hoc hake assessment

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

STECF notes that EWG 25-06 met in hybrid mode from 16 to 20 June 2025. The meeting was attended by 14 experts (including four STECF members and three JRC experts) and 3 observers.

The EWG was tasked to address hake stock assessment issues in GSAs 1, 5, 6, and 7, as identified in PLEN 24-03 and PLEN 25-01. In particular, the EWG was asked to: 1) review input data including catches, catches at-length, abundance indices from MEDITS surveys, other fishery dependent abundance indices, and biological parameters like growth and natural mortality, and 2) update the latest stock assessment based on revised data, also discussing alternative assessment approaches.

STECF notes that, in preparation for the EWG, DGMARE requested Spain and France –Member States with fisheries targeting hake in GSAs 1-5-6-7- to submit new data relevant to improving hake assessment, including early submission of 2024 data. An *ad hoc* contract was also initiated to provide an overview of available new data and to propose growth models (both combined and by sex) for potential use in the hake stock assessment. The submitted data and the report from the *ad hoc* contract formed the basis for the work carried out during the EWG.

STECF reviewed the EWG report and acknowledges that all ToRs were addressed. Detailed comments pertaining to each ToR are provided below.

ToR 1. Input Data.

In addition to the data available from the latest stock assessment (STECF EWG 24-10), the data submitted to the EWG included: catches and related length frequency distributions (LFD) for 2024 from France and Spain, MEDITS survey data for 2024, annual and quarterly length-sex ratio data for GSA 7 from France since 2011, BALAR survey series from 2002-2006, several fisheries-dependent abundance indices (Landings per Unit Effort, LPUEs) for selected fleets in GSAs 5 and 6, and effort data reported through the FDI data call up to 2023.

Data on commercial catches

According to available data, STECF notes that fishing effort measured in fishing days has decreased across all gears and GSAs, with the exception of OTT in GSA 7,

which increased from 2015 to 2020 and has remained stable since. In general, catches have declined, notably in GSAs 6 and 7. The relative contribution by gear has also shifted over time, with a significant decrease in longlines, a relatively stable contribution from trawling gears, and a slight increase in gillnets. Due to varying LFDs by gear, STECF observes that changes in gear contributions may influence the overall selectivity pattern of the fishery, which should be considered when setting fishing mortality at age in stock assessment models. STECF also indicates that some changes within the fishery are linked to regulatory adjustments, such as effort reduction, compensation mechanisms, fisheries restricted areas, and technical measures, which are anticipated to continue in the coming years.

STECF observes that the EWG compiled historical landings data from the FAO catch statistics database for Spain and France in GSAs 1, 5, 6, and 7 covering the period 1970–2024, as well as from Punzón et al. (2019) for Spain in GSAs 1, 5, and 6 for the years 1933–1986. These datasets may be valuable for future assessments, offering a historical perspective on stock status prior to the DCF implementation.

STECF notes that the analysis of the LFD of commercial catches indicated a long-term reduction in the upper tail of the length distribution, with decreases in both the maximum length recorded in commercial catches and the number of individuals exceeding 50 cm (big spawners). The LFDs from the MEDITS survey support these findings, indicating that the decline in big spawners is likely related to changes in the current population itself rather than alterations in fleet selectivity, which could have implications for stock resilience.

Fisheries independent indices

STECF notes that EWG 24-10 identified a discrepancy between the MEDITS abundance indices calculated using standard stock assessment procedures and stock assessment EWG's scripts, and those used in recent assessments (EWG 21-11, EWG 22-09, EWG 23-09, and EWG 24-10). Due to time limitations, this issue was not further investigated during EWG 24-10. In EWG 25-06, detailed checking procedures revealed several errors, originating in 2021 when modifications were made to address incomplete data resulting from the COVID-19 pandemic. STECF notes that the corrected time series should be applied in future assessments and that the MEDITS survey series index should refer to age 4 as a specific age class rather than as a plus group. STECF notes that conducting stock assessments within limited timeframes may increase the likelihood of errors and limit opportunities for correction. Preparing data in advance of the stock assessment, such as via an EWG on data preparation, is suggested to enhance data quality and reduce the workload of the assessment EWG.

STECF observes that the assumptions used to address the 2020 data gaps in the MEDITS survey may be open to debate. STECF supports EWG 25-06's suggestion to replace the previously reconstructed value with 'NA' (not available), which is compatible with the requirements of the a4a model. Additionally, STECF emphasizes the continued need for clear guidelines on how to manage significant data gaps.

STECF notes that EWG 25-06 conducted a further revision of the MEDITS time series, which involved excluding hauls from GSA5 (Ibiza and Formentera Islands) and those incorrectly assigned to GSA1 but actually carried out in GSA2 (Alboran Islands). Nevertheless, the EWG identified certain hauls whose classification remains uncertain. STECF considers that a more thorough review of haul allocation to GSAs to ensure accurate assignment and necessary amendments, is required.

STECF observes that Spain provided abundance indices from the BALAR surveys (2002–2006), undertaken by the Spanish Institute of Oceanography to evaluate demersal resources on the shelf and slope of Mallorca and Menorca islands (GSA 5). These surveys adhered to the MEDITS protocol and supplied data for GSA 5, which was not covered by the MEDITS survey during that period. In 2007, the MEDITS Coordination Group incorporated GSA 5 into the MEDITS program. To supplement the available data for GSAs 1, 6, and 7 for the years 2002–2006, the STECF supports the integration of the BALAR survey series for GSA 5 into the broader MEDITS survey series for that timeframe.

Fisheries dependent abundance indices

STECF observes that several fishery-dependent abundance indices were presented and discussed during the EWG, including nominal LPUE from longliners in GSAs 6, nominal LPUE from longliners in GSA 7, nominal LPUE from bottom trawl in GSA 5, and standardized LPUE for longliners and gillnetters in GSA 6. The standardization of the latter index was carried out using Generalised Additive Mixed Models (GAMMs). Although these new indices provide additional information, their representativeness for the entire region is uncertain due to partial spatial coverage. STECF notes that expanding these indices to other GSAs where feasible could improve their representativeness, but this may be constrained by limited spatial coverage and differences among fleets operating in different GSAs. STECF also emphasizes the importance of standardizing LPUEs to account for temporal changes in factors unrelated to abundance.

Growth

STECF notes that, based on the information provided in the ad hoc contract report, the EWG undertook a thorough review of growth models for hake, including both combined and sex-separated approaches. Each model was assessed for cohort consistency in commercial catches. As no significant differences in cohort consistency were observed relative to the existing growth parameters established by Mellon-Duval et al. (2010), STECF concurs with the EWG's recommendation to retain both the combined and sex-specific growth models. Furthermore, STECF notes that these parameters yielded the most reliable estimates of mean length at age, which align to the modal lengths of hake caught during MEDITS surveys.

Maturity

STECF notes that the EWG revised the maturity-at-length data from the DCF. Given that only minor differences were identified compared to the maturity values employed in the current assessment, the EWG considered that there was insufficient justification to modify the maturity-at-age vector used in the assessment.

Sex ratio by length

STECF observes that, utilizing data submitted by France for GSA 7, the EWG computed a synthetic sex ratio by length. Owing to significant variability linked to sampling levels, the sex ratio was determined using combined data across all years and quarters. The analysis confirmed marked sexual dimorphism in hake, with males prevailing at smaller sizes and females becoming predominant at larger sizes.

Natural mortality

STECF notes that EWG 25-06 used the methodology from EWG 25-01 to identify the most robust natural mortality-at-age vector. The initial set of potential natural mortality vectors was established based on biological and ecological considerations. From these options, the selected vector was the one with the least error in the simulation study under conditions of natural mortality misspecification. This vector, derived from Chen and Watanabe (1989), indicates lower natural mortality rates for ages 0 and 1, and slightly higher rates for ages 2 and older compared to the current vector. STECF considers that this natural mortality vector provides a robust alternative to the current approach, which is based on averaging several methods, and it could be used in the upcoming stock assessment working group (EWG 25-09). STECF also notes that given that the simulation study was based on the current stock assessment, if there are significant changes from the current model settings, the simulation exercise should be repeated using these new settings.

Conversion from length to age

STECF notes that the EWG evaluated several approaches for converting LFDs to age composition data. The method proposed by the EWG consisted in quarterly slicing for combined sexes, with a reallocation of age 0 fish from quarters 1 and 2 into age 1 to maintain biological consistency. STECF further notes that incorporating uncertainty in the growth parameters through stochastic slicing led to marginally improved internal cohort consistency compared to deterministic slicing, representing a methodological improvement. Nevertheless, due to time limitations, the EWG was unable to prepare all input data using stochastic slicing by quarter.

STECF acknowledges that the EWG explored converting data to ages by sex utilizing the deterministic quarterly slicing approach. While initial results were promising, STECF emphasizes that this procedure requires additional checking and development. Furthermore, STECF notes that to implement this procedure effectively and consider species dimorphism comprehensively, it is essential that all input data are prepared and supplied by sex, which is not currently the case.

ToR 2. Stock assessment models.

Review and update the stock assessment model.

Table 5.3.1. Description of the stock assessment scenarios for hake in GSAs 1-5-6-7.

Scenario	Description	Run	Time period	Done during EWG 25-06
Scenario 1: 2024 MEDITS Corrected	2024 assessment with MEDITS index fixed + MEDITS2020: estimated	1.1	2007-2023	Yes
	2024 assessment with MEDITS index fixed + MEDITS2020: NAs	1.2	2007-2023	Yes
Scenario 2: 2025 BASE CASE Update	2025 Data set + MEDITS2020: estimated	2.1	2007-2024	Yes
	2025 Data set + MEDITS2020NA	2.2	2007-2024	Yes
Scenario 3: 2025 MEDITS+BALAR (2002-2006)	Increasing number of K in the splines.	3.1	2002-2024	Yes
	Increasing number of K in the splines; fmodel changed to include a tensor for changes in selectivity patterns.	3.2	2002-2024	Yes
	Run 3.1 + M vector estimated following Chen-Watanabe	3.3	2002-2024	Yes
	Run 3.2 + M vector estimated following Chen-Watanabe	3.4	2002-2024	Yes
	Scenario 3 + Slicing by quarter and stochastic		2002-2024	No
Scenario 4: 2025_EWG 2506	Scenario 3 +Sex separated		2002-2024	No
Scenario 5: 2025_EWG 2506_Sex	Scenario 4 + MEDITS starting in for 1994 GSA1,6,7 and from 2002 in GSA5		1994-2024	No
Scenario 6: 2025_EWG2506_MEDext19 94				

Source: EWG 25-06 report.

STECF notes that the EWG implemented gradual changes to both the input data (based on ToR 1) and model settings. This stepwise approach allowed for the assessment of each change's impact separately. A total of six scenarios were identified (Table 5.3.1). The first scenario used last year's assessment with the corrected MEDITS series. Scenario 2 extended the stock assessment to 2024 by incorporating the latest year's data, while scenario 3 began the assessment from 2002, adding MEDITS-BALAR surveys covering 2002 to 2006. Within these scenarios, variations included whether or not to use the 2020 MEDITS index, adjustments to the natural mortality vector, and modelling fishing mortality as a tensor product to reflect selectivity changes. Scenario 4 (stochastic slicing by quarter), scenario 5 (data preparation by sex), and scenario 6 (MEDITS starting in 1994) were not executed during the EWG and are suggested for future consideration.

STECF notes that scenario 1 (corrected MEDITS series) and scenario 2 (inclusion of 2024 data) produced results generally consistent with the assessment conducted in EWG 24-10. Both scenarios indicated a slight decline in fishing mortality since 2020, which was not identified in the previous assessment.

The exclusion of the 2020 MEDITS index (with the value replaced by NA) resulted in minor differences in the final model estimates for both scenarios 1 and 2. STECF considers that reconstructing the 2020 value was justified when it was the terminal year of the series (as in the 2021 assessment) or when there was insufficient data from subsequent years to estimate this value (such as in the 2022 assessment). At present, the stock assessment model is able to estimate the 2020 value using data from adjacent years, which removes the need for additional assumptions that could introduce further uncertainty.

Based on data starting in 2002 (scenario 3), the tensor product smooth model for fishing mortality produced fits and diagnostics similar to those of the fishing mortality model used in EWG 24-10, after adjusting the number of knots in the smooth functions to accommodate the extended time series. The tensor product smooth model tracked changes in selectivity over time, such as a decrease in selectivity at age 0 around 2010 following the transition to a squared mesh size of 40mm, and reduced selectivity of older ages due to decreased longline contributions in the catch. STECF notes that alternative configurations of fishing mortality models (e.g., alternative univariate or bivariate smooth functions, different numbers of knots) may improve the model although they require further investigation.

STECF notes that as expected, modifying the natural mortality vector within scenario 3 resulted in lower recruitment estimates and marginally lower but comparable fishing mortality estimates. The assessment's sensitivity to the choice of natural mortality vector was considered minimal.

Alternative assessment approaches.

STECF observes that the EWG discussed alternative assessment methods, specifically Stock Synthesis (SS3, Methot and Wetzel, 2013) and the Stochastic Surplus Production Model in Continuous Time (SPiCT, Pedersen and Berg, 2016). STECF considers that both are powerful stock assessment tools designed for

different contexts. SS3 offers flexible modelling for varying data availability and allows for spatial configuration of data, while SPiCT provides advice suitable for situations with limited data. STECF notes that the choice of stock assessment model should depend on the available data and the specific characteristics of the stock and fishery. Consideration should also be given to the model's capacity to capture key biological and fishery processes and its appropriateness for decision-making purposes.

Next steps

STECF acknowledges the contributions of the EWG and considers this work a significant step forward for the upcoming stock assessment working group, EWG 25-09 (ToR 7.2 in the current report). STECF notes that several data advancements are now ready for implementation by EWG 25-09: these include the correction of MEDITS data, utilization of MEDITS-BALAR surveys from 2002-2006, exclusion of the rebuilt 2020 MEDITS index (now replaced by NA values), quarterly slicing for combined sexes with age 0 fish from quarters 1 and 2 reassigned to age 1, and the application of a new natural mortality vector. Furthermore, STECF observes that quarterly stochastic slicing for length-to-age conversion (scenario 4), as well as enhancements to the fishing mortality submodel within the a4a model, could be addressed intersessionally prior to the stock assessment working group's meeting, potentially through an *ad hoc* contract. STECF also emphasizes that if Member States submit new or revised data, any intersessional work should include updates to data preparation and checking procedures.

STECF notes that the stock assessment resulting from the implementation of these changes will depart from the procedure established in the last hake benchmark conducted in 2019. Furthermore, STECF notes that implementing these changes in the stock assessment will require revising the reference points for hake in GSAs 1, 5, 6, and 7 during EWG 25-09.

STECF notes that the GFCM *ad hoc* working group on European hake drafted a short-term roadmap that includes the prioritization of the request for a benchmark process for the Western Mediterranean stocks, including hake in GSAs 1-5-6-7. STECF considers that such a benchmark process would allow continuing and/or consolidating the work initiated by EWG 25-06.

STECF conclusions

STECF endorses the outcomes of EWG 25-06 and concludes that all ToRs were adequately addressed.

STECF concludes that the following advancements may be implemented by the stock assessment expert working group (EWG 25-09): correction of MEDITS data, incorporation of MEDITS and BALAR surveys from 2002–2006, exclusion of the reconstructed MEDITS index for 2020, application of quarterly slicing for combined sexes with reallocation of age 0 fish from quarters 1 and 2 into age 1, and adoption of the updated natural mortality vector.

STECF concludes that, in preparation for EWG 25-09, the following intersessional tasks (e.g. via an *ad hoc* contract) should be completed prior to EWG 25-09: preparing data for any new potential submissions, and the improvement of the fishing mortality submodel within the a4a model. Additionally, it is necessary to examine the use of quarterly stochastic slicing for conducting length-to-age conversions.

STECF concludes that any change in the input data or in the stock assessment model configuration will require updating the reference points during the stock assessment expert working group.

STECF concludes that, ideally, the data preparation process should consider the sexual dimorphism present in the species. To achieve this, all data would need to be separated by sex (for example, by applying a sex-length ratio to commercial catches or utilising sex-disaggregated information from MEDITS). Additionally, there is a need to further develop and validate the quarterly stochastic slicing procedure for each sex. STECF concludes that these objectives cannot be achieved ahead of this year's stock assessment expert working group (EWG 25-09) and should instead be incorporated into longer-term planning.

STECF concludes that additional efforts to improve the stock assessment of hake in GSAs 1-5-6-7 may be carried out as part of the benchmark process planned in the GFCM short-term roadmap.

STECF concludes that data preparation for stock assessments in the West Mediterranean is a necessary process that involves specific tasks and discussions. Completing intersessional work, such as through a separate expert working group or *ad hoc* contracts before the main stock assessment working group, allows adequate time and resources for data preparation and checking. This approach also lessens the workload of the stock assessment EWG and may enhance the overall quality and robustness of the stock assessment process.

References

- Chen, S., Watanabe, S., 1989. Age dependence of natural mortality coefficient in fish population dynamics. *Nippon Suisan Gakkaishi* 55, 205-208.
- Mellon-Duval, C., de Pontual, H., Métral, L., and Quemener, L. 2010. Growth of European hake (*Merluccius merluccius*) in the Gulf of Lions based on conventional tagging. *ICES Journal of Marine Science*, 67: 62–70.
- Methot, R. D., and Wetzel, C. R. 2013. Stock synthesis: A biological and statistical framework for fish stock assessment and fishery management. *Fisheries Research*, 142: 86-99.
- Pedersen, M. W., and Berg, C. W. 2016. A stochastic surplus production model in continuous time. *Fish and Fisheries*, 18: 226-243.
- Punzón, A., Rueda, L., Rodríguez-Basalo, A., Hidalgo, M., Oliver, P., Castro, J., Gil, J., Esteban, A., Gil de Sola, L., and Massutí, E. 2019. History of the Spanish demersal fishery in the Atlantic and Mediterranean Seas. *ICES Journal of Marine Science*, 77: 553–566. doi:10.1093/icesjms/fsz231.

5.4 EWG 25-08: Evaluation of the Annual Reports 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 25-08 met in Brussels from 23 to 27 June 2025, leaving only one week between the end of the EWG and the start of the STECF PLEN 25-02. Consequently, the following STECF comments and conclusions are based on a presentation of the outcomes from the EWG 25-08 meeting held by the co-chairs, a draft version of the EWG 25-08 report made available to STECF. EWG 25-08 was assigned these tasks:

- Evaluate Member States' Annual Reports (ARs) on the implementation of their Work Plans (WPs) in 2024;
- Evaluate the "high severity" Data Transmission issues (DTi) reported by end-users for the 2024 data calls by the European Commission (Aquaculture), ICES, ICCAT and IOTC, and "medium/low" severity DTi from the 2024 Fleet economics data call where Member States resubmitted the data;
- Comment on the use of the DCF IT platform for WPs and ARs.

ToR 1. Evaluation of Member States' Annual Reports.

STECF observes that the evaluation of the 2024 ARs was based on a similar procedure as applied in recent years, using a two-step assessment. First, Member States were asked to address the issues identified in the pre-screening of all AR sections until the beginning of the EWG. Then, the EWG used the replies from the Member States and revised AR files for reviewing the issues raised and if/how the Member States had addressed those.

STECF acknowledges that the two-step approach with early correspondence with the Member States resulted again in an efficient evaluation and a reduced workload during the EWG. However, STECF stresses that it is essential that Member States remain responsive throughout the evaluation process, by providing timely and complete replies to pre-screening and EWG comments. Several assessments were delayed or left incomplete due to missing or insufficient feedback.

STECF notes that the evaluation of the 2024 ARs concluded the 3-year multiannual period 2022-2024. STECF observes that many Member States continued to deliver high-quality reports, but the overall performance across the EU declined compared to the previous year. The number of ARs rated "YES" (compliance equal to or close to 100%) rose from 19 in 2022 to 23 in 2023 but fell to 17 in 2024. This setback in

the final year of the period underscores the persistence of ongoing challenges in both the execution of WPs and the quality of their documentation.

STECF observes that shortcomings in the 2024 ARs included incomplete implementation of WPs, administrative and logistic difficulties (such as reduced catches or unavailable survey vessels), and major formal reporting issues. While some of these issues were unavoidable (e.g. bad weather or short-term technical problems affecting surveys), many were preventable (e.g. by finding longer-term solutions for administrative issues) and persisted despite repeated feedback from the pre-screening and EWG assessment.

STECF notes that the EWG was also tasked with assessing the evolution of Member States performance over the 2022-2024 period. Using assessment grids from previous years, the EWG summarised recurring weaknesses and improvements for each Member States. While some Member States showed steady progress in reporting quality and implementation, others failed to address repeated comments across multiple reporting years. In particular, the lack of clarity in bilateral agreements, inconsistent documentation of thresholds and limited justification for non-implementation continued to affect transparency and comparability.

STECF further notes that the EWG compiled separate electronic annexes containing recommendations for improvement of the AR submission guidance and AR assessment, as well as proposals for standardised EWG comments in the AR assessment grids.

ToR 2. Evaluation of Data Transmission issues (DTi).

STECF notes that the EWG assessed the DTi classified as "high severity" from the Aquaculture data call (two issues), ICES (three issues), ICCAT (one issue) and IOTC (three issues). In addition, 28 medium/low severity DTi from the 2024 Fleet Economics data call were assessed.

STECF observes that several issues were identified for the ICES and IOTC data regarding observer coverage and data completeness for specific fisheries, with some datasets missing or not meeting standard coverage requirements. In some cases, contradictory information was provided between Member States and end-users, resulting in unresolved discrepancies. The Member States committed to resubmit updated data in upcoming data calls; however, these corrections are still pending, and the issues are classified as 'unsatisfactory - to be revised'.

STECF observes a delay in the submission of geo-referenced catch and effort data to IOTC, accompanied by incomplete coverage details. While automation of data extraction and data checking processes has been initiated to address these shortcomings, actual data corrections remain outstanding, and the issue has been assessed as unsatisfactory and subject to revision (unsatisfactory - to be revised) by the responsible Member State. In addition, the separation of species within catch records caused issues, as the current approaches to species splitting were deemed inappropriate for assessment purposes. The lack of responses from Member States to requests for clarification has resulted in unsatisfactory assessments for these issues, with Member States being responsible for follow-up.

STECF observes that two high-severity issues referring to the 2024 aquaculture data call were assessed. One issue was stated to be corrected by the Member State, although is still pending to be checked by the end-user. The other issue was not addressed by the Member State.

STECF notes that the EWG was further requested to assess 28 medium/low severity DTi from the 2024 Fleet Economics data call. These issues were reviewed by the end-user (EWG 25-07) to verify whether the data had been corrected and uploaded as indicated, by the Member States. Of the total, eight issues were resolved and assessed as “satisfactory”. For six issues, the Member State response was ‘unsatisfactory - to be revised’, since the data had not been provided as indicated. The remaining 14 issues were assessed as ‘unsatisfactory’ (due to failure in data collection, no response from the Member State or failure to re-submit the data).

STECF acknowledges that the revised guidance for the Data Transmission Monitoring Tool (DTMT), established in PLEN 25-01 (March 2025), was used successfully by the EWG.

ToR 3. DCF IT platform for WPs and ARs

STECF observes that the newly introduced DCF IT platform remains a promising and useful tool for AR and WP submission and evaluation but continues to present some technical and usability challenges. In order to improve the platform’s functionality for the future, EWG 25-08 documented bugs, inconsistencies and usability issues in a dedicated defect log.

STECF conclusions

STECF concludes that EWG 25-08 fully addressed the ToRs.

STECF concludes that EWG 25-08 provided concise summaries on execution and reporting in the Member States’ ARs, as well as descriptions of the progress observed during the WP period 2022-2024. STECF concludes that these insights can help improving planning and quality assurance in the 2025-2027 WP period.

However, STECF concludes that a more clear and detailed AR submission and assessment guidance – especially regarding the correct use of templates, the distinction between planning and reporting sections, and the documentation of thresholds or optional activities – would support a more consistent and transparent implementation of the DCF across all Member States. In this respect, STECF suggests that the recommendations of the EWG for improvements to templates and guidance as provided in separate electronic annexes should be further discussed at EWG 25-16.

STECF concludes that the EWG efficiently evaluated data transmission issues within the new assessment cycle and successfully used the revised guidance for the DTMT established by STECF in March 2025.

STECF concludes that the collated comments on the use of the DCF IT platform should be taken into consideration by DG MARE for further development of the

platform to address persistent usability and formatting issues that continue to hinder effective reporting.

5.5 EWG 25-18: Outermost Regions

Request to STECF

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

Information provided to STECF

STECF was provided with EWG 25-18 report and the executive summary of it. A note from to provide Ifremer's expert inputs to ToRs 3 and 4 of the EWG was also provided to STECF.

STECF notes that a note by the French authorities was provided to the EWG 25-18.

STECF comments

The STECF Expert Working Group (EWG) 25-18 met in hybrid format, from 16 to 20 June 2025 in Ispra (Italy). The following ToRs were asked to the EWG:

ToR 1: Describe the level of use of the alternative methods offered in COM(2024)223 final by the outermost regions Member States concerned, in their national reports submitted in 2024;

ToR 2: Describe the level of compliance with the guidelines (COM(2024)223 final and COM(2014) 545 final), as relevant, by the outermost regions Member States concerned;

ToR 3: Reviewing section by section of the COM(2024)223 final guidelines, identify any research questions that are required to be addressed, and an indication as to the feasibility of such research;

ToR 4: Building on STECF's work in recent years, provide further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds.

STECF reviewed the report of the EWG 25-18 and notes that all the ToRs were addressed. A summary of the work undertaken in relation to each of the ToRs specified in the request to the EWG is listed below:

ToR 1. Describe the level of use of the alternative methods offered in COM(2024)223 final by the outermost regions Member States concerned, in their national reports submitted in 2024.

STECF notes that "alternative methods" in the request to the EWG refers to the options for calculating the indicators as described in the specific guidelines for the ORs (COM(2024)223 final), as alternative to those outlined in the general guidelines (COM/2014/0545 final).

STECF observes that the EWG assessed how the biological, economic, and technical indicators were calculated across the ORs and reviewed each Member

State's use of alternative methods offered in COM(2024)223 final in their 2024 reports.

STECF notes that the extent of utilisation and implementation of the ORs guidelines differed among the three Member States. France made the most extensive use of alternative methods in indicator calculations. These included introducing additional sub-segmentations for fleet segments, employing VUR90 as a technical indicator, applying the 20% SAR threshold, and integrating national assessment results for biological indicators. In contrast, Portugal and Spain made more limited use of such alternative approaches. Specifically, Portugal implemented the SHI alternative method for the Azores and Madeira and incorporated national assessment results for SHI calculations for 2024 and 2025. For Spain, the sole alternative method applied was the use of the 20% threshold in the computation of the SAR indicator.

STECF observes that the challenges identified in the 2024 national fleet reports included the application of the VUR for small-scale, multi-activity fleets, as well as under-reporting of complementary indicators such as the Number of Overexploited Stocks (NOS) and the Economic Dependency Indicator (EDI). The national fleet reports submitted in 2024 indicate ongoing efforts to tailor the assessment of fleet balance to the specific circumstances of each EU outermost region. The EWG noted that the variation among reports is attributed to differences in data availability and regional structural characteristics.

ToR 2. Describe the level of compliance with the guidelines (COM(2024)223 final and COM(2014)545 final), as relevant, by the outermost regions Member States concerned.

The EWG observed that the 2024 national fleet reports submitted by France, Portugal, and Spain for their respective outermost regions reveal varying levels of compliance with the requirements set out in COM(2014)545 and the more flexible COM(2024)223.

Based on the 2024 National Reports reviewed by EWG 25-18, the reports from the three Member States indicate ongoing efforts to improve data collection and compliance. The reports also identify areas for further development, including methodological adaptation, data transparency, and the inclusion of complementary balance indicators.

STECF notes that France has implemented several adaptation measures but faces challenges related to data documentation as for example the selection of the 20% threshold (stock makes up >20% of fleet catch) of the SAR indicator or the methodology to estimate the fishing mortality in La Réunion. Portugal's approach remains conservative and consistent, however, although Madeira introduced some alternative approaches allowed by the COM(2024)223 in calculating the SHI, concerns persist regarding the timeliness and reliability of the locally assessed data used for its computation. Finally, Spain largely aligns with COM(2014)545 guidelines and STECF can only observe the use of SHI threshold adjustment as allowed by COM(2024)223.

STECF acknowledges the efforts undertaken by Member States, although notes that closer alignment with COM(2024)223's methodologies and more comprehensive documentation of national methods and data sources will contribute to more robust and relevant future assessments of balance in the EU outermost regions.

ToR 3: Reviewing section by section of the COM(2024)223 final guidelines, identify any research questions that are required to be addressed, and an indication as to the feasibility of such research.

STECF notes that the EWG 25-18 report provides several proposals for additional research concerning the specification of the current guidelines (COM(2024) 223 final). Table 5.5.1 summarises comments on each EWG proposal along with STECF's observations. STECF notes that the EWG identified specific research questions that still need to be addressed in order to enhance understanding, improve applicability, or fill existing data gaps. The primary source from which the proposal originated was also identified. Additionally, the EWG also identified the fleet segment potentially affected and evaluated the feasibility of carrying out the identified research, categorizing it as low, medium, or high depending on factors such as data availability, technical complexity, and resource requirements.

ToR 4: Building on STECF's work in recent years, provide further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds.

STECF notes that the EWG 25-18 report provides several proposals for indicators and thresholds potentially to be employed for assessing the fleet balance calculation. Table 5.5.2 summarises comments on each EWG proposal along with STECF's observations.

Table 5.5.1. EWG 25-18 proposals and STECF comments for additional research concerning the specification of the current guidelines (COM(2024) 223 final) (ToR 3).

Proposals from EWG 25-18							STECF comments
Indicator	EWG 25-18	Expected effect	Fleet Segments	Ref.	EWG comment	Feasibility (low , medium, high)	
VUR	Research on the fishing activity profiles for the various small-scale fleet segments is necessary to establish clear methods for determining the theoretical base thresholds.	Establish activity thresholds based on standard methods.	All fleet segments with length less than 12 m.	EWG 25-18	Analyse historical data to find evidence-based threshold values.	low , medium	STECF acknowledges that the 70% of the potential, workable activity of comparable vessels used as threshold to identify technical inefficiency, is somehow arbitrary. Therefore, and in keeping with PLEN 24-01, STECF agrees that research on fishing activity profile in OMR territories is of importance to understand what the vessel utilisation ratio for individual fleet segments might imply.
SAR	It is considered that SAR should be only calculated as 10-20% of fleet catches and not as catches from the stock due to the fleet.	Retain this threshold changes.	All fleet segments with length less than 12 m.	EWG 24-06	Revision in next EWG.	high	STECF has previously expressed reservations with regard to the threshold values used to compute the SAR indicator (EWG 24-06 and PLEN 24-03). The sensitivity analyses carried out by EWG 24-06 did not provide any evidence that would support an increase in the threshold from 10% to 20% of the catches of a fleet segment for a stock at risk to be included when computing the SAR indicator. Furthermore, any level of threshold chosen is arbitrary and the higher the threshold, the less likely it is that a fleet segment would be identified as exploiting stocks at risk.
SAR	An effort from the competent authorities/organisations to get the foreign catches in OR stocks shared with other countries. When not feasible, a case-by-case threshold could be established supported by the OR with the proper data and explanations. A clear example applies in highly distributed stocks where the total catches are unknown as they are targeted by third countries.	To avoid this indicator penalises OR fleets with shared stocks.	Fleet segments with shared stocks.	EWG 24-06. All ORs national fleet reports submitted in 2025.	Collecting catch data from other countries (through the involved RFMOs).	medium, high (depending on the concerned RFMOs, Institutions, etc.).	The issue referred to has been recognised by STECF for many years and may result in an upwardly-biased value of the SAR for fleet segments. In principle there is a need to take account of total international catches from stocks at risk when computing the SAR indicator, although, whether a stock at risk is included in the computation of the SAR indicator value for a fleet segment, will be dependent both on the catches by the segment and the threshold applied. STECF also notes that the total international catches (when available from reliable sources) should be used to compute the SAR indicator for all fleet segments, not only those operating in the outermost regions.

Table 5.5.1 (cont). EWG 25-18 proposals and STECF comments for additional research concerning the specification of the current guidelines (COM(2024) 223 final) (ToR 3).

Proposals from EWG 25-18							STECF comments
Indicator	EWG 25-18	Expected effect	Fleet Segments	Ref.	EWG comment	Feasibility (low, medium, high)	
SAR	To consider National regulations together with National expert knowledge for the identification of stocks at risk (SAR), especially regarding localized areas and stocks.	More accurate regional lists of SAR stocks.	All fleet segments with length less than 12 m.	Guyader et al., 2025	Research/knowledge from the current DCF monitoring programs.	medium	STECF highlights that national regulations may be of interest to look for some supporting documents to increase SAR list in OMR; however inclusion of protected species at national level is not currently taken into account in the SAR definition implemented for the all EU fleet in the 2014 guidelines. This is also the case of regional or temporal closure for some species/area that are not feasible to be distinguished in the actual AER Data call then are not including in the calculation (FDI may offer some room to do so).
SHI	Roadmap to facilitate national stocks assessment in ORs.	Increase the SHI coverage and the representativeness of the indicator	ALL	EWG 25-18	Reinforcement of data collection and stock assessment trainings	medium	STECF agrees with this proposal that was a conclusion of the EWG 24-16 including the number of species sampled and the inclusion of recreational and IUU data in the assessments.
SHI	Roadmap for (faster) review or inclusion of national assessments that are not peer-reviewed.	Better agreement on a list of common F/Fmsy. Extension to all the fisheries (OMRs>12m) and European fleets (example scallops in the English Channel).	ALL	EWG 25-18		medium	STECF notes that the decision on whether non-peer-reviewed national stock assessment results should be included to compute the SHI is a decision for the Commission and STECF should note any implications arising. Ideally, all data being used to compute the SHI should be independently peer reviewed by an appropriate scientific body other than the STECF.

Table 5.5.1 (cont). EWG 25-18 proposals and STECF comments for additional research concerning the specification of the current guidelines (COM(2024) 223 final) (ToR 3).

Proposals from EWG 25-18							STECF comments
Indicator	EWG 25-18	Expected effect	Fleet Segments	Ref.	EWG comment	Feasibility (low, medium, high)	
SHI	How to include IUU fishing in indicator (e.g. in assessment model or external)?	More accurate estimation of fishing mortality and catch levels	ALL	EWG 25-18	Research on tracking systems to monitor illegal fisheries	low	The issues surrounding IUU fishing are widely known and affect many aspects of fisheries assessment and management. STECF notes that while not including them can bias SHI (and SAR) estimations, it remains difficult to have robust estimates of them.
SHI	Develop Sensitivity analysis for indicator.	Better understanding of indicator and its robustness.	ALL	PLEN-13-01		medium	A sensitivity analysis of SHI was reviewed in PLEN 24-01 which concluded: 1. Changing the 40% threshold value will impact the historical perception of regional trends in the SHI values. 2. SHI alone as an indicator of the balance between capacity and fishing opportunities is not appropriate. 3. To contextualise the SHI values, the values computed for all fleet segments could be displayed in the Balance EWG report together with the coverage in terms of the number/proportion of stocks exploited by the fleet that contribute to the resulting SHI values and the proportion of the landings' value represented by such stocks.
ECO	RoI, RoFTA, CR/BER - Integration of operating subsidies in current economic indicators	Harmonization of the indicators for all segments and all Countries. Avoid distortion with segments for which operating subsidies are included in the right DCF variable	ALL	Guyader et al., 2025; EWG 24-06; EWG 24-07	Recommendation to be addressed by the next Balance EWG ToRs for its application	high	STECF highlights that this proposal may improve the overview in terms of current financial situation for fleet segments but not in terms of the economic sustainability. STECF notes that the fleet economic data call requests operating subsidies as a separate variable from gross value of landings, other income and income from leasing out quota or other fishing rights (all sources of income). Therefore, there is no limitation on computing the total income without subsidies if they are correctly reported. Additionally, integration of subsidies in some fleet segments will create discrepancies in the EU economical overview for Balance capacity.

Table 5.5.1 (cont). EWG 25-18 proposals and STECF comments for additional research concerning the specification of the current guidelines (COM(2024) 223 final) (ToR 3).

Proposals from EWG 25-18							STECF comments
Indicator	EWG 25-18	Expected effect	Fleet Segments	Ref.	EWG comment	Feasibility (low , medium, high)	
ECO	RoI, RoFTA, CR/BER - The utilization of the 3.5% rate as the reference for calculating the opportunity as used in STECF-24-07 and in line with STECF-PLEN-23-02	The improvement in the interpretability of the results and the fact that the results are less dependent on interest rate fluctuations and are therefore easier to compare over time.	ALL	Guyader et al., 2025; PLEN 23-02	Since there is a robust scientific literature*, no additional research is needed .	high	STECF agrees with the EWG, although for consistency, it would appear to be appropriate for such an approach to be adopted for all EU fleet segments and not only those <12m in the outermost regions.
ECO	RoI, RoFTA, CR/BER - Harmonisation of the definition of net profit between the AER ECO guidelines and the (COM 2014) 545 final 11.1. The difference arises from the inclusion or not of the opportunity costs.	The utilization of harmonised indicators.	ALL	Guyader et al., 2025 (COM 2014) 545; EWG 24-07 (pag.514/Glossary/Net profit)		high	STECF agrees with the EWG, although for consistency, it would appear to be appropriate for such an approach to be adopted for all EU fleet segments and not only those <12m in the outermost regions.
ECO	RoI, RoFTA, CR/BER - The French authorities propose to use CR/BER and RoFTA indicators only for the main segment of the clusters.	Partial information on economic indicators assessment.	ALL	Note from the French Authorities to the European Commission . 2025	The issue cannot be addressed by research	N/A	STECF observes in accordance with PLEN 24-01 that the clustering of fleets for the economic indicators is not specific to the outermost regions, but is a standard issue for many Member States.

Table 5.5.1 (cont). EWG 25-18 proposals and STECF comments for additional research concerning the specification of the current guidelines (COM(2024) 223 final) (ToR 3).

Proposals from EWG 25-18							STECF comments
Indicator	EWG 25-18	Expected effect	Fleet Segments	Ref.	EWG comment	Feasibility (low , medium, high)	
ECO	RoI, RoFTA, CR/BER - Given the difficulties in assessing the variables 'value of capital' and 'depreciation of capital' for the Small-scale fisheries vessels, the French authorities propose to explore the possibility of using complementary economic and social indicators.	Alignment w with the real SSF socio-economic context.	All fleet segments with length less than 12 m.	Note from the French Authorities to the European Commission , 2025; (COM 2024) 223 FINAL; EWG 24-06	Some indicators have been already suggested (e.g. NP/CR and NVA/FTE); The proposal has to be discussed in the RCG Econ and the AER EWG.	medium	STECF observes in accordance with PLEN 24-01 that economic indicators measure the economic performance and viability of the fishing fleets. In some cases where the economic added value is limited but the social importance of fishery is proven (for food safety or other reason) additional social or economic indicators can be provided.
ECO	NP/CR (Net Profit/Current Revenues) - Their utilization is suggested to refine the assessment of the economic balance.	Consideration of the resource productivity.	ALL	EWG 24-06		high	STECF acknowledges that alternative approach to refine the perception of the fishery situation is allowed as long as they are considered as complementary approach rather than replacement of regular indicators.
ECO	NVA/FTE; (Net Value Added/Full) - Their utilization is suggested to refine the assessment of the economic balance.	Consideration of the labour productivity.	ALL	EWG 24-06		high	STECF acknowledges that alternative approach to refine the perception of the fishery situation is allowed as long as they are considered as complementary approach rather than replacement of regular indicators.

Source: EWG 25-18 and own elaborations.

Table 5.5.2. EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
VUR	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.	Find a threshold more appropriated than the fixed 70% for VUR.	Fleet segments with great variability in fishing activity	Guyader et al., 2025	Establishing a relationship between the variability of days at sea and the threshold appears to be challenging to implement in practice.	STECF reminds in line with PLEN 24-01 that fleets with part-time fishers or fishers active in seasonal fisheries are more likely to display an unfavorable VUR, without this being necessarily a true sign of imbalance. STECF reminds in accordance with PLEN 24-01 that research on social community profile can lead in better estimating the fishing activity profile especially in the context of OMR territories. However, STECF highlights the fact that review of the threshold is not expected to change the perception of the Balance situation.
VUR	For segments with 10 vessels or fewer, the top 10 average is inadequate. In such cases, the top 10 average is essentially the average of the entire segment, resulting in a Vessel Utilization Rate (VUR) of 1, which does not provide meaningful insights.	For fleet segments with low number of vessels the use of top 10 average to establish the maximum number of days at sea will produce VUR values not relevant	Fleet segments with low number of vessels	Guyader et al., 2025	EWG agrees that this approach should not be specifically applied to fleet segments with a low number of vessels.	STECF agrees with this remark.
VUR	The 90th percentile (P90) method is less sensitive to outliers and provides results that are more coherent. P90 offers a better balance between capturing the typical behaviour of the fleet and minimizing the impact of outliers. In any case, outliers should be carefully examined, especially when the size of the segments decreases.	Reduce outliers' effects	All fleet segments	Guyader et al., 2025	EWG states that this method minimizes the impact of outlier activities and lowers the risk of unreal VUR values.	STECF notes that research on fishing activity profile in OMR territories is of importance to understand what the vessel utilisation ratio for individual fleet segments might imply.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
VUR	The VUR or VUR90 vessel use indicator is not taken into account for the final validation of the balance of ultramarine fleet segments of less than 12 metres if the biological and economic indicators are in equilibrium.	Improve the use of VUR Indicator	All fleet segments with length less than 12 m	Note from the French Authorities	EWG acknowledges the importance of this technical indicator and believe it should be combined with economic and biological indicators to determine that fleet segment is out balance.	STECF agrees with EWG 25-18 remark considering that indicators in all are evaluated to estimate the balance of the fleets.
VUR	Maintain VUR90 as a methodology explicitly authorised in particular for vessels of 12 metres and above, and, secondly, to confirm that the variable of the 90th percentile can be entered in the column of the optional variable 'maxseadays' in the context of the FleetEco call for data.	Reduce outliers' effects	All fleet segments	Note from the French Authorities*	Using the 90% method minimizes the impact of outlier activities and can address some issues related to this indicator. To compare the calculation of the VUR indicator submitted by MS, it is necessary to include the Maxsea days using the 90% method in the data collection.	STECF highlights that the exclusion of the outliers can affect the VUR value. STECF reminds that the use of VUR90 is a possibility offered by the guidelines, however STECF highlights that this would request that the same cluster composition is applied throughout the entire time series of indicators.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
VUR	A draw back of using alternative thresholds is that they may change from year to year, especially, if thresholds are based on the data (i.e. the maximum observed number of days at sea, or a percentile). In such cases, it may be difficult to identify trends in the VUR indicator. Therefore, it would be recommended to base thresholds on multiple data years to make it less prone to eventual extreme values, and in case MS change the threshold, they should provide appropriate argumentation for such a decision.	Utilizing a fixed theoretical activity, equivalent to 220 days at sea, for small-scale vessels to identify trends in the VUR indicator over the years.	All fleet segments with length less than 12 m	EWG 24-06	EWG agrees that this approach is the most appropriate method for the calculation of the VUR indicators in small scale fleets. Research on the fishing activity profiles for the various small scale fleet segments is necessary to establish clear methods for determining the theoretical base thresholds.	STECF agrees with EWG 25-18 remarks. STECF notes comments from PLEN 24-01 that fleets with part-time fishers or fishers active in seasonal fisheries are more likely to display an unfavorable VUR, without this being necessarily a true sign of imbalance.
SAR	Flexibilization with case-by-case rationale for thresholds when necessary (in particular for shared stocks with unavailable total catch data).	To avoid this indicator penalises OR fleets with shared stocks	ALL	EWG 24-06; All ORs national fleet reports submitted in 2025	PLEN 25-02	STECF has previously expressed reservations with regard to the threshold values used to compute the SAR indicator (EWG 24-06 and PLEN 24-03). The sensitivity analyses carried out by EWG 24-06 did not provide any evidence that would support an increase in the threshold from 10% to 20% of the catches of a fleet segment for a stock at risk to be included when computing the SAR indicator. Furthermore, any level of threshold chosen is arbitrary and the higher the threshold, the less likely it is that a fleet segment would be identified as exploiting stocks at risk.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
SAR	To consider National/local regulations and know ledge for the identification of stocks at risk (SAR), in localized areas and stocks	More accurate regional lists of SAR stocks	ALL	Guyader et al., 2025.	Discussion in STECF PLEN	STECF highlights that national regulations may be of interest to look for some supporting documents to increase SAR list in OMR; how ever inclusion of protected species at national level is not currently taken into account in the SAR definition implemented for the all EU fleet in the 2014 guidelines. This is also the case of regional or temporal closure for some species/area that are not feasible to be distinguished in the actual AER Data call then are not including in the calculation (FDI may offer some room to do so). STECF further notes that, w hile the identification of additional species/stock as SARs w ill de facto be informative, it w ill potentially increase the SAR indicator value for some fleet segments. How ever, because fleet segments w ith a SAR indicator value of 1 or greater are all deemed to be out of balance, the only added value (in terms of assessing balance) of adding more stocks to the list of stocks at risk w ould be to potentially increase the number of fleet segments w ith a SAR indicator value greater than zero.
SHI	Flexible SHI calculation w ith partial F.	SHI more representative for small scale fleets	All fleet segments w ith length less than 12 m.	EWG 24-06	It is not comparable w ith other SHI estimated w ithout partial F and models providing partial F are limited (only integrated models as SS3). Require information on the total catches (or landings) in order to calculate the partial fishing mortality, and that this may be difficult for shared stocks.	STECF remarks and reminds in accordance w ith PLEN 24-01 that that any use of partial F could be added as a complementary indicator but not as a replacement of SHI unless the current guidelines are changed. How ever, such an approach is data-hungry and currently there is a shortage of appropriate data to compute the SHI as currently specified. Furthermore, to understand the potential utility and interpretation of the proposed "partial F SHI" appropriate simulations and sensitivity testing needs to be undertaken.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
SHI	Using national assessment.	Can increase the number of SHI	All	EWG 24-06	May introduce unverified SHI calculations. The estimate of SHI needs strict validation protocols/template (i.e., validation of stock assessments process and dissemination). Stocks assessment included should not be older than 3-5 years before the reference year (depending of the life history of the stocks).	STECF notes that the decision on whether non-peer-reviewed national stock assessment results should be included to compute the SHI is a decision for the Commission and STECF should note any implications arising. Ideally, all data being used to compute the SHI should be independently peer reviewed by an appropriate scientific body other than the STECF.
SHI	Complementary indicators (EDI and NOS).	Complement of SHI outcomes highlighting the economic dependency of a fleet on stock in not health conditions.	All	EWG 24-06	Could be useful only in combination with SHI.	STECF agrees with EWG 25-18 that EDI and NOS are useful and complement the mandatory indicators included in the guidelines.
SHI	Complementary indicators (LPUE).	Complement of SHI outcomes.	All	EWG 24-06	Could be not accurate in term of ratio F/F_{MSY} . To be used always in combination with SHI.	STECF agrees that an additional index to complement the SHI that specifically takes into account the relative impact of fishing mortality by different fleet segments to permit the relative impacts of different fleet segments.
SHI	Using Fupper.	More flexibility to obtain F/F_{MSY}	All	Guyader et al., 2025	Meta-analysis used for the recommendation might not suitable for all stocks. F/F_{MSY} is more accurate.	STECF agrees with the EWG that is unclear if robust estimations of this indicator could be obtained for the OR stocks. Therefore as suggested in PLEN 24-02 until further evaluations can be completed F_{MSY} should be considered as Fupper.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
SHI	Illegal fisheries.	More accurate catch levels	Fleets segment targeting Acupa rouge	Guyader et al., 2025	Considered a good approach, but in combination with studies on selectivity showing the homogeneity of the way the fleet segment harvest the stock (national/illegal).	The issues surrounding IUU fishing are widely known and affect many aspects of fisheries assessment and management and not ORs. STECF notes that while not including them can bias SHI (and SAR) estimations, it remains difficult to have robust estimates of them.
SHI	The indicator may be presented together with the actual coverage percentage and the number of stocks used to compute the value.	Number of relevant SHI increase	All fleet segments with length less than 12 m.	COM(2024)223 final guidelines	The effectiveness of SHI is lower if the coverage is lower.	In accordance with STECF conclusions in PLEN 23-02 and 24-01, STECF agrees with this proposal of presenting quality coverage and number of stocks used for the SHI computation.
SHI	Using stocks assessment of one species as a proxy on another (in the same species group).	Number of relevant SHI increase.	All fleet segments with length less than 12 m.	EWG 24-06	May introduce unverified SHI calculations. The estimate of SHI needs strict validation protocols/template. In this case, the proportion of each species in the group and homogeneity in life history traits, in spatial extent ... should be documented.	STECF notes in accordance with what already said in PLEN 24-01, that in the case of species that are landed and reported together as a genus spp, they will also be assessed together and then may be available for proxy. However STECF underlines though that group assessments may be misleading if covering species with different dynamics and life history traits. STECF warns also that allowing this should not create an incentive to not provide data at the species level. As for overall indicator calculation in OMR, STECF encourages improving data collection in parallel of any exploratory proxy. Therefore, STECF cannot support this recommendation.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
ECO	RoI, RoFTA, CR/BER - Integration of operating subsidies in current economic indicators.	Harmonization of the indicators for all segments and all Countries. Avoid distortion with segments for which operating subsidies are included in the right DCF variable.	ALL	EWG 24- 06; Guyader et al., 2025; EWG-24-07	Recommendation to be addressed by the next Balance EWG ToRs for its application.	STECF highlights that this proposal may improve the overview in terms of current financial situation for fleet segments but not in terms of the economic sustainability. STECF notes that the fleet economic data call requests operating subsidies as a separate variable from gross value of landings, other income and income from leasing out quota or other fishing rights (all sources of income). Therefore, there is no limitation on computing the total income without subsidies if they are correctly reported. Additionally, integration of subsidies in some fleet segments will create discrepancies in the EU economical overview for Balance capacity. Therefore, STECF suggest that calculations of RoI, RoFTA, CR/BER integrating operating subsidies could be added as a complementary indicators but not as a replacement.
ECO	RoI, RoFTA, CR/BER - The utilization of the 3.5% rate as the reference for calculating the opportunity as used in the STECF AER EWG 2024 24-07 and in line with the PLEN 23-02.	The improvement in the interpretability of the results and the fact that the results are less dependent on interest rate fluctuations and are therefore easier to compare over time.	ALL	EWG 24- 07; Guyader et al., 2025; PLEN-23-02	Recommendation to be addressed by the next Balance EWG ToRs for its application.	STECF agrees with the proposal. STECF observes that this procedure will harmonise the interpretation of these indicators between the Balance assessment and the economic assessments derived from the AER.

