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—

74th PLENARY REPORT (STECF-PLN-23-03)

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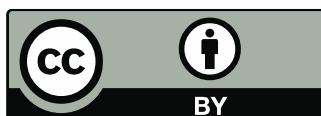
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Abstract

Commission Decision of 25 February 2016 setting up a Scientific, Technical and Economic Committee for Fisheries, C(2016) 1084, OJ C 74, 26.2.2016, p. 4–10. The Commission may consult the group on any matter relating to marine and fisheries biology, fishing gear technology, fisheries economics, fisheries governance, ecosystem effects of fisheries, aquaculture or similar disciplines. The Scientific, Technical and Economic Committee for Fisheries held its 74th plenary from 13 to 17 November 2023.

74th PLENARY REPORT OF THE SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (PLEN-23-03)

13-17 November 2023

1. INTRODUCTION

The STECF held its winter plenary on 13-17 November 2023 in the Building "The One", Rue de la Loi 107, Brussels. The meeting was held as a hybrid meeting.

2. LIST OF PARTICIPANTS

The meeting was attended by 32 members of the STECF and four JRC personnel. Five STECF members and six 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.

The following STECF members did not attend the meeting:

- Coll Monton, Marta
- Jardim, Ernesto
- Vrgoc, Nedo

3. INFORMATION TO THE PLENARY

The STECF committee was informed that Agnieszka Sadowska is the new DG MARE C3 focal for the STECF.

4. STECF INITIATIVES

During PLEN 23-02, DG MARE gave a presentation of the EU funded FishGenome (Improving Cost Efficiency of Fisheries Research Surveys and Fish Stocks Assessments using Next Generation Genetic Sequencing Methods) study. STECF had a follow up discussion with DG MARE on the opportunities arising from the work completed under this study during PLEN-23-03. The aim was to discuss the role STECF could play in supporting the implementation and testing the different genomic tools developed in the project. STECF was also asked if the committee considered there was a role in the protocolization and standardization of genetic methods across laboratories. STECF may also be involved in exploring alternative use of genomic information/data in scientific advice. Finally, the role of STECF of assisting in developing the governance aspects around FishGenome. Following the discussion, it was agreed DG MARE would draft a specific TOR around FishGenome to be addressed during the spring 2024 pleantry meeting.

STECF members who participated in EWG-23-10 on Fisheries Dependent Information (FDI), including the co-chairs gave a presentation to the STECF committee on the use and interpretation of the data tables developed by the EWG and included in the FDI database.

5. ASSESSMENT OF STECF EWG REPORTS

5.1 EWG 23-10: Fisheries Dependent Information (FDI)

Request to STECF

STECF is requested to review the report of the STECF Expert Working Group meeting.

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments and recommendations, in particular to one of the EWG conclusions on a possible 3-day online workshop to further develop an established application on discard trends using FDI data.

Summary of the information provided to STECF

STECF was provided with the draft report of the EWG, including 3 electronic annexes (Annex 3 – Exemptions coding tables, Annex 4 – Exemptions data extract and Annex 5 - Maps of effort and landings). A presentation of the outcomes was made by the EWG chairs to PLEN 23-03.

STECF comments

The EWG 23-10 met from 11 to 15 September 2023 in Ispra, Italy.

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

STECF notes that, with the exception of two Member States, all data was submitted for the requested tables by the legal deadline of the data call. One Member State submitted the biological tables (C-F), and table K (which provides information on discard estimates which do not have associated biological data) after the legal deadline, while the other Member State did not submit Table A (detailed catch table). Some Member States re-uploaded data before the operational deadline (that, according to the data handling procedures for STECF Expert Working Groups, is set at two calendar weeks before the commencement of the STECF EWG), and also during the EWG.

STECF observes that for the 2023 data call, Member States were asked to resubmit the full time series with the requested changes for the EEZ and métier codes. This led to higher number of re-uploads during the EWG. STECF also observes that final FDI data was only available for analyses on the Thursday morning of the EWG meeting.

STECF observes that file format and code consistency are checked during the upload process, while additional quality checks were carried out after the upload of the data and were performed and visualised with Qlik. STECF notes that 32 quality or coverage issues with low or medium severity were identified and registered in the DTMT. One issue of missing data was evaluated as of high severity. Eight issues were indicated as recurrent.

TOR 2: Provide landings and discards data for exemptions in discard plans

STECF observes that the EWG was asked to provide landings and discard data for exemptions to the landing obligation included in discard plans. This was completed based upon the previous work and methods established in STECF EWG 20-10, STECF EWG 21-12, STECF EWG 22-10 and the output of *ad hoc* contract 2336.

STECF further observes that the EWG report clearly identifies the shortcomings that should be considered in interpreting the results. STECF acknowledges that the coverage expressed as a percentage of landings with discards is provided in the data tables, which indicates the accuracy of the discard estimates reported as well as any 'fill-ins'.

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

STECF acknowledges that the EWG agreed on using the same format applied in 2022 for the dissemination of the data.

STECF also observes that due to time and resources constraints, EWG 23-10 was not able to fully consider the guidance for interpretation of the data provided in Table B (Observer refusal rates). STECF notes that for this reason, the EWG concluded, for this year not to disseminate Table B. STECF accepts this was appropriate, given that work is needed to provide guidance to the end users before it can be properly disseminated. However, STECF notes that this is a valuable table, and every effort should be made to disseminate this to the public in future EWG reports.

STECF notes that the EWG was not in the position to analyse the impact of confidentiality rules on coverage of disseminated data in the same way as during the methodological meeting (EWG 23-05). This was because the most recent dataset disseminated on the STECF website was available only by the end of the EWG. However, STECF notes that an in-depth analysis of the confidentiality reported by Member States based on the data submitted to FDI is available in the report. From this analysis it seems that the average proportion of confidential landings by species, averaged by fishing technique or by fishing zone remained relatively stable in the period 2013-2022.

TOR 4: Discuss data submission results following recent changes in the data call and definitions, assess feasibility to further extend time series.

STECF notes that for the 2023 FDI data call, Member States were requested to resubmit the full time series with the new métier codes that have been agreed by RCGs and with EEZ indicators that included a code to indicate if the fishery took place in UK waters. The change in codes affects tables A, G, H and I. STECF observes that 3 Member States did not resubmit the full time series and the old metier codes remain in the database. STECF observes that Member States should make every effort to resubmit time series data next year during the FDI data call. STECF considers that the request for Member States to resubmit data according to the new métier codes should be included in the official letter for next year's FDI data call.

STECF observes that the EWG analysed the inconsistencies between the new métier definitions and the GEAR_TYPE, TARGET_ASSEMBLAGE and SPECON fields and concluded that in most cases the new metier codes reported are consistent. In some cases, where inconsistencies were identified there are good explanations for these inconsistencies, while in other cases any inconsistencies related to coding issues. STECF agrees that all the inconsistencies should be explained and described in the national chapters.

STECF notes that the EWG discussed the feasibility of extending the period of data requested in the FDI data calls to years prior to 2013. However, the EWG concluded that it would not be reasonable for all Member States to extend the full historical data set beyond 2013. The EWG observed that the quality of the data before 2013 for some would be too low to be considered as a reliable dataset or because it would not be possible to provide those data at the level of aggregation required by the FDI data call (see Table 4.1 of STECF EWG 22-10 report).

TOR 5: Follow up on the comparability between the data collected in the FDI database and the data provided to the AER.

STECF acknowledges that the EWG analysed the consistency of the fishing capacity and activity data between the AER and FDI data sets. The data analysis showed an improvement compared with the analysis performed in 2021 (STECF-21-12) in data codification between both data calls as well as the consistency between both data sets with the same information. However, some discrepancies between the data sets remain. STECF notes that most of these data inconsistencies identified are due to: timing in data exports to answer the data call, possibility to report to FDI confidential data (that is not available in AER) and clustering of fleet segments used in the AER data set.

STECF observes that the EWG was not able to follow up on DTMT issues reported in STECF EWG-21-12 report in relation to AER and FDI comparison due to time constrains. Further, STECF notes that the comparison exercise cannot be easily completed by other EWGs because it requires access to the FDI and AER analysis conducted during STECF EWG 23-10 and knowledge of the data formats.

STECF notes that the EWG reviewed the results of the RCG ISSG survey comparing the definitions within the data submitted to FDI and AER data calls. STECF observes that this survey is a preliminary overview provided to understand the consistency between FDI and AER data calls submitted by Member States and to show the feasibility of linking both data calls.

STECF notes that the EWG also reviewed the analysis of the definitions of AER and FDI data calls completed by RCG ISSG, providing useful comments and recommendations for future data calls.

TOR 6: Provide recommendations on possible future use of the 'Shiny app' on overall trends in discard patterns using the FDI data.

STECF observes that the EWG considered the 'Shiny App' as a powerful and useful visualisation tool. However, STECF observes that the EWG expressed some concerns related to different issues such as the utilization of classic FDI data at the outset of the time series and uncertainty about the methodology used to calculate discard rates and LO exemptions. STECF observes that EWG considered the need for a more thorough examination of the methodology and the data quality.

STECF observes that EWG suggested to hold a 3-day online workshop to review the methodology applied, evaluate the possibility of an annual update by the STECF EWG and provide suggestions on data preparation, aggregation and visualisation for a potential future integration of the Shiny App to the advisory process.

STECF conclusions

STECF concludes that the EWG addressed most of the ToRs appropriately in the given time frame and endorses the report and the related annexes. Two TORs were not addressed due to time constraints. One related to the preparation of guidance for interpretation of the data provided in table B (refusal rate) and the other to DTMT issues reported in STECF EWG 21-12 relating to a comparison of FDI and AER data sets.

STECF concludes that table B should not be disseminated until the guidance for interpreting the data provided in the table is made available. STECF concludes that the preparation of this guidance should be included in the TORs for the next FDI EWG.

STECF concludes that the comparison exercise of AER and FDI data sets cannot be easily implemented by other EWGs because it requires access to the FDI and AER analysis conducted during STECF EWG 23-10 and knowledge of the data formats. Therefore, STECF concludes to include this as a TOR for next year's FDI EWG.

STECF concludes that data for the years 2011 and 2012 should only be requested on a voluntary basis or next year's data call. STECF concludes that information on the BSA subregion should not be requested in FDI.

STECF concludes that the analysis of the impact of confidentiality rules on coverage of data, cannot be carried out during the EWG when data to be disseminated are not yet available. STECF concludes that the TOR for future FDI EWGs should request to assess the impact of confidentiality rules for the data disseminated publicly in the previous year and not in the current year.

STECF concludes that the analysis of the comparability between the data collected in the FDI database, and the data provided to the AER should inform the dedicated RCG workshop of economists, biologists and data scientists that will discuss collaboration, definitions and data calls consistency (see TOR 6.2. Recommendations of the Regional Coordination Groups, Recommendation 15. Work towards combining FDI and AER data calls).

STECF concludes that an ad hoc contract on the possible future use of the 'Shiny app' on overall trends in discard patterns using the FDI data, should i) review the technical documentation (including scripts, design process, manuals), ii) analyse the methodology to deliver discard rates and discards for exemptions.

STECF concludes that the results of the ad hoc contract should be reviewed by STECF, and, on the basis of this revision, a workshop could be organised by DG MARE involving the

developers of the app and FDI experts. The workshop could then evaluate the feasibility of an annual update of the 'Shiny app' with FDI data.

5.2 EWG 23-11: Fishing effort regime for demersal fisheries in West Med

Request to STECF

STECF is requested to review the report of the STECF Expert Working Group meeting.

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments and recommendations. Specifically, STECF is requested to consider the results and conclusions of the EWG 23-11 showing the socio-economic performance of the fleets, based on a number of modelling assumptions and limitations, which results in a variable economic performance of numerous fleets under EMU 1 and in particular EMU2. STECF is requested to advise on the potential limitations of such indicators and indicate the modelling scenario that better balances the biological improvement of the stocks towards MSY and the socio-economic impacts on the fleets both by fleet segment and at Member State level.

Additionally, given the enduring state of the hake stocks in both EMU 1&2 being assessed as below Blim, STECF is requested to advise on potential management measures that could complement the effort regime to ensure a faster recovery of these stocks.

STECF comments

EWG 23-11 met online from 25th September to 29th September 2023. EWG 23-11 was the eleventh such STECF EWG dedicated to the evaluation of the implementation of the Western Mediterranean Sea Multi-Annual Management Plan (West Med MAP) since 2018. This plan refers to the Western Mediterranean geographical subareas (GSA) adjacent to Spain, France and Italy in GSAs 1, 2, 5, 6, 7, 8, 9, 10 and 11, grouped into two spatial EMU (Effort Management Units) - EMU1 for GSAs 1 to 7 and EMU2 for GSAs 8 to 11.

STECF observes that the EWG adequately addressed the TORs and has the following specific comments on the five ToRs addressed by EWG 23-11.

ToR 1 compile and provide complete sets of annual data on fishing effort from 2015 to 2022.

STECF notes that the EWG has compiled and provided a time series of fishing effort data reported in fishing days, days at sea, hours at sea, Gross Tonnes (GT) x fishing days, and Kilowatts (kW) x fishing days by:

- Country (i.e., Spain, France, Italy)
- EMU 1 and 2
- GSA (1, 5, 6, 7, 8, 9, 10, 11)
- Gear (OTB, OTT, GNS, GTR, LLS, other); and
- Fleet segments (i.e., <12m, 12-18m, 18-24m, >24m).

STECF notes that effort reported in the FDI data call were compared with effort thresholds contained in EU regulation (2019/2032) for trawlers (OTB, OTM, OTT, PTB, PTM and TBB). Across fleet segments, fishing effort thresholds set out in the Regulation are greater than those reported in the FDI database. This discrepancy may be explained by the fact that a maximum fishing days baseline rather than actual fishing effort baseline was used when calculating the Regulation thresholds. Further, possible difficulties in monitoring transfers of effort between fleets may also cause discrepancies between the data sets.

STECF notes that, in this context, the maximum fishing days included in the Regulation might not be as limiting as intended, as the overall quota per year has been consistently underutilised by several, although not by all, fleet segments.

STECF observes that the effort analysis was complemented by a detailed examination of volumes, values and price data for landings by stocks and fleet segments using FDI data. This

preliminary analysis aimed to provide a broad context of the state and evolution of the fisheries in EMU-1 (encompassing GSAs 1,5,6,7). Due to time constraints, it was not possible to run it for EMU 2 as well.

While the trends were heterogeneous among fleets, the EWG observed that Spanish and French demersal trawlers seem to face a substantial contraction of their landed values, while deep-water trawlers showed an increasing trend for their landed values, most likely due to an increase in price for red shrimp (ARA). STECF notes that for many other fleets, the trends rates before and during the plan remain similar, (i.e., trends before and after the implementation of the MAP are broadly the same).

ToR 2 Update the F-E analyses for Effort Management Units 1 and 2 - Collect qualitative information on the situation and estimate, if possible, the consequences of fuel and other costs changes

STECF observed that the EWG has updated the fishing mortality – fishing effort (F-E) plots per species and fleets. As last year, in most cases, there is no obvious linear relationship between F-E. For some stocks, a linear relationship was visible (e.g., hake (HKE), red shrimp (ARA), deep-water rose shrimp (DPS) except for DPS in GSA 1) but is driven by varying situations (fishing effort and fishing mortality) among GSAs.

STECF notes it would be worthwhile to include a GSA effect next year in the modelling to ascertain whether there is a linear relationship at the GSA level. Based on the latest stock assessments (EWG 23-09), the EWG also updated temporal trends in partial mortality per species due to the different fishing fleets in the different GSAs.

STECF notes that the EWG updated fuel price information using EUMOFA data and AER projections. The EUMOFA data indicated a rapid increase of the price from summer 2020 to summer 2022, followed by a decrease since then (and a new increase in the later months of 2022). However, EWG acknowledges that analysing the marine fuel price is complex since they are significantly influenced by many international and local factors.

While the EUMOFA and AER data were used to parameterise the bioeconomic models, EWG noted that:

1. The financial situation which the bio-economic models present for the year 2022 and beyond depend a lot on the assumptions regarding the development of fuel prices but include no mitigation measures provided to fishing companies (e.g., de minimis payments to cover parts of the increase in fuel costs 2022 and 2023). STECF plenary (22-03) agreed that the models should not include those support payments, to allow distinguishing them from impacts of the MAP as opposed to other external economic shocks.
2. STECF PLEN (22-03) observed that the nowcast for 2023 (that are now used as input data for the models) should be interpreted with caution due to the fact that the development in the second half of the year (energy and fish prices, inflation, interest rates etc.) is unknown and highly uncertain.
3. The resolution of AER data raises some issues for EMU2 in which a disaggregation of costs per GSA was required. Moreover, it is also important to note that estimates of crew costs are considered unreliable, due to a lack of data and information, and uncertainty over the reliability of the AER data used to estimate the values of crew share by fleet segment. Consequently, crew costs are very likely to be underestimated in situations where the economic performance of a fleet segment is poor.

ToR 3 and 4: Develop, as in previous years, effort and catch management scenarios for all demersal fishing gear - provide an overview of the measures needed to achieve MSY by 1 January 2025 and what are the socio-economic impact of these measures.

STECF observes that the EWG updated the 4 bioeconomic models based on the latest stock assessments and tested different management scenarios (i.e., combinations of management measures, including effort reduction, including selectivity measures and introduction of MPAs) as proposed by the Commission. This included 13 scenarios, 6 of them being considered

priorities. Scenarios include a combination of trawler effort reductions, selectivity improvements and closure areas, for which bonuses of fishing days were granted as a compensatory mechanism under the WestMed Map and combined red and blue shrimp (ARA-ARS) catch limits.

STECF reiterates that the various bioeconomic simulation models have different pros and cons to exploring the scenarios, with some bioeconomic models better handling the spatial aspects of the fisheries and others better accounting for socio-economic factors. STECF agrees with the EWG that the models were not specifically developed for the WestMed MAP and that they have been often used "at their limits" to test the requested scenarios. STECF observes that additional work is needed to improve and develop the models further (e.g., Specifications of stock-recruitment relationships, including more stocks in ISIS-Fish, implementing more scenarios in the different models). STECF observes that potentially moving towards a Management Strategy Evaluation (MSE) would be a positive step.

STECF observes due to the model constraints, it was not possible to test all the scenarios with all the models or to integrate all stocks in all models. STECF observes that efforts have been made to harmonise socio-economic indicator outputs across models following STECF EWG 23-01. STECF also notes that models vary in the way they address uncertainty/natural stochasticity, and regarding assumptions on the stock-recruitment relationship, a key process in any bioeconomic simulation model. STECF notes that modellers expended much effort to modify their models to handle the different scenarios and that more time and resources would be required to address the limitations of the different models. STECF observes that the lack of MEDITS data for 2022 may have increased the uncertainty of the stock assessment results, that fed the BEMTOOL model for the biological and pressure component in EMU2.

STECF notes that, for EMU1, IAM and ISIS-Fish models were applied, while BEMTOOL and SMART were applied in EMU2. STECF observes that, in both EMUs, Fmsy for all stocks was only achieved under scenarios involving a reduction in effort of a magnitude specifically set to achieve this objective. STECF notes that, in such scenarios, fishing effort was reduced by 60-85% in EMU 1 and up to 50% in EMU 2, leading to very significant negative impacts on the socio-economic performance of several fleets in the short (2025) and medium (2030) term. This decrease is mainly required by the situation of the hake stocks which are severely overexploited in both EMUs.

STECF notes that the other types of measures tested (e.g., selectivity, closures) have had limited effects on biological and socio-economic indicators on their own. STECF notes that the two scenarios that did not involve any reduction in fishing effort (SQ and L) had more limited socio-economic impacts, but do not allow the Fmsy level to be reached for overexploited stocks, as the visible effects are limited to a few stocks that are already close to the Fmsy level in the EMU2. STECF notes that the implementation of TACs in EMU1 had been tested by STECF EWG 21-13, and that while Fmsy could be reached, it would result in a strong fishing effort reduction, detrimental socio-economic impacts for many fleets, and hake acting as a choke species.

Table 5.2.1 and 5.2.2 present the main socio-economic indicators estimated by IAM in EMU1 and BEMTOOL estimated in EMU2. Those two tables were aggregated to be more consistent with the ToR requests. STECF observes that the results critically depend on the assumptions regarding the development of fuel prices and do not include any measures such as subsidies that are likely to mitigate some of the negative socio-economic impacts.

Table 5.2.1. EMU1 (IAM model). Socio-economic outputs by Member State (MS) and fishing technique (DTS, DFN and HOK) and per scenarios such as : Gross Profit Margin in 2025, and in 2030, percentage of change in Gross Profit Margin between 2022 and 2025, and between 2022 and 2030, Full Time Equivalent (FTE) change between 2022 and 2024, between 2022 and 2025, and between 2022 and 2030 (in numbers of FTE), and percentage of change of FTE between 2022 and 2025 , and between 2022 and 2030. Red indicates a decrease, yellow a moderate increase (less than 10%) and green a high increase (>10%). Arrows indicate the change in trends between 2022-2030 compared to 2022-2025.