Table 5.5.2 (cont.) EWG 25-18 proposals and STECF comments for further advice on the indicators employed for the fleet-balance calculation and their appropriate thresholds (ToR 4).

Indicator	Recommendation	Expected effect	Fleet segments	Ref.	EWG 25-18 comment	STECF PLEN 25-02 Comment
ECO	RoI, RoFTA, CR/BER - Harmonisation of the definition of net profit between the AER guidelines and the (COM 2014) 545 final 11.1. The difference arises from the inclusion or not of the opportunity costs.	The utilization of harmonised indicators.	ALL	Guyader et al., 2025; COM (2014) 545 final;	The EWG recommends using the definition of the net profit applied in the AER guidelines.	STECF agrees with the proposal. STECF considers that this procedure will harmonise the guidelines with the AER methodology to define indicators.
ECO	NP/CR (Net Profit/Current Revenues) - Their utilization is suggested to refine the assessment of the economic balance.	Consideration of the resource productivity.	ALL	EWG 24- 06	The EWG recommends including in the ToR in the next EWG the way to use the indicator into the balance assessment.	STECF agrees with the proposal and acknowledges that alternative approach to refine the perception of the fishery situation is allowed as long as they are considered as complementary approach rather than replacement of regular indicators.
ECO	NVA/FTE - Their utilization is suggested to refine the assessment of the economic balance.	Consideration of the labour productivity.	ALL	EWG 24- 06	The EWG recommends including in the ToR in the next EWG the way to use the indicator into the balance assessment.	STECF agrees with the proposal and acknowledges that alternative approach to refine the perception of the fishery situation is allowed as long as they are considered as complementary approach rather than replacement of regular indicators.

Source: EWG 25-18 and own elaborations.

STECF conclusions

STECF concludes that the Terms of Reference of the EWG 25-18 were adequately addressed and based on its review of the EWG 25-18 report, concludes as follows:

STECF concludes that in their national fleet reports submitted in 2024, the uptake of alternative methods to compute balance indicators provided for by the OR guidelines (COM(2024)223 final) varied by Member States. In making use of such methods, Member States have demonstrated some progress in attempting to provide a more representative overview of the fleet balance in their ORs. Nevertheless, some notable gaps and challenges persist, especially concerning data availability and quality, indicator coverage, and data transparency.

STECF concludes that for fleet segments for which the alternative indicator computation methods were used, it is not possible to determine whether their use has resulted in a more cogent assessment of the balance between capacity and fishing opportunities for the fleet segments concerned.

STECF concludes that the 2024 national fleet reports reveal varying levels of compliance with the requirements set out by guidelines COM(2014)545 and COM(2024)223.

STECF acknowledges the efforts made by Member States to comply with the ORs guidelines. However, it concludes that more comprehensive documentation of national methods and data sources is needed to ensure future assessments of balance in the EU outermost regions are both robust and relevant.

STECF concludes that some of the proposals made by the EWG 25-18, as reflected in Table 5.5.1, may be more pertinent to the assessment of the balance between capacity and fishing opportunities in the outermost regions and some other can only be considered as providing complementary information. However, unless the current guidelines are revised, any additional or modified indicator would necessarily be regarded as complementary to those specified in the current guidelines.

STECF concludes that from its review of the EWG 25-18 and earlier STECF reports, the following points are worthy of further consideration:

- The provision in the 2024 guidelines to permit sub-segmentation of the fleet segments specified in the fleet economic report should be retained. In principle, sub-segmentation will help to ensure that the indicator values for sub-segments are more representative than at a more aggregated segmentation. This is particularly true, although not limited to the Vessel Utilization Ratio (VUR) indicator.
- The provision to permit the results from national assessments to be used as input to the computation of the Sustainable harvest indicator (SHI) is a decision for the Commission. However, if the number of stock assessments

increase, inclusion of such results will increase the number of stocks on which the SHI values are based and potentially increase the number of fleet segments for which a SHI value can be computed.

- With regard to the Stocks at Risk (SAR) indicator, in line with its PLEN 24-03 remarks, both thresholds (10% of total international catches and/or 10% or 20% of the catches of the fleet segment) should be retained to determine whether a stock at risk should be included in the SAR indicator. Furthermore, the total international catches should include catches by EU and third country vessels and if possible, catches through IUU and recreational fishing should also be accounted for.
- With regard to economic indicators, STECF concludes that the economic indicators used for the assessment of balance between capacity and fishing opportunities should be aligned with those used in the Annual Economic Report of the EU Fishing Fleet (AER).

6. ADDITIONAL REQUESTS SUBMITTED TO THE STECF PLENARY BY THE COMMISSION

6.1 Evaluation of the Common Fisheries Policy (CFP) Regulation

Background provided by the Commission

2022 STECF consultation on the functioning of the CFP

During the STECF winter plenary of 2022 (PLEN-22-01), TOR 7.8 “STECF for comments/feedback on the questionnaire on functioning of the CFP”, outlined two tasks to be completed:

First, STECF was requested to consider the online questionnaire of the targeted consultation on the 2022 Report on the Functioning of the Common Fisheries Policy as a background document. The online questionnaire was designed to follow the chapters of the CFP and provide a summary of the status of implementation and studies or developments per chapter.

Second, STECF was requested to provide its feedback, comments and references to specific scientific articles that Commission should take into account, highlighting what worked well and what not, as well as innovative best practices. The results of this exercise, together with the results of the online questionnaire to all stakeholders were to be a starting point to feed into the in-depth discussions at regional level that were to take place April 2022.

The STECF addressed the TOR by issuing a questionnaire to its members, to which 20 experts responded. The questions were as follows:

- Question 1: What are the main topics or articles in the basic regulation of the CFP which you want to see covered in the report on the functioning of the CFP?
- Question 2: Are there specific scientific articles/papers you want to highlight for the Commission to take into account?
- Question 3: What concerns you have regarding the functioning of specific articles in the basic regulation of the CFP?
- Question 4: What do you see as innovative best practice in relation to provisions in the basic regulation of the CFP?
- Question 5: In your opinion, what works well and what not regarding the CFP?

The answers to the questionnaire can be found in the PLEN 22-01 Report and in a separate document.

2025 STECF consultation on the evaluation of the CFP Regulation (this year's request)

The evaluation of the CFP Regulation will assess the impact of the CFP Regulation on the conservation of marine biological resources and the management of fisheries and fleets that rely on them. It will also examine the policy's effects on the supply chain, consumers, and public authorities across all EU Member States over the past decade (2014-2024). The evaluation follows Better Regulation principles, making use of five criteria. These criteria are in essence a set of principles used by the

European Commission to: (i) assess the quality and impact of policies and regulations, (ii) ensure that EU policies are well-designed, and (iii) ensure that they deliver real benefits to citizens and businesses across the EU. The impact of the 2013 CFP Regulation will be examined on five evaluation criteria by answering the following questions:

- How effective has the CFP regulation been in meeting its objectives?
- How efficient in terms of cost and administrative burden has been the CFP regulation in meeting its objectives?
- How coherent is the CFP regulation with other EU legislation?
- How relevant is the CFP regulation in meeting the current and future needs?
- What is the added EU value of the CFP regulation compared to separate regulations by Member states?

More information on the evaluation can be found on the [Have your say portal](#), where the public feedback period and the public consultation are currently closed and entries published. The 12-week public consultation closed 21 April. MARE received 364 replies, which we are currently being analysed. MARE aims to publish the evaluation as a staff working document by spring 2026. Input from stakeholders and evidence is gathered until autumn 2025 to feed into the assessment.

Following a first discussion on the evaluation of the CFP Regulation at STECF 25-01 PLEN, STECF proposed two avenues of consultation: (i) a request to discuss the issue at July plenary (PLEN 25-02), (ii) an informal setting with STECF members later in the year.

Based on these discussions and on the fact that MARE values the input of the STECF as advisory body in this process, the following request is put forward to ensure STECF input within the consultation process, for MARE to collate and to feed into the evaluation itself. However, MARE highlights the importance to build upon the 2022 exercise within the STECF. MARE also wants to emphasize that all previous STECF EWG and PLEN reports are valuable and essential sources already for the evidence-based evaluation.

Ad hoc contract(s) were launched summarising previous assessments and evaluation from STECF that will provide the basis for discussion at STECF Plenary.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

Building upon the exercise 7.8 “STECF for comments/feedback on the questionnaire on functioning of the CFP” of the 69th STECF plenary (PLEN-22-01), and previous STECF EWG and PLEN reports, the STECF is requested to:

1) Update its feedback and comments on the key topics previously identified in 2022, point 7.8, if or where relevant. In addition, update the relevant scientific articles or references for the Commission to use in the evaluation. Also, highlight any new

relevant topics or emerging issues which, in the expert opinion of the STECF, should be included in the evaluation, that have arisen since the last input was provided on the functioning of the CFP Regulation. This expert opinion should include, where relevant, references to specific data, databases, STECF reports or other scientific outputs.

2) Discuss on the basis of an ad hoc contract, previous STECF reports on topics, such as CFP objectives, landing obligation, multi-annual plans, international dimension, conservation measures, fishing opportunities etc, identifying to what extent the provisions of the CFP Regulation have delivered or not, and why.

3) Consider to what extent the current articles of the CFP Regulation are sufficiently clear and adequate for the provision of STECF scientific advice and how it could be improved in the future.

4) Discuss how the STECF could possibly contribute in any other way than this specific request to the evaluation of the CFP Regulation.

Summary of the information provided to STECF

STECF was provided with 3 documents:

- The internal report produced by PLEN 22-01 (ToR 7.8)
- Two files (an excel spreadsheet and a written report) from adhoc contracts 2555 and 2556.

These documents are described in the ToRs 1 and 2 below.

STECF response

ToR 1. Update feedback and comments on the key topics previously identified in 2022, point 7.8, if or where relevant. In addition, update the relevant scientific articles or references for the Commission to use in the evaluation. Also, highlight any new relevant topics or emerging issues which, in the expert opinion of the STECF, should be included in the evaluation, that have arisen since the last input was provided on the functioning of the CFP Regulation. This expert opinion should include, where relevant, references to specific data, databases, STECF reports or other scientific outputs.

In 2022, STECF was requested to provide its feedback, comments and references to specific scientific articles that Commission should take into account, highlighting what worked well and what not, as well as innovative best practices. STECF addressed the TOR by issuing a questionnaire to its members, to which 20 experts responded. The questions were as follows:

- Question 1: What are the main topics or articles in the basic regulation of the CFP which you want to see covered in the report on the functioning of the CFP?
- Question 2: Are there specific scientific articles/papers you want to highlight for the Commission to take into account?

- Question 3: What concerns you have regarding the functioning of specific articles in the basic regulation of the CFP?
- Question 4: What do you see as innovative best practice in relation to provisions in the basic regulation of the CFP?
- Question 5: In your opinion, what works well and what not regarding the CFP?

PLEN 25-02 made the 2022 response available to all members, for open contribution with individual points of view. That includes valuable points of view on a few more articles than in 2022, and the list of references in Question 2 have been updated too.

STECF notes that the diversity of individual views expressed seems to have increased compared to the 2022 survey for some of the articles. STECF notes however that the 2025 survey is not necessarily directly comparable with the 2022 survey, on two aspects. First, it is to be kept in mind that the 2022 exercise was conducted during the last plenary meeting of a 3-years standing committee, with members having worked and interacted together for a long time on STECF topics; while the 2025 has been conducted during the first plenary meeting of a newly-appointed committee, with many new members with different expertise and experiences. Second, the 2022 survey was responded remotely through online form with limited text size and without seeing the other respondents' answers; while the 2025 was responded during plenary and directly on a shared document.

The individual replies have been transmitted to DG Mare in a separate document as they do not represent an STECF opinion.

Concerning STECF opinion on new relevant topics and emerging issues not addressed in the 2022 survey, they are partly addressed in the ToR 4 of this request. They include issues related to climate change, to spatial management issues in relation with marine protected areas and offshore wind farms, and to the effects of the new control regulation. The impact of the new Ocean Pact on the CFP is also a topic of interest.

ToR 2: Discuss on the basis of an ad hoc contract, previous STECF reports on topics, such as CFP objectives, landing obligation, multi-annual plans, international dimension, conservation measures, fishing opportunities etc, identifying to what extent the provisions of the CFP Regulation have delivered or not, and why.

Summary of the *ad hoc* contracts' report provided to STECF

The contracted experts were requested to:

1. List the relevant STECF reports, conclusions from STECF and observations between 2014 and 2024, or if relevant from 2009 onwards, on the various topics that are of relevance for the Commission to take into account in the evaluation of the CFP Regulation.
2. Summarise the main aspects per thematic as per point 1 with what worked and what did not work clearly identified.

3. Comment to what extent the provisions of the CFP Regulations have delivered or not, and why, based on these earlier conclusions and findings (as identified in 1 and 2).

The report from the ad hoc contractssummarised the STECF advice provided in plenary reports between 2014 and 2024. In total, advice from 589 ToRs from 32 plenary reports were summarised. For each of these, the ad-hoc report classified the ToR according to the CFP article(s) and corresponding CFP objective(s) of Article 2 it addressed, and allocated them into qualitative performance categories (see further below).

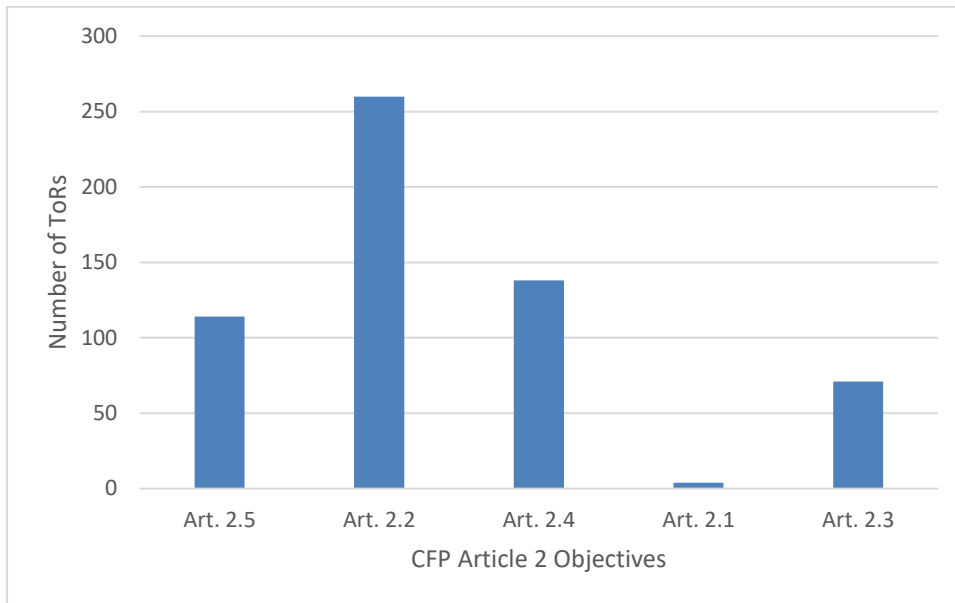
The contractors underlined though that many ToRs could relate to several objectives and articles. In such cases decisions were made by the contractors on the single main category to allocate. For example, ToRs related to the Annual Economic Report on the EU Fishing Fleet (AER) are counted as Article 2.4 “contributing to the collection of scientific data” objective rather than “socio-economics” objective.

The contractors provided two files:(i) a comprehensive Excel file containing all extracted text from the 32 plenary reports. This includes an overview spreadsheet listing the 589 ToRs, their corresponding Article 2 objective(s), and the relevant articles (both primary objective/article and, where relevant, secondary objectives/articles). In addition, for each primary CFP article identified, a worksheet provides detailed text citations for the corresponding ToRs; NB only the overview sheet is made public, while the detailed worksheets with contractors’ comments have been transmitted to DG Mare (ii) a written report addressing the requests outlined in the contract.

The *ad hoc* report emphasises that assessing the success or failure of the CFP solely on the basis of STECF reports may lead to a biased perspective. In particular, it must be kept in mind that STECF reports are initiated by the DG MARE to address specific issues, and STECF responds to questions formulated by MARE. As such, the vast majority of the ToRs reviewed by STECF are not initiated by STECF itself, except those, limited in number, called “STECF initiatives”.

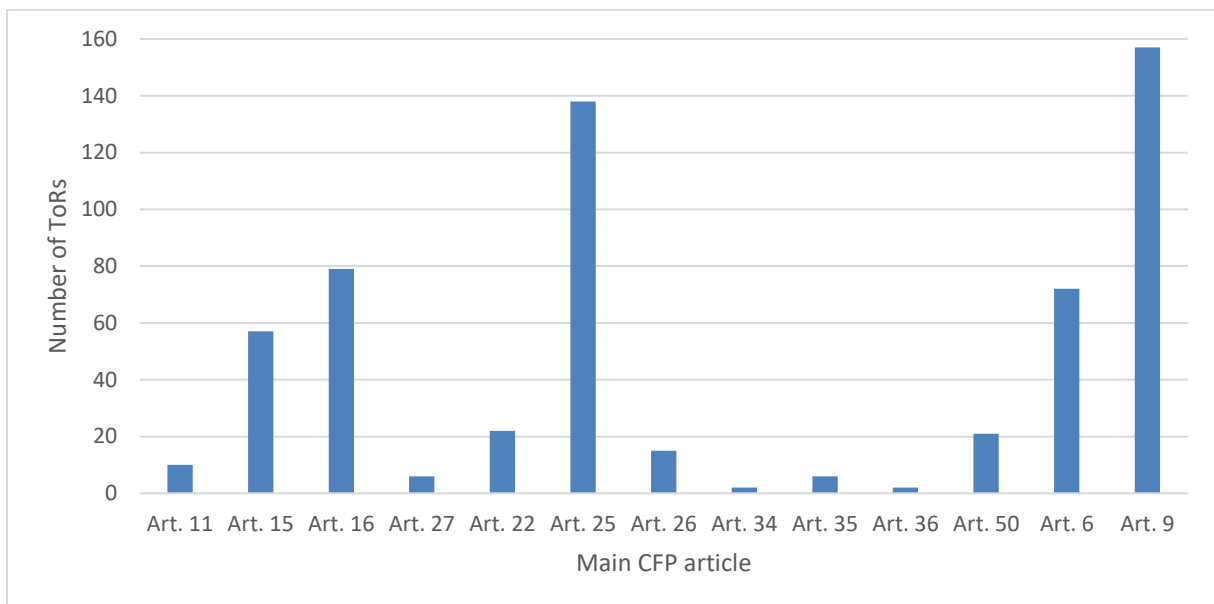
The *ad hoc* report provided two figures representing the ToR counting per CFP objective (Article 2) (Figure 6.1.1) and per main CFP article (Figure 6.1.2).

Figure 6.1.1. Count of STECF plenary ToRs per CFP article 2 (objectives).



Source: *adhoc contract and own elaborations.*

Figure 6.1.2. Count of STECF plenary ToRs per CFP article.



Source: *adhoc contract and own elaborations.*

As shown in Figure 6.1.2, 13 CFP articles were identified by the contractors across the STECF plenary ToRs. Of these, the main nine are detailed in the written report: Article 6 (technical measures), Article 9 (management plans), Article 11 (conservation measures), Article 15 (landing obligation), Article 16 (fishing opportunities), Article 22 (balance capacity), Article 25 (Data Collection Framework - DCF-), Article 35 (Common Market Organisation) and Article 50 (Annual Report of the CFP). The information on the other four articles is available in the spreadsheet.

The *ad hoc* report noted that several CFP articles were not covered in the summary, because they were not included in the ToRs of the STECF plenaries reports, including for example the international dimension of the CFP, especially the external policy (Article 28) and all related partnership agreements with non-EU coastal states. What was touched upon, however, is the fleet activity in the Outermost Regions through the Balance Capacity reports. Furthermore, over the 10 year period covered only two ToRs specifically addressing control and enforcement were requested to STECF.

For each of these main nine articles, the contractors classified the ToRs' conclusions and statements in one of the following five categories, and collated them in the written report:

- What works in the CFP
- Why it works
- What does not deliver in the CFP
- Why it does not deliver yet
- Proposed fix or suggestions for improvements

The *ad hoc* report strived to summarise the key findings for each studied article. The following points are copied from the summary as written by the contractors:

- Conservation measures (Article 6) triggered works toward exploring ways to achieve increased yields, potential long-term benefits and costs, and alternative gear changes to enhance size-selectivity in mixed fisheries which were reported in several STECF expert working groups.
- Multi annual plans (Article 9) would secure greater stability for the fishing sector and reduce the risk of stock collapse. In some occasions, the STECF plenaries found that the FMSY range approach to allow for flexible fishing opportunities, addressing mixed fishery challenges while providing biomass protections against overfishing, represents an improvement over the basic regulatory provisions.
- Article 11 joint recommendations under the regionalisation process of the CFP (Article 18). Under this last article, all Member States with a direct fishing management interest shall agree to submit a proposal about potential measures that would account for regional characteristics. These proposals would possibly transpose into delegated acts as long as the examination of the scientific underpinning would prove them relevant in contributing to the objectives. The Joint Recommendations (JR) submitted to the STECF plenaries so far could be a lengthy process, but STECF considered that if implemented, most of the proposals will help lessen fishing impacts on these habitats, including the possible effect of effort displacement. The implementation of the measures in these areas have evolved over time and some have now implemented close to real time monitoring of the areas through AIS provisions for all vessels present on the sites.

- The landing obligation (Article 15) came with many difficulties that challenged its implementation, including STECF to review a large number of requests for exemptions. This has led to poor performance so far, even counter performance whenever the scientific advice based on accurate catch reports is impaired. Issues that the STECF plenaries reported, included limited efforts to improve gear selectivity, a lack of effective control and enforcement measures, misreporting of discards under exemptions, cases of non-compliance risk for so called choke species, and room for requesting derogation while difficulty for STECF in assessing the species survivability after capture, and challenges in assessing the disproportional costs of handling unwanted catches etc.
- Article 16 Fishing opportunities. The still ongoing overfishing situation in the Med (i.e. $F/F_{MSY} >> 1$) is a sign of failure to achieve the management target (by 2020, and presently 2025). STECF plenaries reported on several occasions issues with mixed species fisheries and the impossibility to fish at F_{MSY} for all species. Also, some species were initially left aside and potentially overfished when classified as non-quota species, a tendency that might get corrected with the implementation of the Technical Measures Regulation.
- The fishing capacity management (Article 22) - The assessment of the EU fishing capacity still perceived unbalanced fishing capacity of the fleets in relation to the EU guidelines. It is not clear whether fleets being in unbalanced capacity result from a situation of overfishing and whether the overfishing is the result of overcapacity, or of environmental factors external to fishing. The assessment of the balance is impaired by low data coverage on some fleet segments (e.g. the Outermost Regions).
- Collecting data requirements for fisheries management (Article 25) supported by the DCF data have purposes that go beyond monitoring for fisheries management, stock assessment and the analysis of the economic situation of the EU fleet, including supportive data for research works. The implementation of the social dimension of the EU fisheries policy is found still in progress; for example, allocating effort or catch limits to different fleets based on sustainability criteria depending on CFP Article 17 is still not fully implemented. Important improvements have occurred over the period in Member States' performance in the DCF requirements, in the production of Annual Economic Report and in the FDI.
- Article 35 Common Market Organisation. Some elements of STECF plenaries identified a need to develop fisheries sustainability indicators to track the performance of the CFP and inform consumers. The transition towards MSY is a significant advancement, but the next step should be to adopt an ecosystem-based fisheries management approach. Some elements of the STECF have indicated that while MSY is necessary, it is insufficient on its own, as it does not account for technical interactions and habitat degradation, which are crucial for maintaining healthy ecosystems and fisheries.

- Annual Report required by Article 50 on monitoring the progress of the CFP toward reaching MSY showed the progress of NEA fisheries to reach the target while the Mediterranean & Black Sea fisheries have still not achieved the goal. Recent methodological development has also shown a revision of previous CFP performance perception.

Finally, the report discussed the statements about the functioning of the CFP that were collected from individual STECF members using a questionnaire during the PLEN 22-01 ToR 7.8 exercise. The contractors highlighted some of them most directly relevant and aligned with the contractors' findings. This includes, in particular, those related to the definition of the objectives themselves in Article 2. They also pointed out that a great part of the individual comments made by STECF members related to the performance of the landing obligation (LO) and of the multiannual plans (MAPs), and that the comments are globally positive points for the MAPs but systematically negative for the LO.

STECF comments on ToR 1 and 2

STECF commends that the *ad hoc* report is a very comprehensive and useful exercise, summarising the STECF advice provided in plenary reports between 2014 and 2024. STECF underlines though that the *ad hoc* report is not an evaluation of the CFP but provides an original perspective and support for contributing to an evidence-based evaluation of the CFP. STECF notes that according to the review and synthesis performed by the contractors, previous STECF advice seems to show that various forms of changes in the fisheries have occurred following the implementation of various articles, with various forms of progress towards achieving objectives; however, less effects or intended changes may have occurred in other articles, and in particular for Article 15.

STECF notes though that due to the limited duration and scope of the contract, the contractors were not able to separate the categorization between direct progress towards CFP objectives and indirect progress within a scientific process in support of the CFP (AER, FDI etc.) and they were treated equally. As such, the statements categorised as “something that works in the CFP” in relation to a given objective do not necessarily inform on whether the objectives are actually being achieved or not.

For some articles the statements might thus be a mixture of both direct and indirect processes, but for some other articles, it may be the case that evidence only exists for indirect processes. For example, the comments made by the contractors on article 6 that “Conservation measures (Article 6) triggered works toward exploring ways to achieve better outcomes” seem to indicate that progress has been achieved in the scientific knowledge and analysis frame, but it may not have led to actual improvements in selectivity in the fisheries (cf e.g. ICES (2023)). This specific point indeed supports the suggestion made in the ToR 7.3 of this PLEN 25-02 report to include a selectivity indicator and reference points in future CFP monitoring exercises, to better monitor that direct process.

STECF also notes that an evaluation of the progress over time was not conducted by the contractors, beyond a mere ordering of the ToR statements in chronological

order. STECF acknowledges that such an evaluation would be useful for understanding which aspects have improved in the most recent years, and whether that would relate to improved implementation or not. However, this analysis would require additional time and discussion.

STECF agrees with the reserve expressed by the contractors that the scientific evidence gained by STECF is biased towards what was requested by the Commission; this knowledge is therefore better established for the articles most regularly invoked, than for the articles for which limited advice has been requested over time. STECF notes also that the contractors' Excel spreadsheet contains additional information to that presented in the written report, in particular for the articles encountered by the contractors, but not categorised as primary for any given ToR. As an example, Article 17 has been explored within specific EWGs as part of a broader set of ToRs from multiple groups assessed in plenary (EWG 20-14, EWG 22-14 and EWG 23-17).

Overall, STECF agrees that a full synthesis and deeper understanding of the functioning of the CFP based on the 589 ToRs would require more resources in terms of both expertise and time. An overall contribution of STECF to the evaluation of the CFP could have been dealt with in a dedicated EWG, but STECF understands that there is no time left for organising such an EWG over the second half of 2025.

Comments to ToR 3. Consider to what extent the current articles of the CFP Regulation are sufficiently clear and adequate for the provision of STECF scientific advice and how it could be improved in the future.

Globally STECF is of the understanding that essential elements for the efficient provision of advice (data collection, databases, toolboxes, capacities for monitoring and feedback) have improved substantially between 2014 and 2024. This point was also highlighted by the contractors (Article 25).

Over time, the STECF has nevertheless often be confronted with difficulties to provide advice in relation to CFP objectives and articles. These difficulties have been of several types and origin, and are described and discussed below:

Unclearities and ambiguities in the formulation of objectives and related articles

1. Unclear goal setting: Most objectives in Article 2 are framed in 'vague' terms that are difficult to operationalise and monitor. They are not well defined and cannot be easily measured. The MSY objective is the only objective that has a relatively well-established frame with quantitative indicators and reference points. Other objectives do not, or only partially, comply with so-called SMART requirements (Specific, Measurable, Achievable, Relevant, and Time-bound). This is particularly the case for objectives in relation with social and economic goals, e.g. "achieving fair standard of living".

2. Unclear framing of the statistical significance: There is a requirement for quantitative evidence which is framed using terms that suggest a well-defined statistical structure—something that has often proven difficult or even impossible to establish. For example, exemptions from the landing obligation rely on concepts like

“disproportionate costs”, or “high survivability”; while exemptions from gear bans in protected areas depend on demonstrating “no significant adverse impact”. Similarly, distinctions between “targeted” and “bycatch” fisheries require clear definitions. However, identifying suitable indicators and thresholds for these concepts is rarely straightforward. Unlike the MSY curve, which usually presents a bell-shaped form with a defined peak, these dimensions usually lack simple scientific criteria or obvious inflexion points.

3. Some concepts have multiple interpretations. For instance, “fishing opportunity” seems to equate with TAC; however, other definitions consider also effort quotas (European Parliament), or spatial and temporary allocations. These created some challenges for advice provision (e.g. in the assessment of the implementation of Article 17 (cf STECF 23-17)).

Regarding these unclear concepts, STECF fully acknowledges the complexity of defining policy objectives, but underlines the challenges that this poses for providing evidence-based advice. On the one hand, the provision of advice would have been substantially facilitated if well-defined priorities were established and translated into explicit goals, with identified targets, yardsticks and clear-cut metrics to track progress over time. On the other hand, STECF recognises that measuring the achievement of policy objectives is a major challenge and is a rapidly evolving field of research and science in itself. Even regarding the most established and quantitative objective in Article 2, the MSY objective, how to measure its achievement (as requested in Article 50) has been and still is prone to extensive scientific debate within STECF (cf again ToR 7.3 of this PLEN 25-02). STECF has spent many years and many plenary ToRs to discuss, test and evaluate alternative methodologies and indicators.

It is thus unlikely, and maybe not even desirable, that the CFP could have had “written in stone” in the basic regulation 1380/2013 all methods and indicators to measure the objectives; and a legal space must be maintained for the development of “best available science” over time. The STECF notes that the MSFD has for example followed such a process, where the definition of targets and thresholds to operationalise the 11 descriptors is an integrated part of the policy implementation. Concerning the CFP, the STECF perceives indeed a difference in processes regarding Articles 9 and 10, where only the principles and objectives of the management plans were established in the basic regulation in rather short articles, letting the operational details of the MAPs to be subsequently defined at regional level over the following years, and the Article 15, where the basic frame of the landing obligation is described in some prescriptive details, letting little space for adaptive implementation at regional level afterwards. This difference could explain some of the differences in opinions about “what works well and why” between the landing obligation and the MAPs.

STECF acknowledges that these discussions are in line with the EU move towards “Better Regulation” approach provides indeed guidance to ensure legislative clarity and flexibility: the outcomes should be specified early (in the basic regulation), while designing tailored metrics can be specified later in the implementation phase, once contextual constraints are known.

Achieving multiple objectives

STECF has had extensive debate over the years on the economic and social objectives of the CFP, and the requests to assess socio-economic impacts has increased over the last years. These debates include discussions on the extent to which these are conflicting or not with the conservation objectives, for example, in the frame of the analyses of the management plans or of conservation measures (Article 11, Vulnerable Marine Ecosystems -VME-, exemptions to the LO, etc.). This includes also considerations on the time frame involved, where social and economic objectives and conservation objectives can be more conflicting in the short-term (e.g. pointing towards opposite decisions on fishing opportunities) than in the long term perspectives where they are better aligned.

STECF has also discussed that social, economic and conservation objectives involve different layers of responsibility. There may be different understandings on the respective roles of the EU and of Member States. STECF takes note of the ruling of the European Court of Justice (C-330/22,2024) interprets Article 2 as a whole, which requires that “the CFP ensure that fishing and aquaculture activities are environmentally sustainable in the long term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies”. STECF observes though that the only operational goal specified in Article 2 of the CFP is the MSY, and that social, economic, and ecosystem aspects are not addressed as operational goals, which hampers the ability to advise on their progress.

Being a multidisciplinary scientific body supporting policy, STECF is an appropriate forum for holding these discussions and exchanging views. Nevertheless, ambiguities remain, which challenge the provision of scientific advice in the absence of clear guidelines establishing priorities among different objectives and time perspectives.

Measuring the impact of fishing

Another type of issue often encountered by the STECF relates to requests involving some assessment of adverse impacts of fishing. STECF recalls that the pressure of a given fishery on the ecosystem is the product of the average impact of an individual vessel or gear multiplied by the intensity of fishing (which includes collective elements such as the number of vessels, the level of effort and the spatial density...) and the resulting impact depends also of the vulnerability of the pressured ecosystem component (habitat or species). For example, when assessing the possible authorisation of a given gear in a protected area (e.g. VME), measuring the impact of the gear itself is not enough; also the number of vessels concerned, and their cumulated fishing effort and catches should be provided. Another example arises in the assessment of *de minimis* exemptions to the LO: evaluating the expected volume of discards from an exempted fishery requires knowledge of both the number of vessels involved and their catch relative to the total fishery.

Incomplete data provided

STECF has provided various forms of support and guidelines regarding data needs for e.g; LO exemptions, but this has not been sufficient to ensure that the data provided by Member States are systematically relevant and fit for the purpose of evaluation.

Another example is that in several of the Article 11 related proposals reviewed by the STECF so far, the data provided were outdated or incomplete. The *ad hoc* contract report has highlighted that the JR can be a lengthy process, and the data supporting the JR are not always updated alongside. STECF underlines that official data calls such as the FDI and AER data are not always at the adequate resolution or coverage to address very specific questions e.g. at small spatial scales, making it difficult to extract the appropriate information if not provided by the Member States.

Other issues

During STECF plenaries, some points of (sometimes lengthy) discussion tend to return and repeat themselves at regular intervals, highlighting that STECF, or some members of it, questions whether some request for specific advice should be addressed by the STECF or by another appropriate body; e.g. when evaluating management plans of small scale fleets exploiting resources that are not shared. Similar debates can also arise when STECF reflects on unclear evidence regarding Member States' commitments to the proper implementation, monitoring, and control of the measures under review (such as LO exemption requests, choke situations etc.), making it difficult to guarantee that the intended objectives will be met.

Finally, STECF underlines that plenaries and some EWGs operate under heavy workload which may include considerable unforeseen and unpaid intersessional work ahead of the EWG meeting and/or following the meeting. STECF members and EWG participants may, therefore, often face conflicting priorities between STECF requirements and those of their employment.

Comments to ToR 4. Discuss how STECF could possibly contribute in any other way than this specific request to the evaluation of the CFP Regulation.

The *ad hoc* contract report provides some evidence on the functioning of a number of CFP articles over a decade that can support the five evaluation criteria for their impact assessment by DG Mare (effectiveness, efficiency, coherence, relevance, added value). As discussed in ToR 2, an additional contribution of STECF to the evaluation of the CFP could be dealt with in a dedicated EWG, but STECF understands that there is no time left for organising such an EWG over the second half of 2025.

Based on the evidence from the *ad hoc* report and reflecting upon some additional points and challenges raised in the individual opinions collected in point 1 above, the PLEN 25-02 briefly discussed in open terms some perceived strengths and weaknesses of the CFP in the context of a rapidly changing world, not least in the context of climate change. Dramatic changes in the fisheries and in the ecosystem have already taken place since the implementation of the 2013 CFP, and STECF

considers it interesting to reflect on what may/could happen if the current CFP frame would continue applying in the future.

The following points were discussed:

- The 2013 CFP in an accelerating climate change: Scientific work on Ecosystem-Based Fisheries Management (EBFM) has long called for more integrated management targets, which may be more precautionary than the current single-species MSY objective (cf analysis in Kempf et al., 2023)). It is already observed today that some fish stocks are declining in spite of being exploited at or close to the F_{MSY} objective (e.g some stocks of herring, hake, sole...). This call may become more and important to consider in a less stable marine environment affected by climate change. Species distribution is changing, with new species moving in EU waters, some species disappearing from historical fishing grounds and some species displacing their distribution areas and being caught by fisheries which do not have historical fishing rights; Stock productivity is also changing (although not necessary only to climate change) and may become more variable and more unpredictable. All of this creates additional complexities and may increasingly threaten the ability to achieve the objectives.
- Maintaining long time series: in this context, long-term time series data, combined with robust biological and ecological knowledge, are essential to assess and as far as is possible disentangle the intertwined effects of fishing pressure and climate change.
- Issues related to spatial management including fishing in marine protected areas and in marine windfarms are increasingly being looked at (cf ICES 2025), highlighting that the management of the marine space and the distribution of fisheries is still insufficiently harmonised at Member State level, although the CFP Article 11(1) set the basis for alignment with other environmental policies such as MSFD, habitat directive or energy policies.
- The 2023 control regulation will introduce more efficient control measures such as electronic monitoring systems and increased vessel position monitoring at sea. It will also bring in an inflow of new data collected from different sources (incl. from recreational fisheries); consideration should be given on whether and how these new data could be also fit for scientific purposes.

Looking backwards STECF has not been extensively consulted and involved in the discussions ahead of the construction of the CFP but has been extensively solicited afterwards to support its implementation, as illustrated by the long list of STECF plenary ToRs reviewed by the ad hoc contracts. STECF believes that some of the technical challenges raised in ToRs 1 and 3 might have been reduced by earlier consultations of the scientific bodies in charge of providing advice, before final wording of the basic regulation; the difficulties to implement and evaluate the complex technicalities of the Article 15 are the strongest example of this (cf Rihan et al., 2019).

STECF conclusions

STECF concludes that ongoing consultation for advice contributes to building evidence for the evaluation of the CFP, Nevertheless STECF wishes to stress that the opinions expressed in this report and the contract report do not constitute a full scientific evaluation of the CFP.

STECF concludes that according to the review and synthesis performed by the contractors, previous STECF advice seems to show that various forms of changes in the fisheries have occurred following the implementation of various articles, with various forms of progress towards achieving objectives; however, less effects or intended changes may have occurred in other articles, and in particular for Article 15.

STECF concludes, however, that a full synthesis and deeper understanding of the functioning of the CFP based on the analysis of the suite of STECF advice would require more resources in terms of both expertise and time.

STECF concludes that essential elements for the efficient provision of advice have improved substantially between 2014 and 2024, but that intrinsic difficulties to provide scientific advice have remained.

STECF concludes that early consultation with scientific bodies in charge, regarding the operational and technical formulations of EU regulations during their elaboration phase, might contribute to ensuring a clear and unambiguous frame for their subsequent scientific evaluation.

References

ICES. 2023. EU request on review of innovative gears for potential use in EU waters and their impacts. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sr.2023.13, <https://doi.org/10.17895/ices.advice.24212694>

ICES (2025). EU request on economic, social, and ecological impacts of offshore wind farms (OWFs) and floating offshore wind farms (FLOWs) on fisheries in the Baltic Sea, Celtic Seas, and Greater North Sea. ICES Advice: Special Requests. Report. <https://doi.org/10.17895/ices.advice.28759328.v1>

Kempf A., Taylor M., ..., Rindorf A. (2023). SEAwise Report on consistency of existing targets and limits for indicators in an ecosystem context. Ref. WP6. Deliverable 6.7. <https://doi.org/10.11583/DTU.25152662>,

Rihan, D., Uhlmann, S.S., Ulrich, C., Breen, M., Catchpole, T. (2019). Requirements for Documentation, Data Collection and Scientific Evaluations. In: Uhlmann, S., Ulrich, C., Kennelly, S. (eds) *The European Landing Obligation*. Springer, Cham. https://doi.org/10.1007/978-3-030-03308-8_3.

6.2 Assessment of the Joint Recommendation for fisheries management measures in six Marine Protected Areas on the Dutch North Sea

Background provided by the Commission

On 19 December 2024, the North Sea Member States (with Netherlands as initiating Member States) submitted to the Commission a joint recommendation suggesting conservation measures in 5 Natura 2000 sites located in the NL EEZ:

- Southern Dogger Bank
- Cleaver Bank
- Central Oyster Grounds
- Frisian Front subarea 2
- Borkum Reef Grounds

In accordance with Article 11(3) of Regulation 1380/2013, Member States having direct management interest in certain areas or fisheries may submit joint recommendations proposing conservation measures to comply with their environmental obligations referred to in Article 11(1) of that Regulation.

The measures entail a prohibition to fish with mobile bottom contacting gears (TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, DRH, HMD, SB, SV, SDN, SSC, SPR, SX) in specific management zones of the designated areas. The joint recommendation also proposes the exclusion of certain areas for scientific fisheries, in accordance with Article 25 of Regulation (EU) 2019/1241.

The joint recommendation also proposes specific control measures such as an alert zone, a frequency of data transmission of every 10 minutes and the control of vessels above and below 12m.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

1. Review the suitability and potential effectiveness of the proposed conservation measures to minimise the negative impacts of fishing activities on the marine ecosystem and endeavour to ensure that fisheries activities avoid the degradation of the marine environment.
2. Comment on to what extent the proposed measures: a) correspond to the ecological requirements of the habitats and species protected in the relevant Natura 2000 sites and contribute towards achieving the conservation objectives of the sites (in relation to fishing as a pressure); b) and to what extent the proposed measures can prevent: (i) deterioration of natural habitats and the habitats of species and (ii) significant disturbance of species protected in the site, as required by the Habitats Directive.

3. Comment on whether the proposed control measures are adequate in relation to the proposed management measures.
4. If possible, comment on how the proposed conservation measures may affect the fishing activity in the proposed management zones. This should include identification of the fleets concerned, their economic dependence on the proposed management zones, their potential to reallocate the fishing activity (displacement) and potential economic and ecological consequences.

Information provided to STECF

STECF was provided with the following documents:

1. Joint Recommendation_NL.pdf – the text of the Joint recommendation (JR).
2. A comprehensive background documentation including a general background annex and separate area-specific annexes. The background documents also included maps and coordinates (including shapefiles) of the management areas to facilitate spatial analysis, visual exploration and implementation.
3. An ad hoc contract (STECF N°2506) report which provides a detailed and comprehensive review of the JR.

The different area-specific annexes had a common structure:

- The legal basis of the proposed measures.
- the rationales for the conservation measures.
- the legal status of the different management zones.
- a description of the natural features within the areas (environmental conditions, benthic community, presence of bird- and marine mammal communities listed in the Birds or Habitats Directive).
- a comprehensive description of the fisheries by relevant member state operating in each zone. Information comes from an analysis of VMS and logbook data over the period 2014-2021 (Hamon and Klok, 2023) and include fishing effort, landings in weight and value per gear, species and country, gross value added per fleets. Spatial distribution of fishing effort per gear is also provided. Information about the economic dependence of Dutch fleets on each management zone is also provided.
- a description of other human activities within the zones that potentially affect the ecosystem, including the seabed.
- the expected effects of the conservation measures on the environment, on fisheries and on other activities.
- a description of monitoring.

Overview of the JR

The JR proposes fisheries conservation measures and associated control measures for six marine protected areas located within the Dutch EEZ of the North Sea.

Purpose

The main purpose of the proposed fisheries conservation measures is to ensure compliance with obligations under Union environmental legislation in the concerned marine protected areas in the North Sea.

Conservation measures

The JR proposes the following conservation measures:

1. Establishing management zones in all proposed areas (coordinates of these zones attached in an annex to the JR).
2. A prohibition to use any of the bottom contacting towed gear listed in Table 6.2.1 in the management zones of the Southern Dogger Bank, Cleaver Bank, Central Oyster Grounds, Frisian Front subarea 2, and Borkum Reef Grounds. Fishing activities related to scientific research that is necessary to comply with legal obligations are exempted from the use of the prohibited gear as listed in Table 6.2.1, if the research complies with article 25 of Regulation (EU) 2019/1241.

Table 6.2.1. Prohibited mobile bottom contacting gears.

Gear groups that are prohibited in the management zones	Gear Code Annex XI in Implementing Regulation (EU) 404/2011	International Standard Classification of Fishing Gears (ISSCFG, FAO 2016)
Beam trawl	TBB, TBN, TBS	03.11
Trawls	OTB, OTT, PTB, TB	03.12, 03.13, 03.15, 03.19
Dredges	DRB, DRH, HMD	04.1, 04.2, 04.3
Seines	SB, SV, SDN, SSC, SPR, SX	02.1, 02.2, 02.9

Source: Background documentation provided by the Commission.

3. Any fishing activity is prohibited in the management zone of the Frisian Front subarea 1. Fishing activities related to scientific research that is necessary to comply with legal obligations are exempted from the use of the prohibited gear if the research complies with article 25 of Regulation (EU) 2019/1241.

Within the Frisian front subarea 1, five areas will be designated to two different research projects:

- Two areas of 50km² (Annex 7, Figure 5 and table 5.1, Areas A and B) and two areas of 4 km² (Annex 7, Figure 5 and table 5.1, Areas C and D) are reserved for oyster recovery project(s). Fishing activities are allowed if they are necessary to execute the project(s) and the coastal State, i.e. the Netherlands, has given permission for the project. This permission will be granted for a limited time period.

- An area of 100km² is designated for impact assessments of the effects of beam trawling (TBB) on the benthic community, surface and sub-surface impact (Annex 7, Figure 5 and table 5.1, Area E). Fishing activities are allowed if they are necessary to execute the project(s) and the coastal State, i.e. the Netherlands, has given permission for the project. This permission will be granted for a limited time period.

4. In the management zone of the Brown Ridge it is only allowed to use gillnets and entangling nets as listed in Table 6.2.2 in the period between 1 April to 30 September of each year. Fishing activities related to scientific research that are necessary to comply with legal obligations are exempted from the use of the prohibited gear as listed in Table 6.2.2 if the research complies with Article 25 of Regulation (EU) 2019/1241.

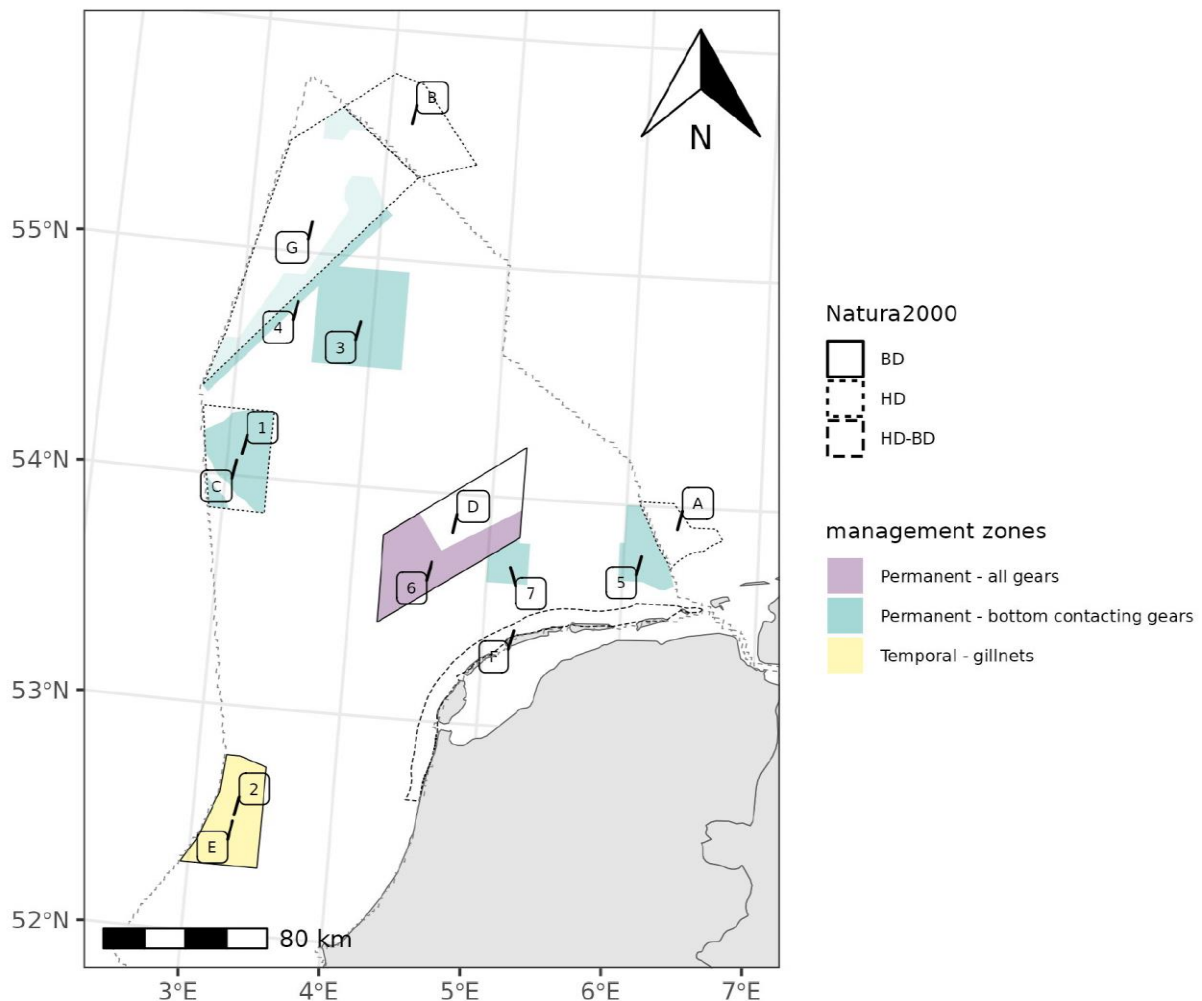
Table 6.2.2. Prohibited gillnets and entangling nets.

Gear groups that are prohibited in the closed zones	Gear Code Annex XI in Implementing Regulation (EU) 404/2011	International Standard Classification of Fishing Gears (ISSCFG, FAO 2016)
Gillnets and entangling nets	GNS, GND, GNC, GNF, GTR, GTN, GEN, GN	07.1, 07.2, 07.3, 07.4, 07.5, 07.6, 07.9

Source: Background documentation provided by the Commission.

The proposed management zones, including gear restrictions per area are also illustrated in Figure 6.2.1.

Figure 6.2.1. Map showing the proposed management zones (coloured polygons) - 1: Cleaver Bank - 2: Brown Ridge - 3: Central Oyster Grounds - 4: Southern Dogger Bank - 5: Borkum Reef Grounds - 6: Friese Front subarea 1 - 7: Friese Front subarea 2. The pale-coloured polygons in the Dogger Bank represents a management zone that was assessed by STECF PLEN 24-01. The polygons with black lines border stand for designated Natura 2000 areas located in the vicinity of the proposed management zones (HD: Habitats Directive, BD: Bird Directive). The dashed grey line indicates the border of the Dutch EEZ. Dutch names of areas: A: DE-Borkum-Riffgrund - B: DE-Doggerbank - C: NL-Klaverbank - D: NL-Friese Front - E: NL-Bruine Bank - F: NL-Noordzeekustzone - G: NL-Doggersbank).



Source: Background documentation provided by the Commission.

Control and enforcement measures

The JR points to that the legal basis for control of fishing in restricted areas is described in Council Regulation (EC) No 1224/2009, Articles 47 and 50. In addition the JR proposes three supplementary control measures:

- An alert zone of 4 nautical miles, measured from the outer limits of each management zone, is established. In this alert zone, none of the conservation measures apply except for a higher frequency of data transmissions (every 10 minutes- see below).

- The frequency of data transmissions in all management- and alert zones is increased to be every 10 minutes.
- When entering a management zone or alert zone fishing vessels shall have installed a fully functioning on board device as referred to in Article 9, paragraph 2, of Regulation (EC) No 1224/2009. For vessels with a length over all (LOA) of less than 12 metres, this may also be a portable, satellite or mobile device. Article 9 of Regulation (EC) No 1224/2009 and Articles 18 to 28 of Implementing Regulation (EU) No 404/2011 shall apply *mutatis mutandis*.

Review of the conservation measures

The JR also mentions that a monitoring program is in place to assess the results of the proposed measures and that the conservation measures are assessed for six years after these measures are in force by a Delegated Act. The JR also states that the results of this assessment might lead to alterations of the conservation measures.

STECF comments

Based on the JR and *ad hoc* contract report (contract STECF 2552), STECF notes the following:

The JR is comprehensive and provides relevant supporting documentation in the Annexes. The JR largely follows the relevant guidance documents for the establishment of conservation measures under the CFP for Natura 2000 sites and for Marine Strategy Framework Directive purposes as provided by the European Commission (SWD, 2018).

STECF interprets that ToR 1 is applicable to all areas mentioned in this JR, i.e. whether the area was designated based on Natura 2000 (Bird- or Habitat directive) or based on the Marine Strategy Framework Directive (MSFD). STECF interprets ToR 2 as only being relevant for Natura 2000 sites based on that ToR 2 explicitly uses formulations from Natura 2000 legislation (including the Bird and Habitat Directive). However, as this interpretation has not been verified STECF has included all areas in the response for ToR 2.

STECF comments in relation to each of the items of the ToRs are given below:

ToR 1. Review the suitability and potential effectiveness of the proposed conservation measures to minimise the negative impacts of fishing activities on the marine ecosystem and endeavour to ensure that fisheries activities avoid the degradation of the marine environment.

Comments related to all sites

Overall STECF notes that three of the proposed management areas are located within (or correspond to) Natura 2000 areas designated under the Habitat and/or Bird Directive:

- Part of the Friese Front zone which is designated under the Bird Directive to protect the common guillemot (*Uria aalge*).
- the Cleaver Bank subarea 1 is located within the Natura 2000 area of the same name, that is designated under the Habitats Directive to protect reefs (habitat type H1170).
- the Brown Ridge zone corresponds to the Natura 2000 area designated under the Bird Habitat because of the abundant present of several species, including razorbill (*Alca torda*) and the common guillemot.

The other areas are Marine Strategy Framework Directive areas (MSFD):

- the Southern Dogger Bank zone, which is the immediate neighbour of the Dogger Bank Natura 2000 area that aims to protect habitat H1110 (sandbanks).
- the Central Oyster Ground
- Cleaver Bank subarea 2
- Borkum Reef Grounds, which is the direct neighbour of the German Natura 2000 area of the same name, that aims to protect H1110 (sandbanks) and H1170 (reefs) habitats.

STECF observes that related JRs have been reviewed by STECF. PLEN 19-04 reviewed a proposal for measures in management zones in the Dogger Bank, the Cleaver Bank, the Frisian Front and Central Oyster Grounds, part of those recommendations were enforced by the recent Commission Delegated Regulation (EU) 2023/340. STECF further notes that the Southern Dogger Bank region of the current proposal is adjacent to the Dutch Dogger Bank Natura 2000 site, where comparable gear measures (for certain sections) were assessed by PLEN 24-01. These measures are now being implemented through a delegated act, based on information supplied to STECF by the Commission.

Southern Dogger Bank area of the current proposal borders the Dutch Dogger Bank Natura 2000 site for which similar gear measures (for parts of the area) were evaluated in PLEN 24-01, and which are now under implementation via a delegated act in accordance with information provided to STECF by the Commission.

STECF notes that the JR proposes a prohibition of mobile bottom contacting gears to protect the seabed in most management zones, except in the Brown Ridge management area where gillnets are prohibited to limit the risk of seabird bycatch (Table 6.2.3).

STECF observes that the JR proposes to exempt certain fishing activities, related to scientific research that is necessary to comply with legal obligations, from the ban to use prohibited gears if the research complies with article 25 of Regulation (EU) 2019/1241. STECF understands that this exemption relates to the possibility to continue the scientific surveys for stock assessment and environmental assessment in these areas. Furthermore, STECF also notes that within the five research areas of the otherwise closed Frisian front subarea 1, fishing activities are allowed if they are

necessary to execute the project(s) and the coastal state, i.e. the Netherlands, has given permission for the project. The JR explains that this permission will be granted for a limited time period. STECF understands that this exemption is related to research projects into long-term impacts of bottom-trawl fisheries agreed as part of the Dutch North Sea Agreement (a contract on balancing nature, offshore energy and fisheries between government, environmental NGOs, ORE companies and fishing industry; OFL, 2020)

Table 6.2.3. A summary of proposed measures in each management zone, including surface area (km²) and corresponding percentage of the Dutch EEZ.

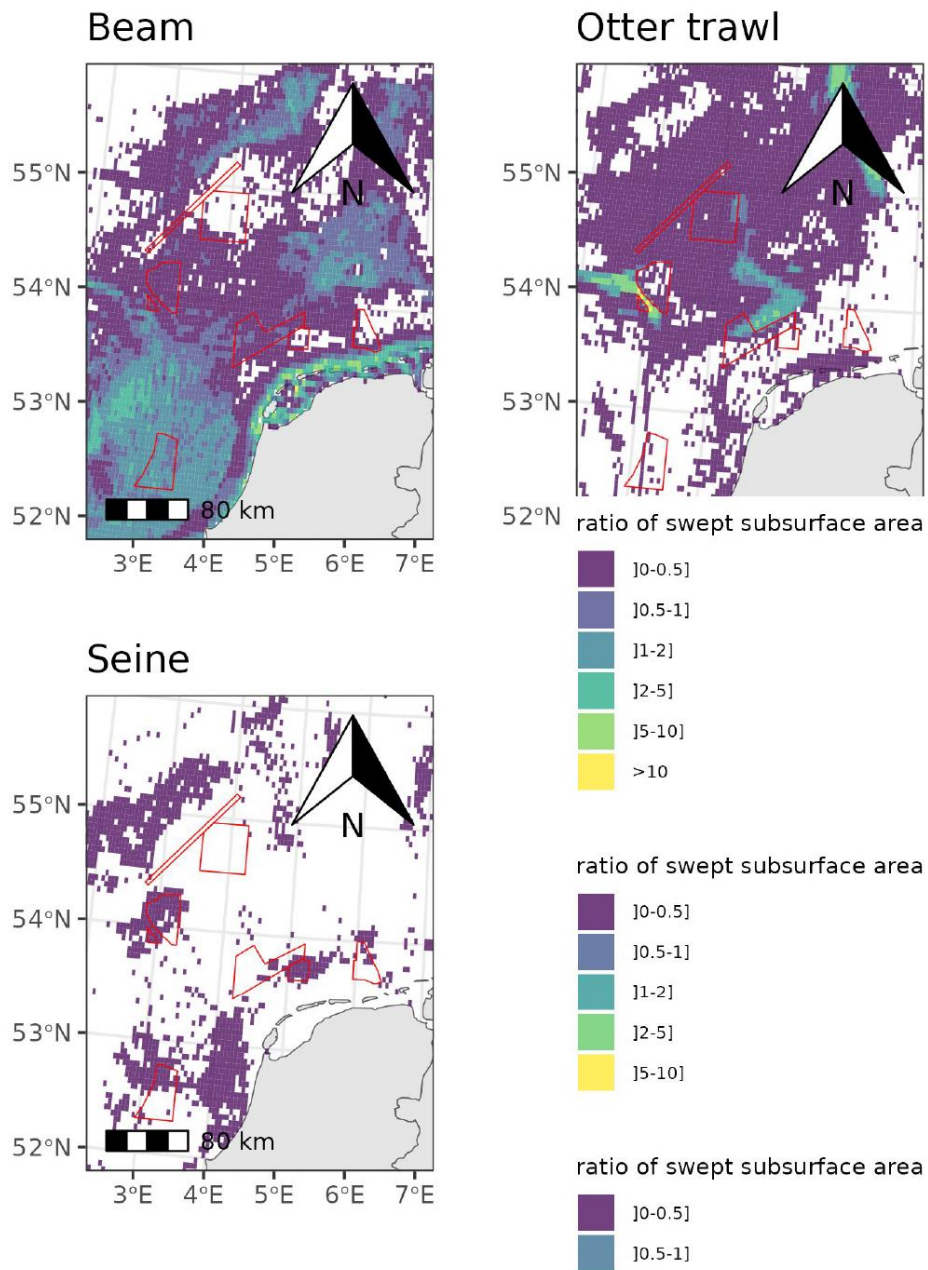
Management zone	Surface	Proportion of EEZ	Prohibited gears	Period
Cleaver Bank	1,241	2.1%	TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, DRH, HMD, SB, SV, SDN, SSC, SPR, SX	all year
Brown Ridge	1,367	2.3%	GNS, GND, GNC, GNF, GTR, GTN, GEN, GN	Oct-Mar
Central Oyster Grounds	2,063	3.4%	TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, DRH, HMD, SB, SV, SDN, SSC, SPR, SX	all year
Southern Dogger Bank	530	0.9%	TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, DRH, HMD, SB, SV, SDN, SSC, SPR, SX	all year
Borkum Reef Grounds	682	1.1%	TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, DRH, HMD, SB, SV, SDN, SSC, SPR, SX	all year
Friese Front subarea 1	1,651	2.8%	all	all year
Friese Front subarea 2	365	0.6%	TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, DRH, HMD, SB, SV, SDN, SSC, SPR, SX	all year
Dogger Bank - PLEN 24-01	1,357	2.3%	TBB, TBN, TBS, OTB, OTT, PTB, TB, DRB, HMD, SV, SDN, SSC, SPR, SX	all year

Source: Background documentation provided by the Commission.

STECF observes that the JR focuses on measures to reduce the effects of mobile bottom contacting gears on the seabed. The impact of fishing gears that operate in contact with bottom is a major source of pressure on the seabed and associated benthic communities, with impacts increasing with gear penetration (Eigaard et al., 2016; Sala et al., 2023). The proposed ban of any mobile bottom contacting gears (except in the Brown Ridge management zone) appears to be a relevant management measure to achieve the objective, as summarised in PLEN 19-04 and PLEN 24-01. ICES (2021) provided an estimate of the surface and subsurface swept area (expressed as a ratio of the swept area with the total surface of the considered rectangles) for different types of active bottom gears. The information provided with

this JR suggests that the recommended management zones are generally not among the most fished areas in the Dutch EEZ (Figure 6.2.2 and Table 6.2.4). However, local characteristics of the communities and of habitats within each zone are important for the evaluation of the suitability of the localisation of gear restrictions (see below).

Figure 6.2.2. Ratio of swept subsurface areas (average 2014-2021) by different categories of mobile bottom contacting gears (ICES, 2021) alongside proposed management zones.



Source: ICES 2021.

Table 6.2.4. Average ratio of swept surface and subsurface area in the different management zones using data from ICES (2021). Note that in the Brown Ridge Bank, only gillnets are proposed to be limited.

Name	Avg Surface Ratio				Avg Subsurface Ratio			
	All bottom contacting	Beam	Otter	Seine	All bottom contacting	Beam	Otter	Seine
Borkum Reef Grounds	0.26	0.15	0.01	0.04	0.09	0.08	0.00	0.00
Brown Ridge	1.66	1.17	0.02	0.45	1.19	1.17	0.00	0.02
Central Oyster Grounds	1.15	0.03	1.12	0.00	0.17	0.03	0.15	0.00
Cleaver Bank	1.71	0.25	0.64	0.81	0.41	0.25	0.16	0.03
Dogger Bank - PLEN 24-01	0.85	0.15	0.68	0.01	0.22	0.15	0.06	0.00
Friese Front subarea 1	1.62	0.35	1.14	0.06	0.63	0.35	0.28	0.00
Friese Front subarea 2	0.47	0.02	0.02	0.41	0.05	0.02	0.00	0.02
Southern Dogger Bank	0.83	0.01	0.81	0.00	0.08	0.01	0.07	0.00
overall EEZ	1.54	0.82	0.63	0.11	0.77	0.65	0.12	0.00

Source: ICES 2021.

STECF also notes that the Dutch Marine Strategy aims to protect between 10 and 15% of the Dutch seabed in the North Sea (Environmental target D6T1: “10-15 % of the area of the Netherlands’ part of the North Sea is not notably disrupted by human activities”), with fishing activity being considered as the main disruption cause. STECF notes that the total surface covered by the management zones in which bottom contacting gears are prohibited (i.e. the management areas proposed here, and the areas assessed during STECF PLEN 24-01) covers a total of 7,889 km², which corresponds to about 15% of the total Dutch EEZ; Table 6.2.3). As such, the JR appears to fulfil the target of the Dutch Marine Strategy.

Regarding habitat-type mapping, STECF observes that details are only given for the areas concerned. Hence there is no information to judge what proportion of each habitat type is designated for protection or the potential risk that might arise to similarly vulnerable habitat outside such areas, as a result of any displacement of fishing activities.

Comments related to Cleaver Bank

The Cleaver Bank is designated under the habitat directive for the protection of reefs (habitat type H1170) and was identified as the main area of the Dutch EEZ where this type of habitat is present (Lindeboom et al., 2005). STECF considers that the proposed prohibition of mobile bottom contacting gears in the area is likely to reduce the fishing impact and prevent further degradation of benthic habitat and communities in the area.

Comments related to Brown Ridge

The proposed management zone is designated as a special protection area under the Bird Directive (six protected seabird species). STECF considers that the proposed prohibition of gillnets from November to March will help to reduce the risk of bird bycatches since this category of fishing gears are known to be the main cause for seabird bycatch in European waters (Ramírez et al., 2024a). However, in the absence of bycatch data, STECF cannot assess the current magnitude of the issue.

Comments related to Central Oyster Grounds

STECF notes that this management zone is a MSFD-area. STECF considers that the proposed prohibition of any mobile bottom contacting gear in the Central Oyster Grounds area is likely to reduce the fishing impact and prevent further degradation of benthic habitat and communities in the area.

Comments related to Southern Dogger Bank

STECF notes that this proposed management zone is a MSFD-area (bordering the actual Dogger Bank Natura 2000 area). STECF considers that the proposed prohibition of any mobile bottom contacting gear in the area is likely to reduce the fishing impact and prevent further degradation of benthic habitat and communities in the area.

Comments related to Borkum Reef

STECF notes that this proposed management zone is a MSFD-area (bordering the German Natura 2000 area). STECF considers that the proposed prohibition of any mobile bottom contacting gear in the Borkum Reef management zone is likely to reduce the fishing impact and prevent further degradation of benthic habitat and communities in the area. Important is also that the adjacent German part of the Borkum Reef is already protected with regards to bottom contacting towed gear which means that the current proposal would result in an extended protection of the reef habitats.

Comments related to Frisian Front

STECF notes that the Frisian Front subarea 1 (the area proposed as a no-take zone) is designated under the Bird Directive for the protection of the common guillemot, while the Frisian Front subarea 2 is a MSFD-area. STECF considers that the proposed prohibition of all fishing in subarea 1 is likely to reduce the negative impacts of fishing activities on the marine ecosystem (including habitats, species and communities) and reduce the risks of degradation of the marine environment by fisheries activities. STECF assumes that any exemptions as part of national projects into impact of bottom-trawling gears will be carried out on the basis of a robust scientific research design. The proposed prohibition of mobile bottom contacting

gear in subarea 2 is likely to reduce the fishing impact and prevent further degradation of benthic habitat and communities in the area.

ToR 2. Comment on to what extent the proposed measures: a) correspond to the ecological requirements of the habitats and species protected in the relevant Natura 2000 sites and contribute towards achieving the conservation objectives of the sites (in relation to fishing as a pressure); b) and to what extent the proposed measures can prevent: (i) deterioration of natural habitats and the habitats of species and (ii) significant disturbance of species protected in the site, as required by the Habitats Directive

Comments related to Cleaver Bank

The Cleaver Bank is designated under the habitat directive for the protection of reefs (habitat type H1170) and was identified as the main area of the Dutch EEZ where this type of habitat is present (Lindeboom et al., 2005). STECF notes that the proposed boundaries of the management area means that all reef habitats within the Cleaver Bank Natura 2000 site is protected. STECF considers that the prohibition of any mobile bottom contacting gear is in line with the conservation objectives of the site and will help to prevent further deterioration of the protected habitat and to contribute to the restoration of the habitats which are currently assessed as “unfavourable-bad”. Based on the increased size of the area affected by the gear restrictions STECF considers that the current proposal is an improvement compared to the current situation enforced by the Commission Delegated Regulation (EU) 2023/340.

STECF also notes that the area is also a candidate for being nominated under the Bird Directive for the protection of common guillemot and razor bill. If the area indeed qualifies, further measures to limit the bycatch of seabirds might be necessary, such as the prohibition of nets and pelagic trawls that are currently not included in the proposal.

Comments related to Brown Ridge

STECF notes that the proposed management zone covers the Natura 2000 area that is designated as a special protection area under the Bird Directive. STECF considers that the proposed prohibition of gillnets from November to March is in line with the objectives of the site and is likely to reduce the risk of disturbance by fisheries of the protected species, since gillnets in general generate highest bycatch of seabirds Ramírez et al. (2024a). This is especially the case for razorbill and common guillemot, which use the Brown Ridge as foraging area during winter. However, the lack of monitoring data of bird bycatches impairs the quantification of the risk, both on those species and on other seabird species which use the area in the month that would remain open (e.g. Northern gannet, Great Skua).

Comments related to Central Oyster Grounds

STECF notes that this management area is not protected under the habitat or bird directive. The basis for the proposed measures is instead spatial measures under Article 13.4 of the MSFD. STECF considers that the proposed restrictions for mobile bottom contacting gears in this area can help to improve the benthic habitat quality status and to contribute to the achievement of Good Environmental Status (GES) under the MSFD.

Comments related to Southern Dogger Bank

The Dogger Bank Natura 2000 primarily aims at protecting sandbanks (habitat type H1110). STECF however notes that the proposed Southern Dogger Bank management zone is located outside the actual Dogger Bank Natura 2000 boundaries and is thus not protected under the habitat or bird directive. The reason why the Southern Dogger Bank is not included in the Dogger Bank Natura 2000 site is that the natural characteristics of the area do not meet the criteria of habitat types. The basis for the proposed measures is therefore according to the JR instead spatial measures under Article 13.4 of the MSFD.

The Southern Dogger Bank area is characterised by deeper waters and covers different types of sediments and benthic communities than the Dogger Bank Natura 2000 site. As such, it is unlikely to contribute to the objectives of the Natura 2000 and to provide an added value to already existing management zones (evaluated by PLEN 24-01). With this proposal and the fact that the majority of the Dogger Bank is open, STECF notes that there is a risk of detrimental effort displacement from the Southern Dogger Bank area to the open part of the Dogger Bank where the sensitive habitats (H 1110) are located.

STECF considers that the proposed restrictions for mobile bottom contacting gears in the Southern Dogger Bank area can help to improve the benthic habitat quality status and to contribute to the achievement of GES under the MSFD.

STECF notes that the Dogger Bank area is currently under investigation for being nominated under the Bird Directive. If the area indeed qualifies, further measures to limit the bycatch of seabirds might be necessary, such as the prohibition of nets and pelagic trawls that are currently not included in the recommendations. However, such measures might be more relevant in the Dogger Bank itself rather than in the Southern Dogger Bank.

Comments related to Borkum Reef

STECF notes that the Dutch part of the Borkum Reef is not designated under the Habitats Directive nor under the Birds Directive. The basis for the proposed measures is according to the JR instead spatial measures under Article 13.4 of the MSFD. However, STECF also notes that the adjacent German part of the Borkum Reef is a Natura 2000 site designated under the Habitats Directive (for the protection of habitat H1110 and habitat H1170 and different species). The level of protection was recently increased in the German zone with the implementation of Commission

Delegated Regulation (EU) 2023/340 that prohibits the use of mobile bottom contacting gears.

STECF notes that the exclusion of mobile bottom contacting gears also in the Dutch part of the Borkum Reef, as proposed with this JR, would offer an extended protection to the reef habitats and existing sensitive benthic communities within the area (e.g. *Lanice conchilega*). STECF considers that the proposed restrictions for mobile active fishing gears in the management area can potentially help to improve the benthic habitat quality status and to contribute to the GES under the MSFD.

Comments related to Frisian Front

STECF notes that the Frisian Front subarea 1 (the area proposed as a no-take zone) is designated under the Bird Directive for the protection of the common guillemot, while the Frisian Front subarea 2 is not protected under the habitat or bird directive. The proposed restrictions for the two subareas are therefore primarily based of Article 13.4 of the MSFD. STECF notes that while the gillnet ban in the area implemented with Commission Delegated Regulation (EU) 2023/340 is likely to have reduced the seabird bycatch risk, the total ban of any fishing gear will eliminate the risk as well as wider fishery-induced disturbances and sea-bed perturbations. Given the status of the area, a better monitoring of the effects of fishing activity on seabirds (i.e. bycatch) would be valuable.

STECF considers that the total prohibition of fishing in subarea 1 and the restrictions for mobile bottom contacting gears in subarea 2 can prevent the deterioration of benthic habitats and that in subarea 1, the measures can enhance the concentration of fishing schools (herring, sprat, mackerel) and of other species, and so the trophic resources of the seabirds and mammals. The subarea 1 covers 57% of the Natura 2000 area and covers sites designated for oyster restoration. Although a significant part of the area remains open for fishing, the current proposal appears to be an improvement compared to Commission Delegated Regulation (EU) 2023/340.

Regarding the evaluations under ToR 1 and 2 above, STECF notes that although the prohibition of mobile bottom contacting gears will be beneficial for the recovery of benthic habitats and communities there may still be some impact on the seabed especially on sensitive habitats like reefs from fisheries with passive gears (Sala et al 2023).

ToR 3. Comment on whether the proposed control measures are adequate in relation to the proposed management measures.

STECF observes that the JR includes three supplementary control measures, in addition to the existing control, enforcement, and compliance measures for fishing in restricted areas outlined in Control Regulation (EC) No 1224/2009. The JR proposes a 4 nautical mile alert (buffer) zone surrounding each of management area in which the authorities of the coastal Member state shall be notified through an entry-exit scheme. In addition, STECF notes that vessels carrying prohibited gears are only permitted to transit the management and alert zones if the prohibited gears are

lashed and stowed and steams with at least 6 knots. Furthermore, within the alert and management zones these vessels are required to transmit, through their vessel monitoring system, data on vessel identification, geographical position, date, time, course and speed every 10 minutes to the authorities. The position data can also be transmitted through other devices e.g. via GPRS/GSM signal.

STECF has previously concluded that depending on the size and shape of a management area, an increased ping frequency is normally needed for the authorities to monitor vessels in such management zones. STECF notes that in accordance with the advice from PLEN 24-01, that the current JR proposes an increased ping frequency of 10 minutes both in the alert zones and the management zones.

STECF observes that the tables in the JR (see Tables 6.2.1 and 6.2.2) that specifies the prohibited gear codes (abbreviations with two or three capital letters) in the different management zones refers to Annex XI of Implementing Regulation (EU) 404/2011. STECF notes that some of the gear codes in the table are missing in this regulation, i.e. SB-Beach Seine, DRH-Hand Dredge, GNF-Fixed Gillnets and GEN-Gillnets and entangling nets (nei). STECF notes that the JR also outlines a monitoring program that aligns monitoring of MSFD-targets and objectives with those coupled to monitoring of the Bird- and the Habitat directives. STECF observes that the monitoring programme includes e.g. benthos, fish and fisheries, marine mammals and birds (including bycatches).

ToR 4. If possible, comment on how the proposed conservation measures may affect the fishing activity in the proposed management zones. This should include identification of the fleets concerned, their economic dependence on the proposed management zones, their potential to reallocate the fishing activity (displacement) and potential economic and ecological consequences

Comments related to all sites

STECF notes that the background information provided a comprehensive overview of the fishing activities operating in each of the management zones and also provided information about the economic dependency of Dutch fisheries of the zones. However, STECF also notes that no specific information was provided regarding possible effort displacement in the background information.

Overall, the data on total effort, catch and values of landings across the Dutch EEZ indicates that the proposed areas do not overlap with the areas of highest landings, especially in value. The Brown Ridge area is an exception as it overlaps with an area of higher landings, mainly due to extensive beam trawling. This fishery will however not be affected by the proposed measures in this area as the prohibition concerns gillnets. STECF considers that the provided information in the JR in general suggests limited economic dependency on the affected fisheries at the larger scale, although individual vessels can be more affected in specific areas or by cumulative effects of closures of multiple areas.

Comments related to Cleaver Bank

STECF notes that the fishing effort is limited in the area and displays a decreasing trend over the period. Fishing effort is dominated by beam trawlers and seiners/flyshooters. Main target species are plaice for Dutch beam trawlers, but with declining landings, and also Atlantic mackerel (demersal trawlers of seines) and Europe sprat (pelagic trawlers). The landing value and gross value added is dominated by Dutch vessels, but the Dutch fishers display a limited economic dependency to the zone, almost always below 10% (Hamon and Klok, 2023). Based on the provided information in the JR, STECF considers that the potential impacts on the fishery are likely to be limited.

Comments related to Brown Ridge

STECF notes that while fishing effort in the Brown Ridge zone is high compared to the other areas of the JR this is mostly due to beam trawlers which are not included in the Brown Ridge proposal. The fishing effort of nets, the gears affected by the prohibition is rather homogeneously distributed, with slightly higher effort in the East, and is small in the zone (17.1 days per year on average). The fishing effort with nets reaches its highest level in March, i.e. during the proposed closure. The net fishery is mainly operated by Danish and German vessels that target common sole. STECF considers that the economic dependence for the Danish and German netters of the area is low given the limited effort in the area.

Comments related to Central Oyster Grounds

STECF notes that the fishing activity in the zone is small (10.6 days in average per year) and is dominated by demersal otter trawls (OTB). The large majority of effort is by Dutch vessels although also German and Danish, and to minor extent French and Belgian vessels, also operate in the area occasionally. Main species caught are sprat and herring. Most Dutch vessels have low economic dependence on the Central Oyster Grounds, although some individual vessels show higher levels of dependency (Hamon and Klok, 2023).

Comments related to Southern Dogger Bank

STECF notes that the fishing activity in the zone is limited with only 13 days per year on average over the period 2014-2021 (all gears and countries combined) and it is declining. Fishing effort is dominated by Dutch vessels, and almost exclusively to bottom otter trawlers. STECF considers that since the fishing effort is limited, the risk of detrimental effects of effort displacement is probably small mainly due to the limited effort in the area compared to nearby areas that are open for mobile bottom contacting gears. The limited landings are dominated by pelagic species (European anchovy, Atlantic herring and European sprat) and by European plaice, with the main contribution in weight and value from the Danish vessels. No data were available for the economic dependency of the Danish trawlers, however as the total Danish fleet fishing effort was only two days in average over the period, likely to be small. For

Dutch vessels, the economic dependency of the area was reported to be less than 10% for almost all vessels (Hamon and Klok, 2023).

Comments related to Borkum Reef

Fleet activity in the area is limited (59 days per year on average) and dominated by Dutch vessels (48 days), notably those targeting shrimp (46 days). Shrimp fishing effort has increased the last two reported years (2020-2021). STECF observes that the spatial distribution of fishing effort shows that fishing is most intense in the southernmost part of the area, and even more extensive just south of the border, which is the area where *Lanice conchilega* is present. As such, the proposal might lead to a reallocation of fishing effort to the part of the reef that would remain open. STECF notes that the economic dependency of Dutch fishers of the zone is very limited (Hamon and Klok, 2023) but has increased in recent years due to the shrimp fishery.

Comments related to Frisian Front

STECF notes that while the Frisian Front exhibits somewhat more fishing activity (with beam trawls and bottom trawls as main gears), most of the activity seems to occur in the part of the Natura 2000 area that would remain open also after the proposed measures are introduced. Therefore, although effort displacement is challenging to predict, STECF notes that the effect is expected to be limited and could lead to an increase in fishing pressure in the open portion of the Natura 2000 area. Main species caught are sprat, plaice, Norway lobster, common sole and tub gurnard. Dutch vessels landed value represents more than 55% of the total value in the area. In subarea 1 most Dutch vessels display economic dependency less than 10%, but a few vessels display economic dependencies between 10 and 40% (Hamon and Klok, 2023). The fishing effort is very limited in Subarea 2, but one vessel displays a strong economic dependency to the area (although the vessel had a low activity level). No data on the economic dependency of fishers of other countries were provided. STECF interprets the provided information as that the potential effects on the fishery are expected to be small, at least for Dutch vessels, with the exception of a small number of fishers.

STECF notes that the concept of economic dependency is narrower in scope than socio-economic impacts, which encompass economic plus social effects (such as well-being, generational renewal, working conditions). According to the European Commission's guidelines for good practice for information to be submitted with joint recommendation (SWD, 2018) point 6 specifies that details on the expected socio-economic impacts of proposed measures on fishing activities should be included. As this information was not provided, STECF is unable to evaluate the socio-economic impacts of the proposed measures on fisheries. Furthermore, the same guidelines state that for new measures under the MSFD programme of measures, a cost-benefit analysis or impact assessment, as required by Article 13(3) of the MSFD, should also be included. Since this information was likewise not submitted, STECF is unable to assess it.

STECF conclusions

STECF concludes that the proposal to prohibit all fishing activity in the majority of the Frisian Front subarea 1 will minimise the negative impacts of fishing activities on the marine ecosystem and ensure that fisheries activities avoid the degradation of the marine environment within the area concerned.

STECF concludes that the proposal to discontinue all mobile bottom contacting gear in some of the other areas (Cleaver Bank, Frisian Front subarea 2, Central Oyster Grounds, Southern Dogger Bank and Borkum Reef) represents a positive step forward towards minimising the negative impacts of fishing activities on sensitive habitats (type H1110 sand banks and H1170 reefs) in the Natura 2000 areas as well as on more general seabed habitats in MSFD-areas, and (ii) ensuring that fisheries activities avoid the degradation of the marine environment as stipulated under Article 2(3) of the Regulation 1380/2013.

STECF concludes that the proposed seasonal prohibition of gillnets from November to March in the Brown Ridge Natura 2000 site and the prohibition of all fishing activities in the Frisian Front subarea 1, both areas are protected via the Bird Directive, is likely to reduce disturbance by fisheries and thereby help the achievement of conservation objectives, although STECF is not able to make a more detailed assessment of the extent of the contribution from the information available.

STECF concludes that a prohibition of all mobile bottom contacting gears in the majority of the Cleaver Bank Natura 2000 site (protected reefs via the Habitat Directive) would contribute to achieving the conservation objectives and to limit disturbance and deterioration of natural habitats and the habitats of species. The extent of the contribution to the prevention of disturbance and deterioration of the species and habitats cannot be determined from the information available.

However, STECF concludes that there may be a risk of effort displacement of mobile bottom contacting gears from the Southern Dogger Bank area to the open parts of the Dogger Bank Natura 2000 site where sandbank (H1110) habitats are located.

STECF concludes that the proposed control and enforcement measures of the JR are in accordance with previous STECF advice and appear adequate and sufficient to ensure a proper enforcement of the measures proposed for the management zones.

STECF concludes that the table in the JR that specifies the proposed prohibited gear codes should also refer to the relevant FAO gear classification report (He et. al 2021) where the missing gears reported in the JR are defined and described.

The available information suggests the overall economic dependency of the fisheries concerned appears to be low at a broader scale. Nevertheless, certain individual vessels may be subject to more significant economic impacts in specific regions or due to the aggregated effects of multiple area closures. Therefore, STECF concludes that the information provided was insufficient to comprehensively evaluate economic dependency for all relevant Member States' fleets or to fully assess the cumulative economic impacts arising from combined area closures, as well as the potential economic consequences or ecological risks associated with displacement behaviour.

References

Eigaard, O. R., Bastardie, F., Breen, M., Dinesen, G. E., Hintzen, N. T., Laffargue, P., Mortensen, L. O., et al. 2016. Estimating seabed pressure from demersal trawls, seines, and dredges based on gear design and dimensions. *ICES Journal of Marine Science*, 73: i27-i43. <https://doi.org/10.1093/icesjms/fsv099>.

Hamon, K. G., Klok, A, 2023. Overview of the International Fishing Activities on Protected Areas in the Dutch part of the North Sea; Fishing activities of the Dutch, Danish, German, Belgian, Swedish and French fleet for the period 2014-2021. Wageningen, Wageningen Economic Research, Report 2023-023. 96 pp.; 45 fig.; 14 tab.; 15 ref. <https://research.wur.nl/en/publications/overview-of-theinternational-fishing-activities-on-protected-are-2>.

He, P., Chopin, F., Suuronen, P., Ferro, R.S.T and Lansley, J. 2021. Classification and illustrated definition of fishing gears. FAO Fisheries and Aquaculture Technical Paper No. 672. Rome, FAO

ICES. 2021. OSPAR request on the production of spatial data layers of fishing intensity/pressure. https://iceslibrary.figshare.com/articles/report/OSPAR_request_on_the_production_of_spatial_data_layers_of_fishing_intensity_pressure/18639182/1

Lindeboom, H., Kessel, J. G. van, et Berkenbosch, L. 2005. Areas with special ecological values on the Dutch Continental Shelf. <https://edepot.wur.nl/3249>.

OFL 2020. The North Sea Agreement. Den Haag: Orgaan voor de Fysieke Leefomgeving. https://www.noordzeeloket.nl/publish/pages/184533/the_north_sea_agreement.pdf

Ramírez, I., Mitchell, D., Vulcano, A., Rouxel, Y., Marchowski, D., Almeida, A., Arcos, J. M., et al. 2024a. Seabird bycatch in European waters. *Animal Conservation*, 27: 737-752. <https://onlinelibrary.wiley.com/doi/abs/10.1111/acv.12948>.

Ramírez, I., Mitchell, D., Vulcano, A., Rouxel, Y., Marchowski, D., Almeida, A., Arcos, J. M., et al. 2024b. Seabird bycatch in European waters. *Animal Conservation*, 27: 737-752. <https://onlinelibrary.wiley.com/doi/abs/10.1111/acv.12948>.

Sala, A., Depestele, J., Gümüş, A., Laffargue, P., Nielsen, J. R., Polet, H., Smith, C. J., et al. 2023. Technological innovations to reduce the impact of bottom gears on the seabed. *Marine Policy*, 157: 105861.

SWD (2018) 288 final COMMISSION STAFF WORKING DOCUMENT on the establishment of conservation measures under the Common Fisheries Policy for Natura 2000 sites and for Marine Strategy Framework Directive purposes.

6.3 Assessment of the Joint Recommendation on conservation measures for Finngrundén, Svenska Högarna, Norra Midsjöbanken and Ottenby rev in the Baltic Sea
Assessment of Joint recommendation on conservation measures in Nordvästra Skånes havsområde in the Kattegat

Background provided by the Commission

On 5 February 2025, the North Sea Member States (with Sweden as initiating Member States) submitted to the Commission a joint recommendation proposing conservation measures for the marine protected areas Finngrundén (Norra, Östra and Västra banken), Svenska Högarna, Norra Midsjöbanken and Ottenby rev in the Baltic Sea.

The joint recommendation proposes the prohibition to fish (also for recreational fisheries) in management areas designated within the Natura 2000 sites.

Control measures: notably the use of AIS (class A or class B) for all vessels, including those under 15 m. The provisions in Article 50(3) of Regulation 1224/2009 (Fishing Restricted Areas) apply to all vessels (this is in addition to the measures that apply by default).

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

1. Review the suitability and potential effectiveness of the proposed conservation measures to minimise the negative impacts of fishing activities on the marine ecosystem and endeavour to ensure that fisheries activities avoid the degradation of the marine environment.
2. Comment on to what extent the proposed measures: a) correspond to the ecological requirements of the habitats and species protected in the relevant Natura 2000 sites and contribute towards achieving the conservation objectives of the sites (in relation to fishing as a pressure); b) and to what extent the proposed measures can prevent: (i) deterioration of natural habitats and the habitats of species and (ii) significant disturbance of species protected in the site, as required by the Habitats Directive.
3. Comment on whether the proposed control measures are adequate in relation to the proposed management measures.
4. If possible, comment on how the proposed conservation measures may affect the fishing activity in the proposed management zones. This should include identification of the fleets concerned, their economic dependence on the proposed management zones, their potential to reallocate the fishing activity (displacement) and potential economic and ecological consequences.