	Fleet segments	(Estimated level of profitability) Gross profit margin in 2025	(Estimated level of profitability) Gross profit margin in 2030	% Gross profit margin changes between 2022 - 2025	% Gross profit margin changes between 2022 - 2030*	FTE evolution between 2022 and 2024 (in number of FTE per MS and fishing technique)	FTE evolution between 2022 and 2025 (in number of FTE per MS and fishing technique)	FTE evolution between 2022 and 2030 (in number of FTE per MS and fishing technique)	% of changes of FTE between 2022-2025	% of changes of FTE between 2022-2030
SQ	FR_DTS	Green	Green	Green	↗	Yellow	Yellow	Yellow	Yellow	Yellow
	FR_DFN	Green	Green	Yellow	→	Yellow	Yellow	Yellow	Yellow	Yellow
	FR_HOK	Red	Red	Red	↘	Yellow	Yellow	Yellow	Yellow	Yellow
	SP_DTS	Green	Green	Yellow	↗	Red	Red	Red	Red	Red
	SP_DFN	Green	Green	Yellow	↗	Yellow	Yellow	Yellow	Yellow	Yellow
	SP_HOK	Yellow	Yellow	Green	↗	Yellow	Yellow	Yellow	Yellow	Yellow
A	FR_DTS	Red	Red	Red	↗	Red	Red	Red	Red	Red
	FR_DFN	Green	Green	Green	↗	Yellow	Yellow	Yellow	Yellow	Yellow
	FR_HOK	Yellow	Yellow	Red	↘	Yellow	Yellow	Yellow	Yellow	Yellow
	SP_DTS	Red	Red	Red	↗	Red	Red	Red	Red	Red

	SP_DFN				↗					
	SP_HOK				↗					
D	FR_DTS				↗					
	FR_DFN				↗					
	FR_HOK				↘					
	SP_DTS				↗					
	SP_DFN				↗					
	SP_HOK				↗					
	L	FR_DTS				↗				
FR_DFN					→					
FR_HOK					↘					
SP_DTS					↗					
SP_DFN					→					
SP_HOK					↗					

Legend:




Indicator	
	>10% - High
	0-10% - Reasonable
	<0% - Weak




Table 5.2.2 EMU2 (BEMTOOL model). Socio-economic outputs by fishing technique for Italy (DTS, DFN and HOK) and per scenarios such as : Gross Profit Margin in 2025, and in 2030, percentage of change in Gross Profit Margin between 2020 and 2025, and between 2020 and 2030 (as a difference between, for ex., GPM in 2030 and 2020), Full Time Equivalent (FTE) change (difference) between 2020 and 2024, between 2020 and 2025, and between 2020 and 2030 (in numbers of FTE), and percentage of change of FTE between 2020 and 2025 , and between 2020 and 2030 (as for ex. (FTE(2025)-FTE(2020))/FTE(2020)). Red indicates a decrease, yellow a moderate increase (less than 10%) and green a high increase (>10%). Arrows indicate the change in trends between 2022-2030 compared to 2022-2025.

Scenarios	Fleet segments	(Estimated level of profitability) Gross profit margin in 2025	(Estimated level of profitability) Gross profit margin in 2030	% Gross profit margin change between 2020 - 2025	% Gross profit margin changes between 2020 – 2030*	FTE evolution between 2020 and 2024 (in number of FTE per MS and fishing technique)	FTE evolution between 2020 and 2025 (in number of FTE per MS and fishing technique)	FTE evolution between 2020 and 2030 (in number of FTE per MS and fishing technique)	% of change of FTE between 2020-2025	% of change of FTE between 2020-2030
A	DTS_VL0612				↗					
	DTS_VL1218				↗					
	DTS_VL1824				↗					
	DTS_VL2440				↗					
	PGP_VL0012				→					
	PGP_VL1218					↗				
C	DTS_VL0612				↗					
	DTS_VL1218				↗					
	DTS_VL1824				↗					

Scenarios	Fleet segments	(Estimated level of profitability) Gross profit margin in 2025	(Estimated level of profitability) Gross profit margin in 2030	% Gross profit margin change between 2020 - 2025	% Gross profit margin changes between 2020 – 2030*	FTE evolution between 2020 and 2024 (in number of FTE per MS and fishing technique)	FTE evolution between 2020 and 2025 (in number of FTE per MS and fishing technique)	FTE evolution between 2020 and 2030 (in number of FTE per MS and fishing technique)	% of change of FTE between 2020-2025	% of change of FTE between 2020-2030
	DTS_VL2440				↗					
	PGP_VL0012				↗					
	PGP_VL1218				→					
D	DTS_VL0612				↗					
	DTS_VL1218				↗					
	DTS_VL1824				↗					
	DTS_VL2440				↗					
	PGP_VL0012				↗					
	PGP_VL1218				→					
L	DTS_VL0612				↗					
	DTS_VL1218				↗					
	DTS_VL1824				↗					
	DTS_VL2440				↗					

Scenarios	Fleet segments	(Estimated level of profitability) Gross profit margin in 2025	(Estimated level of profitability) Gross profit margin in 2030	% Gross profit margin change between 2020 - 2025	% Gross profit margin changes between 2020 – 2030*	FTE evolution between 2020 and 2024 (in number of FTE per MS and fishing technique)	FTE evolution between 2020 and 2025 (in number of FTE per MS and fishing technique)	FTE evolution between 2020 and 2030 (in number of FTE per MS and fishing technique)	% of change of FTE between 2020-2025	% of change of FTE between 2020-2030
	PGP_VL0012				↗					
	PGP_VL1218				→					
SQ	DTS_VL0612				→					
	DTS_VL1218				↗					
	DTS_VL1824				↗					
	DTS_VL2440				↗					
	PGP_VL0012				→					
	PGP_VL1218				→					

Legend:

Indicator	
	>10% - High
	0-10% - Reasonable
	<0% - Weak

STECF notes that the implementation of the WestMed MAP is ongoing with the first measures only implemented in 2020, and that the data used to calibrate the bioeconomic models date is from 2022. Given the variability of fish stocks, the effects of different crisis (COVID, conflict in Ukraine), STECF reiterates that it is was expected that significant positive effects on stocks dynamics may not already be detected. STECF observes that in the case of the North Sea in the 2000s, the status of many species had appeared seemingly stable for many years, and it took several years before the effort reduction restrictions introduced had observable effects (Fernandes and Cook, 2013).

STECF notes that since hake mature at a relatively large size in the area (~36 cm – STECF PLEN 22-02) and at age 2 (Mellon-Duval et al. 2010) many years will be required to observe a rebuild of the stocks. Further, the recovery of the population given the currently depleted SSB (STECF EWG 23-09), and the low abundance of large individuals observed during the MEDITS survey (STECF EWG 23-09) suggests the rebuilding process will be slow.

Notwithstanding this, STECF notes that recent observations suggest some positive effects of the MAP. In GSA7 (TOR 5.2b), where the largest closure areas have been implemented and where only coastal fisheries operate, the abundance of some species seems to be increasing following the implementation of the closure areas. Additionally, catches of juveniles of hake have decreased, while at the same time, the higher prices for octopus have increased its importance as a commercial species and to some extent, limited the negative socio-economic impacts of the MAP (Certain and Billet 2023). EWG 23-01 has also reported positive changes in fishermen behaviour in reaction to the MAP.

ToR 5: ensure that all unresolved data transmission issues encountered prior to and during the EWG meeting are reported online via the Data Transmission Monitoring Tool (DTMT)

STECF notes that the EWG did not find any transmission issues to be reported in the DTMT.

Other observations

STECF notes that the EWG chairs met with MEDAC representatives and acknowledges their engagement. This meeting provided valuable information which the modelers can use to improve the assumptions in the model (e.g., on crew costs, where vessel owners must pay a minimum wage to be able to keep the crew, or reasons why fishing days were not fully utilised). MEDAC provided further documents which will be analysed to provide information for next year's EWG meetings.

STECF observers that this type of stakeholder engagement in cases where EWGs do not need to discuss specific issues represents a practical approach to gathering detailed fisheries information.

STECF conclusions

STECF concludes that reported fishing effort have effectively decreased from 2015 to 2022. In EMU1, this has led to a contraction of the landed values of some fleets, especially demersal trawlers.

STECF concludes that for most considered stocks and fleets, there was no simple relationship between fishing effort and fishing mortality. This suggests that the effectiveness of any fishing effort regulation aiming at achieving a given fishing mortality requires regular monitoring.

STECF concludes that because of the discrepancy between the fishing effort thresholds implemented in the Regulation and the number of fishing days declared in the FDI, further decrease of the thresholds might be required to achieve the desired effective reduction, noting they are contained in the Regulation and are difficult to change.

STECF concludes that among the tested scenarios, only scenarios including trawler effort specifically designed to achieve Fmsy were likely to ensure achieving Fmsy for all species,

including for hake. However, they imply significant fishing effort reductions (60% to 80%) in one or two years depending on fleets and scenarios.

STECF concludes that scenarios SQ and L which did not include effort reduction were not predicted to have major effects on overexploited stocks: Fmsy was not reached for the overexploited stocks even in 2030, and effects were mainly visible for stocks already in good status in EMU2. While having more limited socio-economic impacts, the profitability was predicted to be negative for some fleets even under SQ.

STECF concludes that large fishing effort reductions would have severe stronger negative socio-economic impacts on the fishing fleets, especially in EMU1 where many stocks are in a depleted state.

STECF concludes that the models BEMTOOL and IAM predicted almost half of the considered fleets will have negative profitability in the short (2025) and medium term (2030), though BEMTOOL predicted an increase of economic indicators in the medium term after the initial decrease in EMU2. Moreover, a decrease of trawler fishing effort might produce negative impacts on the catches of other species that are already below Fmsy in EMU2 (ARS, MUT and DPS), leading to an underexploitation of those stocks.

STECF concludes that the need for fishing effort reductions is mostly driven by the critical status of hake stocks in both EMU1 and EMU2. STECF notes that no other management measure on their own, as applied in the scenarios, appear to be enough to ensure achieving Fmsy. Any actions on hake will have impacts on the catches of other species and on economic performances of fleets, and that the magnitude of those impacts will depend on the pace of further fishing effort reductions.

STECF concludes that bioeconomic simulations results are highly sensitive to economic factors that are difficult to predict. This includes fuel costs, prices and subsidies. STECF concludes that medium term (2030) forecasts of socio-economic performance of fleets should be treated with caution.