Information provided to STECF

STECF was provided with the following documents:

1. JR fishing regulations in MPAs Baltic Sea final.pdf - the text of the Joint Recommendation (JR).
2. Annex proposal Baltic Sea MPA JR final.pdf – Annex to the JR containing details on.
3. ad hoc_2526_report_03-06-2025.pdf – report of the ad hoc contract STECF 2526 which provides a detailed and comprehensive review of the JR.

Overview of the JR

The JR proposes fisheries conservation measures and associated control measures for four marine protected areas in the Baltic Sea.

Purpose

The main purpose of the proposed fisheries conservation measures is to ensure adequate protection of designated and sensitive species and habitat types including the associated ecological functions in the concerned marine protected areas in the Baltic Sea.

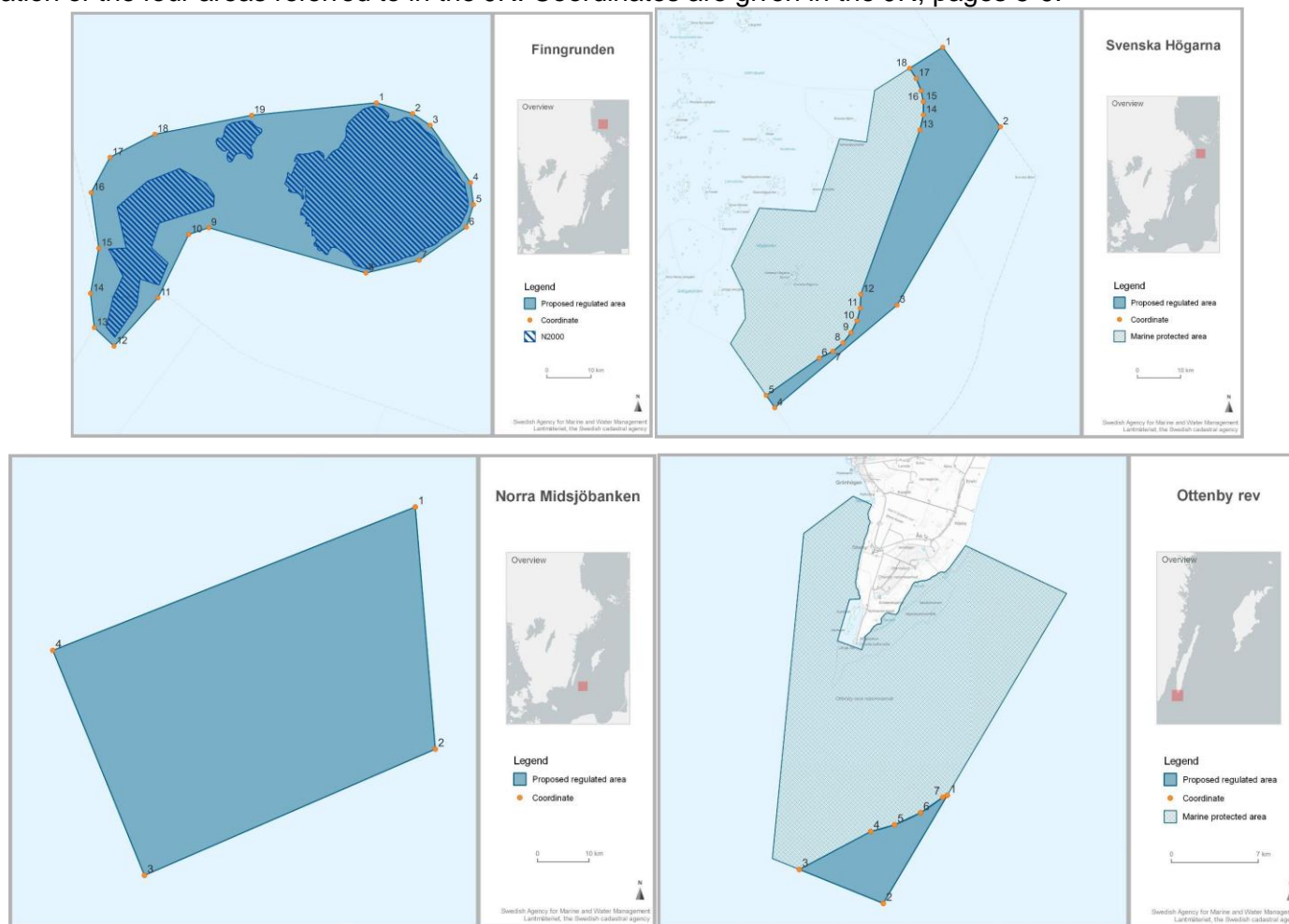
Conservation Measures

The JR proposes prohibition of all fishing including recreational fishing in the following four areas of the Baltic Sea:

1. Finngrundén (Norra, Östra and Västra banken, SCI, SE0630263, SE0630260 and SE0630262) consist of three Natura 2000 sites. Östra banken is also designated as a HELCOM marine protected area (MPA).
2. Svenska Högarna is designated as a nature reserve with the purpose to be unaffected by local human impact and part of the area is a Natura 2000 site (SPA and SCI, SE0110096). Part of the area is also designated as a HELCOM MPA.
3. Norra Midsjöbanken is a part of the Natura 2000 site Hoburgs bank och Midsjöbankarna (SPA and SCI, SE0330308). Norra Midsjöbanken is also designated as a HELCOM MPA.
4. Ottenby rev is a nature reserve also with the purpose to be unaffected by local human impact. Parts of the area are also designated as a Natura 2000 site (SPA and SCI, SE0330108) and a bird sanctuary.

Maps of the areas concerned are given in Figure 6.3.1.

Figure 6.3.1. Location of the four areas referred to in the JR. Coordinates are given in the JR, pages 5-9.



Source: Background documentation provided by the Commission.

Control measures

The following control measures are proposed to be adopted.

- Automatic identification system (AIS): All commercial fishing vessels, also including those under 15 metres, within the marine protected areas Finngrundén (Norra, Östra and Västra banken), Svenska Högarne, Norra Midsjöbanken and Ottenby rev in the Baltic Sea, where fisheries conservation measures are introduced, shall be fitted with and maintain in operation an automatic identification system, AIS, class A, which meets the performance standards in Article 10.1 of Regulation (EC) No 1224/2009 [in accordance with the maps and coordinates in section 4 or the JR.]
- Transit: All commercial fishing vessels, also including those under 15 metres, within the marine protected areas Finngrundén (Norra, Östra and Västra banken), Svenska Högarne, Norra Midsjöbanken and Ottenby rev in the Baltic Sea, where fisheries conservation measures are introduced, are allowed to transit through the areas under following circumstances in accordance with the conditions set out in points (a) and (b) of Article 50.3 of Regulation (EC) No 1224/2009. All gears carried on board shall be lashed and stowed during the transit, the transit is continuous and expeditious, and the speed shall not be less than six knots except in case of force majeure. In such cases, the master shall immediately inform the fisheries monitoring centre of its flag Member State, which shall then inform the competent authorities of the coastal Member State.

Monitoring and compliance

A description of the proposed monitoring is given separately for each of the MPAs concerned in the Annex to the JR. In addition to mandatory use of AIS for commercial vessels, the JR proposes additional monitoring using targeted sea inspections and analysis of haul tracks to assess compliance with the proposed measures.

STECF comments

Based on the JR and ad hoc contract report (contract STECF 2526), STECF notes the following:

The JR and associated Annexes clearly set out the proposed conservation and control and monitoring measures and provides relevant supporting documentation in the Annexes. The conservation objectives and targets are also clearly described.

Many of the elements of good practice (SWD, 2018) regarding the information to be provided by the Member States with the submission of the JRs are addressed in the JR although the fishery-dependent data and information are provided only for the period 2015-2019.

Furthermore, the economic dependency and potential economic consequences of the proposed measures are not described and no cost-benefit analyses or impact assessment carried out in accordance with Article 13(3) of the MSFD is not included (point 5 of the elements of good practice -SWD, 2018-).

The ad hoc contract report provides a comprehensive review and summary of the JR in relation to each of the items in the terms of reference of the contract, which were exactly the same as those in the current request to STECF.

STECF comments in relation to each of the items of the ToRs are given below.

TOR 1. Review the suitability and potential effectiveness of the proposed conservation measures to minimise the negative impacts of fishing activities on the marine ecosystem and ensure that fisheries activities avoid the degradation of the marine environment.

Regarding the suitability of the proposed measures, STECF notes that the JR initiated by Sweden has been drawn up in consultation with and is jointly recommended by Denmark, Finland and Poland and are to be applied non-discriminatively. Consultation with the Baltic Sea advisory Council was also undertaken. While the consultations were completed by 2023, the JR was submitted for the first time in 2025 and while the supporting information in the Annex is given in sufficient detail, some of the information presented e.g. data fishery-dependent information and site-specific survey information on habitats and species is outdated e.g. landings and effort data refer to the period 2015-2019. Hence, STECF observes that such outdated information may not represent the present situation.

With regard to the effectiveness of the measures in the JR, STECF notes that the prohibition of all fishing in the designated areas will eliminate fishery impacts on species and habitats within such areas.

Regarding habitat-type mapping, STECF notes that details are only given for the areas concerned. Hence there is no information to judge what proportion of each habitat type is designated for protection or the potential risk that might arise to similarly vulnerable habitat outside such areas, as a result of any displacement of fishing activities.

ToR 2. Comment on to what extent the proposed measures: a) correspond to the ecological requirements of the habitats and species protected in the relevant Natura 2000 sites and contribute towards achieving the conservation objectives of the sites (in relation to fishing as a pressure); b) and to what extent the proposed measures can prevent: (i) deterioration of natural habitats and the habitats of species and (ii) significant disturbance of species protected in the site, as required by the Habitats Directive.

Comments related to all sites

STECF notes that prohibition of fishing would contribute towards achieving the conservation objectives of each of the above sites where fishing currently takes place and prevents any future impact from fishing and to limiting disturbance and deterioration of natural habitats and the habitats of species (provided that the measures are fully implemented). The extent of the contribution to the prevention of disturbance and deterioration of the species and habitats cannot be determined from the information available.

STECF also notes that prohibition of fishing in all sites would eliminate any impacts from fishing activities and thereby contribute to strengthening the network of MPAs in the Baltic Sea.

Comments related to Norra Midsjöbanken

The objectives of the proposed measures are to eliminate the risk of harbour porpoise bycatch, to protect Sandbanks, Reefs, and species of Long-tailed duck, Black guillemot and Common eider.

According to the JR, Reefs (1170) and Sandbanks (1110) in the area have been assessed as unfavourable and deteriorating (Naturvårdsverket, 2020). STECF notes that elimination bottom fishing on such structures will be beneficial and contribute to improved status.

The conservation status of harbour porpoises in the Baltic Marine Region has been assessed as “unfavourable-bad” (the Habitats Directive Article 17 report (2019)) and as critically endangered by the IUCN and HELCOM and fisheries bycatch is estimated to be the main threat. While a general map of the harbour porpoise density distribution in the Baltic Sea (from the 2016 SAMBAH project) shows that harbour porpoises have been observed in the area, the centre of distribution in the Baltic lies elsewhere.

The distribution of long-tailed duck based on 2015-2016 ICES JWGBIRD, 2020 indicates a good overlap with the area, which is also a hotspot for black guillemot, while the density of common eider is relatively low compared to their overall distribution.

Comments related to Finngrundén

Conservation objectives for Finngrundén, as outlined in the background information, focus on preserving the favorable conservation status of two Natura 2000 habitat types: Reefs (1170) and Sandbanks (1110). The objectives aim to protect the habitats, their ecological functions, and the species associated with them.

Comments related to Svenska Högarna

In addition to protecting Reefs (1170) and Sandbank (1110), the objective of the MP is also to protect the Coastal Lagoons (1150), as well as the boreal Baltic islets and small islands (1620), Grey seal (1364), and Arctic tern (A194).

The JR indicates that the area is also expected to be a refuge for large predatory fish.

Comments related to Ottenby rev

In the Ottenby rev area, the objectives relate to protection of habitat types reefs (1170), sandbanks (110), mudflats (1140), coastal lagoons (1150), and the boreal Baltic islets and small islands (1620). They also concern grey seal (1364), harbour seal (1365), harbour porpoise (1351) and five bird species (A063, 64, 65, 66, A190). Apart from grey seals, all are

assessed to be vulnerable and that Good Environmental Status (GES) has not been achieved.

ToR 3. Comment on whether the proposed control measures are adequate in relation to the proposed management measures.

STECF notes that to provide real-time monitoring, to complement VMS monitoring, all commercial fishing vessels including vessels less than 15 m transitioning across the protected areas, will be required to be equipped with AIS, class A. Furthermore, all fishing gear carried onboard must be lashed and stowed and the vessel speed shall not be less than six knots during transit following points (a) and (b) of Article 50.3 of the Control Regulation (EC) No 1224/2009.

STECF notes that the requirement to be equipped with AIS apply only to commercial fishing vessels and. no provisions for monitoring the location or activity of recreational fishing vessels are specified in the JR.

STECF notes that the requirement to carry AIS class A, will provide detailed real-time information on position, speed, and course of commercial fishing vessels which can provide adequate monitoring of the activity of vessels entering the regulated areas.

STECF notes that there is no information in the document describing whether or how the effects of the proposed conservation measures on the species and habitats are to be monitored.

ToR 4. If possible, comment on how the proposed conservation measures may affect the fishing activity in the proposed management zones. This should include identification of the fleets concerned, their economic dependence on the proposed management zones, their potential to reallocate the fishing activity (displacement) and potential economic and ecological consequences.

STECF notes the historical fleet activity recorded (with VMS and logbooks) within the proposed areas for the period 2015-2019 and split per broad category of fishing (i.e. pelagic trawls, demersal trawls, gillnets, pots) in the Annex to the JR is reported separately by area and can be summarised as follows:

Comments related to Finngrundén

No fishing activity is reported within the designated area, but intense activity is recorded for surrounding areas, mainly for pelagic trawlers targeting herring.

STECF notes that if the current situation is as reported for the period 2015-2019 (i.e no fishing activity), the effect of the proposed prohibition on fishing within the area will provide no additional protection to the species and habitats in the areas concerned and will not affect the economic performance of the fleets at present but any potential future impacts from fishing will be prevented.

Comments related to Svenska Högarna

No fishery is reported within the marine protected area. Some fishing activity is reported in the vicinity. STECF notes that if the current situation is as reported for the period 2015-2019 (i.e no fishing activity), the effect of the proposed prohibition on fishing within the area will provide no additional protection to the species and habitats in the areas concerned and will not affect the economic performance of the fleets at present but any potential future impacts from fishing will be prevented.

Comments related to Ottenby rev

An average of 9,000 tonnes landings by pelagic trawlers per year was reported for the period 2015-2019 from the ICES rectangle surrounding the Ottenby rev area. A total of 2,000 tonnes were landed by Swedish gillnetters from the that rectangle for the period 2015-2019. The proportion of landings from the area or economic dependency on the area cannot be deduced from the data and information available.

Comments related to Norra Midsjöbanken

STECF notes that since February 2022, all commercial fisheries except fishing with pots, traps and longlines have been prohibited in the Norra Midsjöbanken MPA (Regulation (EU) 2022/303). Furthermore, the Norra Midsjöbanken MPA covers only a part of the Hoburgs bank. Since the fisheries activity reported in the JR relates to the entire Hoburg bank, the fishing activity data for Norra Midsjöbanken MPA while unknown, will be less than the activity reported.

Nevertheless, the maps provided in Annex to the JR indicate that the fraction of the fishing carried out between 2015-2019 within the Norra Midsjöbanken MPA was relatively low. Such an observation might indicate that the dependency of the fleet on the Norra Midsjöbanken MPA may also be low, in the absence of appropriate economic information, the economic dependency of the vessels that currently fish in the MPA cannot be ascertained.

General comments

STECF notes that the concept of economic dependency is narrower in scope than socio-economic impacts, which encompass economic plus social effects (such as well-being, generational renewal, working conditions). According to the European Commission's guidelines for good practice for information to be submitted with joint recommendations (SWD, 2018), point 6 specifies that details on the expected socio-economic impacts of proposed measures on fishing activities should be included. As this information was not provided, STECF is unable to evaluate the socio-economic impacts of the proposed measures on fisheries.

STECF conclusions

STECF concludes that provided that the measures are fully implemented, the prohibition of all fishing in the designated areas will eliminate any fishery impacts on species and habitats within such areas

STECF concludes that prohibition of fishing would contribute to achieving the conservation objectives of each of the sites concerned by the JR, (in relation to fishing as a pressure) and to limiting disturbance and deterioration of natural habitats and the habitats of species. The extent of the contribution to the prevention of disturbance and deterioration of the species and habitats cannot be determined from the information available.

STECF concludes that the proposed measures to prohibit all fishing activity in the MPAs and require the mandatory use of AIS Type A together with targeted sea inspections and analysis of haul tracks to assess compliance with the proposed measures are suitable to minimise the negative impacts of fishing activities on the marine ecosystem and ensure that fisheries activities avoid the degradation of the marine environment within the areas concerned.

However, because there is no requirement for recreational fishing vessels under 15 metres to be equipped with AIS, STECF concludes that an alternative means to effectively monitor their fishing activity needs to be determined to ensure compliance with the conservation measures.

2019 data indicate that no fishing took place within the designated areas. Hence STECF concludes that if the current situation is as reported for the period 2015-2019 (i.e no fishing activity), the effect of the proposed prohibition on fishing within the area will provide no additional protection to the species and habitats in the areas concerned and will not affect the economic performance of the fleets at present but any potential future impacts from fishing will be prevented.

For the Ottenby rev and Norra Midsjöbanken MPAs, with the available data and information, it is not possible to determine how the proposed conservation measures are likely to affect current fishing activity, the economic dependence on the proposed management zones or the potential economic or ecological consequences.

References

SWD (2018) 288 final COMMISSION STAFF WORKING DOCUMENT on the establishment of conservation measures under the Common Fisheries Policy for Natura 2000 sites and for Marine Strategy Framework Directive purposes.

6.4 Joint recommendation on conservation measures in 7 MPAs of the Baltic and 1 MPA of the Kattegat

Background provided by the Commission

On 30 April 2025, the North Sea Member States submitted to the Commission a joint recommendation proposing conservation measures for the area of Balgö in the Kattegat. On 7 May 2025, the Baltic Sea Member States submitted a joint recommendation proposing conservation measures for the areas of Falsterbohalvöns havsområde, Foteviksområdet, Bunkeflo strandängar, Löddeåns mynning, Salvikens strandängar and Lundåkrabukten in Öresund in the Baltic Sea.

In accordance with Article 11(3) of Regulation 1380/2013, Member States having direct management interest in certain areas or fisheries may submit joint recommendations proposing conservation measures that are necessary to comply with their environmental obligations referred to in Article 11(1) of that Regulation.

The measures entail specific prohibitions for gears and depths, depending on the area. The joint recommendations also propose the use of AIS for all vessels, including those under 15 metres, within the marine protected.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

1. Review the suitability and potential effectiveness of the proposed conservation measures to minimise the negative impacts of fishing activities on the marine ecosystem and endeavour to ensure that fisheries activities avoid the degradation of the marine environment.
2. Comment on to what extent the proposed measures: a) correspond to the ecological requirements of the habitats and species protected in the relevant Natura 2000 sites and contribute towards achieving the conservation objectives of the sites (in relation to fishing as a pressure); b) and to what extent the proposed measures can prevent: (i) deterioration of natural habitats and the habitats of species and (ii) significant disturbance of species protected in the site, as required by the Habitats Directive.
3. Comment on whether the proposed control measures are adequate in relation to the proposed management measures.
4. If possible, comment on how the proposed conservation measures may affect the fishing activity in the proposed management zones. This should include identification of the fleets concerned, their economic dependence on the proposed management zones, their potential to reallocate the fishing activity (displacement) and potential economic and ecological consequences.

Information provided to STECF

STECF was provided with the following documents:

1. JR for MPAs in Öresund.pdf - the text of the Joint Recommendation (JR) on MPAs in Öresund.
2. JR for the MPA Balgö in the Kattegat_final_2025-04-30.pdf – the text of the Joint Recommendation (JR) on MPAs in Balgö.
3. Proposal Öresund Kattegat Annex I to JR.pdf – Annex to the JR containing details on.
4. report.pdf – report of the ad hoc contract STECF 2552 which provides a detailed and comprehensive review of the JR.

Overview of the JR

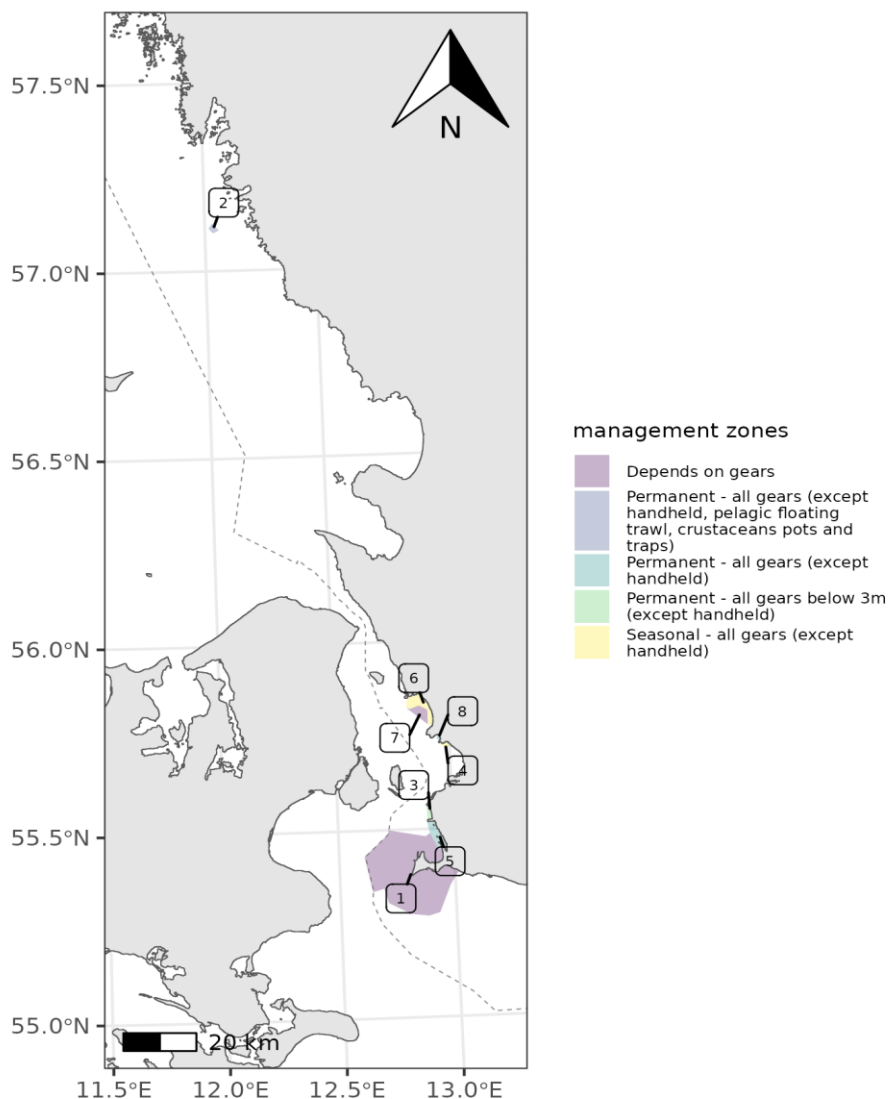
A brief description of the areas concerned and the proposed measures, are summarised in Figure 6.4.1. The exact nature of the measures varies among the proposed areas (Table 6.4.1).

Table 6.4.1. Surface (ha) of the management areas (calculation in the ad hoc report 2552) and measures proposed in the JR. Surfaces were computed by calculating the size of the polygons described and JR after removing land areas.

Region	Management zone	Description	Area (ha)
Öresund	Falsterbohalvöns havsområde (1)	- prohibits mobile bottom contacting gears, longlines and fykenets without two circular escape openings not less than 60 millimetres in diameter - prohibits all fishing gears in depth 0-3 meters except handheld gears - prohibits static nets with mesh size >120mm from 1st October to 30 April in depth > 3m - use of acoustic deterrent devices from 1st May to 30 September in depth > 3m	41,283
	Balgö (2)	- prohibits all fishing gears except handheld gears, pelagic trawling and fishing with pots and traps for crustaceans	409
Kattegat	Bunkeflo strandängar	- prohibits all fishing gears in depth 0-3 meters except handheld gears	480
	Löddeåns (3) mynning (4)	- prohibits all fishing gears except handheld gears from 1st May to 14th September (but trolling is forbidden)	310
	Foteviksområdet (5)	- prohibits all fishing gears except handheld gears (but trolling is forbidden)	2,113
Öresund	Lundåkrabukten inre (6)	- prohibits all fishing gears, except handheld gears that are allowed from 1st May to 14th September (but trolling is forbidden)	2,611
	Lundåkrabukten yttre (7)	- prohibits fykenets without two circular escape openings not less than 60 millimetres in diameter - prohibits static nets with mesh size >120mm from 1st October to 30 April - use of acoustic deterrent devices from 1st May to 30 September	1,436
	Salvikens strandängar (8)	- prohibits all fishing gears except handheld gears (but trolling is forbidden)	119

Source: Background documentation provided by the Commission.

Figure 6.4.1. Maps of proposed management zones (coloured polygons - 1: Falsterbohalvöns havsområde - 2: Balgö - 3: Bunkeflo strandängar - 4: Löddeåns mynning - 5: Foteviksområdet - 6: Lundåkrabukten inre - 7: Lundåkrabukten yttre - 8: Salvikens strandängar). The dashed grey line indicates the border of the Swedish EEZ.



Source: Background documentation provided by the Commission.

Purpose

The JR states that the purpose of the proposed fisheries conservation measures is to ensure adequate protection of designated and sensitive species and habitat types, including the associated ecological functions, in the concerned marine protected areas in Öresund. The marine protected areas in Öresund comprise overlapping marine protected areas of various types. Some of the sites are both Natura 2000 sites and nature reserves as well as HELCOM

MPAs. According to Article 6 of Directive 92/43/EEC2 (Habitats Directive), Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designated. According to Article 4 of Directive 2009/147/EC3 (Birds Directive), the species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat to ensure their survival and reproduction in their area of distribution.

Control measures

The Automatic Identification System (AIS) is proposed. All commercial fishing vessels, also including those under 15 metres, within the marine protected area shall be fitted with and maintain in continuous operation either AIS class A, following Article 10(1) of Regulation (EC) No 1224/2009, or AIS class B.

Transit

All commercial fishing vessels are allowed to transit through the areas under the following circumstances in accordance with the conditions set out in points (a) and (b) of Article 50.3 of Regulation (EC) No 1224/2009: all gears carried on board shall be lashed and stowed during the transit, the transit is continuous and expeditious and the speed shall not be less than six knots except in case of force majeure. In such cases, the master shall immediately inform the fisheries monitoring centre of its flag Member State, which shall then inform the competent authorities of the coastal Member State.

Long-term monitoring

No description is provided in the supportive documentation to the JR, apart from a reference to possibly several ongoing monitoring programs in Öresund covering both biotic and abiotic aspects of the ecosystem where SLU is responsible for the monitoring of coastal fish communities. However, the JR recognises that, through the Habitats Directive, the EU sets requirements to maintain and/or restore a favorable conservation status for the habitat types and species covered by the Directive. Monitoring of the conservation status is an obligation arising from Article 11 of the Habitats Directive for all habitat types and species covered by the Directive. To achieve a full assessment of the conservation status, monitoring cannot be restricted to Natura 2000 sites only, data must also be collected both in the Natura 2000 network and in the surrounding areas. The main results of this monitoring must be reported to the Commission every six years according to Article 17 of the Directive.

STECF comments

STECF was informed by DG MARE on an error in the title of this ToR and amended it accordingly.

The *ad hoc* contract report provides a comprehensive review and summary of the JR in relation to each of the items in the terms of reference of the contract, which were exactly the same as those in the current request to STECF.

Based on the JR and ad hoc contract report (contract STECF 2552), STECF notes the following:

Many of the elements of good practice (SWD, 2018) regarding the information to be provided by the Member States with the submission of the JRs are addressed in the JR.

However, STECF notes several general shortcomings of the JR, including doubts about why the prohibition of static nets is restricted to >120mm mesh size, why fyke nets are not included in the restriction as they can also induce bycatch of marine mammals, the exemption of handheld gears that is likely to hinder the reduction of the impact of the recreational fishery, and concerns regarding the impact of acoustic deterrent devices (pingers) as noted previously by STECF (PLEN 24-03 and 25-01), among others, as well as some issues specific to certain proposed areas.

STECF comments in relation to each of the items of the ToRs are given below.

TOR 1. Review the suitability and potential effectiveness of the proposed conservation measures to minimise the negative impacts of fishing activities on the marine ecosystem and ensure that fisheries activities avoid the degradation of the marine environment.

STECF notes that the proposed areas are located within or partially overlap Natura 2000 areas designated under Habitats and/or Birds Directives:

- Falsterbohalvöns havsområde:
- Falsterbohalvöns havsområde is located within the “Falsterbohalvön” Natura 2000 zone designated under the Habitat directive
- Falsterbohalvön Natura 2000 is itself included in the “Falsterbo-Foteviken” Natura 2000 area designated under the Birds Directive
- all those zones are nested within the “Falsterbo Peninsula with Måkläppen”, a HELCOM MPA
- Foteviksområdet:
- Foteviksområdet havsområde encompasses the Natura 2000 zone “Tygelsjö-Gessie” designated under the Habitats Directive
- it partially overlaps the “Vellinge ängar” Natura 2000 area designated under the Habitats Directive
- it partially overlaps the “Falsterbo-Foteviken” Natura 2000 area designated under the Birds Directive
- as well as with the “Falsterbo Peninsula with Måkläppen” HELCOM MPA
- Löddeåns mynning overlaps the “Löddeåns mynning” Natura 2000 area designated under the Birds Directive

- Salvikens strandängar overlaps the “Löddeåns mynning” Natura 2000 area designated under the Birds Directive
- Lundåkrabukten (inner and outer)
- encompasses the “Lundåkrabukten” Natura 2000 area designated under the Birds Directive
- It encompasses the “Saxåns mynning-Järvallen” Natura 2000 designated under the Habitats Directive
- There is also a “Lundåkrabukten” HELCOM MPA, which has almost the same border as the two Natura 2000 areas
- Balgö is a small part of the Balgö Natura 2000 area designated under both the Birds and Habitats Directives

STECF notes that the bycatch of seabirds and marine mammals is a primary threat in the Baltic (HELCOM, 2021), including in Öresund and Kattegat, where harbour porpoise is present as well as grey, harbour and ringed seal. In Öresund, two harbour porpoise populations can be found: the Belt population that is classified as vulnerable by HELCOM and for which recent data indicates a declining trend (Owen et al., 2024). This population extends in the southern part of the Kattegat, the Belt Seas, and the Western Baltic (Viquerat et al., 2014). The Baltic population, which is classified as critically endangered by the IUCN, is also present in the area. The exact border between the two populations is unclear (Viquerat et al., 2014), and both morphological and tracking data suggest that the two populations overlap (Sveegaard, 2011; Galatius et al., 2012), including in Öresund.

STECF notes that the conservation targets for each proposed area are described in the JR. However, species distribution and habitat maps for the sites and wider Baltic Sea are not provided (apart to referring to report written in Swedish). Hence, there is insufficient information to determine what proportion of the distributional area of species and habitats would be covered by the areas specified in the JR. Consequently, it is not possible to estimate the extent to which the proposed conservation areas will contribute to achieving conservation objectives for species and habitats in the wider Baltic.

For example, the Falsterbohalvöns havsområde (area 1 in Figure 6.4.1) in this proposal comprises a combination of several overlapping marine protected areas with similar or differing conservation targets and objectives. The appointed conservation targets for each MPA are listed in the Annex accompanying the JR, and consist of: habitat type (sandbanks, reef, soft bottom and sand reefs, eelgrass meadows) but the location of those habitats are not provided with the JR., Protection of birds (common eider, white tailed eagle, osprey, etc.), marine mammals (harbour porpoise, grey seal, harbour seal), and fish (Plaice, flounder, turbot, dab, salmon, herring, lumpfish, cod, garfish, eel, sticklebacks, gobies, pipefish) is also the designation basis in some cases

STECF observes that maps of bycatch risk are provided in the Annex to the JR (only for the harbour porpoise). While such maps are informative, they cannot substitute the information on the overall distribution of species and habitats. Also, STECF observes that the bycatch risk was deduced by combining telemetry data of marine mammals with fishing effort

allocation, thereby ignoring potential risk areas (e.g., areas where there is currently no fishing effort but where the different species and habitat types occur). In addition, the estimated distribution of the harbour porpoise is provided for the Baltic Sea, which only partially overlaps with ICES SD23 (Öresund) and the distribution in the Kattegat area is not provided.

However, in the proposal related to the Balgö area in the Kattegat, the JR provides a map of the seafloor habitat types, which is helpful as the proposed measure aims to exclude mobile bottom fishing, thereby protecting the Balgö area from physical disturbance from fishing. Also, STECF observes that the JR provides rationale explaining that harbour porpoise from both the Belt Sea population within the Baltic Sea and North Sea populations can be found in Balgö. Some areas have been designated as especially important for the harbour porpoise, known as “hotspots”. Such locations are defined as areas used by at least 30% of each population per quarter of a year. These hotspots have been identified based on data on harbour porpoise occurrence, rather than habitat factors, as there is a lack of knowledge regarding the environmental factors that are important for harbour porpoises (Carlström and Carlén, 2016; Carlén et al. 2018).

STECF observes that (Swedish and International) VMS (for vessels >12m in length) and (Swedish) logbook data can locate where vessels have been fishing during the period 2015-2019 and the part lying within and around the sites.

STECF observes that the static nets will still be allowed if the proposal is implemented in its current version. However, no information is provided regarding the mesh sizes currently used by fishers, so it is not possible to assess the impacts of the 120 mm threshold. While this may reduce bycatch of marine mammals and birds (Dagys and Žydelis 2002, Heswall et al., 2021), it may also increase the catch of smaller fish or juveniles.

The JR stipulates that the use of Acoustic Deterrent Devices (“Pingers”) will be following the rules specified in the Commission implementing Regulation (EU) 2020/967 to decrease the risk of bycatch of harbour porpoises. However, STECF previously concluded (PLEN 24-03 and PLEN 25-01) that the potential effectiveness of acoustic deterrent devices is unclear and in the current JR no documentation of the density of nets have been provided to decide if the pingers could deter the harbour porpoise from its natural habitat. While several studies have demonstrated a reduction of bycatch with the use of pingers (Moan and Bjorge, 2023; Pinn, 2023), they could also trigger avoidance behaviour (Kyhn et al., 2015; Brennecke et al., 2022) which potentially would divert animals away from a Natura 2000 area that is specifically designated for its important contribution of the habitats for harbour porpoise.

STECF notes that no information is provided in the JR on the seasonality of the fishery, so no evidence is provided to assess if it is relevant to restrict fishing between October and April. However, STECF notes that this period appears to be consistent with the protection of birds during the wintering period (greater scaup, red-breasted mergansers). Such a period might also not be enough for bird species using the area for nesting (e.g., the common eider, which is one of the most frequently bycaught species in the recent SLU Aqua bycatch monitoring program).

STECF notes the exemption of fyke nets which depending on their size (which is not provided in the JR) may induce incidental catches of seals. Additionally, the second important fishery in the areas targets European eels using fyke nets. The proposed measures do not prohibit this gear, despite the European eel being classified as critically endangered.

Furthermore, the basis for allowing fyke nets with 60 mm escape openings is unclear to STECF as supporting information is lacking in the JR.

STECF notes that handheld gears will remain allowed in most marine protected areas. In Öresund, the recreational fishery primarily uses handheld gears (as indicated in Annexe 1 of the JR); therefore, it will not be affected by the proposed measures (especially in area (1), as trolling fishing is not prohibited, unlike in other proposed management areas, see Table 6.4.1). As a consequence, STECF notes that the impact generated by recreational fishery (catch and noise) will hardly be mitigated by the proposed measures. Different types of human activities, such as boat navigation, fishing, and human presence, can constitute disturbances to the breeding or foraging of birds in the coastal zone (Burger et al. 1995; Livezey et al. 2016). In areas where habitat use of birds and tourists overlap, a reduction in breeding range, productivity and density of several waders and seabirds has been observed (Pienkowski 1993; Dias et al. 2019).

STECF notes that the JR proposes to prohibit all fishing except fishing with handheld gear, such as rod and line, pelagic trawls, and fishing with pots and traps for crustaceans *in the Balgö area in the Kattegat*. However, there are still some impacts on the seafloor, especially on reef habitats, from the pots and traps fishing techniques, even much less impact than mobile bottom contacting gears.

ToR 2. Comment on to what extent the proposed measures: a) correspond to the ecological requirements of the habitats and species protected in the relevant Natura 2000 sites and contribute towards achieving the conservation objectives of the sites (in relation to fishing as a pressure); b) and to what extent the proposed measures can prevent: (i) deterioration of natural habitats and the habitats of species and (ii) significant disturbance of species protected in the site, as required by the Habitats Directive.

Comments related to Falsterbohalvöns havsområde

The new management zone encompasses an area with limited commercial fishing effort, primarily using gillnets, which are not (or only slightly) affected by the proposed measures. As such, the measures could prevent further impacts but are unlikely to contribute to reducing the negative impacts from fishing on the marine ecosystems. Moreover, by exempting handheld gears, the JR will have limited effect on the recreational fishery that largely uses those gears, which appears to be significant in the area (especially cod, regarding the reported but outdated data on catch volume at the scale of the Öresund, ca. 500-1,000 tonnes, which constituted at that time a large part of the total catches in this area according to Öresundsvattensamarbetet, 2018).

While the ban on mobile bottom gears may effectively contribute to the protection of the targeted habitats, it is challenging to assess whether the other measures will contribute to achieving the Natura 2000 targets.

Gillnets are known to be the main responsible gear of seabird bycatch in European waters (Ramirez *et al.*, 2024) and a main source of bycatch of marine mammals (Reeves *et al.*, 2013; Žydelis *et al.*, 2013; Kindt-Larsen *et al.*, 2016; Lusseau *et al.*, 2023; ICES, 2024e). While the ban on large mesh sizes might reduce the risk of bycatching seabirds, STECF

observes that the documentation does not provide any objective reasons for the 120 mm threshold, on the mesh size currently used in the fishery, and no information is available on the effects on marine mammals. Moreover, while the proposed seasonality of the measure is consistent with the protection of seabirds during the wintering season, it does not necessarily cover the nesting period of species such as the common eider (A065). If the proposed measures could effectively protect the targeted habitats, it would be challenging to assess their impact on commercial and recreational fisheries and whether they would effectively reduce disturbances and the risk of bycatch of seabirds and harbour porpoise.

Comments related to Foteviksområdet

The ban on almost all fishing gears (except handheld gear) appears relevant to prevent the deterioration and maintain the functioning of these ecosystems. This is to avoid further disturbance due to commercial fishing, which is likely limited in the area. On the other hand, the exemption of handheld gears is likely to limit the effect of the restriction on the recreational fisheries.

Comments related to Löddeåns mynning Natura 2000 (new proposed zones Löddeåns mynning + Salvikens strandängar)

STECF observes that the maps provided, based on logbook data, suggest that the commercial fishing effort is limited in the area. In this context, the primary source of disturbance is likely to be generated by recreational fisheries. The existence of sanctuaries that enforced complete closure should contribute to the reduction of those disturbances.

Comments related to Lundåkrabukten (inner)

The ban on almost all fishing gears (except handheld gear) appears relevant in preventing deterioration and maintaining the functions of ecosystems. This will prevent the decline of reefs and biogenic reefs, which are present in the area. This measure will also reduce the risk of bycatching seabirds and harbour porpoises. Handheld gears are prohibited in the inner part during winter and autumn, which likely mitigates the disturbance generated by the recreational fishery during the resting and wintering seasons.

Comments related to Lundåkrabukten (outer)

STECF observes that the management zone covers an area with commercial fishing effort, mostly using gillnets, which are not (or slightly) affected by the new measures. As such, the proposed measures could prevent further degradation but are unlikely to contribute to reducing the negative impacts on marine ecosystems. Moreover, the management measures do not affect recreational fishery, which appears to be significant in the area.

The Belt harbour porpoise uses the area all year-round (Teilmann et al., 2022) and is one of the hotspots for harbour seals in the Southern Baltic Sea (Annex of the JR).

Comments related to Balgö in the Kattegat

STECF observes that the commercial fishery in the area is more intense than in Öresund and is dominated by trawlers targeting Norway lobster. The prohibition of mobile gears appears relevant to protect the seabed and potentially decreases the mortality of some species.

STECF observes that the prohibition of fyke nets and gillnets is likely of limited effect given the restricted use of those gears in the area, but it will prevent further habitat degradation.

STECF notes that the exemption of pelagic trawls is not necessarily appropriate, given the poor status of the western Baltic herring and the declining trend in sprat (ICES 2025b,c). Even if the JR only extends the measure to a small geographical zone of the Natura 2000 area, it ensures a consistent and effective protection of the whole zone. Still allowing pelagic trawling, beside risk of entanglement for seabirds and bycatch of marine mammals in the area may also add extra-pressure on foraging species, which are important resources for seabirds (Cury et al., 2011) and marine mammals.

ToR 3. Comment on whether the proposed control measures are adequate in relation to the proposed management measures.

Monitoring of vessels

STECF observes that the AIS systems as proposed in the JR would provide fisheries authorities with detailed close to real-time information on vessels's position, speed, and course. In this respect, STECF observes that making it compulsory for all vessels to carry AIS is adequate as AIS transmits multiple position information per minute. STECF observes that a high frequency of position pings is especially important if there are buffer zones to ensure site protection. However, STECF notes that the JR in contradiction to other JRs initiated by Sweden specifies that also AIS class B can be used for vessels present in the areas. Class B AIS transmits information less frequently and has a lower bandwidth than AIS class A.

Transiting at speeds greater than 6 knots is likely an adequate measure, as fishing with a trawl or setting static nets is known to occur at lower speeds.

Recreational fisheries

No information is provided on the control measures of recreational fishers. Ensuring appropriate control and monitoring of recreational fishers would be relevant given their reported importance in terms of fishing effort and landings.

Long-term monitoring

STECF observes that there is a lack of describing the monitoring capabilities of closed areas, related to detecting a beneficial effect from the closure on seafloor integrity, or biomass enhancement. STECF notes that the monitoring program to assess the effects of fisheries conservation measures in marine protected areas does not seem to be implemented, and no data collection would exist both in and outside the Natura 2000

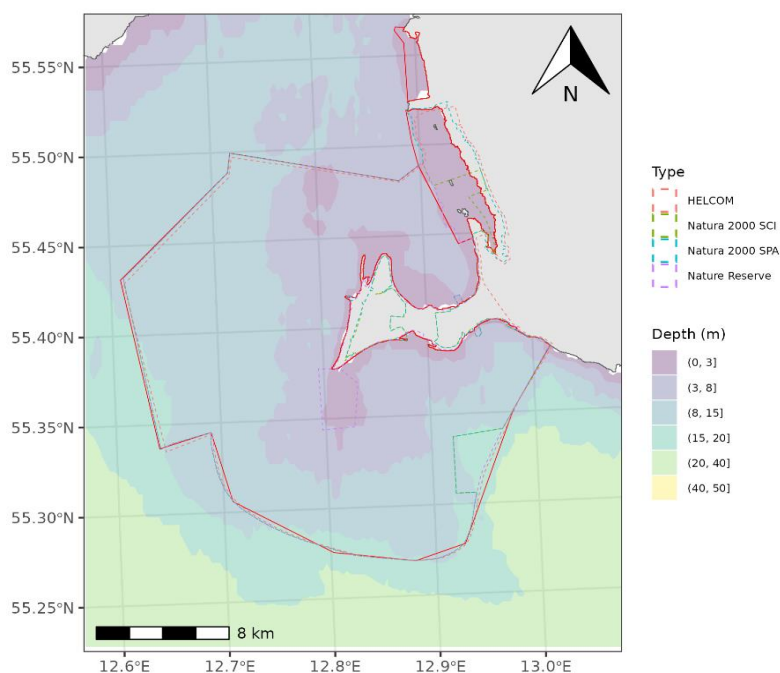
network. STECF notes that to assess the long term effect of the restriction, monitoring cannot be restricted to Natura 2000 areas only.

STECF observes that adequate monitoring capabilities are described in the submitted JR, using R/V and its deployed equipment, including remotely operated vehicles (ROVs), fish surveys, bottom and pelagic trawling, hydroacoustics, and oceanography, equipped with video cameras and sonars for the quantitative documentation of seafloor features, organisms, and habitats.

STECF notes that the the authority responsible for ensuring the long-term monitoring for each of the proposed areas is not described in the supportive documentation.

Spatial polygon mismatches with previous Natura 2000 sites

Figure 6.4.2. Bathymetry around the Falsterbohalvöns havsområde area (GEBCO data). The red polygon stands for the proposed management area. The dashed polygons correspond to previously designated areas.



Source: Background documentation provided by the Commission.

STECF notes there are already several marine protected areas in the region. Overlapping zones with minor boundary differences may complicate control and compliance (Figure 6.4.2).

ToR 4. If possible, comment on how the proposed conservation measures may affect the fishing activity in the proposed management zones. This should include identification of the fleets concerned, their economic dependence on the proposed management zones, their potential to reallocate the fishing activity (displacement) and potential economic and ecological consequences.

STECF observes that it addressed similar JRs (PLEN 24-03 and 25-01), as submitted by Sweden, the initiating state. STECF observes that as in the previous JRs, the fisheries data accompanying are outdated (i.e. 2014-2019) at the time of evaluation.

Given the outdated data in the supporting documentation to the JR, the ad hoc report attempted to capture the current situation by extracting data from the STECF FDI database; however, the spatial resolution is inadequate given that it is too large compared to the size of the proposed site. At that time, 2019, two of the most important species in the Öresund were the Baltic cod and the European eel, as well as some flatfishes (especially plaice), herring, and lumpfish. However, the stock cod.27.24-24 is depleted, under zero-catch advice by ICES, and the TAC has been almost zero since 2022 and directed fishing for cod is banned for both commercial and recreational fisheries. The species is classified as vulnerable in the Baltic Sea by HELCOM. The proposed protection of the habitats which are essential foraging and nursery grounds for the species should benefit the stock.

Concerning the proposed “Balgö” area in Kattegat, the commercial fishery here is more intense. However, the proposed measures are just an extension of those introduced in 2021 within a small zone of the Natura 2000 area.

STECF observes that the JR lacks support to conclude on the possible effect on fisheries, as no economic dependency analysis is provided. However, given recent development (declining cod stocks and reduction in fishing practices) known at the regional scale of the Kattegat and the western Baltic, it is likely that the fishing return has substantially reduced since the period in which data supporting the JR were collected.

STECF observes that according to the 2014-2019 data activity in the proposed areas was low. Therefore, if the affected part would induce effort displacement, such an effect is expected to be minimal. This effect will be even less pronounced now that fisheries have declined in the area. However, STECF notes that the displacement would impair the goal of the protection if effort is redirected toward surrounding areas in case those habitats are also vulnerable. Indeed, according to the few habitat maps provided, vulnerable habitats are also found outside the proposed areas.

STECF notes that the concept of economic dependency is narrower in scope than socio-economic impacts, which encompass economic plus social effects (such as well-being, generational renewal, working conditions). SWD, 2018 specifies that details on the expected socio-economic impacts of proposed measures on fishing activities should be included. As this information was not provided, STECF is unable to evaluate the socio-economic impacts of the proposed measures on fisheries. Furthermore, the same guidelines state that for new

measures under the MSFD programme of measures, a cost-benefit analysis or impact assessment, as required by Article 13(3) of the MSFD, should also be included. Since this information was likewise not submitted, STECF is unable to assess it.

STECF conclusions

STECF concludes that the proposed fishery measures represent a positive step forward towards minimising the negative impacts of fishing activities but likely insufficient in certain aspects. These shortcomings include, insufficient prohibition of static nets, the exemption of fyke nets that can also induce bycatch of marine mammals, the exemption of handheld gears that is likely to hinder the reduction of the impact of the recreational fishery, and the concerns regarding the impact of acoustic deterrent devices (pingers) as noted previously by PLEN 25-01, as well as some issues specific to certain proposed areas.

Conclusions by specific area are regarding ToR 2 are provided below:

Falsterbohalvöns havsområde

STECF concludes that the measures proposed are unlikely to contribute to reducing the negative impacts generated by the commercial fishery on marine ecosystems, but rather to prevent further degradation. Moreover, the management measures do not affect the recreational fishery, which appears to be significant in the area.

Foteviksområdet

STECF concludes that the ban on almost all fishing gear (except handheld gear) appears relevant to prevent the negative impact from the commercial fishery and maintain the functioning of these ecosystems. However, STECF cannot assess the effects of the measure on the disturbance generated by recreational fisheries.

Löddeåns mynning Natura 2000 (new proposed zones Löddeåns mynning + Salvikens strandängar)

STECF concludes that the primary source of disturbance is likely to be generated by recreational fisheries.

Lundåkrabukten (inner)

STECF concludes that the ban on almost all fishing gear (except handheld gear) appears relevant in preventing negative impact from the commercial fishery and maintaining the functions of ecosystems. Handheld gears are prohibited in the inner part during winter and autumn, which likely mitigates the disturbance generated by the recreational fishery during the resting and wintering seasons.

Lundåkrabukten (outer)

STECF concludes that as gillnets will not (or slightly) be affected by the new measures, the proposed measures are unlikely to contribute to reducing the negative impacts on marine ecosystems. Moreover, the management measures do not affect recreational fishery, which appears to be significant in the area.

Balgö in the Kattegat

STECF concludes that the prohibition of fyke nets and gillnets is likely of limited effect given the limited use of those gears in the area. Furthermore, the exemption granted to pelagic trawling may seem to be inadequate given the poor current condition of herring and the observed decline in sprat, populations.

Conclusions on ToRs 3 and 4

STECF concludes that the proposed controls seem to be sufficient to monitor commercial vessels' compliance. However, since the JR does not require recreational fishing vessels under 15 metres to have AIS, an alternative method to ensure their compliance with conservation measures should be included.

STECF concludes that the updated data prevents from a definitive assessment economic dependency of the active fisheries to the restricted areas. However, the low past activity and the declining cod stocks in the Baltic suggest a low economic dependency.

References

- Brennecke, D., Siebert, U., Kindt-Larsen, L., Midtiby, H. S., Egemose, H. D., Ortiz, S. T., Knickmeier, K., et al. 2022. The Fine-Scale Behavior of Harbor Porpoises towards Pingers. *Fisheries Research*, 255: 106437.
- Carlén, I., Thomas, L., Carlström, J., Amundin, M., Teilmann, J., Tregenza, N., Tougaard, J., et al. 2018. Basin-Scale Distribution of Harbour Porpoises in the Baltic Sea Provides Basis for Effective Conservation Actions. *Biological Conservation*, 226: 42-53.
- Carlén, I., and Cosentino, M. 2023. High-Frequency Pingers Do Not Increase Catch Loss Owing to Seals in the Baltic Sea. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 33: 389-396.
- Cury, P. M., Boyd, I. L., Bonhommeau, S., Anker-Nilssen, T., Crawford, R. J. M., Furness, R. W., Mills, J. A., et al. 2011. Global Seabird Response to Forage Fish Depletion—One-Third for the Birds. *Science*, 334: 1703-1706. American Association for the Advancement of Science.
- Dagys, M., and Žydelis, R. 2002. Bird Bycatch in Fishing Nets in Lithuanian Coastal Waters in Wintering Season 2001–2002. *Acta Zoologica Lituanica*, 12: 276-282. Taylor & Francis.
- Eigaard, O. R., Bastardie, F., Breen, M., Dinesen, G. E., Hintzen, N. T., Laffargue, P., Mortensen, L. O., et al. 2016. Estimating seabed pressure from demersal trawls, seines, and dredges based on gear design and dimensions. *ICES Journal of Marine Science*, 73: i27-i43. <https://doi.org/10.1093/icesjms/fsv099>.

- Galatius, A., Kinze, C. C., and Teilmann, J. 2012. Population structure of harbour porpoises in the Baltic region: Evidence of separation based on geometric morphometric comparisons. *Journal of the Marine Biological Association of the United Kingdom*, 92: 1669–1676.
- HELCOM. 2021. Bycatch in Baltic Sea Commercial Fisheries: High-risk Areas and Evaluation of Measures to Reduce Bycatch. HELCOM Action.
- Heswall, A. M., Friesen, M. R., Martin, A. L. B., and Gaskett, A. C. 2021. Seabird Bycatch Risk Correlates with Body Size, and Relatively Larger Skulls, Bills, Wings and Sensory Structures. *Marine Biology*, 168: 70.
- ICES. 2022. Bycatch of Protected, Endangered, and/or Threatened Species of Marine Mammals, Seabirds and Marine Turtles, and Selected Fish Species of Bycatch Relevance. report. ICES Advice: Recurrent Advice.
- ICES. 2024a. Norway lobster (*Nephrops norvegicus*) in Division 3.a, Functional Units 3 and 4 (Skagerrak and Kattegat). report. ICES Advice: Recurrent Advice.
- ICES. 2024b. Joint EIFAAC/ICES/GFCM Working Group on Eels (WGEEL). report. ICES Scientific Reports.
- ICES. 2024c. European eel (*Anguilla anguilla*) throughout Its Natural Range. report. ICES Advice: Recurrent Advice.
- ICES. 2024d. Workshop on Supporting the EU Action Plan to Restore Marine Ecosystems; Harbour Porpoise in the Baltic Proper (WKSUP). report. ICES Scientific Reports.
- ICES. 2024e. Working Group on Bycatch of Protected Species (WGBYC). report. ICES Scientific Reports.
- ICES. 2024f. Bycatch of Endangered, Threatened and Protected Species of Marine Mammals, Seabirds and Marine Turtles, and Selected Fish Species of Bycatch Relevance. report. ICES Advice: Recurrent Advice.
- ICES. 2025a. Cod (*Gadus morhua*) in Subdivisions 22-24, Western Baltic Stock (Western Baltic Sea). Report. ICES Advice: Recurrent Advice.
- ICES. 2025b. Herring (*Clupea harengus*) in Subdivisions 20–24, Spring Spawners (Skagerrak, Kattegat, and Western Baltic). report. ICES Advice: Recurrent Advice.
- ICES. 2025c. Sprat (*Sprattus sprattus*) in Subdivisions 22-32 (Baltic Sea). report. ICES Advice: Recurrent Advice.
- ICES. 2025d. Plaice (*Pleuronectes platessa*) in Subdivisions 21-32 (Kattegat and Baltic Sea). report. ICES Advice: Recurrent Advice.
- Kindt-Larsen, L., Berg, C. W., Tougaard, J., Sørensen, T. K., Geitner, K., Northridge, S., Sveegaard, S., et al. 2016. Identification of high-risk areas for harbour porpoise *Phocoena phocoena* bycatch using remote electronic monitoring and satellite telemetry data. *Marine Ecology Progress Series*, 555: 261-271. <https://www.int-res.com/abstracts/meps/v555/meps11806>.
- Kindt-Larsen, L., Glemarec, G., Berg, C. W., Königson, S., Kroner, A.-M., Søgaard, M., and Lusseau, D. 2023. Knowing the Fishery to Know the Bycatch: Bias-Corrected Estimates of

- Harbour Porpoise Bycatch in Gillnet Fisheries. *Proceedings of the Royal Society B: Biological Sciences*, 290: 20222570. Royal Society.
- Koschinski, S., and Stempel, R. 2012. Strategies for the Prevention of Bycatch of Seabirds and Marine Mammals in Baltic Sea Fisheries. ASCOBANS, Bonn, AC19/Doc. 4-17 (S). https://www.ascobans.org/sites/default/files/document/AC19_4-17_BycatchPreventionBaltic_1.pdf.
- Kyhn, L. A., Jørgensen, P. B., Carstensen, J., Bech, N. I., Tougaard, J., Dabelsteen, T., and Teilmann, J. 2015. Pingers Cause Temporary Habitat Displacement in the Harbour Porpoise *Phocoena Phocoena*. *Marine Ecology Progress Series*, 526: 253-265.
- Lusseau, D., Kindt-Larsen, L., and van Beest, F. M. 2023. Emergent Interactions in the Management of Multiple Threats to the Conservation of Harbour Porpoises. *Science of The Total Environment*, 855: 158936.
- Moan, A., and Bjørge, A. 2023. Pingers Reduce Harbour Porpoise Bycatch in Norwegian Gillnet Fisheries, with Little Impact on Day-to-Day Fishing Operations. *Fisheries Research*, 259: 106564.
- Oksanen, S. M., Ahola, M. P., Oikarinen, J., and Kunnasranta, M. 2015. A Novel Tool to Mitigate By-Catch Mortality of Baltic Seals in Coastal Fyke Net Fishery. *PLOS ONE*, 10: e0127510. Public Library of Science.
- Öresundsvattensamarbetet/Øresundsvandsamarbejdet. 2018. Fiskeriet I Öresund 2017/Fiskeriet I Øresund 2017. Eds. Angantyr LA, Holm-Hansen TH. Öresundsvattensamarbetet/Köpenhamns kommun, Byens Udvikling. https://oresundsvand.dk/wpcontent/uploads/2019/08/Fiskeri_i_Oresund_2017_SE.pdf
- Owen, K., Gilles, A., Authier, M., Carlström, J., Genu, M., Kyhn, L. A., Nachtsheim, D. A., et al. 2024. A negative trend in abundance and an exceeded mortality limit call for conservation action for the Vulnerable Belt Sea harbour porpoise population. *Frontiers in Marine Science*, 11. Frontiers.
- Pike, C., Crook, V., and Gollock, M. 2020. *Anguilla anguilla*. In *The IUCN Red List of Threatened Species 2020*: E.T60344A152845178. <http://www.iucnredlist.org>.
- Pinn, E. H. 2023. Porpoises, by-catch and the « Pinger » Conundrum. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 33: 1360-1368.
- Ramírez, I., Mitchell, D., Vulcano, A., Rouxel, Y., Marchowski, D., Almeida, A., Arcos, J. M., et al. 2024. Seabird bycatch in European waters. *Animal Conservation*, 27: 737-752. <https://onlinelibrary.wiley.com/doi/abs/10.1111/acv.12948>.
- Reeves, R. R., McClellan, K., and Werner, T. B. 2013. Marine mammal bycatch in gillnet and other entangling net fisheries, 1990 to 2011. *Endangered Species Research*, 20: 71-97. <https://www.int-res.com/abstracts/esr/v20/esr00481>.
- Sala, A., Depestele, J., Gümüş, A., Laffargue, P., Nielsen, J. R., Polet, H., Smith, C. J., et al. 2023. Technological innovations to reduce the impact of bottom gears on the seabed. *Marine Policy*, 157: 105861. <https://www.sciencedirect.com/science/article/pii/S0308597X23003949>.
- Sveegaard, S. 2011. Spatial and temporal distribution of harbour porpoises in relations to their prey. National Environmental Research Institute, Aarhus University.

<https://pure.au.dk/portal/en/publications/spatial-and-temporal-distribution-of-harbour-porpoises-in-relatio-2> (Accessed 27 June 2025).

SWD, 2018. COMMISSION STAFF WORKING DOCUMENT on the establishment of conservation measures under the Common Fisheries Policy for Natura 2000 sites and for Marine Strategy Framework Directive purposes

Teilmann, J., Dietz, R., and Sveegaard, S. 2022. The Use of Marine Waters of Skåne by Harbour Porpoises in Time and Space. Technical Report from DCE -- Danish Centre for Environment and Energy, 236. DCE-Nationalt Center for Miljø og Energi, Aarhus Universitet. <https://dce2.au.dk/pub/TR236.pdf> (Accessed 24 June 2025).

Unger, B., Nachtsheim, D., Ramírez Martínez, N., Siebert, U., Sveegaard, S., Kyhn, L., Balle, J. D., et al. 2021. MiniSCANS-II: Aerial Survey for Harbour Porpoises in the Western Baltic Sea, Belt Sea, the Sound and Kattegat in 2020. Joint Survey by Denmark, Germany and Sweden. Final report to Danish Environmental Protection Agency, German Federal Agency for Nature Conservation and Swedish Agency for Marine and Water Management. https://dce.au.dk/fileadmin/dce.au.dk/Udgivelser/Eksterne_udgivelser/20210913_Report_Mini_SCANSII_2020_revised.pdf (Accessed 24 June 2025).

Viquerat, S., Herr, H., Gilles, A., Peschko, V., Siebert, U., Sveegaard, S., and Teilmann, J. 2014. Abundance of harbour porpoises (*Phocoena phocoena*) in the western Baltic, Belt Seas and Kattegat. *Marine Biology*, 161: 745–754.

Žydelis, R., Small, C., and French, G. 2013. The Incidental Catch of Seabirds in Gillnet Fisheries: A Global Review. *Biological Conservation*, 162: 76-88.

6.5 Assessment of the situation relating to the TACs for pollack in ICES divisions 8abde, 8c and 9-10

Background provided by the Commission

By-catch TACs of Pollack for 2024 and 2025

Recital 14 of Council Regulation (EU) 2025/202¹, states that:

“(14) There are certain stocks for which ICES advises catches above a low level. However, if TACs for those stocks were established at those levels, the obligation to land all catches, including by-catches from those stocks in mixed fisheries, would give rise to the phenomenon of ‘choke species’ and the premature closure of certain fisheries. Pursuant to Article 5(3) of the North Sea and Western Waters MAPs and Article 16(4) of the Basic Regulation, in conjunction with Article 2(1) and (5), points (c) and (f), of that Regulation and in order to strike a balance between maintaining fisheries, in view of the potentially severe socio-economic implications of failing to do so, and the need to achieve a good status for those stocks, taking account of the difficulty of fishing all stocks in a mixed fishery at MSY, it is appropriate to establish specific TACs for by-catches for those stocks. Those by-catch TACs should be fixed based on evidence demonstrating that setting the TACs at the level advised by ICES would both lead to the premature closure of one or more fisheries and have a potentially severe socio-economic impact. In addition, those by-catch TACs should be set at levels that: (i) reduce the phenomenon of ‘choke species’ and the premature closure of certain fisheries; (ii) reduce the associated socio-economic impacts; and (iii) reduce the fishing mortality for those stocks and / or ensure that their biomass remains stable; and (iv) provide incentives to improve selectivity and avoid by-catches of those stocks.”

Accordingly, Regulation (EU) 2025/202 set by-catch TACs for pollack (*Pollachius pollachius*) in the Bay of Biscay (ICES divisions 8abde; POL/8ABDE.), the Cantabrian Sea (division 8c; (POL/08C.) and Atlantic Iberian waters (ICES subareas 9 and 10; Union waters of CECAF 34.1.1; POL/9/3411 and POL/93411P) for 2025 at the following levels:

¹ Council Regulation (EU) 2025/202 of 30 January 2025 fixing for 2025 and 2026 the fishing opportunities for certain fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters, and amending Regulation (EU) 2024/257 as regards fishing opportunities for 2025 (OJ L, 2025/202, 31.1.2025, ELI: <http://data.europa.eu/eli/reg/2025/202/oj>)

Table 17

Species:	Pollack <i>Pollachius pollachius</i>	Zone:	8a, 8b, 8d and 8e (POL/8ABDE.)
Spain	163 ⁽¹⁾	Analytical TAC	
France	796 ⁽¹⁾		
Union	959 ⁽¹⁾		
TAC	959 ⁽¹⁾		

⁽¹⁾ Exclusively for by-catches. No directed fisheries are permitted under this quota.

Table 18

Species:	Pollack <i>Pollachius pollachius</i>	Zone:	8c (POL/08C.)
Spain	97 ⁽¹⁾	Analytical TAC	
France	11 ⁽¹⁾		
Union	108 ⁽¹⁾		
TAC	108 ⁽¹⁾		

⁽¹⁾ Exclusively for by-catches. No directed fisheries are permitted under this quota.

Table 19

Species:	Pollack <i>Pollachius pollachius</i>	Zone:	9 and 10; Union waters of CEEAF 34.1.1 (POL/9/3411)
Spain	128 ⁽¹⁾ ⁽²⁾	Analytical TAC	
Portugal	4 ⁽¹⁾ ⁽²⁾ ⁽³⁾		
Union	132 ⁽¹⁾ ⁽²⁾		
TAC	132 ⁽¹⁾ ⁽²⁾		

⁽¹⁾ Exclusively for by-catches. No directed fisheries are permitted under this quota.

⁽²⁾ Special condition: of which up to 100 % may be fished in 8c (POL/*08C.).

⁽³⁾ In addition to this TAC, Portugal may fish quantities of pollack not exceeding 44 tonnes (POL/93411P). Exclusively for by-catches and no directed fisheries are permitted under this quota.

Those TACs were already set as by-catch TACs and at the same levels (except for the additional quantity for Portugal in Atlantic Iberian waters, POL/93411P) by Council for 2024, based on two STECF assessments².

For 2026 and 2027, ICES published its advice for the that stock for 2026 and 2027 on 27 June 2025, and the Commission has commissioned a relevant ad hoc report to assess the “total effect” on the fisheries and the socio-economic impacts of setting TACs for pollack in the Bay of Biscay, the Cantabrian Sea and Atlantic Iberian waters individually at levels or cumulatively at the level:

- (*baseline*) allowing relevant mixed fisheries in the different TAC zones to individually remain open for the full year, assuming recent or most recent effort;
- (*i*) of the ICES advice for 2026 and 2027;
- (*ii*) of recent landings (in 2024; 896 tonnes); and
- (*iii*) allowing relevant mixed fisheries in the different TAC zones to individually remain open until the end of September, again assuming recent or most recent effort.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

The STECF is requested to review the ad hoc report and advise the Commission on the level of the TACs for pollack that is strictly needed by the fleets operating in the areas to avoid their premature closures, assuming recent effort.

In addition, the STECF is requested to assess the socio-economic impacts of closures, under the scenarios (*i*) to (*iii*) above.

Summary of the information provided to STECF

One background document was supplied to STECF, an *ad hoc* contract report (no. 2553) summarising the historical and projected socio-economic impacts of TAC setting on pollack in Atlantic Iberian waters for 2026 and 2027. This was an updated report to *ad hoc* reports 2398 and 2447 which were reviewed by STECF in PLEN 24-01 and PLEN 24-02, respectively.

The analysis was conducted using the catch weight (tonnes) and value (Euro) from Fisheries Dependent Information (FDI) database compiled in 2024 (STECF, 2024a), with data available until 2023. Economic indicators (revenue; gross value added; gross profit; net profit; number of vessels; total employment and full time equivalent) were used and taken from the Annual Economic Report on the EU Fishing Fleet (AER) compiled in 2024 (STECF, 2024b), with

²https://stecf.jrc.ec.europa.eu/documents/d/stecf/stecf_plen_24-01 , <https://stecf.jrc.ec.europa.eu/documents/d/stecf/stecf-plen-24-02>

economic data available up to 2022. FDI data was aggregated into catch volume and value for pollack and other species per DCF Métier. This was subsequently linked to AER fleet segments.

STECF notes that the *ad hoc* analysis presents several limitations, notably regarding the extent to which the 2021–2023 available data at the time of producing the *ad hoc* report, reliably reflects fishing behaviour in 2026 and 2027 (see discussion below). Nonetheless, a summary of the findings as reported in the *ad hoc* report is provided below:

a) Projected potential closure month of métiers catching pollack for 2026 and 2027

When the assumed fishing behaviour in 2026 and 2027 is the same as the average from the period 2021 – 2023 it is projected that a TAC set equal to the ICES advice will lead to premature closure of fisheries in July (POL/8C) and August (POL/9/3411) for Spanish fleets; and in August for French fleets in POL/8ABDE. Portuguese fleets are likely to be unaffected.

b) Projected TAC required in 2026 and 2027 if fisheries remained open until the end of the year

When the assumed fishing behaviour in 2026 and 2027 is the same as the average from the period 2021 – 2023 it is projected that the required TAC to remain open until the end of the year is 1,146 tonnes (834 POL/8ABDE, 148 POL/8C, 1174 POL/9/3411).

c) Projected TAC required in 2026 and 2027 if fisheries remained open until September

When the assumed fishing behaviour in 2026 and 2027 is the same as the average from the period 2021 – 2023 it is projected that the required TAC to remain open until September is 881 tonnes (687 POL/8ABDE, 86 POL/8C, 108 POL/9/3411). Or until September 2026 or 2027 with equal quarterly distribution is 860 tonnes (626 POL/8ABDE, 111 POL/8C, 123 POL/9/3411).

d) Projected socio-economic impacts in 2026 if TAC set to ICES advice

The direct effect of pollack TAC reduction will be 0.53% of the total value of landings (all species) when swaps are considered. 80% of this impact will be due to POL/8ABDE, and therefore, French fleets will be more affected.

Additionally, if there is an early cessation of activity, the reduction in terms of the value of landings will be 29.9% when swaps are considered. All fleet segments with pollack as a by-catch will experience significant effects on their economic performance.

STECF comments

STECF observes that the data used to conduct this analysis does not capture or represent the current fishing patterns in this region as the 2024 data year was not available. In the absence of this data an average of 2021 – 2023 was used as a proxy value to describe the current fishing patterns. STECF is aware that 2024 was likely a year with different fishing patterns compared to the previous years, not least due to the closure of the French fishery in February 2024 (simulated in the *ad hoc* analysis), and a substantial decrease in the pollack TAC. STECF notes that the TACs by area were the lowest in the time series in 2024. In fact,

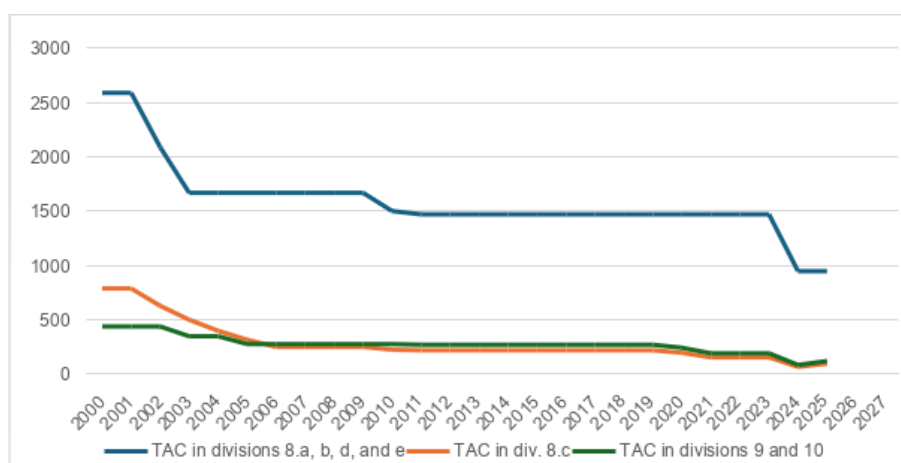
the TACs in 2024 were -35% of TACs in 2023 in the Bay of Biscay (ICES divisions 8abde; POL/8ABDE), Cantabrian Sea (ICES division 8c; (POL/08C.), and Atlantic Iberian waters (ICES subareas 9 and 10; Union waters of CECAF 34.1.1; POL/9/3411 and POL/93411P). As such, the 2021-2023 data are not considered to be representative of the 2024 fishing patterns.

As stated in the *ad hoc* contract report there is indeed evidence to suggest that the fishers in these areas adapted their behaviour in 2024 and that the fisheries did not close. Given the magnitude of this change in management, it is no longer reasonable to use the average of 2021 – 2023 to describe the reality of the fishery in 2024 nor 2025. Therefore, STECF cannot use the finding of this *ad hoc* contract to comment on the socio-economic impacts of the proposed TAC for 2026 and 2027, as the results are considered little likely to occur as such.

STECF notes that *ad hoc* reports no. 2398 and 2447, completed in 2024, were conducted appropriately, taking into account the prevailing trends in the fishery at the time. As part of the analysis, the missing 2023 landings data were estimated using the average from the previous three years (2020–2022), resulting in an assumed landings value of 1,369 tonnes. This estimate was close to the actual realised landings of pollack in the area for 2023, which amounted to 1,244 tonnes (Table 6.5.1).

This assumption was supported by the consistent trend of actual landings remaining well below the TAC in recent years ranging between 21% and 35% of the TAC (Table 6.5.1). Additionally, the total TAC in this area has remained relatively stable, with only minor adjustments: from 1,995 tonnes in 2010 to 1,851 tonnes in 2023 (Table 6.5.1). Consequently, no significant deviation in fishing behaviour for 2023 was anticipated compared to the preceding years (2020–2022). This is not expected to be the case in 2024, as the aforementioned reductions in TAC of 35% were anticipated to have a significant impact on the fishing behaviour, therefore the average of the previous three years (2021 - 2023) were considered unrepresentative of the current fishing.

Figure 6.5.1. Pollack TACs evolution from 2000 to 2025.



Source: ICES, 2025.

Table 6.5.1. Pollack in Subarea 8 and Division 9.a. History of commercial landings; both the official and ICES estimated values*. Official landings are presented by area for each country participating in the fishery. All weights are in tonnes. Minor differences in total values are due to rounding.

Year	ICES advice	Landings corresponding to advice	TAC in divisions 8.a, b, d, and e	TAC in div 8c.	TAC in divisions 9 and 10	Summed TAC	ICES estimated commercial landings	Difference in landings and TAC **	Percentage of TAC not taken **
2000		-	2,600	800	450	3,850	1,485	2,365	61%
2001		-	2,600	800	450	3,850	1,569	2,281	59%
2002		-	2,100	640	450	3,190	1,672	1,518	48%
2003		-	1,680	512	360	2,552	1,427	1,125	44%
2004		-	1,680	410	360	2,450	1,458	992	40%
2005		-	1,680	328	288	2,296	1,749	547	24%
2006		-	1,680	262	288	2,230	1,943	287	13%
2007		-	1,680	262	288	2,230	1,606	624	28%
2008		-	1,680	262	288	2,230	1,302	928	42%
2009		-	1,680	262	288	2,230	1,838	392	18%
2010		-	1,512	236	288	2,036	1,671	365	18%
2011		-	1,482	231	282	1,995	1,907	88	4%
2012	No increase in catch	-	1,482	231	282	1,995	1,397	598	30%
2013	20% reduction in catches	-	1,482	231	282	1,995	1,717	278	14%
2014	Same catch value advised for 2013	-	1,482	231	282	1,995	1,910	85	4%
2015	Reduce catch by 20%	≤ 1,316	1,482	231	282	1,995	1,517	478	24%
2016	Precautionary approach	≤ 1,414	1,482	231	282	1,995	1,589	406	20%
2017	Precautionary approach (same catch value as advised in 2016)	≤ 1,414	1,482	231	282	1,995	1,442	553	28%
2018	Precautionary approach	≤ 1,131	1,482	231	282	1,995	1,480	515	26%
2019	Precautionary approach	≤ 1,131	1,482	231	282	1,995	1,562	433	22%
2020	Precautionary approach (same landings value as advised for 2018)	≤ 1,131	1,482	208	254	1,944	1,535	409	21%
2021	Precautionary approach (same landings value as advised for 2018)	≤ 1,131	1,482	166	203	1,851	1,372	479	26%
2022	Precautionary approach [#]	≤ 905	1,482	166	203	1,851	1,199	652	35%
2023	Precautionary approach [#]	≤ 905	1,482	166	203	1,851	1,244	607	33%
2024	Maximum sustainable yield (MSY) approach	≤ 872	959	108*	132*	1,199	923	276	23%
2025	MSY approach	≤ 872	959	108	132	1,199			
2026	MSY approach	≤ 703							
2027	MSY approach	≤ 703							

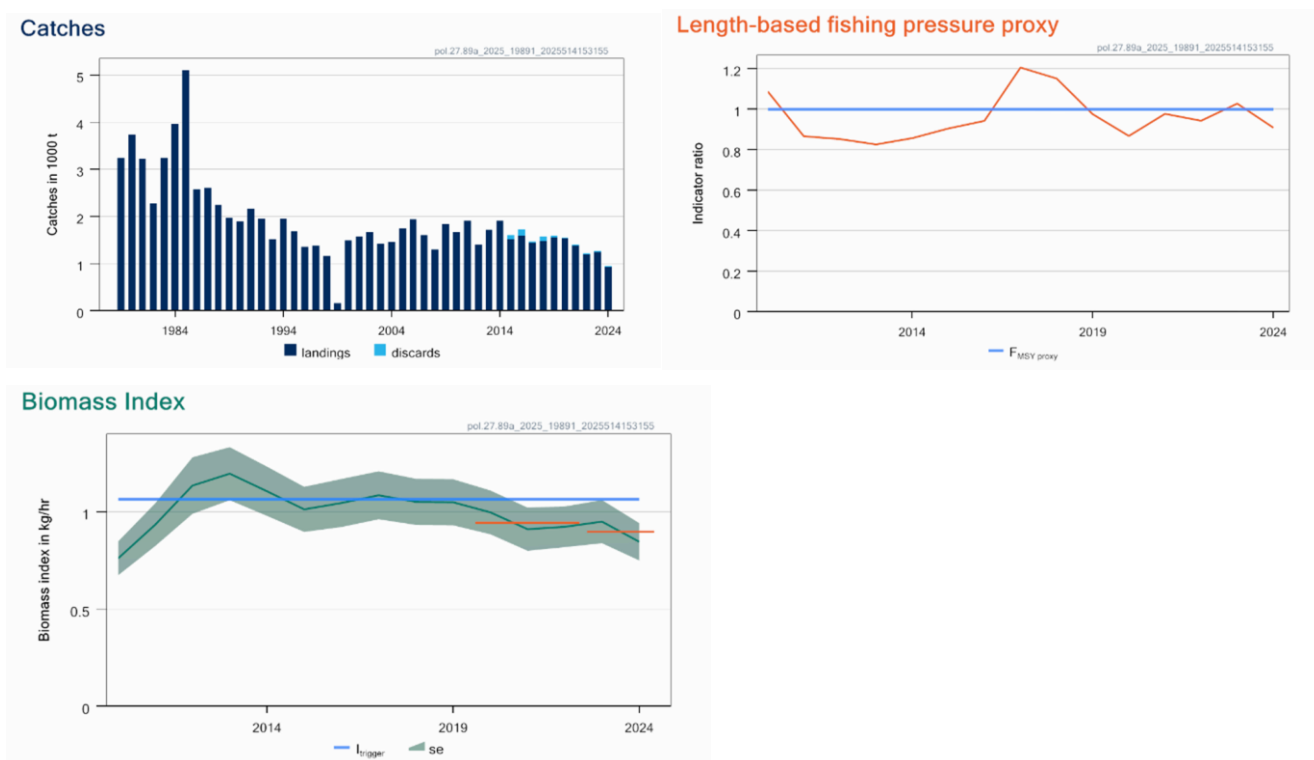
*updated to account for TAC update in October 2024 : <https://eur-lex.europa.eu/eli/reg/2024/2678/oj>;

** Calculated by STECF.

Source: ICES, 2025.

STECF observes that the *ad hoc* contract report provides a static forecast on the impact of the proposed advice on the tonnage landed of one species, however no inference is made on the impact of TAC setting on fishing mortality or spawning stock biomass which is a key requirement in the setting of by-catch TACs. Given that the biomass of this pollack stock is considered to be below biomass safeguards (*Itrigger*) (Figure 6.5.2), any fishing beyond the scientific advice could have a negative impact on the status of the stock.

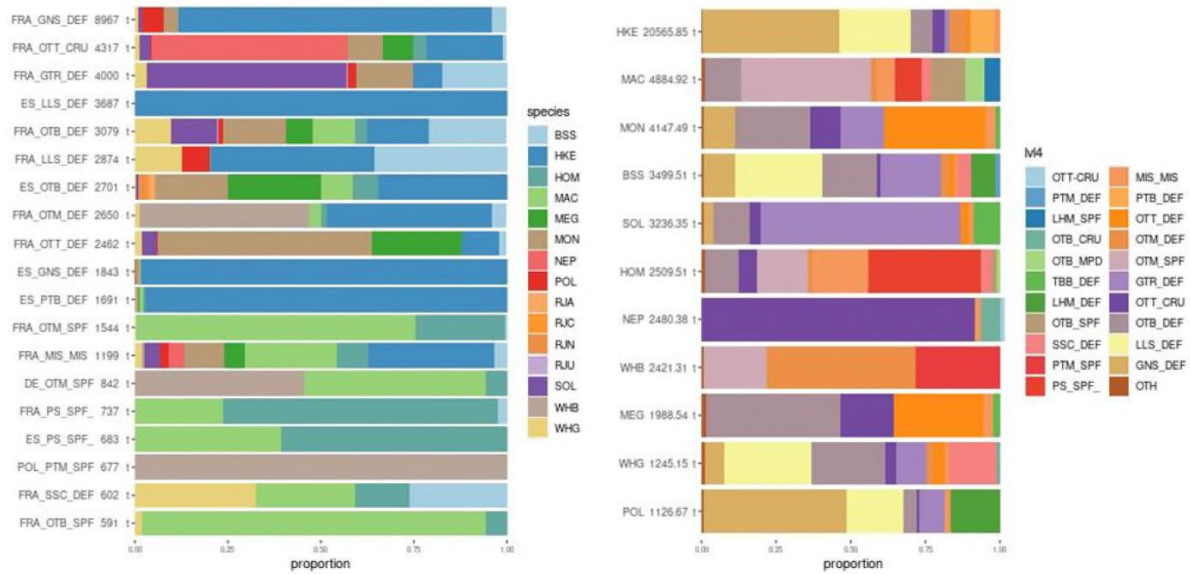
Figure 6.5.2. Pollack in Subarea 8 and Division 9.a. Top: ICES estimated commercial catches (landings and discards) in thousand tonnes. Recreational catches are unknown. Landings for Subarea 8 for 1999 are incomplete. Middle: fishing pressure proxy (inverse f , $L_F = M/L_{mean}$) from the length-based indicator (LBI) method used for the evaluation of the exploitation status. The fishing pressure proxy is less than that corresponding to the F_{MSY} proxy when the value is lower than 1 (shown by the horizontal blue line). Bottom: stock-size indicator from the standardized commercial French gillnet LPUE (biomass index). The horizontal orange lines indicate the average of the biomass index for 2020–2022 and for 2023–2024.



Source: ICES, 2025.

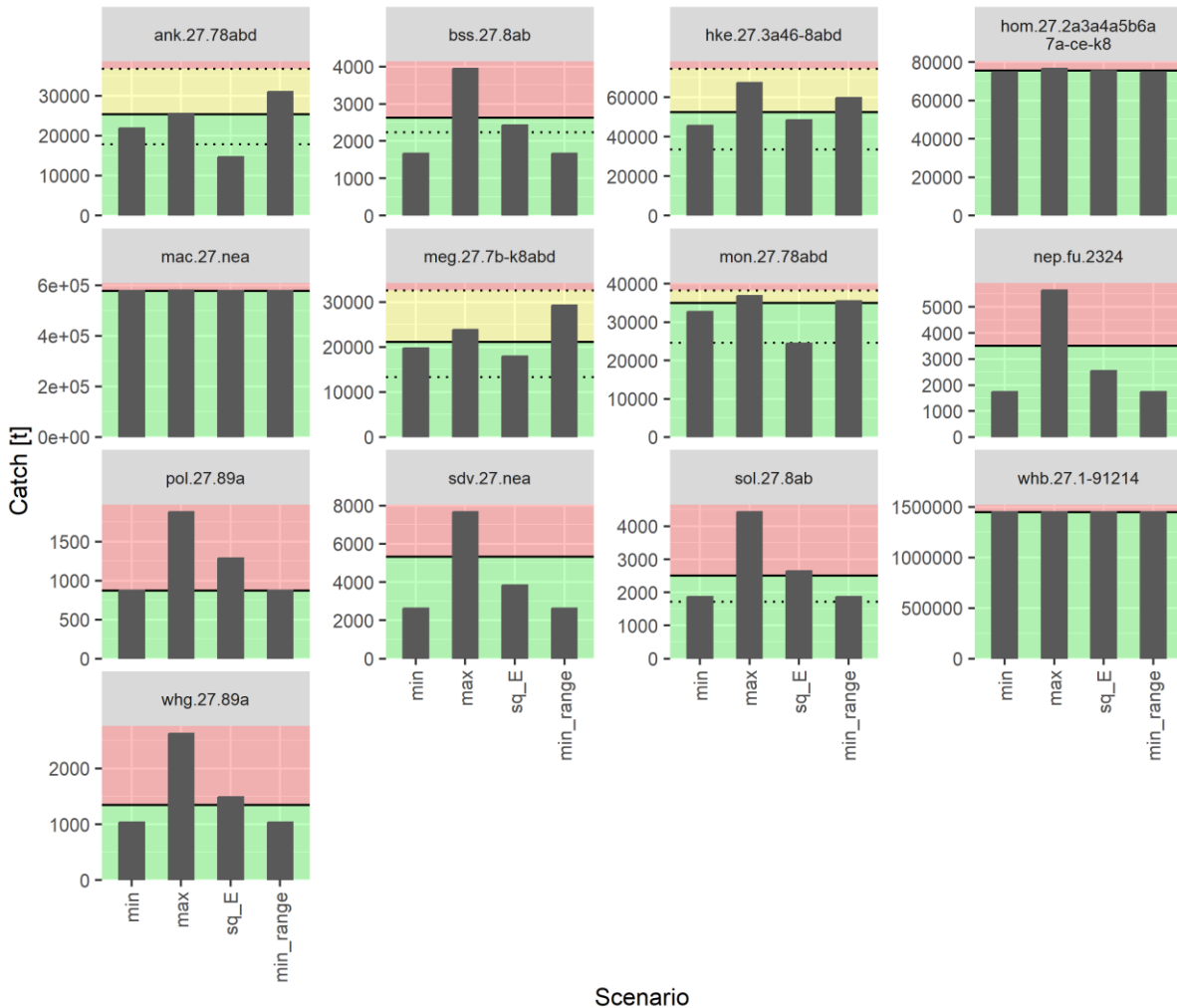
STECF notes that pollack is caught as part of a mixed fishery with species such as seabass (BSS), hake (HKE), monkfish (MON), and whiting (WHG) (Figure 6.5.3). Given pollacks restrictive TAC, it is considered the most limiting stock for fleets in this region (Figure 6.5.4) and therefore, any increase in the TAC of other stocks occurring in these mixed fisheries may result in increased catches of pollack, or lost fishing opportunities for stocks with higher TACs (Figure 6.5.4). This is especially true if the pollack TAC causes an early cessation in fishing activities before the TAC for other stocks have been fully taken. ICES mixed fisheries considerations are published annually and will be released on the 13th of November 2025.

Figure 6.5.3. Description of technical interactions of demersal and pelagic TAC species in the Bay of Biscay (8.a and 8.b). The left panel shows the species composition of the main demersal métiers operating in the Bay of Biscay. The label incorporates the country code, métier, and mean annual (2019–2021) landings (tonnes). The right panel shows the composition of the landings of each species accounted for by the different demersal métiers. The label includes the mean annual landings (2019–2021). (ICES 2022).



Source: ICES, 2022.

Figure 6.5.4. Mixed fisheries for the Bay of Biscay. Mixed-fisheries projections of potential 2025 catches (in tonnes) by stock and scenario. Solid lines correspond to the single-stock catch advice. For those stocks with fishing mortality ranges defined, the lower dotted lines illustrate the catches corresponding to F_{MSY} lower or reduced F_{MSY} lower for stocks with defined ranges and with $SSB < MSY$ Btrigger. The upper dotted lines illustrate the catches corresponding to F_{MSY} upper for stocks with $SSB \geq MSY$ Btrigger. Mixed fisheries projections are conducted for four scenarios (x axis) corresponding to different assumptions on the future effort deployment by the fleets (min = most precautionary, max = less precautionary, sq_E = status quo effort, min_range = same as min but using MSY ranges, see ICES, 2024 for details).



Source: ICES, 2024.

STECF notes that by-catch TACs should be set at levels that also provide incentives to improve selectivity and reduce by-catches of relevant stocks (EU 2025/202). These aspects were not addressed in the *ad hoc* report and should be taken into account in future cases where STECF is requested to provide advice on by-catch TAC levels. Such evaluations could include summaries of currently implemented technical measures, along with evidence of their effectiveness in improving the fisheries selectivity for pollack. This analysis could be further

supported by including summaries of discard totals and trends in the mean length of landings and discards over time, based on data available in the FDI database.

STECF notes that the static analysis conducted in the *ad hoc* assessment does not account for the potential impact that quota restrictions may have on the displacement of fishing effort and fishing behaviour.

STECF conclusions

STECF concludes that the *ad hoc* report was completed appropriately given the available data.

STECF concludes that due to the lack of current fishery information for 2024, no reliable advice could be given on the level of by-catch TACs for pollack to avoid premature closures; or assess the socio-economic impacts of closures.

STECF concludes that the ICES single-stock advice is based on the best available biological and ecological science and does not directly account for social and economic considerations nor mixed fisheries issues. However, exceeding the MSY advice in 2026 and 2027 may lead to a further deterioration of this stock in the following years. Therefore, STECF cannot advise a catch level for pollack in ICES divisions 8abde, 8c and 9-10 beyond the maximum fishing opportunities level advised by ICES.

STECF reiterates its conclusion from PLEN 24-03 that there will always be a risk of a choke in mixed fisheries managed by single stock TACs if the landing obligation is fully implemented. However, STECF reiterates that there are several confounding factors, such as doubts around the implementation of the landing obligation, no reporting of choke cases, and the effectiveness of measures applied in recreational fisheries which limit the accuracy of the assessment that can be provided.

STECF concludes that true choke situations can only be identified at the level of an individual haul and cannot be assessed with the highly spatially and temporarily aggregated data available in the FDI and AER databases.

STECF concludes that there are mechanisms within the CFP such as swapping and spatial and time flexibilities, improvements in selectivity and additional regulations such as daily limits and effort reductions, that might alleviate or eliminate any choke risk in 2026 and 2027 if ICES advice is used for setting the 2026 and 2027 TACs. However, deteriorating conditions of stocks productivity may ultimately require longer term prospective to maintain the fisheries sustainable and resilient.

References

ICES. 2022. Bay of Biscay and the Iberian Coast ecoregion – fisheries overview. ICES Advice: Fisheries Overviews. Report. <https://doi.org/10.17895/ices.advice.21641396.v1>

ICES. 2024. Bay of Biscay mixed-fisheries considerations. *In* Report of the ICES Advisory Committee, 2024. ICES Advice 2024. <https://doi.org/10.17895/ices.advice.26763901>

ICES. 2025. Pollack (*Pollachius pollachius*) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters). *In* Report of the ICES Advisory Committee, 2025. ICES Advice 2025, pol.27.89a. <https://doi.org/10.17895/ices.advice.27202806>

6.6 Assessment of delegated TACs

Background provided by the Commission

The management of certain TACs has been delegated by Council to Member States, those are referred to as “delegated TACs”. There are 5 delegated TACs listed in Council Regulation (EU) 2025/202³:

- TAC for black scabbardfish in Madeira and Canary Islands waters (BSF/C3412-);
- TAC for horse mackerel in Madeira waters (JAX/341PRT);
- TAC for horse mackerel in Azores waters (JAX/X34PRT);
- TAC for ‘Penaeus’ shrimps in French Guiana waters (PEN/FGU.); and
- TAC for horse mackerel in Canary Islands waters (JAX/341SPN)

Article 6 of the Regulation provides that:

- “2. *The TACs to be determined by a Member State ... shall:*
 - (a) *be consistent with the objectives and rules set out in Regulation (EU) No 1380/2013 and in Regulations (EU) 2018/973 and 2019/472, in particular the objective of sustainable exploitation of the stock; and*
 - (b) *result in an exploitation of the stock that is:*
 - (i) *if an analytical assessment is available, in line with maximum sustainable yield (MSY), with as high a probability as possible; or*
 - (ii) *if an analytical assessment is unavailable or incomplete, consistent with the precautionary approach to fisheries management.*
3. *By 15 March 2025 each Member State concerned shall submit the following information to the Commission:*
 - (a) *the TACs that it has determined;*
 - (b) *the data that it has collected, assessed and used as a basis for the determination of those TACs;*
 - (c) *details as to how the TACs that it has determined comply with paragraph 2.*
- ...
5. *Where appropriate, the Commission may request the Scientific, Technical and Economic Committee for Fisheries (STECF):*
 - (a) *to assess the information referred to in paragraph 3, points (b) and (c); and*

³ Council Regulation (EU) 2025/202 of 30 January 2025 fixing for 2025 and 2026 the fishing opportunities for certain fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters, and amending Regulation (EU) 2024/257 as regards fishing opportunities for 2025 (OJ L, 2025/202, 31.1.2025, ELI: <http://data.europa.eu/eli/reg/2025/202/oj>)

- (b) *to assess whether the TACs determined by Member States comply with paragraph 2.*

”

In accordance with Articles 6(3) and 6(5) of Regulation (EU) 2025/202, France, Portugal and Spain have submitted information to the Commission on the delegated TACs and the Commission has requested their analysis through **an ad hoc report**.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

The STECF is requested to review the relevant **ad hoc report** and:

- 1) Assess the information submitted by Member States used as a basis for the determination of those TACs, and assess the approach applied by Member States for determining the level of the TACs.
- 2) Assess whether the TACs determined comply with the objectives and rules set out in Regulation (EU) No 1380/2013 and in Regulations (EU) 2018/973 and 2019/472, in particular the objective of sustainable exploitation of the stocks,

In particular, assess whether the TACs determined result in an exploitation of the stocks that is:

- (i) if an analytical assessment is available, in line with maximum sustainable yield (MSY), with as high a probability as possible; or
- (ii) if an analytical assessment is unavailable or incomplete, consistent with the precautionary approach to fisheries management.