STECF concludes that a dedicated project would be required to further develop the bioeconomic models. This could include the expansion of model(s) to cover the whole area and allow running only one model for the assessment of the MAP. This will facilitate comparisons between countries. This could also be the first step towards the implementation of a MSE, which STECF sees as a positive way forward.

STECF concludes that since the 2025 of Fmsy objectives are not likely to be reached, scenarios tested by the EWG next year should be clarified.

STECF concludes that the exchanges between the EWG and MEDAC are useful and should continue to inform the assessment of socio-economic impacts of the MAP.

References

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5.2b Effectiveness of the West Med MAP in GSA7

Background provided by the Commission

In adopting the Western Mediterranean Multiannual Management Plan, Member States agreed to Article 11.1, alternatively Article 11.2, that aims at protecting juveniles of hake. All three concerned Member States also adopted Article 11.3 and agreed to establish other closure areas by 17 July 2021 and on the basis of the best available scientific advice, where there is evidence of a high concentration of juvenile fish, below the minimum conservation reference size, and of spawning grounds of demersal stocks, in particular for the stocks concerned.

STECF PLEN 23-02 and STECF EWG 23-11 are the latest reviews the proposals of closures (placement and period) and determine their efficiency to protect juveniles of hake, as planned in Article 11.2. However, in view of Article 11.3, this review should be expanded to juveniles and spawners of all demersal species covered by the West Med MAP and account for fishing effort displacement.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

Based on new proposals for additional closures to be submitted by Member States, STECF is requested to review the existing closures and the proposed additional closures (i.e., terms of placement and period). In view of the objectives set in Article 11 of the West Med MAP and the conditionalities of Art 8 of the 2023 TAC and Quota regulation, STECF is requested to estimate their efficiency to protect juveniles and spawning aggregations of the demersal species covered by the West Med MAP, using the models used in previous EWG for the West Med MAP. The additional closures should result in a reduction of between 15% and 25% in the total catch, if possible, looking at juveniles and spawners separately, of each stock covered by the MAP.

Summary of the information provided to STECF

The STECF was provided with a single background document (BG). This document is a report entitled, "*Évaluation biologique et socio- économique du plan de gestion West Med dans le Golfe du Lion Partie 1 (Question 1) : Effets observables 2020-2022 du plan de gestion West Med sur les pêcheries du Golfe du Lion*". The report presents the updated results from a previous 2021 report on the effectiveness of Mediterranean closures areas in the perspective of possible amendments to the West Med MAP in 2024. The report is composed of several parts for which the main outputs are summarised as follows:

1. Using STECF Fishery-Dependent Information (FDI), the first part of the document gives a description of the composition in weight and volume of the catches of the French fleets operating in the GSA7. The most important species are Octopus (*Octopidae*) and Sea bream (*Spratus aurita*) that represent 30% of the total value of catches of all vessel lengths combined; followed by European hake (*Merluccius merluccius*), Seabass (*Dicentrarchus labrax*), Sole and flatfish (*Soleidae*), Mullet (*Mugilidae*), Anglerfish (*Lophius* spp.), Eels (*Anguilla* spp.) and Squid (*Loliginidae*).
2. The report shows that GSA7 landings per fleet have slightly decreased in weight and value since 2013. The value of landings also reduced after 2019 linked to lower prices for seabream. No information on the fleet composition and evolution was presented. The report shows the main segments are netters 6-12m followed by trawlers 18-24m and 24-40m. The landings by trawlers have remained constant over time whereas the value has increased mainly driven by landings of Octopus.

3. The report contains an evaluation of the transition of fisheries showing the variation of the 'fleet-main species' combination, comparing two reference years (2014-2016 and 2017-2019) to values after the implementation of the West Med MAP (2020-2022). No major effect was detectable for the fleet segments included in the MAP. However, some negative changes were noticeable for netters and vessels using pots and traps in the length class 00-06m as well as pelagic trawlers 24-40m. The link with the effect of the WestMed MAP is questionable and the report suggests the negative changes are more likely a consequence of the depletion of the sardine stock. The report concludes that a more detailed analysis would be necessary to evaluate these observed trends and their causes.
4. Based on data provided from the IFREMER programmes - SACROIS, OBSVENTES, OBSMER - catches of hake have decreased since 2020. These catches are mainly composed of juveniles (in 2022 up to 80% of hake caught measured less than 29cm), and often even below the Minimum Conservation Reference Size of 20cm. The catches of juveniles over time show a decrease of 35% when comparing average values from 2015-2017 to 2020-2022. However, the time series is quite short, and in 2020 catches were very low (possibly due to the Covid pandemic leading to market disruption). Moreover, catches of juveniles have increased since 2021, while catches of adults increased in 2022. Red mullet landings have increased by 24% since the implementation of the West Med MAP in comparison to the reference periods; landings are largely dominated by adults. These dynamics remain difficult to interpret so far as high recruitment occurred for red mullet since 2010 and for European hake in 2018 (as described in the BG document).
5. The report presents a spatio-temporal analysis of the scientific survey data set MEDITS for the period 2017-2022. The density of the main species is mapped for GSA7 comparing the average numbers and biomass for the 2017-2019 and 2020-2022 surveys. The results vary among species. For Red mullet and Octopus, densities have increased in GSA7, including inside the closure area. For sole (in coastal areas) and anglerfish the densities maps show overall reductions although the closed areas may have a role in limiting the local decrease.

The same analysis was carried out but disaggregated between juveniles and adults. It confirms the increase in landings for the juvenile stages throughout GSA7 with the highest increase rates inside or at the borders of the closed areas. In contrast, the average adult density is decreasing over time, especially in the eastern part of the Gulf of Lion. However, the reference time series and the size to distinguish juveniles from adults differ from those used for the FDI analysis and would benefit from harmonisation or an explanation of the differences.

For Red mullets, densities have increased after 2020 for both juveniles in coastal areas and adults inside and at the southern border of the bathymetry closing area.

Some positive results are observed for Octopus, Mullet, juveniles of European hake but also for other demersal species of less economical importance such as Poor cod (*Trisopterus minutus*) and Jack and horse mackerels (*Trachurus spp.*).

STECF comments

STECF was requested to assess the efficacy of closure areas in GSA7 and comment on additional closed areas introduced. STECF has restricted the response to the analysis and commented on the background document and evaluation of the GSA7 area closures as the background document does not provide any proposal for new closures.

STECF acknowledges that the background document provided by IFREMER is comprehensive and detailed. STECF observes that this document provides evidence of localised benefits inside the permanent closure areas, for the species included in the West Med MAP (Red mullet and juveniles of European hake).

STECF considers that the decrease in juveniles of European hake in 2018, red mullet between 2009-2016 should be treated with caution due to variability in recruitment occurring for these species. This may largely affect the evaluation given the limited time frame of available data.

STECF observes that the adult European hake stocks is of concern especially considering the proportion of very early stage juveniles in the catches including hake below MCRS observed in the landing compositions.

STECF considers that improving selectivity in the coastal fisheries would represent an additional measure that would help to reduce catches of juveniles although such improvements in selectivity would likely result in a loss in economic revenue (see STECF PLEN 22-03).

STECF considers that the report suggest that the West Med MAP may benefit species not listed in the MAP and catches of some of these species could help to mitigate the negative socio-economic impact of the MAP for the fleets (e.g. Octopus, squids). There are no official stock assessments available for most of these species even though that they are of high economical value. Therefore, STECF suggests that to allow a better evaluation on the effectiveness of the West Med MAP, it would be useful to collect additional data, especially from small vessels operating in coastal areas where there is no dedicated scientific survey.

STECF considers that the studies on the spatio-temporal analysis deliver interesting results that help in evaluating the preliminary effectiveness of the West Med MAP. However, STECF observes that due to the short period for which the West Med MAP has been implemented, the results presented are based on a short time series. Therefore, STECF observes it is not yet possible to draw definitive conclusions about the effects of the closure areas.

STECF highlights that the analyses of alternative closure scenarios in GSA7 using the ISIS-Fish model were performed during STECF EWG 22-01 and provided comprehensive results. This included scenarios comprising the permanent closure as well as the extension of the closure to all gears. This showed a decrease in the catch of the younger age classes (0-2) of European Hake. The permanent closures scenario returned significantly higher catches of age 4 and 5 and the reduction of fishing pressure on every stage particularly in scenario b (permanant closure area). The economical projection showed a contraction of revenues for trawlers (-5% to -9%) but a benefit to other fleets (e.g. Spanish longliners).

STECF conclusions

STECF concludes that it remains premature to conclude definitively on the efficiency of the closures with respect to the objective of the West Med MAP as the implementation period is still short. However, projections tested by STECF EWG 22-01 delivered interesting new insights for management consideration.

STECF concludes that the short term observations of improvement for several species and juveniles do not guarantee that they would translate to the whole of the hake stock and contribute to achieve the objectives of the West Med MAP.

STECF concludes that an observed local improvement of habitats and benthic communities in the closed are in GSA 7 can be considered a preliminary positive impacts of the MAP.

5.3 EWG 23-12: Stock Assessment in the Adriatic, Ionian and Aegean Seas

Request to STECF

STECF is requested to review the report of the STECF Expert Working Group meeting.

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

Overview of EWG 23-12

EWG 23-12 was held in hybrid form in Athens, from 9th to 15th October 2023. The meeting was attended by 20 experts (1 expert remotely), including two STECF members and three JRC experts. The objective of EWG 23-12 was to carry out demersal stock assessments and provide short-term forecast advice for stocks in the Adriatic, Ionian and Aegean Seas, and Strait of Sicily as defined in the EWG ToRs.

The EWG 23-12 assessed 17 stocks. This included Sardine in GSAs 17-18, for which a review of the progress made by the JRC and GFCM for a planned benchmark was completed, and Giant red shrimp in GSAs 24-25-26-27, for which an exploratory data analysis was performed.

From the overall stock list, 14 area/species combinations were evaluated this year (Table 5.3.1). Due to insufficient time and data, red mullet in GSA 20 was not assessed. This stock has a lower priority and conflicting signals from different data sources have been identified in the past, making the assessment uncertain. For red mullet in GSA 17-18, the assessment model was considered only indicative of trends and the ICES Category 3 approach was followed to provide advice.

The lack of MEDITS survey data in 2022 in Italian GSAs had an important impact, impeding the update of the analytical assessment of nine stocks in the area: European hake stocks in GSAs 17-18 and in GSA 19, red mullet in GSA 19, striped red mullet in GSAs 15-16, Norway lobster stocks in GSAs 17-18 and GSAs 15-16, deep-water rose shrimp in GSAs 17-20, giant red shrimp in GSAs 18-20, and blue and red shrimp in GSAs 18-20. For these stocks, the same methodology proposed by EWG 23-09 (West Med stock assessment) was followed. This approach consisted in a catch projection parameterised on the reported catches in weight for 2022 – which means that advice was provided projecting 2 years ahead from the assessment carried out in 2022 (with data up to 2021).

The EWG carried out short-term forecasts (STF) for the four accepted analytical assessments, and for eight stocks with catch projections. For one stock, deep-water rose shrimp in GSAs 17-20, the assessment model was found unsuitable for such an analysis and for providing catch advice.

For four stocks with an update assessment (sole in GSA 17, red mullet in GSA 22 and hake in GSA 20 and in GSA 22), new MSY reference points were calculated by EWG 23-12.

For 3 stocks not included in the MAP, red mullet in GSA19, blue and red shrimp in GSAs 18-19-20, and striped red mullet in GSAs 15-16, the assessments are provided as illustrative of stock status, but F_{MSY} forecasts are not available. In these cases, a status quo F forecast is provided to give a general indication of change.

For those stocks with assessments completed with STF and F_{MSY} defined, additional advice associated with the Adriatic MAP was provided. For the Adriatic stocks (GSA 17-18), the

MAP has the objective of achieving F_{MSY} by 2026 at the latest. For other stocks in Ionian Sea (GSAs 19 to 21), a transition period to 2030 has been agreed.

The EWG made a comprehensive review of the preliminary age-based assessment for Sardine in GSAs 17 and 18 that has been developed by JRC and GFCM. The EWG found several inconsistencies among different sources of information and across the time series.

The exploratory data analysis for Giant red shrimp in GSAs 24-25-26-27 detected two relevant issues for the assessment of the stock: the lack of complete catch information for GSAs 24, 26 and 27 and the absence of biological parameters from the entire areas (GSAs 24-27).

Table 5.3.1. Summary of the work attempted, and the advice based on the 2022 and 2023 assessments. a4a: an age-based assessment method; ICES Cat.3 refers to the ICES Category 3 approach to advice for stocks without analytical assessment; SS3: Stock Synthesis model; SPiCT: Surplus Production model In Continuous Time. Catch projection means that advice was derived from the assessment carried out in 2022 running a projection through 2022 conditioned to the reported catches in weight for that year, plus the standard short-term forecast (STF) over 2023 and 2024.

Area	Species	Method 2022	Method 2023
GSA 17-18	Hake	SS3	Catch projection, STF
GSA 17	Sole	SS3	SS3, STF
GSA 17-18	Red mullet	ICES Cat.3	ICES Cat.3
GSA 17-18	Norway lobster	SPiCT	Catch projection, STF**
GSA 17-18-19-20	Deep-water rose shrimp	a4a	SPiCT catch projection***
GSA 19	Hake	a4a	Catch projection, STF
GSA 19	Red mullet	a4a	Catch projection, STF*
GSA 18-19-20	Giant red shrimp	a4a	Catch projection, STF
GSA 18-19-20	Blue and red shrimp	a4a	Catch projection, STF*
GSA 15-16	Norway lobster	a4a	Catch projection****, STF
GSA 15-16	Striped red mullet	a4a	Catch projection****, STF*
GSA 20	Hake	a4a	a4a, STF
GSA 22	Hake	a4a	a4a, STF
GSA 20	Red mullet	-	-
GSA 22	Red mullet	a4a	a4a, STF
GSA 17-18	Sardine	-	Exploratory analysis
GSA 24-25-26-27	Giant red shrimp	-	Exploratory analysis

*STF based only Fsq scenario.

**STF based on an adhoc excel spreadsheet.

***Catch projection based on the SPiCT model from GFCM benchmark.

****Catch projection based on catch data for 2022 including also catches from non-EU GSAs.

- Previous STECF assessment not available and no data preparation prior to meeting.

Summary of the Main Findings

The main results are summarised in the bullet points below and in Table 5.3.2. Overall, the assessments indicate that 8 out of the 14 stocks assessed are being overfished and 5 are under-exploited. For one stock, ICES Category 3 advice was provided. In addition, in 2022, out of the 8 overfished stocks, one is behind transition to F_{MSY} in 2026, one stock could not be assessed based in relation to F_{MSY} transition, and six are not currently in a MAP (Table 5.3.3).

Stocks under Adriatic MAP with transition to F_{MSY} in 2026

- Hake in GSA 17-18: the biomass is increasing. Catches should be reduced by at least 49% to reach F_{MSY} in 2024. F_{2024} is $> F_{MSY}$ -Transition so progress to F_{MSY} in 2026 is behind transition.
- Sole in GSA 17: the biomass is increasing. Catches may be increased by no more than 37% to reach F_{MSY} in 2024. F is already below F_{MSY} .
- Red Mullet in GSA GSA 17-18: the biomass is increasing. Catches may be increased by no more than 23% in 2024. No short term forecast could be produced.
- Norway lobster in GSA 17-18: the biomass is increasing. Catches may be increased by no more than 190% to reach F_{MSY} in 2024. F is already below F_{MSY} .
- Deep-water rose shrimp in GSA 17-18-19-20: the biomass is declining. F in 2022 is estimated as being above F_{MSY} . No short-term forecast could be produced.

Stocks in Ionian Sea with transition proposals to F_{MSY} in 2030

- Hake in GSA 19: the biomass is increasing. Catches should be reduced by at least 22% to reach F_{MSY} in 2024. F is above F_{MSY} , but ahead of transition.
- Red mullet in GSA 19: the biomass is increasing. F is already below F_{MSY} . No short-term forecasts were performed.
- Giant red shrimp in GSA 18-19-20: the biomass is fluctuating. Catches should be reduced by at least 1% to reach F_{MSY} in 2024. F_{2022} is $> F_{MSY}$ -Transition, so progress to F_{MSY} in 2030 is behind transition.
- Blue and red shrimp in GSA 18-19-20: the biomass is declining. F is well above F_{MSY} . No short-term forecast were performed.

Stocks without transition objectives

- Norway lobster in GSA 15-16: the biomass is declining. Catches should be reduced by at least 33% to reach F_{MSY} in 2024.
- Striped red mullet in GSA 15-16: the biomass is increasing. No catch forecast is provided. F is estimated to be below F_{MSY} .
- Hake in GSA 20: the biomass is increasing. Catches should be reduced by at least 51% to reach F_{MSY} in 2024.
- Hake in GSA 22: the biomass is stable. Catches should be reduced by at least 64% to reach F_{MSY} in 2024.
- Red mullet in GSA 22: the biomass is increasing. Catches may be increased by no more than 92% to reach F_{MSY} in 2024. F is estimated to be below F_{MSY} .

Table 5.3.2 Summary of advice and stock status from EWG 23-12 by area and species based on **F_{MSY} target for F2024**. Stocks in red do not have assessment capable of providing catch options at F_{MSY}, and the line is based on F status quo (Fsq). Stock status is provided as change in Biomass and F from 2020 to 2022. Fishing mortality (F) 2022 is estimated F in the assessment. Catch in 2024 is based on F_{MSY} (or in red Fsq). Change in F is the difference (%) between target F in 2024 and the estimated F for 2022. Change in catch is the difference (%) between catch 2022 and catch advice for 2024. Biomass and catch 2020-2022 are given as an indication of trends over the last 3 years for stocks with time series analytical assessments or biomass indices. In bold stock without assessment and ICES cat 3 index-based advice. Advice provided through catch projection should be considered as uncertain and those cases are highlighted in pale grey. Deep-water rose shrimp has not STF because of the nature of the SPiCT model which estimated F_{MSY} on a year basis.

Area	Species	Method/Basis	Age Fbar	Biomass 2020-2022	Catch 2020-2022	F 2022	F MSY	Change in F ** to achieve F _{MSY}	Catch* 2022	Catch 2024 (1) to achieve FMSY or catch at Fsq	Change in catch ** to achieve FMSY or at Fsq
17-18	Hake	Catch projection, STF	1-4	increasing	increasing	0.46	0.23	-50%	5579	2869	-49%
17	Sole	SS3, STF	1-4	increasing	declining	0.13	0.20	46%	1426	1955	37%
17-18	Red mullet	ICES Cat. 3		increasing	declining				2837	3491	23%
17-18	Norway lobster	Catch projection		increasing	declining	0.08	0.27	238%	806	2338	190%
17-18-19-20	Deep-water rose shrimp	Catch projection		declining	declining	1.33	0.93	-30%	4742	NA	NA
19	Hake	Catch projection, STF	0-4	increasing	fluctuating	0.33	0.21	-36%	643	502	-22%
19	Red mullet	Catch projection, STF*	1-3	increasing	declining	0.18	0.51	187%	132	191	45%
18-19-20	Giant red shrimp	Catch projection, STF	1-3	fluctuating	declining	0.48	0.37	-23%	258	256	-1%

18-19-20	Blue and red shrimp	Catch projection, STF*	1-3	declining	declining	1.09	0.21	-81%	219	199	-9%
15-16	Norway lobster	Catch projection, STF	2-8	declining	declining	0.15	0.10	-33%	88	60	-33%
15-16	Striped red mullet	Catch projection, STF*	1-4	increasing	fluctuating	0.21	0.27	30%	401	545	36%
20	Hake	a4a, STF	1-3	increasing	increasing	0.57	0.22	-62%	1111	626	-51%
22	Hake	a4a, STF	1-3	stable	fluctuating	0.49	0.11	-78%	4091	1467	-64%
22	Red mullet	a4a, STF	1-3	increasing	declining	0.15	0.29	93%	1908	3665	92%

* Estimated Catch from 2023 Assessments STECF EWG 23-12 or index- based advice.

**Change in F is % change in F 2024 relative to 2022; change in catch % change catch 2024 relative to 2022.

Table 5.3.3. Summary of stock and fishery status by area and species, **based on F_{MSY} Transition either to 2026 (Table 3a) or 2030 (Table 3b)**. Recent change gives general change in F and catch over the last three years. F₂₀₁₉ and F₂₀₂₂ are both estimated F in the 2023 assessment. F₂₀₂₆ or F₂₀₃₀ are F_{MSY} the target for the end of transition, F₂₀₁₉ or F₂₀₂₂ are the starting point of the plans. For Adriatic stocks (Table 3a) the estimate of progress so far is shown as the F change % 2019 to 2022 and the F status relative to transition with F_{MSY} Transition 2022. **Advice for 2024** is based on the F_{MSY} Transition for the next advice year (2024) which is set at a level to reach F_{MSY} in 2026 or 2030, the change in F and implied by the MAP is the difference (as a fraction) between F_{MSY} Transition in 2024 and the F in 2019 or F in 2022. Change in catch is from catch 2022 to catch 2024. Advice provided through catch projection should be considered as uncertain and are highlighted in light grey.