In doing so, STECF is requested to assess if the approaches used for determining the TACs, i.e. the stock assessments, are in line with the best available science. Specifically, where reference is made to methodologies developed by the International Council for the Exploration of the Sea (ICES), STECF is requested to assess whether those ICES methodologies were used correctly. Where reference is made to methodologies other than the ICES methodologies, STECF is requested to assess whether those methodologies are comparable to the ICES methodologies, especially in terms of the level of precaution.

- 3) To make recommendations and identify any additional issues of relevance for the assessment and management of those stocks.

Information provided to STECF

STECF was provided with the following documents:

1. Report of Contract STECF n. 2554: Assessment of Delegated TACs 30 June 2025.
2. Note from the French authorities to the European Commission DG MARE on Fixing of the total allowable catch (TAC) of shrimps and prawns from Guyana (14 March 2025).

3. Scientific report: Information on the exploitation of the shrimp stock of *Peneides* French Guiana – 2025. Ifremer (February 2025).
4. Scientific report: Information elements on exploitation of the stock of shrimps and prawns, French Guiana 2024. Ifremer (March 2024).
5. Exchange of e-mails between Portuguese representatives and DG MARE with the proposed TAC for 2025 for black scabbardfish in CECAF area 34.1.2.
6. Scientific report: Black scabbardfish (*Aphanopus carbo*) in CECAF area 34.1.2. Report elaborated by the Direção regional das pesca do Região autónoma de Madeira).
7. Exchange of emails between Portuguese representatives and DG MARE with the proposed TAC for 2025 for *Trachurus* spp. in Subarea 10 and Union waters of CECAF (waters adjacent to the Azores) and the associated information.
8. ICES advice sheet for blue jack mackerel (*Trachurus picturatus*) in ICES Subdivision 10.a.2 (Azores grounds).
9. Email from DGMARE with the proposed delegated TAC for horse mackerel in Canary Islands waters 10).
10. Scientific report (English and Spanish versions) from IEO-CSIC entitled “Report on horse mackerel *Trachurus* spp. (JAX/341SPN) in the Canary Islands – 2025) (two versions one in English and the other in Spanish).
11. Email from DGMARE with the proposed delegated TAC for horse mackerel blue jack mackerel (*Trachurus* spp.) in Union waters of CECAF (waters adjacent to Madeira).
12. Scientific (summary sheet) report for blue jack mackerel (*Trachurus picturatus*) in CECAF 34.1.2. (JAA/C3412). Ad hoc report elaborated by the Direção regional das pesca do Região autónoma de Madeira.

STECF comments

TOR 1. Assess the information submitted by Member States used as a basis for the determination of those TACs, and assess the approach applied by Member States for determining the level of the TACs.

An overview summary of the key information supplied in the background documents can be found in Table 6.6.1. This information is further supported with detailed summaries for each stock in the proceeding sections.

Table 6.6.1. Summary overview of the supporting documentation.

Delegated TACs species and area	TAC for Guiana shrimps (PEN/FGU.)	Black scabbardfish (<i>Aphanopus carbo</i>) in Union waters of CECAF and international waters of CECAF 34.1.2	JAX (blue jack mackerel (<i>T. spp.</i>) in zone 10 and Union waters of CECAF (waters adjacent to the Azores)	JAX mixed of species (<i>Trachurus spp.</i>) in Canary Islands	JAX (blue jack mackerel (<i>Trachurus spp.</i>) in Union waters of CECAF (waters adjacent to Madeira)
Nature of TAC	Mixed species	Single species (<i>Aphanopus carbo</i>)	Mixed species (<i>Trachurus spp.</i>)	Mixed species (<i>Trachurus spp.</i>)	Mixed species (<i>Trachurus spp.</i>)
Historical fleet capacity	102 vessels (year estimated: 1989)	25 vessels (year estimated: 2010)	200 vessels (year estimated: 1997)	Not reported	5 vessels (year estimated: 1990)
Current fleet capacity	5 vessels	20 vessels	around 55 (year estimated: 2023)	Not reported	3 vessels (year estimated: since 2011)
Dominant gear	Shrimp trawls	Mid-water drifting long-lines	Purse seine, live-bait, long liners, recreational	Purse-seine	Purse seine
Max historical catch	approx. 4,000 t (1989) Mixed species	approx. 1,900 t (2010-2016) Mixed species	approx. 3,900 t (1985-1990)	approx. 730 t (2016-2017 landings only) Mixed species	approx. 617 t (2016, landings only) approx. 1,200 t (1990)

TAC 2024 (t)	1,300 t	2,189 t	2840 t	963 t	842 t
Catch 2024 (t)	238 t (= 115 spp+123)	2,315 t Mixed species	700 t * Mixed species	38 t Mixed species	70 t Mixed species
TAC 2025 (t)	1,300 t	2,189 t	2,840 t	963 t	514 t
Managers Justification	Scientific advice not to increase fishing pressure & other socio-economic considerations.	Scientific information supporting the TAC proposal, from the Direção Regional de Pescas, presented in a form like an ICES advice sheet.	Sustainable exploitation (No change in catch pattern) & other socio-economic considerations.	Scientific advice: not to increase fishing pressure.	Scientific document supporting the TAC proposal, from the Direção Regional de Pescas, presented in a form like an ICES advice sheet.
Species in the Scientific Advice	Shrimp Peneides (several spp)	Black scabbardfish (<i>A. carbo</i>)	Blue jack mackerel (<i>T. picturatus</i>)	Horse mackerel (<i>Trachurus</i> spp.)	Blue jack mackerel (<i>T. picturatus</i>)
Scientific basis	No assessment	ICES framework category 3 stocks rfb rule	ICES framework category 5 stocks (official ICES advice)	No assessment	ICES framework category 5 stocks
Scientific basis	Precautionary considerations	DLS methods for MSY approach	DLS methods for precautionary approach	Precautionary considerations	DLS methods for precautionary approach

Scientific advice	Not to increase fishing pressure	Roll-over of the former catch limits	PA catches should \leq 702 t (for years 2025-26)	Not to increase the fishing pressure	PA catches should \leq 514 t (2025)
Precautionary buffer	Not applied	Not applied	Not applied (applied in 2022)	Not applied	PA with precBuffer - 20%
Origin of first TAC or advice	Not reported to STECF				
Main indicator	Catch (survey from 2023, not ready for inclusion)	CPUE (kg/1,000 hooks)	Catch (no indicator available)	Catch (acoustics survey since 2024, not ready for inclusion)	Catch (no indicator available)
Other indicators	Landings & effort	Length indicator ($L_{2024}/L_{F=M} = 1$)	Catches, fishing effort and biology collected under the EU framework	LPUE (under development, not ready for inclusion yet)	Geographical distribution of catches of <i>Trachurus picturatus</i>
Stock uniqueness	Stock boundaries uncertain				
Life span	about 18 months	max age between 12 ^{^^} and 13 [^] years	max recorded age 6*, 9-11** and 18***years	max recorded age 6*, 9-11** and 18***years	max recorded age 6*, 9-11** and 18 ***years
Target catches	Juveniles and adults	Adults	Mainly juveniles	Juveniles	Juveniles

			(few adults in LLS)		
Landings by species	Species split estimated	Species split estimated	Share not reported	Species split estimated	Not detailed

* Likely underestimate (because no purse seine catches for bait, longline bait, tune live bait, or recreational fisheries were available in 2022 and 2023.

^ Viera et al. 2009; ^ Pajuelo et al. 2008; * Jurado-Ruzafa et al. 2018; ** Vasconcelos et al. 2006;*** García et al. 2015.

Source: *Background documentation provided by the Commission.*

Penaeus spp. – French Guiana (PEN/FGU)

Current management: The TAC is set for shrimps and prawns from Guyana (*Penaeus subtilis* and *Penaeus brasiliensis*). The fleet is currently composed of five shrimp trawlers. The TAC has been maintained at 1,300 tonnes since 2019. Although past landings were substantially higher, recent landings remain substantially lower than the TAC with only 238 tonnes being reported in 2024. STECF cannot assess the reasons for this decrease in landings.

Fisheries management in French Guiana is based on a TAC, a limited number of licences, a minimum mesh size of 45 mm, a ban on fishing in depths of less than 30 m and mandatory use of the Trash and Turtle Excluder Device (T-TED).

The proposed delegated TAC for 2025 was based on Ifremer’s recommendation: to take a precautionary approach (PA) to ensure that “fishing pressure will not increase sharply in the event of an increase in available biomass”.

Scientific advice: Ifremer advised against increasing fishing pressure, citing substantial uncertainties regarding stock identity, environmental variability, and biological characteristics such as the short life cycle of the species. Even though the management of this stock lies outside of the ICES advice area, the report considered the potential application of the ICES approach for category 3 stocks (ICES, 2012), however this approach was deemed to be unsuitable for this short-lived species.

Available data: the background documents provide information on the trends in this management unit in terms of:

- Fishery independent: The Ifremer report (02/2025) summarises the results of three fishery-independent shrimp surveys carried out in 2023 and 2024.
- Fishery dependant: Monitoring of landings and effort (days at sea) since 1985. Effort and landing data are entered in electronic logbooks but not by commercial category. The share by species is estimated by direct sampling by Ifremer. Catch per Unit of Effort (CPUE) series (tonnes/days at sea; non standardized) is available. Average carapace length of the *P. subtilis* landed for each sex since 1988. VMS data.

Black Scabbardfish – Madeira and Canary Islands (BSF/C3412)

Current management: The management unit for this TAC includes Black scabbardfish (*Aphanopus carbo*) in Union waters of CECAF and international waters of CECAF 34.1.2 (waters adjacent to Madeira). Although this TAC covers only one species (*Aphanopus carbo*), it is a mixed fishery with two species being caught, landed and reported together, *Aphanopus carbo* and *Aphanopus intermedius*, with the latter representing approximately 20% of the catches. The fleet is composed of 20 mid-water drifting long-liners.

The TAC for black scabbardfish in 2025 is proposed to be set at 2,189 tonnes, which is a roll-over of the 2024 TAC. Catches in 2024 amounted to 2,315 tonnes. The Scientific document supporting the TAC proposal, from the Direção Regional de Pescas, applied the ICES *rfb* “2-over-3” rule, (method 2.1, ICES, 2022), and advised that “when the MSY approach is applied, catches should be no more than 2,189 tonnes for 2025”. However, “The proposal of roll-over

for the catch limits in force for 2025 (2,189 tonnes) is advised. The trend in landings was increasing between 2010 (1,860 tonnes) and 2024 (2,315 tonnes), contrary to fishing effort that decreased from 14.8 M hooks to 10.2 M hooks”.

Manager decision on the proposed TAC was justified “as presented as in the scientific advice sheet”.

Scientific advice: CPUE indices from the Madeiran fleet suggest increasing biomass and decreasing fishing effort with an increased in CPUE.

Available data: the background documents provide information on the trends in this management unit in terms of:

- Fishery dependant data: Catch per unit effort (CPUE) series expressed as kg/1,000 hooks, mean catch length compared to the MSY proxy length ($L_{F=M}$).
- Fishery independent data: None.

Horse Mackerel – Azores (JAX/X34PRT)

Current management: This management unit covers a TAC for blue jack mackerel (*Trachurus picturatus*) and any other *Trachurus* spp. In ICES subarea 27.10 and Union waters of CECAF (waters adjacent to the Azores). The fleet is composed of around 55 purse seiners. The proposed TAC for *Trachurus* spp for 2025 is 2,480 tonnes, which is significantly higher than the level of recent catches for *T. picturatus* (698 tonnes in 2023).

Managers’ decision basis is as follows: “... according to the authorities of the Azores Autonomous Region, no changes in the catch pattern of this fishery have been detected since the last report to COM, evidencing a sustainable exploitation of this stock” and “Given the regional specificities of the fishing community targeting this resource (directed fishery with purse seine; live bait for pole-and-line tuna fishery), the implementation of a TAC of 2,480 tonnes for this species in 2025 is considered of utmost relevance.” .

Scientific advice: Scientific advice for *T. picturatus* in Subdivision 10.a.2 was provided by ICES (ICES 2024) by applying the catch only method for category 5 stocks (ICES, 2012). The precautionary buffer was not applied because it had already been applied to derive the advice for 2023 and 2024. In the absence of any indicator of stock trends, “ICES advises that when the precautionary approach (PA) is applied, catches should be no more than 702 tonnes in each of the years 2025 and 2026”. “The ICES advice for 2025–2026 is equal to that advised for 2023–2024 because catches and effort have been remained at a low level in recent years and the precautionary buffer was not applied.” However, the TAC for all *Trachurus* spp. in subarea 10 is proposed to be set at the same level of previous years and far above the current level of catches of *T. picturatus* (about three times greater) indicating socio-economic considerations.

The TAC comprises all *Trachurus* spp.

Available data: the background documents provide information on the trends in this management unit in terms of:

- Fishery dependant data: Catches and fishing effort

- Fishery independent data: None.

Horse Mackerel – Canary Islands (JAX/341SPN)

Current management: The TAC for horse mackerel in the Canary Islands is for *Trachurus* spp., comprising among others blue jack mackerel (*T. picturatus*) and horse mackerel (*T. Trachurus*). These two species are landed together. They are caught using purse seine gears (traíña in the Canary Islands) targeting several small pelagic species. No indication on the fleet size or of its evolution over time is provided.

For 2025, the TAC proposal for horse mackerel in the Canary Islands was maintained at 963 tonnes. However, reported landings for *Trachurus* spp. in 2024 were exceptionally low, amounting to only 38 tonnes, with an unknown amount of catches to be used as live bait in tuna fisheries. Bait for tuna fisheries amounted to 280 tonnes on average per year between 2019 and 2023. If bait catches in 2024 were of a similar quantity, total catches in 2024 would have been well below the TAC.

Scientific advice: The scientific advice produced by IEO states that: “The absence of fishery-independent abundance indices and satisfactory results in the assessment tests carried out, do not currently allow quantitative recommendations on catch limits to be made. However, based on the signals emanating from the models explored and the significant decrease in catches in recent years, it is not considered advisable to increase the pressure currently exerted.”. The manager decision for a roll-over of the TAC was said to be taken in agreement with the scientific advice conclusion.

There is continuous strong reduction of landings since 2020 (from about 635 tonnes to 38 tonnes in 2024), but no information on the evolution of effort is provided as to frame this tendency. No ICES advice procedure was followed for this stock.

Available data: the background documents provide information on the trends in this management unit in terms of:

- Fishery dependant: Landings and mean length. There is a monitoring program for length and biological sampling, plus sampling on board, in port and in the laboratory collected under the EU Data Collection Framework. Landings are not reported by species. Biological data are available only for *T. picturatus*, and most of the reported landings consist of juvenile fish, because mean length is generally below the Lmat50 of 23 cm (Jurado-Ruzafa and Santamaría 2013).
- Fishery independent: The acoustic campaign in the Canary Islands was included in 2024 in the European multi-annual programme DCF (Data Collection Framework) and has been a PNDB campaign since 2025. However, due to the difficulties encountered in the fleet schedules, it has not been possible to carry out the campaign in 2025.

Horse Mackerel – Madeira (JAX/341PRT)

Current management: The TAC for horse mackerel in the Madeira region is given for *Trachurus* spp., comprising blue jack mackerel (*T. picturatus*) and any other horse mackerel (*Trachurus* spp.). The current fleet is composed of three purse seine vessels and only one of

the three active purse seiners carry out fishing per day. For the Madeira region, the proposed TAC for horse mackerel (*Trachurus* spp.) was reduced from 842 tonnes in 2024 to 514 tonnes for 2025. Reported landings for *T. picturatus* in 2024 were 70 tonnes. Other management regulations: a system of alternated fishing days among the three vessels is implemented. Efforts are being made to further reduce fishing effort, namely by decommissioning 1 of the 3 vessels operating this fishery

Scientific advice: The Scientific advice from the Direção Regional de Pescas, seems to be related to only blue jack mackerel (*T. picturatus*) and indicates that ICES guidelines for category 5 stocks was applied: “where there is no ancillary information clearly indicating that the current level of exploitation is appropriate for the stock” “the PA buffer should be applied in 2025”. They applied a precautionary buffer of -20% to the catch advised for 2024 (642 tonnes) which resulted in the proposal that “catches should be no more than 514 tonnes in 2025 for CECAF area 34.1.2”. Manager decision was: “the proposed TAC is as presented as in the scientific advice sheet”.

The TAC for horse mackerel in the Madeira region applies to *Trachurus* spp., rather than a specific species, however available landings in the scientific report pertain exclusively to *T. picturatus*. The procedure determining the share by species is not reported. The mixed nature of the TAC complicates the effective management of exploitation rates for individual species. There are no fisheries dependent or independent indices available on the development of the stock. The level of discards was reported as negligible.

Available data: the background documents provide information on the trends in this management unit in terms of:

- Fishery dependant: Catches and effort (number of fishing trips and vessels). Geographic distribution of the catches.
- Fishery independent: None.

ToR 2. Assess whether the TACs determined comply with the objectives and rules set out in Regulation (EU) No 1380/2013 and in Regulations (EU) 2018/973 and 2019/472 (....).

General comments

STECF observes that Member States were requested to supply scientific evidence to support the setting of the delegated TACs. Although in some cases ICES advice framework has been used as part of this scientific evidence it was not a requirement to apply such a framework.

STECF notes that the assessment of the five delegated TACs listed in Council Regulation (EU) 2025/202 revealed several structural and methodological challenges that cut across the multiple stocks and regions.

STECF observes that the advice for all five delegated TACS is based on data limited methodologies and/or on general precautionary considerations. This is reflective of the limited reliable knowledge available for the stocks concerned by these TACs. Furthermore, STECF notes that the geographical extent of these stocks is uncertain.

STECF observes that the current landings for shrimps in the French Guiana region and for horse mackerel in the Madeira, Canary and Azores Islands are far from the historical values, although STECF cannot assess the reasons for such reduction.

STECF highlights that all TACs share a notable mismatch between the current levels of TACs and annual reported landings. In all cases, except for the black scabbardfish (BSF/C3412), the TACs are significantly higher than recent landings or catch levels, resulting in TAC's being an ineffective management tool. When TACs are not restrictive, they fail to promote sustainable exploitation and may create an inaccurate perception of effective management.

Specific comments by management units

***Penaeus* spp. – French Guiana (PEN/FGU)**

STECF observes that the current TAC is set far above the level of current catches and is therefore, unlikely to have any impact on the management of this fishery and is therefore, not considered precautionary.

STECF notes that the management of the catches of several species under a combined TAC prevents effective control of the single-species exploitation rates and could lead to overexploitation of any of these species. The TAC comprises at least two species under the generic category *Penaeus* spp. (brown shrimp -*Penaeus subtilis*- and spotted rose shrimp -*Penaeus brasiliensis*-).

Black Scabbardfish – Madeira and Canary Islands (BSF/C3412)

STECF observes that based on the information provided it was not clear if the scientific ICES method (ICES category 3 rfbm methodology) was applied appropriately, as neither growth parameter k nor the m factor are mentioned in the scientific report.

STECF notes that the scientific method applied was the ICES “2-over-3” rfb rule (ICES, 2022). Trend in CPUES makes the r factor (2-over-3) equal 1.23. Mean length in landings is just above $LF=M$ (at the third decimal place) and results in an $f=1$. And current CPUE is above $I_{trigger}$ ($b=1$). This led the product of r , f and b be equal to 1.23, capped at 1.2 due to the application of +20% stability clause—implying an increase in the previous advice. However, it is unclear whether the m multiplier was considered. For species with VBG parameters between 0.08 and 0.2 (Vieira et al., 2009), ICES recommends an m of 0.95 to keep the risk of falling below $Blim$ under 5% (ICES, 2020), which would yield a rfbm of 1.17. If $k > 0.2$ then $m = 0.8$, and rfbm would be around 1, aligning with the advice. For Black scabbardfish in the Northeast Atlantic and Arctic Ocean, ICES (2025) uses $m = 0.95$. However, the report makes no mention of k or m . In conclusion, it's uncertain whether the rfb rule was fully applied or if a precautionary roll-over of the TAC was preferred.

STECF notes that, while this is a single species TAC, two species (*Aphanopus* spp.) are being landed together. Managing the catches of multiple species under a single TAC hinders accurate regulation of individual species'; exploitation rates and may result in the overexploitation of one or more of these species.

Horse Mackerel – Azores (JAX/X34PRT)

STECF notes that no fishery-independent biological indices or trends in stock abundance are currently available to underpin the assessment and scientific advice. The exploitation status of the stock remains unknown. Furthermore, the TAC comprises at least two species (*Trachurus* spp.), with the risk of overexploitation of any of these species.

STECF notes that the scientific advice provided by ICES follows the procedure for category 5 stocks. However, STECF observes that the the TAC, despite being set for all *Trachurus* spp. in all the subarea 10, is set far above is set far above the current levels of catches of *T. picturatus* and will not constrain fishing effort or act as an effective management tool.

STECF notes that the management of the catches of several species under a combined TAC prevents effective control of the single-species exploitation rates and could lead to overexploitation of any of these species. This TAC comprises at least two species (*Trachurus* spp.).

Horse Mackerel – Canary Islands (JAX/341SPN)

STECF observes that no modelling framework was applied to provide advice for this management unit. However, the background documents highlight the ongoing work in data improvement and stock assessment attempts in this area.

STECF notes that the disparity between the TAC for *Trachurus* spp. and recent landings of *T. picturatus* indicates a potential inefficiency in the current management framework.

The TAC is not restricting fishing activity, and the current exploitation status of the stock is unknown. Therefore, the procedure followed is less precautionary than ICES approach for category 5 stocks (catch only method).

STECF notes that several production models were presented by the FAO/CECAF Small Pelagic WG in 2025, but none gave satisfactory results. Monitoring improvements are underway - the COC CECAF team is working on data quality and standardising LPUE indices. The Canary Islands acoustic survey became part of the DCF in 2024 and a PNDB campaign in 2025, but was not conducted due to fleet scheduling issues, delaying progress on acoustic-trawl integration and ecotrace identification.

STECF notes that landings are not disaggregated by species, no recreational landigs are reported and that biological data are available only for *T. picturatus*.

Horse Mackerel – Madeira (JAX/341PRT)

STECF notes that the disparity between the TAC for *Trachurus* spp. and recent landings of *T. picturatus* indicates a potential inefficiency in the current management framework. Since 2010, catches have averaged one-third of the TAC, and only 16% in the last five years. The scientific advice applied the catch only method (category 5 PA advice) to the former advice (642 tonnes for 2024), with a -20% buffer, despite reported catches of just 70 tonnes in 2024. Given the continued decline, 2024 being the lowest on record, if the ICES catch only method were applied for the first time.

ToR 3. To make recommendations and identify any additional issues of relevance for the assessment and management of those stocks.

STECF notes that the management of the catches of several species under a combined TAC can result in unknown levels of stock-specific exploitation, which may increase the risk of overexploitation of any individual stock. Although STECF notes that species splitting can be challenging to achieve in the field as many of these species cannot be separate by eye. There are established methods for estimating the separation of these stocks through surveys and commercial sampling. Alternative management measures should also be considered.

The first time ICES methods for category 3 and 5 stocks are implemented, a decision needs to be made on the reference level of catch. The method is then applied to this reference level to produce catch advice for the following years. ICES advises that this reference level should be set to represent the level of realised catches that are influencing the stock (ICES 2023; 2025b), and consequently, if no past scientific advice is available, the reference catch level should be set as the most recent catch or the average of the last three years.

For some of the delegated TAC cases considered here, the way the initial level of TAC was set is unknown to STECF, as are the past levels of scientific advice. Therefore, if the ICES methods were applied as per the ICES Guidelines the reference catch level would be set equivalent to the recent level of catches.

STECF highlights that the uncertainty and data limitations of the stocks within these management units further compounds the challenge of effective management. Many of the stocks considered in this report lack fishery-independent biomass indices, consistent CPUE time series, or disaggregated landings data at the species level. Biological monitoring, such as size, sex ratio, and maturity assessments, is often patchy or inconsistent, limiting the robustness of scientific advice and management responses.

STECF notes that the management advice for data-limited stocks is usually provided in a biennial or triennial basis, with the advice being applicable to each of the management years.

STECF notes that the following general steps could be taken to improve the assessment and management of those stocks would be:

- Species specific landings statistics should be recorded.
- Fishery dependant (i.e. LPUE's) and/or fishery independent (surveys such as acoustic, bottom trawling or ichthyoplankton methods) indicators would allow to follow the trends of the population abundance.
- Effort estimation such as vessel activity, gear deployment, and trip frequency, with spatial data obtained from tools like Vessel Monitoring Systems (VMS) or Automatic Identification Systems (AIS) would provide a clearer picture of fishing intensity and distribution, which is vital for stock-based and area-based management.
- Stock identity such as genetic differentiation, life history variation, and transboundary larval dispersal patterns would provide improved integration of biological and ecological information for a better basis for management advice.

STECF notes that in data poor situations where there are few vessels and limited economic resources for research, or in situations where fishing takes places on short lived species

(shrimps) or on the juvenile fraction of medium lived species (as for *Trachurus*), it is difficult to achieve a dynamic and efficient procedure for setting TACs capable of anticipating the expected level of natural variation in these resources (except in cases where a sentinel scientific or commercial surveys can be implemented). Therefore, alternative dynamic management systems such as effort-based systems (i.e. “target” daily LPUE) may be worth exploring.

Specific comments by management units are given below:

***Penaeus spp.* – French Guiana (PEN/FGU)**

STECF notes that in the future fishery independent surveys may provide a suitable data source by which to apply data limited assessment methods such as ICES category 3 for short-lived species. Currently the time series is too short to apply such methodology.

STECF notes that additional data limited methods for stock assessment which rely on catch only data (such as ICES category 5 methods) should be considered in the future. These precautionary methods, when applied by the first time, would ensure that advised catches would be set relative to the average of the last three years, with consideration on the need for a precautionary buffer of -20% every three years.

STECF notes that ongoing research projects are expected to continue improving the quality, resolution, and scope of available information on the stock.

Black Scabbardfish – Madeira and Canary Islands (BSF/C3412)

STECF highlights that given that both scabbardfishes (*Aphanopus carbo* and *Aphanopus intermedius*) are landed together, the enhancing of species-specific reporting, and expansion of biological and genetic studies on stock structure may improve the basis for the assessment.

Horse Mackerel – Azores (JAX/X34PRT)

STECF notes the need to improve monitoring and data collection for this stock. Specifically, catch data for every of the two species caught together should be reported to better understand species composition and exploitation rates.

STECF endorses the implementation of several ICES WGAHANSA recommendations to improve the monitoring and assessment of this stock, such as landings per unit of effort (LPUE) standardization, exploration of alternative indicators of purse seine performance, monitoring of catch length distributions, and variants for Length based methods, etc (ICES 2024b).

Horse Mackerel – Canary Islands (JAX/341SPN)

STECF notes that bait catches in tuna fisheries should be more rigorously monitored and reported to ensure that total exploitation is accounted for accurately. In addition, timely

reporting of the effort evolution is required to contextualise the evolution of catches. Systematic and representative sampling across islands is also essential to improve species identification and provide a sound basis for management and assessment. STECF notes that the continuation of the acoustic survey in the Canary Islands included in the European Multiannual programme DCF will support an improved assessment of this stock.

Horse Mackerel – Madeira (JAX/341PRT)

No specific comments are given for this management unit.

STECF conclusions

Conclusions by management unit

STECF concludes that in the case of ***Penaeus* spp. in French Guiana** (PEN/FGU) no scientific methodologies were provided to support the setting of the TAC. STECF concludes that the management decision does not achieve a comparable level of precaution as would have obtained when applying ICES methods for the first time.

STECF concludes that in the case of **black scabbardfish in Madeira and Canary Islands** (BSF/C3412) the scientific advice and the TAC procedure achieves a comparable or greater level of precaution as the ICES *r_{fbm}* method.

STECF concludes that in the case of **horse mackerel in the Azores** (JAX/X34PRT) the scientific ICES method to provide catch advice for *Trachurus picturatus* in subdivision 10.a.2 seem to be applied correctly. However, STECF observes that the TAC setting for *Trachurus* spp. does not follow the ICES advice, with a TAC set far above the current level of catches, which will not constrain fishing effort or act as an effective management tool. Therefore, STECF concludes that the procedure followed to set the TAC does not achieve a comparable level of precaution as would have been obtained by following the ICES methodology.

STECF concludes that in the case of **horse mackerel in the Canary Islands** (JAX/341SPN) no modelling framework was applied to provide advice on TAC setting. If ICES category 5 catch only methods had have been applied for the first time, the advised level of catches would have been around the recent average catches, which are far below current TAC levels. Therefore, STECF concludes that the management decision does not achieve a comparable level of precaution as would have obtained when applying ICES methods for the first time.

STECF concludes that in the case of **horse mackerel in Madeira** (JAX/341PRT) ICES category 5 methodology was applied. The proposed TAC was equal to the former (2024) TAC with a 20% reduction due to the application of the precautionary buffer. However, the basis of the former TAC was not detailed. STECF concludes that if this was the first time the ICES scientific framework for advice was used to set the TAC, although it was not used in conformity with the ICES method for stocks in category 5 and therefore, the TAC did not achieve a comparable level of precaution.

STECF General conclusions.

STECF cannot conclude on the reasons why for many management units, historical landings are much higher than the current ones.

STECF concludes that setting TACs much higher than recent landings make them ineffective for sustainable resource management and may give a misleading sense of control.

STECF concludes that the management of the catches of several species under a combined TAC prevents effective control of the single-species exploitation rates and could lead to overexploitation of any of these species.

STECF recognises that in remote regions with few active vessels, implementing complex monitoring systems can be challenging. STECF therefore supports simplified, cost-effective methodologies for stock evaluation, such as using fishery-dependent indicators like CPUE, size and landings trends, biomass proxies, or opportunistic surveys. When applied consistently, these can support precautionary management in data-limited contexts.

STECF concludes that more responsive management tools, such as effort-based controls or adaptive frameworks, may offer a more effective means of ensuring management objectives than TACs particularly for short-lived species (or on juveniles of medium lived species) subject to rapid and unpredictable fluctuations.

References

- ICES. 2020. Tenth Workshop on the Development of Quantitative Assessment Methodologies based on LIFE-history traits, exploitation characteristics, and other relevant parameters for data-limited stocks (WKLIFE X). ICES Scientific Reports. 2:98. 72 pp. <http://doi.org/10.17895/ices.pub.5985>
- ICES. 2022. ICES technical guidance for harvest control rules and stock assessments for stocks in categories 2 and 3. In Report of ICES Advisory Committee, 2022. ICES Advice 2022, Section 16.4.11. <https://doi.org/10.17895/ices.advice.19801564>
- ICES. 2023. Advice on fishing opportunities. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1.1. <https://doi.org/10.17895/ices.advice.22240624>
- ICES. 2024. Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2 (Azores grounds). In Report of the ICES Advisory Committee, 2024. ICES Advice 2024, jaa.27.10a2, <https://doi.org/10.17895/ices.advice.25019315>
- ICES. 2024b. Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA). ICES Scientific Reports. 6:46. 738 pp. <https://doi.org/10.17895/ices.pub.26003356>
- ICES 2025. 2025. Black scabbardfish (*Aphanopus carbo*) in subareas 1, 2, 4–8, 10, and 14, and divisions 3.a, 9.a, and 12.b (Northeast Atlantic and Arctic Ocean). In Report of the ICES Advisory Committee, 2025. ICES Advice 2025, bsf.27.nea., <https://doi.org/10.17895/ices.advice.29279837>

ICES. 2025b. ICES Guidelines - Advice rules for stocks in category 2 and 3. Version 3. ICES Guidelines and Policies - Advice Technical Guidelines. 31 pp.

<https://doi.org/10.17895/ices.pub.28506179>

Garcia A, Pereira JG, Canha Â, Reis D, Diogo H. 2015. Life-history parameters of blue jack mackerel *Trachurus picturatus* (Teleostei: Carangidae) from north-east Atlantic. Journal of the Marine Biological Association of the UK 95: 401–410.

Jurado-Ruzafa, Alba; SANTAMARÍA, María Teresa García. 2013. Reproductive biology of the blue jack mackerel, *Trachurus picturatus* (Bowdich, 1825), off the Canary Islands. Journal of Applied Ichthyology. Vol. 29 (3): 526–531.

Jurado-Ruzafa, Alba; SANTAMARÍA, María Teresa García. 2018 Age, growth and natural mortality of blue jack mackerel *Trachurus picturatus* (Carangidae) from the Canary Islands, Spain (NW Africa). African Journal of Marine Science, 40(4), 451-460.

Pajuelo, J. G., González, J. A., Santana, J. I., Lorenzo, J. M., García-Mederos, A., & Tuset, V. (2008). Biological parameters of the bathyal fish black scabbardfish (*Aphanopus carbo* Lowe, 1839) off the Canary Islands, Central-east Atlantic. Fisheries research, 92(2-3), 140-147.

Vasconcelos, J., Alves, A., Gouveia, E., & Faria, G. (2006). Age and growth of the blue jack mackerel, *Trachurus picturatus* Bowdich, 1825 (Pisces: Teleostei) off Madeira archipelago.

Vieira, A. R., Farias, I., Figueiredo, I., Neves, A., Morales-Nin, B., Sequeira, V., ... & Gordo, L. S. (2009). Age and growth of black scabbardfish (*Aphanopus carbo* Lowe, 1839) in the southern NE Atlantic. Scientia Marina, 73(S2), 33-46.

6.7 Assessment of measures in the Compensation Mechanism, West Med MAP

Background provided by the Commission

Following the adoption of the Fishing Opportunities Regulation for the Mediterranean and Black Seas for 2025, discussions with West Med Member States have provided the Commission with supporting information on the implementation of several criteria of the enhanced compensation mechanism in 2024 and 2025, in comparison with the compensation mechanism evaluated by STECF PLEN 23-02 and STECF PLEN 24-02 stemming from Article 8 of the Fishing Opportunities Regulation for the Mediterranean for 2024.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

Tor 1: STECF is requested to complete its review of all the criteria used under the compensation mechanism and evaluate their potential impact/effectiveness on stocks recovery. Building on the evaluation from STECF EWG 23-01, STECF PLEN 24-02 and STECF 24-03, STECF could evaluate each criterion developed since 2022 in view of their implementation and complete its insight on all the existing criteria. If relevant for some criteria, STECF could provide conservation insight beyond stock recovery (e.g. carbon footprint, seabed recovery).

Tor 2: STECF is requested to complete its review of conservation measures to speed up stock recovery with additional recommendations, such as codend sensu stricto and extension piece changed to bigger mesh size. Regarding criteria linked with selectivity, STECF, building on the work of Plen 24-02, could provide an exhaustive literature review for improved selectivity in the different parts of the nets (e.g. codend, extension pieces).

Tor 3: STECF is requested to review the information available, including that provided by Member States, evaluate the findings and make any appropriate comments and recommendations on which criteria are the most efficient in view of stocks recovery as well as socio-economic impact. In particular, it would be appreciated if STECF can suggest new conservational measures.

Summary of the information provided to STECF

STECF was provided with the following documents:

1. Vogel Camille (2016). Rapport bibliographique « Sélectivité des engins de pêche ». Ref. Ifremer n°13/1210867/NF. <https://archimer.ifremer.fr/doc/00317/42869/>
2. The Commission published in 2024 a report on the implementation of the West Med MAP, including elements on the compensation mechanism and its implementation by Member States:
 - a) REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL First report on the implementation of the Multiannual Plan for the

fisheries exploiting demersal stocks in the Western Mediterranean Sea.COM/2024/322 final.

b) COMMISSION STAFF WORKING DOCUMENT Accompanying the document Report from the Commission to the European Parliament and the Council First report on the implementation of the Multiannual Plan for the fisheries exploiting demersal stocks in the Western Mediterranean Sea. SWD/2024/195 final.

3. In addition to these documents, the Commission/DG MARE received permission from the European Climate, Infrastructure and Environment Executive Agency (CINEA) to provide the draft reports of the DecarbonyT project to the STECF in order to facilitate the STECF's analyses. As this study is not yet public nor final, the STECF had only access to the files for the purpose of addressing its ToRs. No further use is permitted, and the respective files will not be made available as background files to the STECF plenary.

STECF comments

General comments

STECF observes that Article 8 on a compensation mechanism for trawlers including several voluntary conservation measures (CMs) EU Regulation 219/2025 has a number of differences compared to EU Regulation 259/2024:

- in 2024 CMs granted an increase of fishing days per vessel of 4.5% of the baseline (2015-2017) by fleet segment if one condition applied, 5% if two conditions applied, 6% if three conditions applied.
- in 2025 CMs grant different levels of increase in fishing days depending on the temporal extension during which the measure is implemented. The percentage of additional fishing days that can be given per vessel is calculated from the maximum effort allowed in 2024, with the caveat that the maximum effort of 2025 should not exceed that of 2024 (at fleet segment level).
- While in 2024 additional days could be granted when a Member State was fulfilling a condition (i.e. implementing a measure), in 2025 additional days are granted on the basis of how many vessels are impacted by the new measure (which will receive the compensation) and for how long within the first year of the implementation.

STECF notes that the conditions for CMs (a), (d), (g), (h) were introduced for the first time in EU 219/2025, while (b), (c), (e), (f) are modifications of existing conditions for CMs from EU 259/2024 and (i), (j), (k), (l) are the same in both EU regulations.

STECF notes that the modification of conditions (a) and (b) in EU 259/2024 into conditions (b) and (c) in EU 219/2025, rewards higher levels of compensated days in 2025 compared to 2024, against more stringent specifications, since specific percentages of the fleet that needs to be involved are specified. STECF notes that such modifications promote the implementation of measures to improve gear selectivity from an individual voluntary level to a fleet compulsory level.

STECF notes that since 2022, Member States have enforced new or additional conditions to obtain CMs almost every year as new conditions have been defined yearly. It should be noted that a CM gives a credit of fishing days only when it is present in Article 8 for the fishing opportunities of that specific year.

STECF notes that annual changes to the list of available conditions, including potentially removing old ones with each new Fishing Opportunities decree, lead Member States to adjust management measures annually to obtain a credit in fishing days for the following year. This approach results in scattered short-term measures, which are difficult to assess their implementation and are likely ineffective especially if implemented over periods shorter than an average generation time of species targeted by management plans.

STECF notes that conditions (i), (j), (k), (l) were already evaluated in PLEN 24-02. No additional material to update the previous evaluation was provided.

STECF notes that the available data and information currently collected within the Data Collection Framework do not allow to assess the social impact of the implementation of CMs. Closed areas, gear changes and days at sea changes are likely to have social impacts such as safety at sea, change in job satisfaction and changes to family and community life (Clay and Colburn, 2020). Identifying data needs and criteria for social impact assessment is essential for effectively responding to current and future requests for advice. STECF notes that this could be discussed in a dedicated ToR in future Expert Working Group on Social Data.

Comments on single compensation mechanisms from EU 219/2025

(a) if the vessel removes the otter-twin trawl gears (OTT), a Member State may increase the allocation of fishing days by 24%; if the vessel is implementing that measure before 1 May 2025, the allocation of fishing days may be increased by 35%; if the total number of vessels represents more than 40% of the fleet of the Member State concerned, the Member State may increase the allocation of fishing days by 40%;

STECF cannot assess if the three levels of percentages of compensated days are coherent with the three levels of measure extension implemented.

STECF observes that from DCF FDI dataset and STECF reports (EWGs 21-13, 22-11, 23-11, 24-12) it emerges that OTT gears are only used in GSA 7 within EMU 1 and are not used in EMU 2. Therefore, implementing CM (a) can have an effect solely in GSA 7.

STECF observes that, within GSA 7, the use of OTT gears started in 2010, and has been steadily increasing over the years. In 2022, some harbors showed a complete substitution of OTB with OTT gears (Certain et al., 2024).

STECF observes that OTT gears show higher catches for all the species caught, in particular for demersal ones (*Octopus vulgaris*, *Eledone* spp., *Lophius* spp., *Loligo* spp.) reaching increases of 60% (Certain et al., 2024). Vessels measuring 18-24 metres using OTT generally land slightly more European hake (*Merluccius merluccius*) than those with OTB, but this trend reverses for vessels in the 24-40 metres range. This difference could also be related to the spatial distribution of the two gears in the area. It should be noted that the two

gears did not show significant differences in the length distributions of catches of European hake (Certain et al., 2024).

STECF observes that OTT gears are more efficient in terms of catchability than OTB gears, and it was estimated that, in GSA 7 for the same fleet segment, one fishing day using OTT gears yields the same catch as 1.25 fishing days using OTB gears (Certain et al., 2024). STECF EWG 21-13 also observed significantly higher LPUEs for OTT compared to all OTB métiers (OTB_DEF, OTB_CRU and OTB_CEP) when estimating conversion factors.

STECF observes that Sala et al. (2013) and Lucchetti et al. (2017) reported that OTT gears sweeps 30% greater area than OTB gears, increasing catch efficiency over equal trawling time.

STECF highlights that although OTT gears show a higher fuel consumption, the socio-economic analysis carried out in GSA 7 suggest a higher economic performance, by 40-60%, compared to OTB gears (Certain et al., 2024). However, STECF notes that authors highlighted a high variability of results at vessel level which could not be accounted for and that they only reported comparisons of Gross Value Added (GVA) and revenues (Certain et al., 2024).

(b) if the vessel uses a trawl net with 45 mm square mesh in codend, a Member State may increase the allocation of fishing days by 9.3%; if the vessel is implementing that measure before 1 May 2025, the allocation of fishing days may be increased by 18.6%; if the total number of vessels represents more than 40% of the fleet of the Member State concerned, the Member State may increase the allocation of fishing days by 25%; if the measure applies to all vessels of the Member State concerned, the Member State may increase the allocation of the fishing days by 30%;

STECF cannot assess if the three levels of percentages of compensated days are coherent with the three levels of measure extension implemented

STECF notes that, in principle, it would be possible to evaluate the improvement in selectivity needed to justify the level of compensation, however the *three tier* approach (three level system of increasing levels of the management option selected) to compensation means the process is not linear and ultimately depends on the implementation mechanism.

STECF observes that results of simulations run with mixed fisheries bio-economic models during EWG 24-12 suggested that the implementation of a 45mm SM codend alone does not allow reaching F_{MSY} for the stocks targeted by Reg. EU 2019/1022 in both EMU 1 and EMU 2 (simulations were only run up to four years in the future).

STECF notes that EWG 24-12 found that a reduction in catches of small-sized individuals would be obtained with the implementation of a 45mm SM codend, particularly for European hake and Norway lobster (*Nephrops norvegicus*) stocks.

STECF notes that, besides simulations results from STECF EWG 24-12, the state of the art of the evaluation of implementing a 45mm SM codend is the one reported in PLEN 24-02 (TOR 6.9) and up to its knowledge no more recent reports or publications are available.

STECF notes that section (c) can be consulted for additional comments applicable on criteria (b).

(c) if the vessel uses a trawl net with 50 mm square mesh in codend, a Member State may increase the allocation of fishing days by 15.4 %; if the vessel is implementing that measure before 1 May 2025, the allocation of fishing days may be increased by 30.8 %; if the total number of vessels represents more than 40 % of the fleet of the Member State concerned, the Member State may increase the allocation of fishing days by 40 %; if the measure applies to all vessels of the Member State concerned, the Member State may increase the allocation of the fishing days by 50 %;

STECF cannot assess if the three levels of percentages of compensated days are coherent with the three levels of measure extension implemented.

STECF notes that, in principle, it would be possible to evaluate the improvement in selectivity needed to justify the level of compensation, however the *three tier* approach to compensation means the process is not linear and ultimately depends on the implementation mechanism.

STECF notes that EWG 24-12 found that a reduction in catches of small-sized individuals would be obtained through the implementation of a 50mm SM codend, particularly for European hake and Norway lobster stocks.