Table 5.3.3.a.

Area	Species	F change 2020-2022	Catch Change 2020-2022	F baseline (2019)	F 2022	Fmsy Transition 2022	Fmsy Transition 2024	Target F 2026 F _{MSY}	F Change % 2019-2022	F Status 2022 Relative to FMSY transition 2022	F Change % 2019-2024	F Change % 2022-2024	Catch 2022	Catch 2024 FMSY Transition	Catch Change 2022-2024
17-18	Hake	fluctuating	increasing	0.55	0.46	0.41	0.32	0.23	-16%	behind transition	-41%	-30%	5579	3854	-31%
17	Sole	declining	Declining	0.31	0.13	0.26	0.22	0.20	-58%	F below FMSY	-28%	72%	1426	2087	46%
17-18	Norway lobster	declining	Declining	0.22	0.08	0.24	0.26	0.27	-64%	F below FMSY	16%	220%	806	2090	159%

Table 5.3.3.b.

Area	Species	F change 2020-2022	Catch Change 2020-2022	F baseline (2022)	F 2022	Fmsy Transition 2024	Target F 2030 F _{MSY}	F Change % 2022-2024	Catch 2022	Catch 2024 FMSY Transition	Catch Change 2022-2024
19	Hake	declining	fluctuating	0.33	0.33	0.30	0.21	-9%	643	690	7%
18-19-20	Giant red shrimp	declining	declining	0.48	0.48	0.45	0.37	-6%	258	306	19%

STECF observations

STECF acknowledges that the EWG has thoroughly addressed all ToRs and has carefully reviewed the quality of the assessments produced. STECF notes the impact caused by the lack of the MEDITS survey data and commends the approaches taken by the EWG to address these issues.

STECF considers that only four stocks assessments have been fully updated having both commercial and fishery independent information available. For nine stocks STECF notes that several approaches were considered to deal with the lack of fishery independent information. STECF notes the approach taken during EWG 23-12 to provide advice for those nine stocks using the output of last year assessment (EWG 22-16) and adding the catch in total weight constraint to the first year of the projection is in line with the approach proposed and used by EWG 23-09. STECF endorses this approach where the catch in weight projection was considered the best way to estimate the fishing mortality level for 2022 as the basis for the short-term forecast. However, STECF stresses that the advice produced with such an approach introduces an additional level of uncertainty over and above a routine assessment. This level of uncertainty can vary among stocks and cannot be estimated.

STECF notes that for hake stocks in GSAs 17-18 and GSA 19 strong retrospective patterns were observed, supporting the need for a new benchmark for both stocks. In contrast, the assessment of hake stocks in GSA 20 and GSA 22 is considered as robust, with both stocks overfished, with increasing or stable biomass.

STECF notes that the current procedure of recalculating reference points annually may lead to discrepancies among the reference points, which can increase as new data are included in the assessment. STECF stresses the need for defining guidelines on when the reference points should be revaluated, especially for benchmarked stocks.

STECF notes that the assessment of red mullet in GSAs 17-18 follows an ICES Category 3 approach where the index used is the SSB time series estimated by the Stock Synthesis assessment developed by GCFM in 2022. The Stock Synthesis assessment model is accepted as indicative of trends, and the SSB can be used as an index of the abundance of the stock. The benchmark process for this stock under GFCM is scheduled for completion by March 2024 (FAO, 2023a).

STECF observes that the stock status of Norway lobster in GSAs 17-18 is improving mainly driven by the sharp increase in the biomass index in recent years in the Pomo/Jabuka area. The recovery of the biomass in Pomo/Jabuka and the relatively low biomass in Ancona and GS18 could be related to the implementation of the closures of Pomo Pit area. Accordingly, it should be noted that the local biomass trends and exploitation rates of Norway lobster vary greatly across the subareas (Ancona, Kvarner, Pomo/Jabuka Pit and GSA 18). STECF notes that it would be beneficial to have a model that could explicitly deal with different subareas in order to explore a new assessment approach. STECF notes GFCM-WGSAD has presented a first attempt to use this approach, but only for GSA 17. STECF suggests that if this model is updated to include GSA 18, it could be analysed comparatively with the current model.

STECF notes a decrease in Italian catches for stocks in the Strait of Sicily - striped red mullet and Norway lobster in GSA 16 - in 2022. This drop is due to the process of revising the allocation of catch that Italy began in 2022 and looking back in time. STECF observes that this revision will also affect the catches of red mullet, giant red shrimp, blue and red shrimp and Norway lobster that will be reported in GSAs 9, 10, 11 for the next year assessment. STECF highlights that this revision should be completed as soon as possible.

STECF observes that the stock assessment of deep-water rose shrimp in GSAs 17-20 was carried out using a time-varying productivity extension of the SPiCT model (Pedersen & Berg, 2017;

Mildenberger et al., 2020) as benchmarked by GCFM (FAO, 2023b), updated with 2022 catches. No short-term forecast was performed for this stock, since EWG 23-12 group agreed that there is no point in applying a short-term forecast with this model as it is not possible to meaningfully predict the future changes in Fmsy. STECF notes the need to explore ways of providing advice for this stock, under some assumptions, even though reliable catch forecast could not be provided, for instance based on relative changes in effort according to the recent exploitation of the stock (recent F/Fmsy values).

STECF observes that the review of the preliminary age-based assessment for Sardine in GSAs 17 and 18 revealed several inconsistencies in data. The survey indices used in the assessment are conflicting and appear to indicate abrupt temporal changes in the biomass. There are weak signals of cohorts, and there are substantial differences in periods within the catch-at-age data. There are also potential issues with the aggregation and the ageing performed to derive the stock and index objects used.

STECF notes that the type of data issues found do not conform to the format and type of data required for communicating and monitoring data deficiencies through the Data Transmission Monitoring Tool (DTMT) so have not been recorded in the DTMT tool.

STECF conclusions

STECF concludes that the EWG adequately addressed all the ToRs. STECF endorses the assessments and evaluations of stock status produced by the EWG.

STECF concludes that the results of the assessments provide reliable information on the status of the stocks and on the trends in stock biomass and fishing mortality. Full analytical assessments have only been carried out for four of the stocks analysed. For nine stocks, catch advice was provided based on the catch projection methodology and for one other stock, advice was provided using ICES Category 3 approach.

STECF concludes that the catch projection methodology used to deal with the lack of fishery independent information was the best available option and is used in other fisheries management organisations and advisory bodies, as well as by EWG 23-09. However, catch advice derived by catch projection should be considered with caution, as this procedure increases the uncertainty of the results.

STECF concludes that the assessment models for hake stocks in GSAs 17 and 18 and in GSA 19 are unstable and show significant retrospective patterns. STECF suggests these stocks be benchmarked as soon as possible.

STECF concludes that there is a need for setting up guidelines on the periodicity of the recalculation of reference points when updating stock assessments. STECF suggests holding an Expert Working Group on methodologies for Mediterranean stock assessments and the estimation of reference points during 2024.

STECF concludes that the inconsistencies found in the input data for the assessment of Sardine in GSAs 17 and 18 are likely to prevent the successful implementation of an age-based assessment model until such data issues are resolved.

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5.4 EWG 23-13: Balance/Capacity

Request to STECF

STECF is requested to assess the extent to which the STECF Expert Working Group 23-13 delivered on its Terms of Reference. The STECF is in particular requested to assess the following findings presented and to formulate its conclusions and recommendations on each of them:

- The assessment of both the status and trends of the balance situation of EU fleet segments in line with the Commission guidelines (COM(2014)545).
- The findings on whether, in accordance with the Commission Guidelines (COM(2014)545), the annual national fleet reports submitted by 31 May 2023 present an appropriate and complete analysis of balance between fleet capacity and fishing opportunity for each Member States' fleet segments.
- The observed discrepancies between the national balance assessments and those carried out by EWG 23-13 and the reasons for those as identified by the EWG.
- The opinions provided by the EWG for each Member State as to the effectiveness of the proposed measures provided in new or revised action plans submitted with the most recent fleet reports in addressing the imbalance in the fleet segments concerned.
- Provide a summary overview of the action plans (AP) currently implemented by each Member State. The overview should include the year each AP was launched, whether it is a renewal or a new AP and identify the changes between the current AP and previous versions.
- The assessment of the balance situation in the outermost regions, taking account of the comments in Section 6.3 of STECF PLEN-23-02 regarding the ad hoc STECF contract that analysed data-limited parameters for the calculation of the indicators to assess the balance between fleet capacity and fishing opportunities (ref. STECF 2341).

STECF comments

STECF reviewed the report of the EWG 23-13 and notes that all the ToRs were addressed.

Values for the following indicators as specified in The Commission guidelines (COM(2014) 545) are presented for the period 2013-2022:

Biological indicators

- Sustainable harvest indicator (SHI). SHI values are not considered meaningful, if the landing values that are included in the SHI / total landings value ratio is less than 40%. Only meaningful values of SHI are used to indicate whether a fleet segment may be in or out of balance with fishing opportunities.
- Stocks at risk indicator (SAR).

Economic indicators

- Return on investment (ROI) and/or Return on Fixed Tangible Assets (RoFTA).
- Ratio between current revenue and break-even revenue (CR/BER).

Technical indicators

- The inactive fleet indicator (IV). If more than 20% of the fleet segment is recurrently inactive it will be considered out of balance.
- The vessel use indicator (VUR). Average Days at Sea / Maximum Days at Sea.

STECF notes that, the terms “in balance” and “out of balance” (imbalance) and analogous terms, are used strictly in relation to the criteria given in the Commission guidelines (COM (2014) 545 Final). Such terms are used to indicate a favourable (in balance) or unfavourable (out of balance) situation based on the values computed for specific indicators in relation to the threshold specified for such indicators. Trends in indicator values are expressed over different time-periods, which vary by indicator and Member State (MS). Comparisons between indicator values as computed by the EWG and those in the National fleet reports submitted by Member States by 31 May 2023 are based on the reference year 2021 unless specifically mentioned in the report.

TOR 1: The assessment of both the status and trends of the balance situation of EU fleet segments in line with the Commission guidelines (COM(2014)545).

Table 5.4.1 presents the number of segments in each supra region (North Atlantic Ocean, Mediterranean and Black Seas and Other Fishing Regions) and for each indicator, the number of segments for which an indicator value could be computed for the year 2021. It also includes the numbers of segments that according to the criteria in the Commission guidelines (CG), are indicated to be in balance or out of balance, together with an assessment of the trend of the indicators, as reported by EWG 23-13.

For the EU as a whole, out of 582 active fleet segments in 2021, 87% had landings by weight and value available. Of these 582 active fleet segments, a meaningful value for the SHI could be computed for 34% of them, and a value for the SAR could be computed for 70%. Economic indicator values (CR/BER and RoFTA) were available for 62% of the total active fleet segments, while, for RoI, this percentage was only 9%.

For segments with a meaningful SHI value, the majority were indicated to be in balance (55%) and for the SAR, the majority were indicated to be out of balance (52%). With regard to each of the economic indicators, a majority of the segments were indicated to be in balance (67%, 64% and 50% for CR/BER, RoFTA and RoI, respectively). Finally, for the segments for which the technical indicator VUR could be computed, 49% were indicated to be in balance and 51% out of balance.

The main results by region are as follows:

North Atlantic Ocean (NAO)

- A meaningful SHI value could be estimated for 36% of the 331 active fleet segments, with 63% of them in balance.
- The SAR was estimated for 69% of the total segments in the region, 55% of which were indicated to be in balance and 45% out of balance.
- Economic indicators values (CR/BER and RoFTA) were available for 61% of the total active fleet segments in this area, while for RoI this percentage was 10%.
- The majority of the fleet segments considering CR/BER and RoFTA were indicated to be in balance (66% and 64%, respectively), however, RoI indicator indicates that 59% are out of balance.
- For the VUR technical indicator (available for 79% of the fleet segments of this area), half of the segments were indicated to be in balance and other half, out of balance.

- 23% of fleet segments had inactive vessels, and 93% of such segments were indicated to be in balance (proportion of inactive vessels in a segment is less than 10%).

Regarding the trends in indicator values:

- No trend or no clear trend could be observed in the SHI for 42% of the fleet segments in the NAO.
- 38% of the fleet segments had an improving trend, 9% a deteriorating trend, 2% were considered to have a flat trend and for 9% of the segments no trend could be calculated.
- For the three economic indicators, the majority of the segments had a deteriorating trend (50%, 59% and 72% for CR/BER, RoFTA and RoI, respectively).
- No clear overall picture could be depicted by the technical indicators as for the majority of the segments (69%), there was no clear trend.

Mediterranean and Black Seas (MBS)

- A meaningful value for the SHI could be computed for 31% of the 200 active fleet segments in this region, 69% of which were indicated to be out of balance and 31% in balance.
- The SAR was estimated for 76% of the total segments in this region, 40% of which were indicated to be in balance and 60% out of balance.
- Economic indicator values (CR/BER and RoFTA) were available for 66% of the total active fleet segments in this area, while values for RoI could be computed for only 7%.
- According to the economic indicator values, the majority of fleet segments were indicated to be in balance (72%, 70% and 64% for CR/BER, RoFTA and RoI, respectively).
- According to the VUR technical indicator, 42% of the segments were indicated to be in balance and 58% out of balance.
- 22% of fleet segments had inactive vessels, and 93% of such segments were indicated to be in balance (proportion of inactive vessels in a segment is less than 10%).

Regarding the trends of the indicators above:

- For the SHI, the trend was improving for 37% of the fleet segments in the MBS, 2% had a deteriorating trend, 3% a flat trend, no clear trend for 32% of the fleet segments and for the rest (26%), the trend could not be calculated.
- For the three economic indicators, an improving trend was observed for 39%, 39% and 21% of the fleet segments, considering the CR/BER, RoFTA and RoI, respectively, while it was deteriorating for 39%, 48% and 29%, respectively.
- For the majority of the remaining segments there was no clear trend, or no trend could be calculated.
- No clear overall picture could be depicted by the technical indicators, as for the majority of segments there was no clear trend (40%), or the trend could not be calculated (30%).

Other Fishing Regions (OFR)

- A meaningful SHI value could be computed for 33% of the 51 fleet segments from this area, with 76% of them indicated to be in balance and 24% out of balance.
- The SAR was estimated for 57% of the total number of segments, 38% of which were indicated to be in balance and 62% out of balance.

- Economic indicators values (CR/BER and RoFTA) were available for 49% of the total active fleet segments in this area, while for RoI this percentage was 8%.
- The majority of the fleet segments considering these three economic indicators were in balance (52%, 52% and 75% for CR/BER, RoFTA and RoI, respectively).
- For the VUR technical indicator (with a coverage of 98% of the fleet segments of this area), 68% of the segments were in balance and 32% out of balance.
- 35% of fleet segments had inactive vessels, and all such segments were indicated to be in balance (proportion of inactive vessels in a segment is less than 10%).

Regarding the trends of the indicators above:

- For SHI no clear trend was observed, or it was not possible to obtain a trend for 65% of the fleet segments in the OFR, 18% had an improving trend and for 18% of the segments the trend could not be calculated.
- For the three economic indicators, the majority of the segments had a deteriorating trend (32%, 52% and 50% for CR/BER, RoFTA and RoI, respectively). An improving trend was assessed for 28%, 44% and 25% of the fleet segments (for CR/BER, RoFTA and RoI, respectively).
- No trend in the VUR could be calculated for 62% of the fleet segments and no clear trend could be detected for 20% of them.
- In the case of IV indicator, there was no clear trend for 49% of the segments and it could not be calculated for 17% of them.

Table 5.4.1. Total numbers of fleet segments and by supra-regions as calculated by the EWG 23-13 for the year 2021, together with the numbers of segments for which a value for each indicator could be computed, the numbers indicated to be in or out of balance and their trends.

Area			Nº active segments	Indicators							
				Biological		Economic			Technical		
				SHI*	SAR	Cr/BER	RoFTA	RoI	VUR	IV	
EU	Coverage	Total	582	197	407	359	359	50	507	136	
	Balance	In balance		106	196	242	230	25	246	126	
		Out of Balance			91	211	117	129	25	261	10
NAO	Coverage	Total	331	118	227	202	202	32	261	74	
	Balance	In balance		74	124	134	124	13	129	67	
		Out of Balance			44	103	68	78	19	132	7
	Trend	Trend deteriorating			11		101	119	23	20	17
		Trend improving			45		50	63	5	14	14
		No clear trend			49		31	0	0	181	33
		Flat trend			2		0	0	0	19	3
		Could not be calculated			11		20	20	4	27	7
MBS	Coverage	Total	200	62	151	132	132	14	196	44	
	Balance	In balance		19	61	95	93	9	83	41	
		Out of Balance			43	90	37	39	5	113	3
	Trend	Trend deteriorating			1		52	64	4	18	9
		Trend improving			23		52	51	3	32	14
		No clear trend			20		11	0	7	78	18
		Flat trend			2		17	0	0	0	0
Could not be calculated				16		0	17	0	58	3	
OFR	Coverage	Total	51	17	29	25	25	4	50	18	
	Balance	In balance		13	11	13	13	3	34	18	
		Out of Balance			4	18	12	12	1	16	0
	Trend	Trend deteriorating			0		8	13	2	2	3
		Trend improving			3		7	11	1	5	2
		No clear trend			11		9	0	0	10	8
		Flat trend			0		0	0	0	2	2
Could not be calculated				3		1	1	1	31	3	

* Data relate only to fleet segments for which meaningful values for the SHI could be computed i.e., the value of landings from stocks that are fished at rates greater than F_{MSY} account for more than 40% of the total value of the landings by fleet segment.

STECF notes that in the EWG report, indicator coverage is defined as the number of fleet segments for which an indicator value is available expressed as a proportion (%) of the total number of fleet segments. It does not consider the number of vessels in the segments concerned. For example, consider two fleet segments A and B. Segment A has a value for the SHI and segment B does not. In this case coverage would be given as 50%. However, if segment A has 90 vessels and segment B has 10 vessels, coverage of the indicator in terms of number of vessels would be 90%. At present, indicator coverage in the EWG report is not expressed in terms of numbers of vessels.

TOR 2: The findings on whether, in accordance with the Commission Guidelines (COM(2014)545), the annual national fleet reports submitted by 31 May 2023 present an appropriate and complete analysis of balance between fleet capacity and fishing opportunity for each Member States' fleet segments.

EWG 23-13 considered that 9 of 22 fleet reports submitted by Member States were prepared fully in line with the Commission guidelines (Table 5.4.2). The other 13 Member States followed the guidelines to varying degrees (reported in Table 5.4.2 as a "No" in accordance with the "in line CG column"). The extent to which these Member States followed the guidelines, as extracted from the EWG 23-13 report, are listed in Table 5.4.2 below. The specific reasons vary by Member State but can be summarised as follows:

- Use of fleet segmentation deviating from the fleet segmentation in the DCF. The use of DCF segmentation is specified in the Commission guidelines.
- Omission of segments (not even capacity data is reported by some Member States).
- Calculation of an indicator(s) with data from the year prior to the year the fleet report is submitted (e.g., stock status from the previous year in the case of the SHI).
- Indicators not reported.

Table 5.4.2. Summary of the assessment made by the EWG 23-13 of whether annual national fleet reports follow the Commission Guidelines (CG).

Member State	In line with the CG	STECF Comments based on the EWG assessment
Belgium	Yes	
Bulgaria	Yes	
Croatia	Yes	
Cyprus	No	Not all the indicators are provided
Denmark	No	Some indicator values and trends are missing
Estonia	Yes	
Finland	No	Almost all the indicators missing.
France	No	Indicators are in line with the CG, but the segmentation used is only partly aligned with the DCF one. The criteria for assessment do not only rely on the values computed for the indicators prescribed in the CG.
Germany	Yes	
Greece	No	Not all the indicators are provided
Ireland	No	Not all the indicators are provided
Italy	No	Some indicators reported separately by segment and GSA
Latvia	No	Not all the indicators are provided
Lithuania	Yes	
Malta	No	Biological indicators not provided
Netherlands	No	The report does not contain current information (for 2022)
Poland	No	Not all the indicators are provided
Portugal	Yes	
Romania	No	Not all the indicators are provided

Slovenia	No	SAR calculated using a different criterion from CG
Spain	Yes	
Sweden	Yes	

TOR 3: The observed discrepancies between the national balance assessments and those carried out by EWG 23-13 and the reasons for those as identified by the EWG.