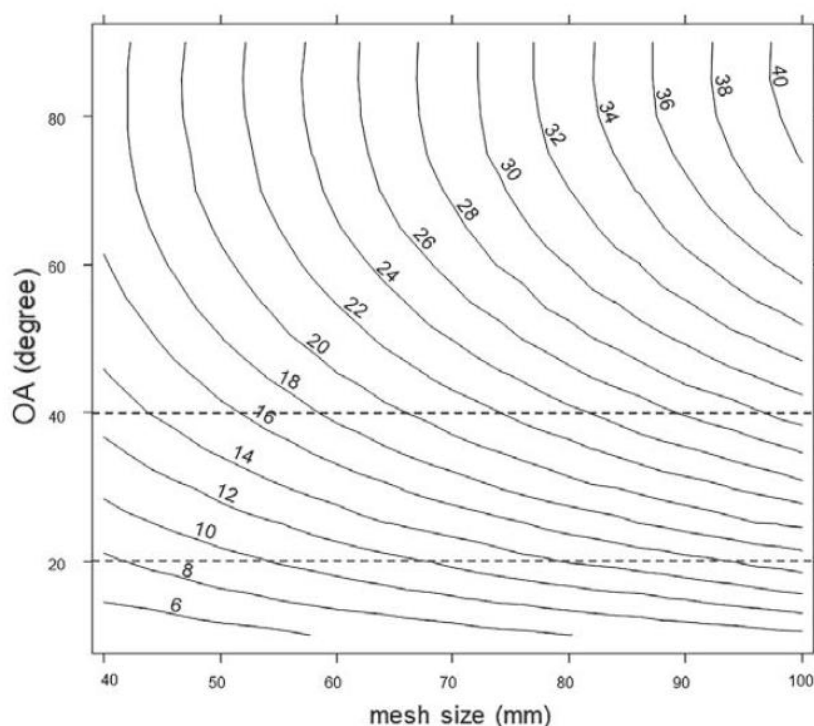
STECF notes that recent studies support the implementation of a 50 mm SM codend as reported in PLEN 24-02. Trials with a 52 mm SM codend resulted in an increased L50 of 22.19 cm TL (Total length) for hake, above the MCRS (Ferragut-Perello et al., 2023). The results also showed increased L50 for other valuable species (red mullet, *Mullus barbatus*: L50=17.63cm TL; deep-water rose shrimp, *Parapenaeus longirostris*: L50=22.62cm CL, carapace length). The same study estimated that biomass and economic yields were higher using 40 mm SM codend than the 52 mm SM codend. These differences were significant for the smallest categories of European hake and red mullet, and the two size categories of poor cod (*Trisopterus capelanus*), and brodtail shortfin squid (*Illex coindetii*).

STECF highlights that PLEN 22-03 reported that a 50 mm SM codend would improve the exclusion of individuals of European hake <20cm TL in the catch compared to the 40 mm SM codend. However, a relevant fraction of undersized fish would remain in the codend. In a Mediterranean-wide review, Lucchetti et al. (2021) found that achieving an L50 of 20 cm for hake would require a SM size codend of 55 mm. The use of a 55 mm square-mesh codend would also be beneficial for other important commercial species; however, it would simultaneously lead to the loss of certain species and size classes of commercial interest. These potential losses could be more limited in fisheries where deep-water shrimps are the primary target species, as the biggest individuals are the main target of this fishery, although all commercial categories have an economic value.

STECF notes that the predictive model carried out in Tokaç et al. (2018) based on hake morphology and mesh geometry could be used to identify a mesh size with the potential to increase L50 to an optimal range (Figure. 6.7.1). It should be noted that these are isolated results for hake, and that any change in mesh size will have an impact on size selection for other species in the fishery.

STECF notes that a predictive model for red mullet is also available in the scientific literature (Tokaç et al. 2016) and that it could be used to identify the resulting size selectivity of an increased mesh size for red mullet, as well as for other species (e.g., Norway lobster in Brčić et al. (2018)).

Figure 6.7.1. Design guide for diamond meshes showing estimated L50 isocurves for hake as a function of mesh size (mm), for sizes between 40 and 100 mm, and mesh opening angle (OA) between 10° and 90° (square mesh). E.g., a 65 mm mesh at 90° (i.e., square mesh) yields an estimated L50 around 26cm TL.



Source: Tokaç et al. (2018).

STECF notes that a specification on the length of the codend is currently absent from EC Regulation 1967/2006, allowing the potential use of short SM codends. This may have rendered the 40 mm SM codend requirement ineffective, with the selective properties of the nets significantly masked, when the meshes of the codend are used to operate the knot to close the net. Therefore, as highlighted in the MyGears project (Sala et al., 2013), Commission’s 2012 communication (MARE D2/BF/fcp.2012 335725) and EWG 22-19, and acknowledged by all national control bodies, the selectivity is exerted by the extension piece.

STECF further observes how, specifically for the Mediterranean, the MyGears project reported that, prior to the adoption of EC Regulation 1967/2006, codend lengths in bottom trawl fisheries typically ranged from 5 to 7 metres, with a mean length of 5.31 metres. Regulation 1241/2019 offered updated specifications regarding the mesh sizes for codend and extension piece (bringing both to 40mm SM/ 50mm DM); however, no specification have

been provided as regards the length of codend and therefore, uncertainties in its interpretation and application persist, which may hinder efforts to achieve the desired improvement in selectivity associated with the use of square mesh codends.

Improving selectivity through changes in the net other than the codend mesh size

STECF observes that the use of a T90 mesh in the extension piece to improve the selectivity of bottom trawl nets in the Mediterranean was tested under the EU project IMPEMED in several Mediterranean countries, including Spain, Italy, and Croatia (covering GSAs 6, 9, 11, and 17). However, the results of the analyses conducted during the project were not encouraging concerning the reduction of undersized individuals and did not support further development or adoption of this gear configuration (see PLEN 22-03 for a review of IMPEMED report).

STECF notes that selection devices in the extension piece of the gear (e.g., SM panels, T90 panels) can have low effectiveness due to a lack of contact of fish with the meshes (PLEN 22-03).

STECF notes that the use of a sorting grid to exclude undersized individuals of several species was effective at reducing undersized individuals of hake, although a loss of legal-sized individuals together with other commercial species (deep-water rose shrimp and broadtail shortfin squid) was also observed (PLEN 22-03).

STECF notes that some studies addressed alternative gears and gear modifications in the Mediterranean and that despite promising results, results cannot serve as a general conclusion. STECF notes that Lucchetti et al. (2021) provided a review of the experiments carried out and their effectiveness, as well as trade-offs with potential ecological and socio-economic impacts.

STECF notes that, because catch compositions vary across fishing grounds, using a single gear setup to achieve optimal selectivity for all species is extremely challenging. Trade-offs are inevitable, and solutions should be tailored to the specific catch composition, and operational context.

(d) if the vessel is subject to a closure period prohibiting fishing activities for trawlers between depths 100 m to 500 m for at least six continuous weeks between May and September, a Member State may increase the allocation of fishing days by 10%

STECF notes that it is not possible to assess if the length of closures and the percentage of fishing days given as CMs are coherent.

STECF notes that temporary closures between 100m and 500m from May to September will impact fisheries targeting Norway lobster, deep-water rose shrimp, European hake and, partially, giant red shrimp (*Aristaeomorpha foliacea*).

STECF notes that such temporary spatial closures could create spatial displacement of the fleet, either towards deeper fishing grounds targeting blue and red shrimp (*Aristeus antennatus*) (also generating a potential issue for the presence of maximum catch limit (MCL) for these species), or towards shallower fishing ground targeting red mullet and cephalopods,

to compensate the potential economic loss due to the temporary closure. The potential effects of this measure have been explored in Sbrana *et al.*, 2025 and it has also emerged that, given the different topology of fishing grounds in the different basins, no positive effects can be expected from the implementation of temporary spatial closures. Furthermore, depending on the type of habitat and size of the fishing grounds in shallower areas, the increase of localized fishing effort and impacts on habitats could be higher than expected. STECF notes that as blue and red shrimp stocks are under a MCL regime at vessel level, effort displacement will most likely target shallower areas between 50-100m depth, potentially increasing the ecological footprint.

STECF observes that, according to Sbrana *et al.* (2025), restricting access to shallow coastal areas significantly affects the profitability of reallocating effort to other fishing grounds, with noticeable differences between fleets operating in the same sector (with fleet segments VL12-15 and VL15-18 being likely to be more affected by spatial restrictions than VL18-24 and VL24-40). These effects are mainly generated by the increased costs of exploiting deeper and more distant fishing grounds.

STECF notes that management strategies such as temporary cessations may avoid the potential negative consequences due to effort displacement.

STECF notes that Certain *et al.* (2023) and EWG 23-11 showed that permanent closures applied to all gears are the only kind of closures that can ensure stock recovery, compared to other management implementations such as restricting only trawlers or implementing temporary closures. This is due to the increase of harvest over the same annual cohorts right after the reopening, which can compromise the efficiency of the measure.

STECF notes that Certain *et al.* (2023) highlighted how temporary closures implemented in GSA 7 will not allow restoring benthic habitats.

(e) if the vessel is subject to a closure period prohibiting fishing activity for trawlers in GFCM GSAs 8, 9, 10 and 11 for at least four continuous weeks between May and October, a Member State may increase the allocation of fishing days by 15 %

STECF notes that it is not possible to assess if the length of closures and the percentage of fishing days given as CMs are coherent.

STECF observes that temporary closures between May and October could be beneficial for blue and red shrimp as this is the period of aggregation of spawners (Relini Orsi e Relini, 1979) for reproduction. In contrast, introducing a temporary closure in the middle of the highest peak of the fishing season will be economically detrimental and may push fishers to increase their effort (weather permitting) later on in the year when age 1 individuals start appearing in the catches (Coppo, 2024).

STECF observes that the end of summer is when the second peak of reproduction for European hake is observed in the western Mediterranean. In GSA 8,9,10 and 11 this is the period of reproduction where the lowest reproductive potential is observed compared to the main one that happens between the beginning of winter and spring (Recanses *et al.*, 2008; Carbonara *et al.*, 2019).

STECF observes that summer and autumn are also two of the peaks of reproduction of deep-water rose shrimp in the Thyrrenian Sea (Sartor et al., 2017).

STECF notes that in GSA 9,10 and 11 the biological closure of the fisheries for trawlers is already implemented in October, a measure implemented before the start of Reg. (EU) 2019/1022, therefore, it overlaps with this condition.

(f) if the vessel is subject to a closure period prohibiting fishing activity for trawlers in GFCM GSAs 1, 2, 5, 6 and 7 for at least four continuous weeks between May and October, a Member State may increase the allocation of fishing days by 15 %

STECF notes that it is not possible to assess if the length of closures and the percentage of fishing days given as CMs are coherent.

STECF observes that the end of summer is when the second peak of reproduction for European hake is observed in the western Mediterranean. In GSA 1,5,6 and 7 there are two main peaks at the end of summer and at the end of autumn which are observed in GSA 5 and 6 (Recanses et al., 2008), with the later being consistent with the main recruitment window in spring-summer. In the GSA1, by contrast, the main spawning peak contributing to annual recruitment occurs in winter-spring peak (Hidalgo et al., 2024).

STECF observes that temporary closures between May and October could be beneficial for blue and red shrimp as this is the period of aggregation of spawners (Sartor et al., 2017) for reproduction, despite that introducing a temporary closure in the middle of the highest peak of the fishing season could be economically detrimental and will push fishers to increase their effort (weather permitting) later on in the year.

(g) if the vessel is subject to a national closure area covering at least 5 % of their fishing grounds between depths 100 m and 500 m, a Member State may increase the allocation of fishing days by 4%.

STECF notes that it is not possible to assess if the percentage of closures and the percentage of fishing days given as CMs are coherent.

STECF notes that permanent closures between 100m and 500m from May to September will impact fisheries targeting Norway lobster, deep-water rose shrimp, European hake and giant red shrimp.

STECF observes that Certain *et al.* (2023) and EWG 23-11 showed that permanent closures applied to all gears are the only kind of closures that can ensure stock recovery, compared to other management implementation restricting only trawlers or implementing temporary closures. The economic consequences of permanent closure areas are not significantly different from the other scenarios; however, this is potentially due also to the settings of the simulations.

(h) if the vessel is subject to a temporary closure area allowing for the reduction of at least 20% catches of spawners of European hake, a Member State may increase the allocation of fishing days by 13 %.

STECF observes that EWG 23-01 highlighted the limitations in identifying spawning aggregations of European hake with the available data (MEDITS survey). In addition, considering the extensive distribution of European hake populations and the different topology of fishing grounds in the different basins, it does not seem (at present) possible to evaluate any compensation values as proposed.

STECF notes that it is not possible to evaluate the effectiveness of a closure area by the percentage of reduction of catches of a specific population component. Particularly with the available data.

STECF conclusions

STECF recognises the intended incentives of the conservation measures in the CMs in encouraging fishers to adopt more sustainable fishing practices. However, the concurrent application of multiple regulatory measures and the interaction with other regulations such as MCLs, complicatethe assessment of their individual impacts.

STECF concludes that it is not possible to assess if the percentages of compensated days given as CMs are coherent with the number of vessels involved and the temporal and spatial extension of the single measure implemented.

STECF concludes that the redefinition of conditions to obtain CMs every year leads Member States to adopt scattered, short term management measures, potentially undermining their effectiveness.

STECF concludes that the consequences of modifying conditions to obtain CMs, modifying the level of reward obtained through CMs and modifying how these can be implemented at fleet level cannot be currently estimated. Longer time series of monitoring catches and effort at vessel and MSs level will be necessary before trends and potential changes in fishing patterns can be detected and analysed in relation to CMs.

STECF concludes that as no linear relationship between the reduction of effort and F has been observed until now, the mechanism does not clearly quantify how changes in selectivity relate to increased effort. Therefore, STECF concludes that it is difficult to quantitatively evaluate whether the CM will contribute or not to achieving the management plan objectives. STECF reiterates, as in PLEN 24-02, its concern that CMs might impair the general objectives of EU Reg 2019/1022 while delivering effects that cannot be assessed.

STECF concludes that temporal closures in summer and beginning of autumn aiming at protecting reproduction peaks of European hake would be potentially beneficial in GSA 5,6,7, but not in GSA 1 or in GSA 8,9,10,11 due to the different seasonality in the reproductive cycles of the stocks in the different areas.

STECF concludes that it is currently not possible to identify new or additional gear modifications in the extension part of the net, that were not already tested in the Mediterranean Sea and on the six species targeted by EU 1022/2019 or identified in previous STECF reports (PLEN 22-03 and PLEN 24-02). Nevertheless, the available options

inherently involve trade-offs, as improvements in selectivity for certain species often entail losses for others.

STECF concludes that in order to increase the effectiveness of technical measures related to trawl codend mesh size, future regulations should explicitly specify the codend length as a clear provision is missing from the current Regulations 1967/2006 and 1241/2019 which are still open for interpretation in their implementation.

STECF concludes that, as noted in PLEN 22-03, fishing mortality of European hake in GSA 1-5-6-7 and 8-9-10-11 at age 0 constitutes only a small fraction of the total mortality, as such, measures that reduce fishing mortality over this age will only have limited effect on recovering the stock to MSY levels.

STECF concludes that due to the higher catch efficiency of OTT gears compared to OTB gears, managing those under the same effort regime could undermine the effects of the effort reductions implemented under EU 1022/2019. Therefore, alternative implementations, such as potentially reducing the weekly activity of OTT gears in GSA 7 from 5 to 4 fishing days as done in Italy since 2009 (Article 1 DM 21-01-2009), could be evaluated in the future to understand potential consequences.

STECF concludes that temporary spatial closures are not suited to protect and allow the recovery of benthic habitats disturbed by fishing activities.

STECF concludes that permanent spatial closures focusing on portions of fishing grounds would be more beneficial in view of stocks recovery and seabed conservation inside the closed areas, than temporary closures focusing on whole fishing grounds, as effort displacement would not occur repeatedly at each iteration of opening / closing.

References

- Brčić, J., Herrmann, B., Mašanović, M., Šifner, S. K., & Škeljo, F. (2018). CREELSELECT—A method for determining the optimal creel mesh: Case study on Norway lobster (*Nephrops norvegicus*) fishery in the Mediterranean Sea. *Fisheries research*, 204, 433-440.
- Carbonara, P., Porcu, C., Donnaloia, M., Pesci, P., Sion, L., Spedicato, M. T., Zupa W., Vitale F., Follesa, M. C. (2019). The spawning strategy of European hake (*Merluccius merluccius*, L. 1758) across the Western and Central Mediterranean Sea. *Fisheries Research*, 219, 105333.
- Certain Gregoire, Billet Norbert, Lehuta Sigrud, Mahevas Stephanie, Gourguet Sophie, Merzereaud Mathieu (2023). Mise à jour de l'évaluation des fermetures spatio-temporelles dans le Golfe du Lion au niveau des stocks et des paramètres socio-économiques. DGAMPA - Direction Générale des Affaires Maritimes, de la Pêche et de l'Aquaculture, La Défense. Ref. 23-051_lfremer-DG/2023-1703 - Saisine DGAMPA 23/137 du 19 juin 2023. 35p., 81p., 57p., 3p., 2p., 3p. <https://archimer.ifremer.fr/doc/00868/97996/>
- Certain Gregoire, Tessier Emmanuel, Billet Norbert, Vaz Sandrine, Mehault Sonia, Vincent Benoit, Morandea Fabien, Begot Eric, Le Bourdonnec Pierre, Gourguet Sophie (2024). Comparaison des caractéristiques techniques, des captures, des impacts sur les habitats marins et de l'efficacité économique entre chaluts simples et chaluts jumeaux dans le golfe du Lion. DGAMPA - Direction Générale des Affaires Maritimes, de la Pêche et de l'Aquaculture, Service pêche maritime et aquaculture durables, Sous-direction des ressources

halieutiques, Bureau de la Gestion de la ressource. Ref. 24-032_ifremer-DG/2024-1390 - Saisine DGAMPA du 15 avril 2024. 2p., 64p. <https://archimer.ifremer.fr/doc/00914/102619/>

Clay, P. M., & Colburn, L. L. (2020). A Practitioner's Handbook for Fisheries Social Impact Assessment. NOAA. <https://spo.nmfs.noaa.gov/content/tech-memo/practitioners-handbook-fisheries-social-impact-assessment>

Coppo Daniele (2024). Osservazioni sulla pesca a strascico mesobatale nel Mar Ligure [tesi di laurea magistrale]. Genova: Università degli Studi di Genova.

Ferragut-Perello, F., Vasapollo, C., Valls, M., Fariols, M. T., Massutí, E., Guijarro, B., ... & Ordines, F. (2023). Effects of the implementation of T90 extension and 52 mm square mesh codend on the bottom trawl hake fishery of the north western Mediterranean. *Frontiers in Marine Science*, 10, 1035448.

Hidalgo, M., Hernández, P. & Vasconcellos, M., eds. (2024). Transboundary population structure of sardine, European hake and blackspot seabream in the Alboran Sea and adjacent waters – A multidisciplinary approach. *Studies and Reviews No. 104* (General Fisheries Commission for the Mediterranean). Rome, FAO. <https://doi.org/10.4060/cd1122en>

Lucchetti, A., Notti, E., Sala, A., Virgili, M. (2018). Multipurpose use of side-scan sonar technology for fisheries science. *Canadian journal of fisheries and aquatic sciences*, 75(10), 1652-1662.

Lucchetti, A., Virgili, M., Vasapollo, C., Petetta, A., Bargione, G., Li Veli, D., Brcic J., Sala, A. (2021). An overview of bottom trawl selectivity in the Mediterranean Sea. *Mediterranean Marine Science*, 22(3), 566-585.

Recasens, L., Chiericoni, V., & Belcari, P. (2008). Spawning pattern and batch fecundity of the European hake (*Merluccius merluccius* (Linnaeus, 1758)) in the western Mediterranean. *Scientia Marina*, 72(4), 721-732.

Sala, A., Brčić, J., Conides, A., De Carlo, F., Klaoudatos, D., Grech, D., Lucchetti, A., Mayans, A., Notti, E., Paci, N., Salom, S., Sartor, P., Sbrana, M., Soler, I., Spedicato, M.T., Virgili, M., (2013). Technical specifications of Mediterranean trawl gears (myGears). Final project report. financed by the European Commission through the Framework service contract for Scientific Advice and other services for the implementation of the Common Fisheries Policy in the Mediterranean (Contract MARE/2009/05-Lot 1), 519 pp.

Sartor P., Mannini A., Carlucci R., Massaro E., Queirolo S., Sabatini A., Scarcella G., Simoni R. (eds) (2017) - Sintesi delle conoscenze di biologia, ecologia e pesca delle specie ittiche dei mari italiani / Synthesis of the knowledge on biology, ecology and fishery of the halieutic resources of the Italian seas. *Biol. Mar. Mediterr.*, 24 (Suppl. 1): 607 pp.

Sbrana A., Galli S., Casini M., Carlucci R., Dassenakis M., Fiorentino F., Follesa M.C., Germana Garofalo, Georges V., Isajlovic I., Klančnik K., Lauria V., Maiorano P., Manfredi C., Borut Mavric, Pagou K., Papadopoulou N., Paramana T., Paraskevopoulou V., Pulcini M., Rakaj A., Ronchi F., Sabatella E.C., Scarcella G., Smith C.J., Stefani M., Streftaris N., Tassetti A.N., Yahyaoui A., Vrgoc N., Raicevich S., Russo T. (2025) Exploring spatial-based management scenarios to protect the seafloor in different areas of the Mediterranean Sea, *ICES Journal of Marine Science*, Volume 82, Issue 3, fsaf023, <https://doi.org/10.1093/icesjms/fsaf023>

Tokac, A., Herrmann, B., Gökcü, G., Krag, L. A., Nezhad, D. S., Lök, A., Kaykac, H., et al. 2016. Understanding the size selectivity of red mullet (*Mullus barbatus*) in Mediterranean trawl codends: a study based on fish morphology. *Fisheries Research*, 174: 81–93.

Tokaç, A., Herrmann, B., Gökçe, G., Krag, L. A., & Nezhad, D. S. (2018). The influence of mesh size and shape on the size selection of European hake (*Merluccius merluccius*) in demersal trawl codends: An investigation based on fish morphology and simulation of mesh geometry. *Scientia Marina*, 82(3), 147-157.

6.8 Evaluation of updated JR and MP for transparent goby in Gulf of Manfredonia

Background provided by the Commission

Following the conclusions of STECF PLEN 24-02 and 24-03, Italy was notified the main technical comments from STECF and requested to update the JR and MP. Italy agreed to do so and provided the additional information. The revised documents were transmitted on 20 June 2025 to the Commission.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

STECF is requested to revise the updated MP and JR on the basis of TOR 6.5 from PLEN 24-02, to address specifically the outstanding points and revise its conclusions on the possibility of granting the requested derogations.

Summary of the information provided to STECF

STECF examined the following background documents:

- Joint Recommendation from Italy on the Management plan for transparent goby fisheries in certain Italian territorial water, Gulf of Manfredonia.
- Annex A: “Management plan for Transparent goby (*Aphia minuta*) in certain Italian territorial water (Gulf of Manfredonia)”
- Annex B: “Addendum to MAP for Transparent goby (*Aphia minuta*) – 2025
- Annex C: “Video of fishing operations in Manfredonia”
- Annex D: “MEDAC advice- Ref.: 254/2024”
- Annex E: “MEDAC advice- Ref.: 173/2025”
- Letter of the Italian Ministry on the scientific fishery authorized in 2025.

In the submitted Joint Recommendation (JR), Italy informed on the implementation of the authorized fishing campaign for scientific purposes from February 2025 to May 2025 and proposes a renewal for the period 2026-2028 of the management plan for transparent goby fisheries (*Aphia minuta*) in the Gulf of Manfredonia, in accordance with Article 18 of Regulation (EU) No 1380/2013 (document 1).

Annex A is the National Management Plan for derogation to mesh size and distance from the coast (reg EU 1241/2019 annex ix, part b and reg (EC) 1967/2006, Article 13) regarding the fishing of transparent goby (*Aphia minuta*) by boat seines in the Manfredonia fishing district, October 2024 (Updated management plan). This specific plan is proposed to have a duration of three years, ending on the 31st of May 2028.

Annex B “Addendum to MAP for transparent goby (*Aphia minuta*) is the report of the fishing campaign for scientific purposes that Italy authorized from February 2025 to May 2025 authorized fishing for scientific purposes with 6 boats in a rotation scheme (ex. Article 25 Reg. EU 1241/2019). During the 2025 campaign, the 26 authorized vessels conducted fishing operations on 36 calendar days throughout March, April, and May, for a total of 126 vessel-days. The total catch amounted to about 12 tonnes, with an average daily yield of about 100 kg per vessel, which aligns with the yields observed in previous campaigns.

Annex C is a video recorded during the only observation on-board performed in the 2025 experimental campaign to document the fishing operations with the boat seine.

MEDAC has been requested to evaluate the documentation to be submitted to STECF and provided its advice on the management plan (reference MEDAC advice Ref.: 254/2024 - ANNEX D and reference MEDAC advice Ref.: 173/2025 - ANNEX E).

Finally, Italy transmitted an official letter to inform the Commission about the implementation and finalization of the 2025 scientific fishery campaign.

STECF comments

STECF recognises the effort made to record a video aboard a Manfredonia trawler during a boat seine fishing operation. Nevertheless, STECF observes inconsistencies in the latter part of the video, particularly regarding the hauling-back of the boat seine codend, as well as the presence of trawl doors and net onboard, which are not in accordance with the Management Plan (MP) provisions. Furthermore, there appears to have been no modifications to the vessels, such as the introduction of a winch, nor to the fishing operations since the initial experiments in 2012, which already indicated that Manfredonia trawlers were not suitable for boat seine fisheries.

STECF notes that shooting and hauling-back operations are complicated by the absence of a dedicated winch for boat seining and the limited manoeuvrability of trawl vessels compared to the smaller vessels typically used for the boat seine fishery targeting transparent goby in other areas of the Mediterranean. As a result, the overall fishing process lacks the fluidity characteristic of optimal operations on purpose-built boat seine vessels, leading to suboptimal and inefficient procedures. Compared to small vessels operating boat seines in other Mediterranean areas (e.g., GSA 09), these inefficiencies do not align with the high catch rates reported in past MPs and the 2025 scientific fishery campaign (approximately 100 kg of transparent goby per day per vessel). Additional evidence is required to further clarify the operational dynamics of boat seining as conducted by Manfredonia trawlers. Furthermore, supporting documentation -such as images or detailed procedural descriptions- is needed to verify the use of eco-sounders for detecting transparent goby schools prior to deploying the boat seine.

STECF finds the data collected on discards and bycatch during the 2025 scientific fishery campaign, as well as that reported from 2018 to 2024, to be insufficient and likely subject to bias. Furthermore, STECF considers that a single onboard observation conducted over a three-month scientific fishery campaign does not offer adequate coverage. STECF notes that both scientific fisheries and those operating under the management plan should undergo

more comprehensive monitoring, which may include the deployment of scientific observers onboard.

STECF recognises the efforts undertaken to gather socio-economic data via questionnaires distributed to participants in the transparent goby fishery in 2025. STECF further observes that analysis of the questionnaire responses provided valuable insights into several key dynamics within the sector:

- Transparent goby fishing is an important but not exclusive source of income;
- Vessels are generally family-run, with strong involvement of young persons, who intend to continue the activity;
- There is a strong economic dependence on fishing in general, with generational transfer still active;
- Fluctuations in prices and catches indicate a certain degree of economic vulnerability, which may request support measures.

STECF recognises the work done to standardise georeferenced data from the 2025 fishery campaign and map fishing effort, especially related to sensitive habitats like seagrass meadows. STECF further notes that the impact of the transparent goby fishery in the Gulf of Manfredonia on seagrass (i.e., *Posidonia oceanica*) meadows is likely to be considered as negligible.

STECF notes that the transparent goby fishery in the Manfredonia Gulf takes place at depths exceeding 30-40 metres, unlike in other Mediterranean regions where this fishery is permitted. STECF observes that the fishery follows the resource as it moves into deeper waters during spring. However, identifying small schools of transparent goby in deep waters using echo-sounders and operating relatively small fishing gear, such as boat seines, at these depths presents challenges. As a result, STECF notes that additional evidence is necessary to demonstrate how transparent goby fishing with boat seines can be conducted in waters deeper than 30-40 metres.

STECF conclusions

STECF concludes that the available information, including video documentation of fishing activities, does not sufficiently clarify or substantiate the elevated catch rates of transparent goby reported by the Manfredonia Gulf fleet.

STECF concludes that there is no clear evidence that the scientific monitoring specified under previous MPs were conducted during 2018-2024 and 2025. Current fishery monitoring is limited, relying solely on information provided by skippers in catch forms or logbooks without independent scientific validation and quality control. Scientific monitoring measures, such as an on-board observer programme or a quality-assured self-sampling programme with independent oversight, have not been implemented. Therefore, STECF concludes that there is no robust evidence on current catch, bycatch volumes and size compositions, particularly for species subject to Minimum Conservation Reference Size in line with Annex IX of Regulation (EU) 2019/1241, as well as on discard rates.

STECF further concludes that the proposal for the 2026-2028 MP does not contain a detailed scientific monitoring scheme to address the gaps presented above.

STECF notes the legal obligations for evaluating MPs, but requests to focus on new MPs and leave routine re-evaluations of updated MPs to national authorities.

6.9 Withdrawn

6.10 Assessment of the management plan for mechanised dredges in Catalonia

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.

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.

The evaluation of national management plans prepared in line with the Mediterranean Regulation and the CFP is a recurrent task for the STECF. The management plans for boat dredges and mechanised dredges 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 June 2025, the Spanish authorities submitted draft management plans accompanied by technical documents.

Background documents are published on:

<https://stecf.ec.europa.eu/document/170fa553-c85b-4f2c-b753-bfdbe07fc945>

Request to STECF

Tor 1. Advise and assess whether the updated management plan for boat dredges and the one for mechanised dredges in Catalonia both 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.
- 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.

Tor2: If deemed necessary, provide any recommendations and guidance on how to obtain improved scientific/technical supporting material for each of the plans. 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.

Tor3: Assess whether each plan provides 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).

Tor4: 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

The information submitted by Spain consisted of a technical report referring to a new Management plan (MP) for mechanised dredges catching bivalves in the waters of Catalonia, and a technical report on the methods of shellfishing using mechanised dredges on the Catalan Mediterranean coast, including six Annexes.

The Directorate-General for Fisheries and Maritime Affairs of Catalonia proposed revisions to the MP for mechanised dredge fisheries, originally developed under EU Regulation (EC) No 1967/2006, which mandates sustainable management measures for Mediterranean fisheries. The current plan, implemented through Order ARP/122/2020 and expiring in July 2025, has been evaluated through technical monitoring, stakeholder consultations, and scientific studies. Based on this evaluation, the proposed amendments aim to align fishing effort and fleet capacity with available resources, in accordance with the CFP, to ensure the long-term environmental, economic, and social sustainability of bivalve fishing.

The revised plan reflects varying management measures across different coastal zones in Catalonia: northern and Maresme areas remain closed to shellfishing, while in Central-South and Ebro Delta areas a regulated activity through permits and pilot projects is allowed. Scientific monitoring, largely conducted by the University of Barcelona between 2019 and 2025, has included several targeted studies on species such as *Donax trunculus* and *Chamelea gallina*. These findings have underscored the need to adapt existing measures to the current state of stocks and fishery performance, forming the basis for the proposed regulatory updates.

The annexes detail scientific and management efforts to evaluate and support the sustainability of bivalve fisheries along the Catalan coast. A summary of the information provided in its annexes is provided below:

Annex 1 (BIVALCAT, 2019–2021) assessed the status of commercially important clam species, particularly wedge clam (*Donax trunculus*), highlighting severe declines in landings since the 1990s and signs of overexploitation, especially in smooth clam populations. While the wedge clam remained the only commercially viable species, a slight recovery in 2021, mainly in the Ebro Delta, prompted recommendations for a species-specific management plan.

Annex 2 (REINVENTA'T, 2020–2021) focused on reviving small-scale fisheries using traditional “gàbies” dredging. It identified the white clam (*Mactra stultorum*) as a promising commercial species, especially in the Ebro Delta and Central South coast, where densities and sizes suggest viable exploitation. However, legal and biological size references are lacking, underscoring the need for regulatory updates.

Annex 3 (DELTA-VIU, 2021) evaluated the effects of spatial closures on *Donax trunculus* populations in the Ebro Delta. Results showed that shallow, closed areas had higher densities and larger individuals, supporting the effectiveness of temporary closures as a tool to enhance stock health and sustainability in areas where hand dredging is operated.

Annex 4 (Donax Project, 2022) extended the assessment of wedge clam populations in the southern hemidelta of the Ebro Delta. It mapped densities, sizes, and biomass, revealing significant spatial variation influenced by depth and geography. Overall, densities declined northward and eastward, and the presence of predators and parasites was documented, although hand dredging showed minimal ecological impact compared to mechanised methods.

Annex 5 consists of a report evaluating the current state of the *Callista chione* (fine shell) bivalve bank in Maresme (Barcelona North) following a long closure to fishing since 2015 due to resource decline. Historical data, along with recent sampling conducted in June 2025, indicates partial signs of recovery, especially at mid-depths (15–20 m), where densities and biomass have improved. However, the commercial fraction of catches remains low, discard rates are high, and the population structure still lacks large, mature individuals, indicating ongoing ecological fragility. The study suggests that while the bank shows potential for selective, controlled reopening, this should be highly precautionary. Recommended conditions include limiting exploitation to better-performing areas, enforcing strict catch limits and minimum sizes, maintaining continuous scientific monitoring, and adopting adaptive management. The report emphasizes the need for a full assessment before authorizing extractive activity to ensure long-term sustainability and ecological balance.

Annex 6 is a Pilot Plan for the Exploitation of the Natural Venus Clam (*Chamelea gallina*) Bank on the Central Coast of Catalonia outlines a controlled and precautionary approach to shellfishing using mechanised dredges. The permitted fishing area lies between the meridians of the port of Aiguadolç (Sitges) and the mouth of the Murtra River, as defined by Order ARP/122/2020. Currently, only one vessel with a special permit operates, though the plan allows for up to nine. To ensure sustainability, the total fleet catch is initially limited to 50 kg per week, adjustable based on scientific monitoring. A seasonal closure from March to May is enforced during the species’ breeding period, and any incidental catches must be released immediately. If catch levels fall below 50% of the historical maximum, the bank will be closed for at least three months on a precautionary basis. The plan includes monthly scientific sampling, with participating vessels providing 1 kg of unsorted catch for laboratory analysis to monitor the state of the stock and guide adaptive management.

STECF comments

STECF was informed by DGMare on an error in the title of this ToR and amended it accordingly.

STECF notes that Annexes 1, 2, 3 and 4 were reviewed in PLEN 24-02.

STECF comments in relation to each of the items of the ToRs are given below:

ToR 1. Advise and assess whether the updated management plan for boat dredges and the one for mechanised dredges in Catalonia both contain adequate elements in terms of.

ToR 1.1. Description of the fisheries

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

The BIVALCAT project (Annex 1) assessed the status of key target stocks exploited by mechanised dredge fisheries. Its findings, already reviewed by PLEN 24-02, are based on quarterly sampling conducted between 2019 and 2021 in the Ebro Delta and South Barcelona areas. The study examined biological parameters such as size distribution, abundance, condition index, growth, reproductive maturity of wedge clam (*Donax trunculus*) and striped venus clam (*Chamelea gallina*), catch composition, and parasite incidence. While the project provides valuable insights into the exploited stocks, indicating overexploitation, it does not include long-term yield assessments.

The REINVENTAT project (2020–2021) (Annex 2), which has been already evaluated by PLEN 24-02, studied the white clam (*M. stultorum*) in three fishing zones (Delta Ebro, Central South, and Central North). Results showed high white clam densities in the Ebro Delta and Central South, suggesting commercial viability, particularly in the Ebro Delta. The average size exceeded 25 mm, though no MCRS or data on sexual maturity currently exist. STECF recognized these findings as a valuable systematic assessment of clam resources (excluding the Northern Zone), confirming the poor status of striped venus and smooth clams, a healthier wedge clam population (*D. trunculus*), and promising white clam densities for future exploitation.

In addition, two complementary projects, DELTA-VIU (2021, Annex 3) and the DONAX project (2022, Annex 4), also evaluated *D. trunculus* in the Ebro Delta. These studies, which were likewise assessed by STECF PLEN 24-02, focused on density patterns and biological traits such as size structure, abundance, morphometric relationships, and parasite infections (notably *Bacciger bacciger*).

Furthermore, the evaluation of the *Callista chione* bank in the Maresme area (Annex 5) offers limited biological data, reporting mainly on size distribution and abundance.

STECF notes that while these studies collectively provide a detailed overview of the biological status of clam resources in most fishing zones, they have already been evaluated

under PLEN 24-02 and do not reflect new or updated information in response to the current request by the Spanish administration.

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

Currently, only four vessels using mechanised dredges remain active in Catalonia. According to data provided by the Spanish administration, the number of boats engaged in mechanised dredging has steadily declined, from seven active vessels in 2021 to four in 2025. Although the MP allows for a maximum of 19 permits for mechanised dredges (9 in the Ebro Delta and 10 in the Central South area), the current number of active vessels and the overall trend remain well below this threshold.

The report provided by the Spanish administration indicates that the decline in effort is not due to stock depletion, but rather to fishers shifting to more profitable activities, such as the common octopus fishery with pots. In the Ebro Delta, mechanised dredges mostly fish during spring and summer months, while in the Central South area this activity is carried out more consistently throughout the year. Additionally, some vessels have transitioned to targeting the non-native blue crab (*Callinectes sapidus*) with pots, especially in summer and autumn.

To ensure the sustainable exploitation of clam stocks, the Spanish administration has decided to maintain the current number of special permits (19 vessels) under the new MP, despite only four vessels currently being active.

STECF notes that if additional vessels re-enter the clam fishery, it will be essential to implement strict monitoring of resource status, given the observed decrease in CPUEs and the sensitivity of clam populations to changes in fishing effort.

Data on catches (landings and discards) of the species concerned, fishing effort and abundance indices such CPUE.

The Spanish administration has provided data on clam landings (aggregated across all species) for the period 2020 to 2025 (for 2025 January–May). In the Ebro Delta, landings remained stable between 2021 (2,845 kg) and 2023 (2,712 kg) but declined sharply in 2024 to 833 kg. In the Central South area, annual landings remained around 500 kg in 2021, 2022, and 2024, with the lowest volume recorded in 2023 (241 kg).

The BIVALCAT project assessed the catch composition of mechanised dredges, reporting that the commercial fraction accounted for 59% of the total catch by weight in the Ebro Delta and 43% in the Central South area. Discards primarily consisted of Decapods, Gastropods, and Asteroidea.

Fishing effort and abundance indices have also been provided for the same period (2020–2025, for 2025 January–May). Of the four active vessels, three operate in the Ebro Delta,

maintaining consistent activity with fishing days ranging from a low of 83 in 2024 to a peak of 108 in 2022 (notably, only 10 fishing days were recorded in 2020, when just two vessels were active). The single vessel operating in the Central South area reported 39 fishing days in 2023 and 69 in 2024.

CPUE in the Ebro Delta followed the same trend as landings, with stable values of approximately 30 kg/vessel/day from 2021 to 2023, followed by a sharp drop to 10 kg/vessel/day in 2024.

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.

As previously noted by STECF PLEN 24-02, data from ad hoc project surveys have supported the monitoring of clam size distributions, although these data are somewhat outdated. Nonetheless, STECF highlights that the current report lacks detailed year-by-year length-frequency data and does not provide estimates of the proportion of catches below the MCRS for each clam species.

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

STECF notes the report provides some landing price data for a few clam species and that low net earnings mean mechanised dredge fleets rely on this activity mainly to supplement income from other fisheries. However, the report does not quantify the fleets' economic dependence on target clam species—a gap previously identified by PLEN 19-01 and PLEN 24-02.

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).

The MP prohibits the use of mechanised dredges over Posidonia meadows. However, the supporting documents submitted by Spain do not include any information on the potential impact of the fishery on protected habitats.

ToR 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.

STECF notes that concerns identified in PLEN 19-01 and PLEN 24-02 regarding several aspects of the management plan remain unresolved.

PLEN 19-01 indicated a lack of established reference points for fishing mortality or biomass consistent with Article 2 of the CFP, an issue which persists.

PLEN 24-02 reported that the monitoring document included a preliminary analysis of exploitation status using data from the BIVALCAT project. This analysis applied natural mortality rates suitable for data-limited stocks, following Then et al. (2014). The total mortality estimated from length-frequency distributions, in comparison to assumed natural mortality across both fishing areas, suggested that fishing mortality was likely above optimal levels. These outcomes were supported by yield-per-recruit analysis. However, PLEN 24-02 also noted that these conclusions should rely on accurate estimates of size-specific natural mortality and fishery selectivity, which may be uncertain due to the spatial structure of the *D. trunculus* population.

STECF reiterates the need, as stated in PLEN 19-01, for more precise allocation of fishing mortality among different fleets, particularly given the current low effort of the mechanised dredge fleet and its interaction with hand-operated dredgers.

Catch limits could potentially be determined based on recruitment success, evaluated through scientifically structured surveys with established sampling protocols. However, STECF considers such an approach demanding for small-scale fisheries.

The updated management plan continues to lack defined reference points or thresholds for fishing mortality, biomass (density), or CPUE, relying solely on daily catch limits per vessel. PLEN 19-01 previously concluded that management decisions should consider CPUE trends and involve consultation with the Technical Committee. STECF supports developing clearly defined management targets and CPUE reference levels, noting that further progress is required in this area.

Furthermore, STECF supports the recommendation from the BIVALCAT project to implement a dedicated management plan for *D. trunculus* in the Ebro Delta, covering both mechanised and hand-operated dredge fleets, since both exploit the same stock.

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.

Discards primarily consist of Decapods, Gastropods, and Asteroidea, indicating a significant level of bycatch associated with mechanised dredge operations (> 50% in weight). However, the new MP does not include any specific information or proposed measures aimed at reducing or mitigating these unwanted catches.

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

STECF confirms the observation previously made by PLEN 24-02 that the maximum daily catch limits per vessel and area, as defined in the previous MP and foreseen also in the new one, are aligned with the observed daily CPUEs across the different fishing zones.

STECF raises concerns regarding the CPUE observed in the Ebro Delta in 2024 (10 kg/vessel/day), which is significantly lower than the average of the period 2021-2023 (29 kg/vessel/day) and well below the established maximum catch limit (32 kg/vessel/day). This may represent an early warning signal and should be closely monitored in the coming years.

Although the MP assigns the responsibility for determining fishery seasonality and the annual maximum number of fishing days to the Technical Committee, STECF notes that, as previously noted by PLEN 24-02, the monitoring report does not provide any information on decisions made by the committee regarding these aspects.

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.

The new MP, like the previous one, states that catch limits are to be based on quarterly average CPUE values. However, it does not define any specific thresholds that would trigger management actions in the event of a decline in resource status, as indicated by CPUE. While the plan indicates that management decisions should be taken in consultation with the Technical Committee, the monitoring report does not document any such actions having been implemented.

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.

The available information does not allow for an assessment of the impacts of mechanized dredge fishing on the seafloor or the associated benthic communities. This gap had already been identified during the evaluation made by PLEN 24-02.

ToR 1.3. Other aspects.

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

Over the past five years of the MP, the Monitoring Committee convened 18 times to monitor indicators such as CPUE, fishing days, and sale prices. The committee is composed by representatives of the fishing sector, scientific sector (University of Barcelona) and fishery

administration. Its responsibilities include setting fishing hours, daily quotas, seasonal or spatial closures, and addressing economic matters.

STECF acknowledges that, under the new MP, the Monitoring Committee is again mandated to assess the progress of the fishing season based on the results of the scientific monitoring programme, inspection and control observations, the economic performance of the fishery, and the knowledge and experience of its members. Based on this assessment, the Committee is expected to submit a report to the Directorate-General for Fisheries and Maritime Affairs of Catalonia, containing proposals for the adaptive management of the plan.

Based on the assessment of the available data, the Spanish administration (Directorate-General for Fisheries and Maritime Affairs) considered it necessary to adapt the legislation governing the current MP to reflect the present status of the resources exploited by the mechanised dredger fleet. As a result, it proposed a set of measures aimed at protecting natural banks and reducing fishing effort.

In addition to the previous MP, the Spanish administration states that once the fleet will be equipped with fully operational geolocation devices, the Monitoring Committee may propose setting specific entry times to the fishing grounds, in addition to regulating port departure and return times. STECF acknowledges that this measure would significantly enhance the ability to control and limit the actual fishing effort exerted, as well as the potential overlapping of the fishing ground with protected habitats.

STECF acknowledges that there has been a reduction in both the number of vessels and fishing days compared to previous periods. In line with the conclusions by PLEN 19-01, the MP revised maximum daily quotas to align with average observed CPUE levels. These daily quotas were set at 32 kg per vessel for the Ebro Delta region and 9 kg per vessel for the Central South zone. However, STECF notes that it is unclear whether these limits have been reviewed annually, as no updates are reported.

STECF supports the recommendation from the BIVALCAT project to continue using the project's survey methodology and strategy for regular monitoring of clam stocks. This approach would enable the collection of long-term data series, facilitating future assessments and comparisons.

ToR 2. If deemed necessary, provide any recommendations and guidance on how to obtain improved scientific/technical supporting material for each of the plans. 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 that several actions to improve the scientific and technical supporting material underpinning the MP for mechanised dredge fisheries in Catalonia may be implemented. In terms of data collection and stock assessment, it is essential to continue the biological monitoring of key target species such as *Donax trunculus*, *Chamelea gallina*, and *Mactra*

stultorum. This includes the regular assessment of size distributions, maturity stages, growth, and condition indices. While existing data from projects such as BIVALCAT and REINVENTAT offer a solid baseline, these must be updated and extended to include long-term yield estimates and biological reference points, such as fishing mortality and biomass thresholds, to evaluate sustainability more robustly in line with the objectives of the CFP.

STECF notes that the monitoring programme would benefit from methodological continuity to ensure consistent time series for tracking trends. The decisions and actions of the Monitoring Committee should be systematically documented, especially those based on scientific and control data. The implementation of vessel geolocation systems, as anticipated in the new MP, would further enhance the monitoring of fishing effort distribution and support spatial management measures.

Regarding conservation measures, the plan should incorporate clear thresholds or indicators, such as CPUE values or changes in size composition, that trigger specific management responses like effort reductions or area closures.

STECF notes that to address the broader ecosystem impacts, dedicated studies should be undertaken to assess the effects of mechanised dredging on benthic habitats and associated communities. Incorporating benthic habitat mapping would help to assess and minimise environmental impacts.

Finally, STECF reiterates the need of giving greater attention to the socioeconomic dimension. The current plan lacks detailed information on the fleet's economic dependency on clam fisheries. Linking scientific findings to the economic context would enhance the relevance and acceptability of future management measures.

STECF notes that by addressing these gaps, the MP would be significantly strengthened, enabling a more adaptive, evidence-based, and ecosystem-oriented approach to the sustainable exploitation of shellfish resources in Catalonia.

ToR 3. Assess whether each plan provides 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).

STECF notes that, according to the BIVALCAT 2019–2021 report, bycatch/discards species account for more than 50% of the total live catch weight in the Ebro Delta and over 60% in the South Barcelona area. The bycatch species included representatives of Decapoda, Actinopterygii (bony fishes), Gastropoda, Asteroidea, Polychaeta, Ophiuroidea, and other Echinodermata.

No data concerning boat dredges have been provided, as the new MP applies exclusively to mechanised dredge fisheries.

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).

Mechanised dredges, as defined in Article 2.1(b) of the Mediterranean Regulation (Regulation (EC) No 1967/2006), are gears operated using a motorised winch from an anchored vessel. As such, they are not subject to the spatial restrictions outlined in Article 13.2, which prohibits the use of trawl nets within 1.5 nautical miles and boat or hydraulic dredges within 0.3 nautical miles of the coast. Consequently, mechanised dredges do not require a derogation under these provisions.

STECF conclusions

STECF acknowledges Spain's efforts to the monitoring of clam resources in both current and historical fishing grounds in Catalonia, conducted through targeted scientific projects under the MP's monitoring framework.

STECF concludes that in accordance with the BIVALCAT project's findings, a unified MP for the wedge clam (*Donax trunculus*) stock in the Ebro Delta should be established, encompassing both mechanised and hand-operated dredging. This approach would promote more coherent and effective management strategies.

STECF concludes that the recently introduced MP for mechanised dredges in Catalonia lacks clearly defined reference points for stock sustainability and does not set thresholds to trigger management actions. Continued use of the BIVALCAT survey methodology is considered beneficial, as it supports consistent monitoring and facilitates temporal comparisons of stock status.

STECF concludes that the monitoring programme requires enhancements, particularly regarding the reporting of monthly size distributions and the proportion of clams below the minimum conservation reference size.

STECF concludes that discard rates remain elevated and that the new MP does not outline specific bycatch mitigation measures. Moreover, the ecological impacts of mechanised dredging require further assessment; currently, no new data on habitat effects have been provided. Additional studies are therefore necessary to evaluate the effects of this fishing method on benthic communities and habitats.

From an economic standpoint, STECF finds the new MP to be lacking in comprehensive socio-economic information concerning the clam fisheries. STECF reiterates the importance of assessing the contribution of clam catches to overall vessel income, including revenue from other fishing activities.

Finally, STECF concludes that future revisions of the MP incorporate clearly defined CPUE-based reference points to enhance decision-making processes.

7. ITEMS/DISCUSSION POINTS FOR PREPARATION OF EWGS AND OTHER STECF WORK

7.1 EWG 25-14: implementation of the Technical Measures Regulation

Request to the STECF

Based on the conclusions and recommendations of EWG 24-16, STECF is requested to give its opinion and suggestions for the task that the 2025 EWG on technical measures should be.

STECF comments

STECF notes that the EWG is scheduled from October 20th to 25th.

STECF notes that the objective of EWG 25-14 is to complete the full application of the framework proposed by EWG 23-15 to the two selected case studies (hake in Bay of Biscay mixed fishery; hake in a Western Mediterranean mixed fishery). The work of EWG 24-16 should be finalised, resulting in an operational model and corresponding outputs.

STECF notes that intersessional work will be required (in the form of two *ad hoc* contracts) to prepare the model and data for the proposed case studies in advance of EWG 25-14. The outputs of these contracts will enable the EWG to initiate an operational model and focus on refining and interpreting the outcomes.

STECF highlights the varying stages of development of the two case studies developed during EWG 24-16. By the end of this EWG the Bay of Biscay case study was more advanced than the Mediterranean case study as more Bay of Biscay experts were available to participate. Therefore, more time is likely to be required during the *ad hoc* contracts and EWG 25-14 to advance the Mediterranean case study.

STECF notes that the EWG should identify meaningful economic and social indicators for assessing the impacts of the technical measures regulation.

STECF observes that the success of this EWG will depend on the availability of experts in mixed fisheries modelling, social and economic data, and gear technology. Additionally, regional experts are required for both the Bay of Biscay and Mediterranean case studies.

STECF highlights that where possible this framework should provide a standardised, transparent and reproducible approach for both case studies, with consistent approaches in data management and indicator estimation.

STECF observes the positive impact stakeholder involvement has had in the previous two EWGs (EWG 23-15 and EWG 24-16) and supports their continued inclusion in the process. Stakeholder and policy-maker perspectives are crucial as those are the potential users of the application afterwards. Therefore, this meeting should not only include stakeholders as observers but also involve managers/policymakers, who should be given the opportunity to review potential outcomes of the applications developed. It would be also interesting to get feedback on what the policy makers/managers want to know and if the modelling outputs could provide the necessary outputs. The EWG chairs will discuss with DG MARE how to organise this exchange with managers/policy makers.

STECF suggests holding a discussion with NWWAC, SWWAC, and MEDAC before the EWG to clarify meeting objectives and outline the input STECF expects from observers. DG MARE will clarify if there could be a joint meeting with the ACs in advance of the EWG to discuss the possible input of stakeholders during the EWG meeting.

STECF notes that this stakeholder engagement should be formalised, and STECF should consider the development of stakeholder engagement protocol in the future.

7.2 EWG 25-09: West Med stock assessment

Request to the STECF

The STECF is requested to discuss the organisation of this EWG, clarify the workflow and discuss the draft ToRs. As in last year, the EWG report would be adopted during a mini-plenary on 15 October 2025 for a publication at the latest by 22 October 2025.

STECF comments

STECF discussed draft ToRs for EWG 25-09. These are based on ToRs for the EWG on West Med MAP stock assessments in previous years, as well as on the outcomes of other related EWGs, specifically EWG 25-06 (see ToR 5.3 in this report). The draft ToRs have been submitted to DGMARE and will be published on the STECF meeting webpage once finalised.

DG MARE informed STECF of its requirement to have a published STECF report by 22 October 2025 to conform with its legislative timescale. This implies that the EWG 25-09 report will need to be reviewed and adopted by STECF during a mini-plenary on 15-16 October 2025 (PLEN 25-09 – mini) for a publication at the latest by 22 October 2025.

STECF notes that for reasons of continuity and expertise, it is good practice in stock assessment working groups to assign specific experts to particular stocks, with those experts conducting the stock assessment annually over a reasonable period of time. This task is supported by well-defined procedures and code scripts used to carry out the assessment.

This approach allows the expert(s) to closely follow the development of the stock and the fisheries targeting it, accumulate knowledge and experience, interacting with the other experts, maintain and improve code scripts, identify problems and provide solutions in consecutive years, and ultimately provide more confident and consistent scientific advice.

In the STECF West Mediterranean Stock Assessment Expert Working Group, this practice is already common, with efforts made to ensure the same expert continues to assess a given stock year after year. However, a challenge remains in maintaining a "caretaker" role during the intersessional period and suggest chairs of the EWG to continue allocating experts to specific stocks, as has been done so far.

STECF notes the importance of maintaining a record in the expert list of those who attended the West Med Stock Assessment Working Group and the stocks they assessed. These experts will be considered candidates to work on specific stocks intersessionally and during EWGs preparing data, correcting errors, and supporting discussions related to the stock.

Finally, STECF notes that intersessional period work should be supported by separate expert working group or *ad hoc* contracts before the main stock assessment working group. This allows adequate time and resources for data preparation and checking. This approach also lessens the workload of the stock assessment model and may enhance the overall quality and robustness of the stock assessment process.

7.3 CFP monitoring

Background provided by the Commission:

DG MARE intends to request STECF in 2026 to continue the monitoring of the status of fish stocks with respect to the CFP objectives of reaching the maximum sustainable yield (MSY) for all stocks.

At the spring 2025 plenary meeting, discussions took place on 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 Models into the model-based indicators.

Request to STECF

The STECF is requested to review the JRC's work on a selectivity indicator and alternative means estimators. If approved by the STECF, the protocol currently in place will be updated and used to produce CFP monitoring reports from 2026 onwards.

The STECF is encouraged to continue its discussions with regards to the improvement of the method to include the stocks assessed with Surplus Production Models into the model-based indicators.

Summary of the information provide to STECF

STECF was provided with a document that summarises the main findings of a report from Mantopoulou Palouka et al. (2024) on the development of a selectivity indicator

STECF comments

Selectivity indicator

STECF notes Article 31 stipulates that the Commission should report to the Parliament and to the Council on the progress of the implementation of the Regulation Technical Measures Regulation (EU) 2019/1241, and more specifically "an assessment of the contribution of technical measures to optimise exploitation patterns". To do so, the report may include "a selectivity performance indicator for the key indicator stocks for the species listed in Annex XIV the length of optimal selectivity (Lopt) compared to the average length of fish caught for each year covered." STECF observes that the objective of the TMR is consistent with the objectives of the CFP Regulation 1380/2013 of producing maximum sustainable yield while,

among others, eliminating discards, unwanted catches (Article 2), and to do so, take measures that promote low-impact and selective fishing (Article 4, Article 7).

The development of a selectivity indicator has been a long-standing task in STECF. Different EWGs have focused on the formulation and the implementation of the TMR and have initiated the discussion on a potential selectivity indicator. Among others, PLEN 18-15 discussed the potential expansion of indicators for the CFP and set up the basis for investigation on a selectivity indicator. This resulted in the article Vasilakopoulos et al (2020), and the work was continued by PLEN 20-02, PLEN -21-07 and PLEN -22-19.

STECF observes that Mantopoulou Palouka et al. (2024), based on those previous works, proposed a selectivity indicator defined as F_{juv}/F_{pical} (F_{juv} the average fishing mortality of the juvenile ages, and F_{pical} the maximum fishing mortality) and explored its evolution over years for the different stocks listed in the TMR. STECF acknowledges the relevance of this indicator, robust to variation in recruitment and in fishing intensity. STECF notes that F_{pical} might correspond to different age classes depending on species and years, potentially hindering its interpretation. STECF suggests that F_{juv}/F_{adult} (F_{adult} could be computed as the average mortality of adult ages) could be an alternative to consider.

Mantopoulou Palouka et al. (2024) have applied the method (F_{juv}/F_{pical}) to 23 stocks in ICES areas and 10 stocks in the Mediterranean and Black Seas and derived aggregated indicators in a similar way to other CFP monitoring indicators. Regarding aggregation, STECF proposes to use a median rather than a geometric mean, to avoid any implicit assumptions regarding the statistical distribution of the values. STECF considers this analysis as valuable. As pointed out by Mantopoulou Palouka et al. (2024), STECF considers that stocks for which stock assessment explicitly assumes constant selectivity (e.g. separability assumption) are problematic and STECF considers that while the results for those stocks might be displayed, it could be misleading to include them into aggregated indicators.

STECF notes that Mantopoulou Palouka et al. (2024) also proposed a method to define a reference point corresponding to a selectivity curve that would maximise yield. This method is based on the simulation of different scenarios in which the selectivity is modified. The reference point is then defined using the scenario yielding the maximum catch. STECF believes that the similarity between this reference point and F_{msy} could facilitate its understanding and its uptake by end users. STECF considers that this selectivity reference point appears to be promising and further explorations, especially with respect to the design of selectivity change scenarios, should be made to validate its use.

Moreover, STECF suggests that, in the future, it would be worthwhile to develop tools to illustrate the changes that would be required to achieve the selectivity reference point (while a value of e.g. $F/F_{MSY} = 1.25$, implies that F should be reduced by 25%, there is no equivalent with the current indicator and reference point).

STECF observes that the computation of the indicator critically depends on the availability of matrices of fishing mortality-at-age arising from stock assessments and of corresponding maturity-at-age. STECF notes that those data are not routinely publicly available for ICES stocks (in the Mediterranean Sea, this information is available for stocks assessed by STECF) and STECF encourages that those data are made available through the Transparent Assessment Framework on annual basis.

STECF considers that the work carried out is the result of a rich process and promotes its test in the future CFP monitoring exercise. STECF recalls that during the testing phase this indicator will be included together with other exploratory indicators as an annex.

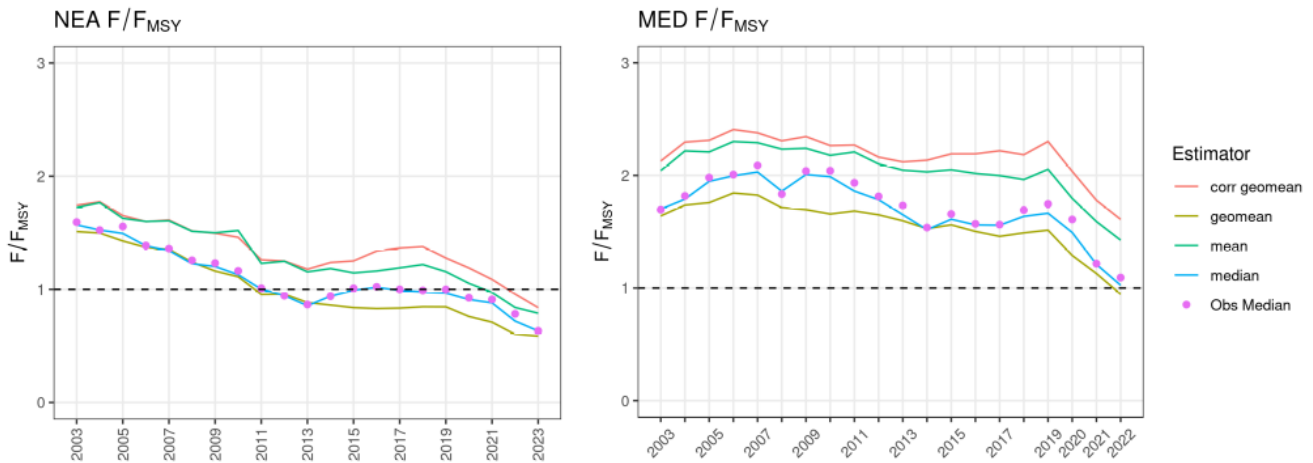
Mean indicators

STECF notes that model-based indicators, such as average F/F_{MSY} across multiple stocks with varying dynamics or average B/B_{2003} , are produced through a complex process involving multiple modelling choices. Each of these choices can influence the results. The following is a brief summary of the process:

- A JARA model is fitted on each stock independently. The JARA model is a Bayesian autoregressive model, potentially including a trend shift (time blocks), that allows a smoothing of the raw time series per stock. As an output, JARA provides for each stock s a matrix $M(s, y, i)$ with 10,500 rows (i , iterations of the MCMC) and a column for each year y .
- To derive the final indicator, there is a need to average the matrices over stocks for all years. This averaging is usually done using a geographic mean but other functions f could be considered
- This process produces a matrix of $I(i, y)$ with 10500 rows (one row per iteration, after a bootstrap procedure that is detailed in Gras et al. 2023), and one column per year. The quantiles of $I(i, y)$ per year are then used as the final indicator.

STECF PLEN 25-01 highlighted that the choice of the averaging function f , currently a geometric mean, has never been explored. In view of this, JRC repeated the CFP monitoring exercise with different functions: arithmetic mean, median and geometric mean with bias correction (by adding half of the variance) and compared it to the median of the raw data (Figure 7.3.1).

Figure 7.3.1. F/F_{MSY} indicators using different aggregation functions (solid lines) alongside the median of the raw data (dots) for the Mediterranean Sea (right panel) and North-East Atlantic (left panel), and the dataset used during the last CFP monitoring report (PLEN 25-01).



Source: PLEN 25-01, JRC and own elaborations.

STECF observes that, as expected, the arithmetic mean is very sensitive to outliers. This also seems to be the case with the geometric mean with correction, probably because the variance estimator is also affected by outliers.

STECF observes that the median and geometric mean provide consistent pictures with similar trends. However, STECF observes that the geometric mean generally results in smaller values. This is arising from the fact that the log-transformation “compresses” large values and consequently, gives more weight to smaller values.

STECF considers that the median has the intrinsic advantage of not making implicit assumptions about the underlying statistical distribution of the metrics and of not giving higher weights to lower values.

In view of this, STECF proposes to use the median rather than the geometric mean in the next CFP monitoring exercise. STECF reminds, that in addition to the aggregated indicator and associated uncertainty intervals, it is very insightful to display the raw data (e.g. Spaghetti plots) to emphasise the existence of stocks with very large fishing mortality or very low biomasses, or vice versa.

STECF notes that the CFP requires all stocks to be fished at maximum sustainable yield, rather than at F_{MSY} on average (Regulation (EU) No 1380/2013, Article 2). STECF states that design-based indicators, which are based on the number of stocks achieving the objective, more effectively track progress towards this objective and require fewer assumptions in their construction. In addition, STECF points out that the horizontal dashed lines at 1 on model-based indicator graphs may be misleading, as they could be interpreted as a target even though they are not. Therefore, STECF suggests clearly explaining this in each figure caption.

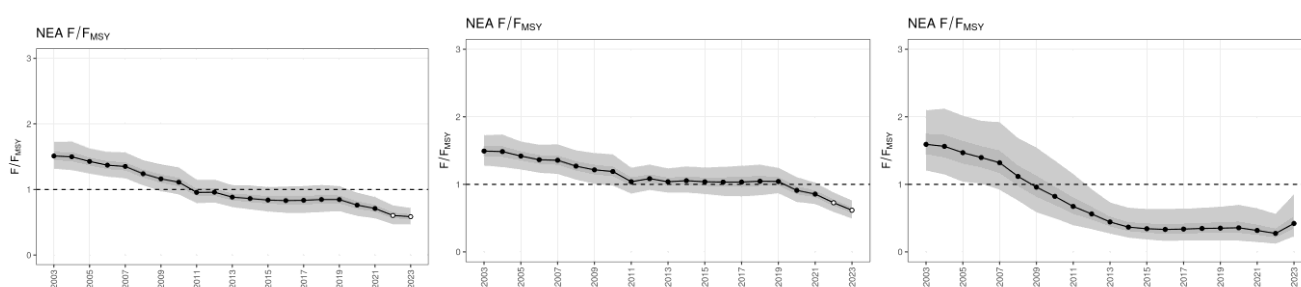
Effect of surplus production models (SPMs)

The issue of mixing stock assessment of SPMs (e.g. SPiCT) with other types of quantitative models (e.g. age-based analytical assessments) has been highlighted in previous CFP monitoring exercises (PLEN 23-01, PLEN 24-01 and PLEN 25-01) and PLEN 24-03 where it was asked to discuss the possible use of alternative stock assessment models for the stocks managed under the EU West Mediterranean MAP. In all those cases, STECF stressed that there are conceptual differences between SPMs and age- or length-structured models and that reference points arising from the two types of models are not necessarily comparable. PLEN 24-03 noted that Winker et al. (2020) showed that in some cases F/F_{MSY} and B/B_{MSY} of the two types of models can be consistent, but that it depends on how the stock recruitment relationship is modelled within a Statistical Catch At Age analysis (SCAA) or if a stock recruitment relationship is considered at all.

STECF observes that not accounting for SPMs would result in discarding a substantial number of stocks in most ecoregions, hindering the coverage of the CFP monitoring (12/63 in NEA and 18/65 in the Med).

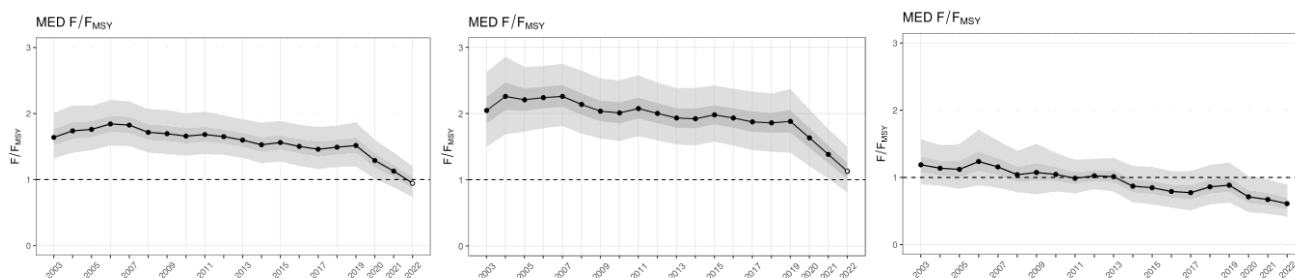
STECF observes that in recent CFP monitoring exercises (including ad hoc 25-01), several robustness analyses by providing F/F_{MSY} model-based indicators based on all stocks and F/F_{MSY} model-based indicators excluding SPMs have been performed. The resulting trends proved to be very similar, but the inclusion of SPMs generally generates lower average relative fishing mortality. During this PLEN 25-02, JRC provided the results of the indicators using three datasets: one including all stock assessments (as provided in the core text of STECF-Ad hoc-25-01), the same indicators excluding stocks assessed with SPMs (as provided in the annex of STECF-Adhoc-25-01) and only on stocks assessed with SPMs (Figures 7.3.2 and 7.3.3).

Figure 7.3.2. F/F_{MSY} using all stocks (63 stocks – top panel), excluding SPM models (51 stocks – central panel) and based on SPM only (12 stocks – bottom panel) in North-East Atlantic waters. The dataset is similar to STECF-Adhoc-25-01.



Source: STECF-Adhoc-25-01, JRC and own elaborations.

Figure 7.3.3. F/F_{MSY} using all stocks (65 stocks – left), excluding SPM models (47 stocks – central panel) and based on SPM only (18 stocks – right) in Mediterranean and Black Seas. The dataset is similar to STECF-Adhoc-25-01.



Source: STECF-Adhoc-25-01, JRC and own elaborations.

STECF observes that the indicator based on all stocks and the one excluding SPMs provide consistent trends, showing only a minor scaling issue. This is likely related to the small number of stocks with SPMs in the overall panel. STECF also observes that model-based indicators based only on SPMs provide a contrasted picture. However, this seems to be more related to the history of exploitation of the stock (e.g. Zero catch advice and sudden drop of catch for some Norway lobster’s stocks in the Atlantic, stocks with very small exploitation in the Med & Black Sea) rather than an issue related to the models themselves.

Given the intrinsic difficulty of averaging things of different nature, STECF suggests that in the next CFP monitoring exercise, the analysis could be carried out separately on “usual” analytical models and on the stocks with SPMs. Moreover, this would bring additional insights.

STECF considers that, even though F and F_{MSY} could be of different nature in SPMs and other analytical models, they are typically used in both cases in CFP monitoring exercises as a metric indicating how far stocks are from the management target. In that sense, they could be seen as more comparable. As such, STECF considers that the indicator based on all stocks could still be presented in the report.

Finally, STECF reiterates that the CFP stipulates that all stocks should be fished at or below maximum sustainable yield, and not that stocks should be fished at F_{MSY} on average. On that aspect, STECF considers that design-based indicators are more appropriate than model-based indicators, noting that they are not affected from averaging indicator of different natures.

Other remarks on the CFP monitoring.

STECF PLEN 25-01 listed a number of issues or possible improvements for consideration in a potential future version of the protocol:

Rules for inclusion of new stocks within the monitoring.

STECF reminds that the new version of the protocol (Gras et al. 2023) has set up clear rules for the inclusion of stocks in the analysis. STECF observes that the number of stocks has increased a lot, especially with the inclusion of stock assessed with surplus production models as advising bodies (ICES, GFCM and STECF) considered quantitative assessments. STECF notes that the composition of the panel of stocks has varied annually due to (1) the inclusion of stocks after their assessment status was upgraded, and in some cases, (2) the exclusion of stocks resulting from a downgrade in their assessment.

STECF acknowledges that this tracking of stock assessment methods is relevant to inform on the coverage of stock assessments, however STECF observes that the induced variability in the stocks included in the analysis might hinder the year-to-year consistency of derived indicators. STECF acknowledges that the historical analysis carried out each year by the ad hoc report is important to ensure that this variability is limited. To do so, an analysis documenting how the stock panel has varied across the last CFP monitoring exercises and the effect it has had would be required. STECF notes that it will be important to present this analysis in PLEN 25-03 to assess whether the protocol should be updated for the 2026 CFP monitoring.

Mixing stocks of different sizes and different nature.

STECF notes that model-based indicators average stocks of different sizes in terms of total landings, relative share of landings by Member State, commercial values or biomasses, and species with different ecological characteristics by different segments.

STECF has previously examined options such as weighting stocks or disaggregating indicators according to various criteria. However, no universal solution exists, as the most appropriate approach depends on the specific question. In this context, STECF notes that further exploration of this issue should be guided by clearly defined needs and questions from managers.

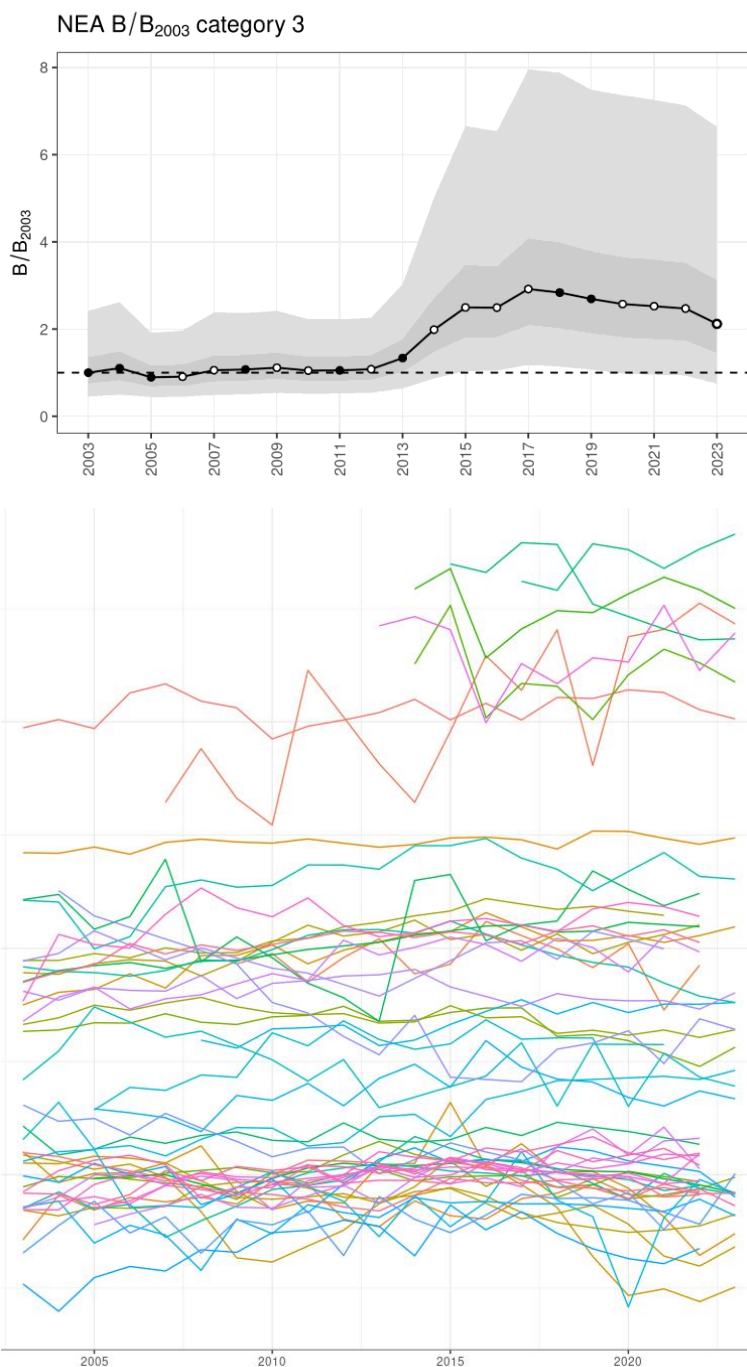
Scaling of the biomass indicator

Currently, the biomass model-based indicator is derived from the following process:

- Fit JARA to each biomass time series in the units of the stock assessments (depending on stocks, that could be tons, kg, density of individuals...)
- Use the bootstrap procedure as for other indicators to derive an aggregated indicator per year and iteration
- Standardise this value by the median of the aggregated indicator in year 2003

STECF notes that this process presents two issues: since the stocks are not scaled, this gives higher weights to stocks with larger biomass. Moreover, the aggregated indicator becomes sensitive to the stocks for which data are available in a given year. For example, B/B2003 shows a strongly increase in the early 2010s but this is the result of the inclusion of some stocks with large biomasses that have time series starting around 2010 rather than a true increasing trend of the biomass (Figure 7.4.4).

Figure 7.4.4. B/B_{2003} for category 3 stocks in NEA estimated by STECF-Ad hoc-25-01 (top panel) and individual trajectories of each stock included in the indicator (bottom panel).



Source: STECF-Adhoc-25-01, JRC and own elaborations.

In view of this, STECF considers that a scaling of biomass before fitting JARA is critically needed. A natural choice would be to scale by B_{MSY} , following the approach used for fishing

mortality, but this reference point is not routinely provided for ICES stocks. Other options could potentially be a scaling by B_{pa} or B_{lim} , but those values are not always consistently estimated. STECF-*ad hoc*-22-02 proposed a scaling by the mean of the series, but this might lead to inconsistencies if the stocks assessments have different time coverage. To address this issue, STECF suggests exploring the possibility of scaling before fitting JARA (unless an internal scaling within JARA is technically possible). Several options can be explored (e.g. scaling each stock biomass series by its geometric mean over the last decade, period for which data are necessarily available). STECF suggests exploring different options and test them on B/B_{2003} for category 3. A leave-one-out analysis could be carried out to check that the proposed scaling prevents overweighting of some specific stocks. The rest of the procedure including the final standardisation by B_{2003} could remain the same. STECF suggests that the resulting indicator could be presented during PLEN 25-03 for final validation before the 2026 CFP monitoring exercise.

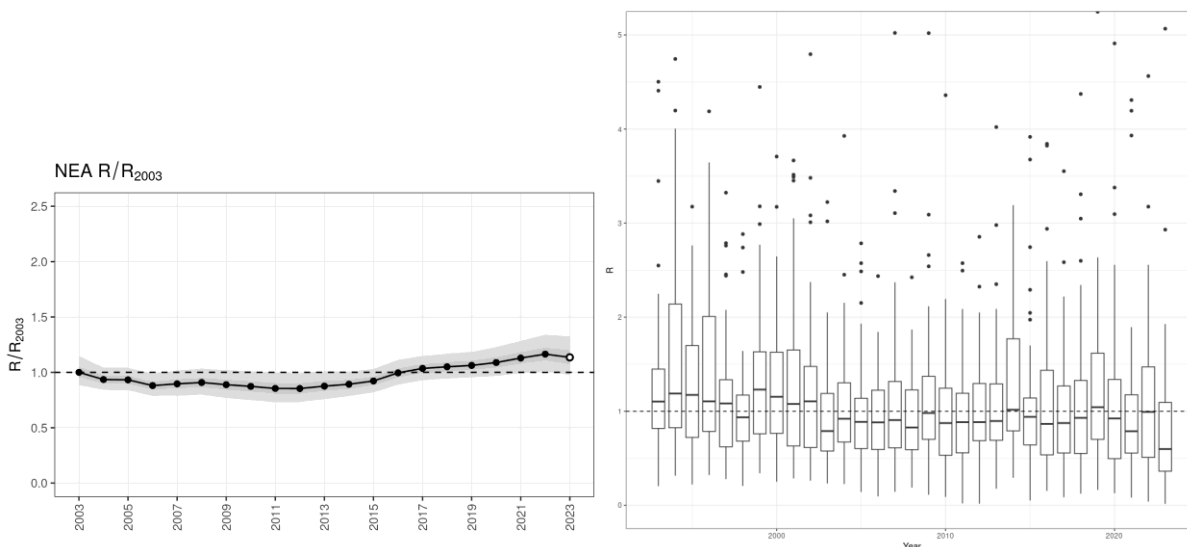
The potential need for a complementary recruitment indicator

The CFP monitoring currently includes a decadal recruitment indicator that may bring additional insights on the long-term trends in recruitment. STECF considers that this indicator is very valuable. However, STECF notes that this indicator can be difficult to understand (Figure 7.3.5). The decadal recruitment in year y is computed for each stock s and year y as:

$$r(s, y) = \frac{\sum_{i=y-9}^y R(s, i)}{\sum_{i=y-19}^{y-10} R(s, i)} \quad (\text{Gras et al. 2023})$$

As such, $r(s, y_1) > r(s, y_2)$ does not necessarily mean that the recruitment in year y_1 is greater than recruitment in year y_2 , but rather that the trend in recruitment (assessed as the ratio of the average of recruitment during the last decade over the average value during the previous decade) is higher than the trend in y_2 . Furthermore, the indicator is standardised using the 2003 value; consequently, a value of 1 does not represent average recruitment, but rather indicates that the current trend aligns with that observed in 2003.

Figure 7.3.5. Decadal recruitment indicator estimated by STECF-Ad hoc-25-01 (top panel) and distribution of observed yearly recruitment (after standardisation by the geometric mean) of the stocks included in the indicator (bottom panel). This shows that the decadal recruitment adequately detected the low values of recruitment in the 2000s compared to the 1990s and that the trend is stable since then. The higher values of the decadal recruitment do not mean that recruitment is currently high but rather that the trend in the latest decade is better than the trend in previous decade.



STECF notes that many fish stocks have shown signs of decreasing recruitments, and that decadal indicators may take time to reflect such changes. Therefore, STECF suggests that an additional indicator capable of providing early warnings of shifts in recruitment would be beneficial. It is also noted that developing the current selectivity indicator involved considerable effort. STECF suggests that further development could begin with an ad hoc contract to (1) propose alternative indicators, (2) assess their robustness to outliers, for example using a leave-one-out analysis, and (3) conduct retrospective analysis to evaluate the impact of uncertainty in recent recruitment estimates on the indicators.

STECF conclusions

Selectivity indicator

STECF concludes that the proposed selectivity indicator is suitable for its intended purpose and recommends testing it in the next CFP monitoring exercise to gather further insights and feedback. For this year, STECF suggests comparing three versions of the indicator (Fjuv/Fapical, Fjuv/Fadult, Fjuv/Fbar) and including them as an annex to the report. It is advised that the aggregated selectivity indicator be based on the median of the metrics rather than their geometric means. Additionally, STECF suggests that JRC continue developing the estimation of reference points for further evaluation of their relevance, acknowledging that their inclusion in the final CFP monitoring report may not yet be appropriate.

STECF concludes that the application of this indicator in regular practice depends on the availability of fishing mortality-at-age and maturity-at-age matrices estimated during stock assessments.

Surplus production models

STECF concludes that it would be relevant to compute two series of model-based indicators: one with stocks assessed with SPM only and another one with stocks assessed with age and length structured models. STECF also suggests continuing to provide the indicator based on all stocks.

Mean indicators in the model-based indicators (average F/F_{MSY} across many stocks of different dynamics, or average B/B_{2003})

STECF concludes that scaling by the median aligns more closely with the raw data compared to standardisation using the geometric mean and suggests applying this method in the next CFP monitoring exercise. STECF also suggests continuing to present the median of the raw data together with model-based indicators, as well as including spaghetti plots and boxplots to illustrate the distribution of the raw data.

Other aspects of the protocol

STECF concludes that some improvements of the protocol should be explored and presented during the next plenary for potential inclusion in the next CFP exercise. This includes a review of the rules for including stocks and the approach to scaling biomass. STECF also notes that the addition of a complementary recruitment indicator could be beneficial and suggests initiating an ad hoc contract to begin this work.

References

- Gras, M., Vasilakopoulos, P., Pierucci, A., Kupschus, S., Mantopoulou Palouka, D., Winker, H., and Konrad, C. 2023. Protocol for the Monitoring of the Common Fisheries Policy - version 5.0. JRC Technical Report. EU: European Union, Luxembourg. https://publications.jrc.ec.europa.eu/repository/bitstream/JRC136235/JRC136235_01.pdf (Accessed 18 March 2024).
- Mantopoulou Palouka, D., P. Vasilakopoulos, S. Kupschus, M. Gras, H. Winker, Z. Hekim, A. Pierucci, and C. Konrad. 2024. "Monitoring Fisheries Selectivity in EU Fish Stocks." Scientific and Technical Research Reports. Luxembourg: European Commission, Joint Research Centre. <https://doi.org/10.2760/601822>.
- Vasilakopoulos, P., Jardim, E., Konrad, C., Rihan, D., Mannini, A., Pinto, C., Casey, J., et al. 2020. Selectivity metrics for fisheries management and advice. *Fish and Fisheries*, 21: 621–638.
- Winker, H., Mourato, B., and Chang, Y. 2020. Unifying parameterizations between age-structured and surplus production models: An application to Atlantic white marlin (*Kajika albida*) with simulation testing. *Col. Vol. Sci. Pap. ICCAT*, 76: 219–234.

7.4 New STECF - Discussion and possible agreement on STECF rules of procedure

The STECF rules of procedure were discussed and adopted.

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. STECF members and experts also declare any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda.

Name	Affiliation ¹	Email
Ballesteros, Marta	Spanish Institute of Oceanography (IEO-CSIC), Center of Vigo, Subida a Radio Faro 50-55, Vigo, Spain.	marta.ballesteros@ieo.csic.es
Bastardie, François (rapporteur)	Technical University of Denmark, National Institute of Aquatic Resources (DTU-AQUA), Kemitorvet, 2800 Kgs. Lyngby, Denmark	fba@aqua.dtu.dk
Casey, John (rapporteur)	Independent consultant	blindlemoncasey@gmail.com
Colaço, Ana	University of the Azores, Institute of Marine Sciences - OKEANOS. Rua Professor Doutor Frederico Machado 4, 9900-140 Horta, Portugal	maria.aa.colaco@uac.pt
Cuende de Francisco, Elsa	AZTI (Member of the Basque Research and Technology Alliance). Marine Research Unit. Center of Sukarrieta, Bizkaia, Spain.	ecuende@azti.es

Name	Affiliation ¹	Email
Döring, Ralf (rapporteur)	Thünen Institute [TI-SF] Federal Research Institute for Rural Areas, Forestry and Fisheries, Institute of Sea Fisheries, Economic analyses unit Herwigstrasse 31, D-27572 Bremerhaven, Germany	ralf.doering@thuenen.de
Drouineau, Hilaire (rapporteur)	INRAE, UR EABX, 50 avenue de Verdun, 33612 Cestas Cedex, France	hilaire.drouineau@inrae.fr
Grati, Fabio (rapporteur)	National Research Council (CNR) – Institute for Biological Resources and Marine Biotechnologies (IRBIM), L.go Fiera della Pesca, 2, 60125, Ancona, Italy	fabio.grati@cnr.it
Griffiths, Christopher	Swedish University of Agricultural Sciences (SLU), Department of Aquatic Resources, Turistgatan 5, SE-45330, Lysekil, Sweden	christopher.griffiths@slu.se
Hidalgo, Manuel	Spanish Institute of Oceanography (IEO, CSIC), Balearic Oceanographic Center (COB), Palma, 07015, Spain	jm.hidalgo@ieo.csic.es
Ibaibarriaga, Leire (rapporteur)	AZTI. Marine Research Unit. Txatxarramendi Ugarte a z/g. E-48395 Sukarrieta, Bizkaia. Spain.	libaibarriaga@azti.es
Jackson, Emmet	Bord Iascaigh Mhara (BIM), Ireland's Seafood Development Agency.	Emmet.jackson@bim.ie

Name	Affiliation¹	Email
Jardim, Ernesto (rapporteur)	Independent expert	ernesto.jardim@gmail.com
Jung, Armelle (rapporteur)	DRDH, Techonopôle Brest-Iroise, BLP 15 rue Dumont d'Urville, Plouzane, France	armelle.jung@desrequisetdeshommes.org
Ligas, Alessandro (vice-chair, rapporteur)	CIBM Consorzio per il Centro Interuniversitario di Biologia Marina ed Ecologia Applicata "G. Bacci", Viale N. Sauro 4, 57128 Livorno, Italy	ligas@cibm.it ; ale.ligas76@gmail.com
Lucchetti, Alessandro (rapporteur)	National Research Council (CNR) – Institute for Biological Resources and Marine Biotechnologies (IRBIM), Largo Fiera della Pesca, 2, 60125, Ancona, Italy	alessandro.lucchetti@cnr.it
Mannini, Alessandro	CNR IRBIM Ancona, Largo Fiera della Pesca, 260125 Ancona ITALY	alessandro.mannini@irbim.cnr.it
Moore, Claire (rapporteur)	Marine Institute, Renville, Galway, Ireland	claire.moore@marine.ie
Motova - Arina Surmava, (rapporteur)	Sea Fish Industry Authority, 18 Logie Mill, Logie Green Road, Edinburgh EH7 4HS, UK	arina.motova@seafish.co.uk
Nimmegeers, Sofie (rapporteur)	Flanders research institute for agriculture, fisheries and food, Belgium	Sofie.Nimmegeers@ilvo.vlaanderen.be
Nord, Jenny (vice-chair, rapporteur)	Swedish Agency for Marine and Water management	jenny.nord@havochvatten.se

Name	Affiliation ¹	Email
Pinto, Cecilia (rapporteur)	Università di Genova, DISTAV - Dipartimento di Scienze della Terra, dell'Ambiente e della Vita, Corso Europa 26, 16132 Genova, Italy	cecilia.pinto@edu.unige.it
Prellezo, Raúl (chair)	AZTI -Unidad de Investigación Marina, Txatxarramendi Ugarte z/g 48395 Sukarrieta (Bizkaia), Spain	rprellezo@azti.es
Raid, Tiit	Estonian Marine Institute, University of Tartu. Mäealuse 14, Tallinn, EE- 126, Estonia	tiit.raid@gmail.com
Russo, Tommaso	University of Rome Tor Vergata, via della Ricerca Scientifica snc, 00133 Rome, Italy	Tommaso.Russo@Uniroma2.it
Sabatella, Evelina Carmen	National Research Council (CNR) – Institute for Research on Population and Social Policies (IRPPS), Corso S. Vincenzo Ferreri, 12, 84084 Fisciano, Salerno, Italy	evelinacarmen.sabatella@cnr.it
Savina- Rolland, Marie	Ifremer, 8 rue François Toullec 56100 Lorient	Marie.Savina.Rolland@ifremer.fr
Spedicato, Maria Teresa	Fondazione COISPA Via dei trulli 18-20 70126 Bari, Italy	spedicato@fondazionecoispa.org

Name	Affiliation ¹	Email
Steins, Nathalie	Wageningen Marine Research Korringaweg 7 4401 NT Yerseke The Netherlands	nathalie.steins@wur.nl
Stransky, Christoph (rapporteur)	Thünen Institute [TI-SF] Federal Research Institute for Rural Areas, Forestry and Fisheries, Institute of Sea Fisheries, Herwigstrasse 31, D-27572 Bremerhaven, Germany	christoph.stransky@thuenen.de
Tserpes, George	Hellenic Center for Marine Research (HCMR), Thalassokosmos, 71500 Gournes Pediados, Crete, Greece	gtserpes@hcmr.gr
Ulrich, Clara (rapporteur)	IFREMER, Rue de l'Île d'Yeu, 44311 Nantes, France	Clara.Ulrich@ifremer.fr
Uriarte, Andres (rapporteur)	Independent expert	auriartes@hotmail.com
Uusitalo, Laura	Natural Resources Institute Finland (Luke), Finland	laura.uusitalo@luke.fi (secondary: laura.uusitalo@iki.fi)
Valentinsson, Daniel (rapporteur)	Swedish University of Agricultural Sciences (SLU), Department of Aquatic Resources, Turistgatan 5, SE-45330, Lysekil, Sweden	daniel.valentinsson@slu.se

JRC experts		
Name	Address	<u>Email</u>
Gras, Michael	European Commision, Joint Research Centre (JRC), Italy	michael.gras@ec.europa.eu
Hekim, Zeynep	European Commision, Joint Research Centre (JRC), Italy	hekim.zeynep@ec.europa.eu
Kupschus, Sven	European Commision, Joint Research Centre (JRC), Italy	<u>Sven.kupschus@ec.europa.eu</u>
Mantapouplou, Danai	European Commision, Joint Research Centre (JRC), Italy	<u>danai.mantopoulou-palouka@ec.europa.eu</u>
Pierucci, Andrea	European Commision, Joint Research Centre (JRC), Italy	<u>Andrea.pierucci@ec.europa.eu</u>
Rincon, Margarita	European Commision, Joint Research Centre (JRC), Italy	<u>Margarita.RINCON-HIDALGO@ec.europa.eu</u>
Virtanen, Jarno	European Commision, Joint Research Centre (JRC), Italy	Jarno.virtanen@ec.europa.eu
Winter, Anna	European Commision, Joint Research Centre (JRC), Italy	anna-marie.winter@ec.europa.eu

European Commission		
Name	Address	<u>Email</u>
Aira Martin, Maria	DG MARE, C1	<u>Maria.aira-martin@ec.europa.eu</u>
Alibert-Deprez, Caroline	DG MARE, C1	<u>Caroline.alibert-deprez@ec.europa.eu</u>
Bregeon, Thomas	DG MARE, C5	<u>Thomas.bregeon@ec.europa.eu</u>

Doerner, Hendrik	JRC STECF secretariat	<u>Stecf-secretariat@jrc.ec.europa.eu</u>
Dragon, Anne-Cecile	DG MARE, D1	<u>Anne-cecile.dargon@ec.europa.eu</u>
Kostopoulou Venetia	DG MARE, C3	venetia.kostopoulou@ec.europa.eu
Mortensen, Martin	DG MARE, D3	Martin.mortensen@ec.europa.eu
Moset, Maria	DG MARE, D3	<u>Maria.moset-martinez@ec.europa.eu</u>
Perez Perera, Amanda	DG MARE, C1	Amanda.perez-perera@ec.europa.eu
Peyronnet, Arnaud	DG MARE, C3	Arnaud.PEYRONNET@ec.europa.eu
Ranshuysen, Evelien	DG MARE, D.3	Evelien.RANSHUYSEN@ec.europa.eu
Sadowska, Agnieszka	DG MARE, C.3	Agnieszka.Sadowska@ec.europa.eu
Stamoulis, Antonios	DG MARE, D.3	Antonios.STAMOULIS@ec.europa.eu
Sterczewska, Monika	DG MARE, C.3	Monika.STERCZEWSKA@ec.europa.eu

Getting in touch with the EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

Finding information about the EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

EU open data

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

Science for policy

The Joint Research Centre (JRC) provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society



Scan the QR code to visit:

[The Joint Research Centre: EU Science Hub](https://joint-research-centre.ec.europa.eu)
<https://joint-research-centre.ec.europa.eu>



Publications Office
of the European Union