For each fleet segment and indicator, the EWG 23-13 compared indicator values as calculated by the EWG and those provided in the Member States' fleet reports (see each National chapter in the EWG 23-13 report and Annex II). A summary of the differences found by Member States and indicators used was prepared by STECF and is presented in Table 5.4.3. The categorisation of the differences in the indicator values between Member States' fleet reports and those calculated by the EWG is based on the following criteria decided by STECF in the PLEN 22-03 report:

- Equal (EQU): If the indicator values calculated by the EWG and those provided by the Member State are the same.
- Similar (SIM). If the indicator values calculated by the EWG and those provided by the Member States differ, they indicate the same balance/imbalance assessment.
- Discrepancies (DIS). If the indicator value calculated by the EWG and those provided by the Member States differ and they indicate a different balance/imbalance assessment.
- Not Provided (NP): If the indicator value is not provided in the Member State's fleet report.
- Not Comparable (NC): If the fleet segmentation used by the Member State differs from the one used by the EWG; and/or if the indicator provided is not that computed by the EWG.

Table 5.4.3. Summary of differences in indicator values between those calculated by EWG 23-13 and the Member States' fleet reports for 2021.

Member State	SHI	SAR	CR/BER	ROFTA	ROI	VUR	IV	Comments by the STECF based on the EWG assessment
Belgium	SIM	DIS	SIM	SIM	NP	DIS	SIM	In general, similar results but some discrepancies in the assessment of some segments.
Bulgaria	DIS	EQU	NC	NC	NP	NP	NC	Different approach for the calculation of economic and technical indicators, so comparisons are not possible. VUR and VUR220 not provided but alternative indicator is provided
Croatia	DIS	NC	SIM	DIS	NP	SIM	EQU	Different approach for the calculation of biological indicators, so comparisons are not possible
Cyprus	DIS	NC	EQU	EQU	NP	NC	DIS	Different fleet segmentations used for biological and technical. The equal values for CR/BER and RoFTA are only for 4 segments (2 are missing).
Denmark	DIS	DIS	DIS	NP	DIS	SIM	NC	General discrepancies found between the two calculations. IV was provided for 2022 so no comparison is possible.
Estonia	EQU	NP	SIM	NP	SIM	NC	NC	A mix of discrepancies in calculations and different segmentations or segments presented. Some indicators not provided or computed using a different methodology.
Finland	NC	NP	NP	NP	NP	NP	NP	All but SHI indicator are not provided in the report. SHI provided is not comparable.

France	SIM	SIM	SIM	SIM	NP	NC	NC	Similar values for those that can be compared. Alternative VUR (VUR90) indicator presented.
Germany	DIS	DIS	SIM	SIM	NP	DIS	NC	Biological and technical indicators show some discrepancies in the assessment of some fleet segments.
Greece	NC	NP	NP	SIM	NP	DIS	NC	SHI split by GSAs and for VUR some discrepancies. The rest of the indicators except ROFTA are not provided in the NP
Ireland	NC	NC	DIS	DIS	NP	NC	NP	Discrepancies in economic indicators mostly found in the method of calculation
Italy	NC	NC	EQU	DIS	NP	NC	NP	SHI and VUR split by GSA. Discrepancies in ROFTA probably due to use of different units
Latvia	DIS	NP	DIS	NP	NC	DIS	DIS	Some segments missing.
Lithuania	SIM	DIS	SIM	EQU	EQU	DIS	SIM	Different fleet segmentations for technical indicators.
Malta	NP	NP	SIM	SIM	NP	DIS	NC	No biological indicators provided by the MS report.
Netherlands	DIS	DIS	EQU	EQU	NC	EQU	SIM	Discrepancies in the assessment of some segments in the biological indicators.
Poland	SIM	DIS	SIM	NC	NC	SIM	DIS	ROFTA not calculated. ROI is provided so no possible the comparison
Portugal	DIS	DIS	SIM	SIM	NP	DIS	SIM	VUR calculated using maximum days. For the SHI, the discrepancies come from the use of different species.
Romania	SIM	DIS	NC	NP	NC	DIS	NP	SAR not calculated because catches of stocks-at-risk are less than 10% of total. Economic indicators use different segmentation.
Slovenia	EQU	DIS	DIS	SIM	NP	NC	SIM	SAR calculated using a different criterion from CG.
Spain	DIS	DIS	SIM	SIM	NP	DIS	DIS	Differences in terms of the balance assessment between the MS and the EWG for some segments.
Sweden	NC	NC	SIM	SIM	NP	DIS	NC	Biological indicators provided by the 2020 and not 2021.

STECF notes that generally, indicator trends were not provided in the fleet reports, therefore the EWG could not make any comparisons.

STECF notes that for many fleet segments, discrepancies between the SHI values computed by the EWG 23-13 for a given year (in this report the year 2021) and those provided by Member States in their fleet reports for the same year are likely to occur. Such occurrences arise because the values for F/F_{MSY} used in computing the SHI will in most cases, be derived from the results of stock assessments undertaken at different times. For example, a Member State preparing its fleet report for 2022, which it will submit by 31 May 2023, is likely to base on F/F_{MSY} values for 2021 and stock assessments carried out in 2022. However, the EWG 23-13 derives its F/F_{MSY} values for 2021 from stock assessments carried out in 2023, which is likely to deliver an updated and often different value for F/F_{MSY} for 2021 than in the previous year's assessment.

STECF further notes that the Commission guidelines specify that Member States may provide the Vessel utilisation indicator (VUR) based on the maximum (indicator = VUR) or the theoretical maximum number of days at sea for a fleet segment. Furthermore, the theoretical maximum number of days at sea would normally be assumed to be 220 days (hence VUR220) but can be determined by each Member State using expert judgement and available information (VURnn).

STECF has pointed out on many occasions (PLEN 22-03) that VUR220 is not always informative and for many fleet segments can be highly misleading (e.g., for small scale and pelagic fleets).

In the “traffic light” tables associated with each Member States in the EWG report, where available, both the VUR and VUR220 indicator status is shown. However, STECF stresses that when VUR is available, VUR220 should be ignored.

TOR 4: Provide a summary overview of the Action Plans (AP) currently implemented by each Member State. The overview should include the year each AP was launched, whether it is a renewal or a new AP and identify the changes between the current AP and previous versions.

The opinions provided by the EWG for each Member State as to the effectiveness of the proposed measures provided in new or revised action plans submitted with the most recent fleet reports in addressing the imbalance in the fleet segments concerned.

In 2023, new Action Plans were presented by Latvia, Malta and Spain. In addition, an update of existing APs was provided by Cyprus, Croatia, Denmark, France, Germany, Italy, Poland, Portugal and Romania. The remaining Member States did not submit any new or updated APs.

STECF notes that the EWG 23-13 has produced a table summarising the main elements of the APs, for the years 2022 and 2023 which is reproduced below (Table 5.4.4). In particular, the new or revised APs were assessed by the EWG based on the (1) timeframe presented, (2) the precise measures to be implemented (tools described) and (3) their objectives and targets, for reducing the perceived imbalance in the fleet segments concerned, as requested by the Commission guidelines (appropriately targeted).

In 2023, for the Member States presenting a new or updated AP, all except the APs from Bulgaria, Malta, Italy, and Romania were considered by the EWG as sufficiently detailed regarding these three requirements. For the other APs submitted by Member States, the information provided was not sufficient for the EWG to quantitatively assess whether such measures would be sufficient to address any perceived imbalance or whether the stated objectives are likely to be met in the defined timeframe. A summary of the Action Plans including the assessment of the EWG regarding the effectiveness of the measures proposed by the Member States is presented in table 5.4.4.

Belgium, Estonia, Finland, Ireland did not present any AP because these Member States considered all fleet segments to be in balance.

Table 5.4.4. Summary of action plans submitted in 2022 and 2023 as reported by the EWG.

MEMBER STATE	Year*	Action plan presented?	Status	Appropriately targeted?	Timeframe described	Tools described	EWG comments
Belgium	2022	No	NA	NA	NA	NA	The MS considered all segments to be in balance. No action plan presented.
Belgium	2023	No	NA	NA	NA	NA	The MS considered all segments to be in balance. No action plan presented.
Bulgaria	2022	yes	update	yes	yes	yes	The updated action plan (2020) is partly targeted because there is no information about the share of capacity that will be reduced. Two new measures were added to the AP and the information for each fleet segment was updated. However, it is still not clear how the proposed measures will improve the balance of the fleet.
Bulgaria	2022	yes	unclear	No	No	No	The provided action plan is not based on the MS's overall assessment in fleet report and comparison of technical, economic and biological indicators for 2019-2021. The explanation provided about the planned measures is general and does not give enough information about specific MS actions to balance fleet capacity.
Cyprus	2022	yes	Update	yes	yes	yes	An action plan has been proposed for the fleet segment DTS VL2440 since the fleet report for the year 2020.
Cyprus	2023	yes	Update	yes	yes	yes	A renewed action plan has been proposed for the fleet segment DTS VL2440. The proposed measure is the permanent cessation of fishing activities for two trawlers from a segment total of 4 trawlers operating in the territorial waters of Cyprus should the vessel owners volunteer to decommission their vessels. A time frame of 2 years (until 2023) was given for reaching the target for permanent cessation. In case of no volunteers on permanent cessation, certain fisheries areas will be closed and gear selectivity improvement applies since 2024.
Croatia	2022	Yes	Updated and Strengthened	Yes	Yes	Yes	The action plan clearly sets out the time frame and the objectives/targets. The direct outcome of the measures in the outcome is not quantifiable.
Croatia	2023	yes	Updated and Strengthened	Yes	Yes	Yes	MS presented an updated action plan concerning the imbalance fleet segments, based on temporary and permanent cessations and completed with supplementary measures. The timeframe is defined and was extended for the permanent cessations. The targets are also defined, but not always quantifiable. An adjustment of the expected result has been established.
Denmark	2022	yes	new	yes	yes	yes	Action Plan clear, targeted and limited in time (2022-2023): it provides a detailed plan for Baltic Sea and adjustments to the fleet structure with regard to mitigate the negative effects of Brexit (without precision on this second point). Both terminated by the end of 2023.
Denmark	2023	yes	update	yes	yes	yes	The action plan proposed the previous year is still ongoing and ends at the end of 2023.
Estonia	2022	no	/	/	/	/	The MS considered all segments to be in balance. No action plan was presented.
Estonia	2023	no	/	/	/	/	The MS considered all segments to be in balance. No action plan was presented.
Finland	2022	no	/	/	/	/	No action plan proposed by MS. The MS considers its fishing fleet to be in balance with fishing opportunities, with no identified structural overcapacity.
Finland	2023	no	/	/	/	/	No action plan proposed by MS. The MS considers its fishing fleet to be in balance with fishing opportunities, with no identified structural overcapacity.
France	2022	yes	update	yes	yes	yes	An update from the one submitted in 2020. The level of details differs from segment to segment. The EWG could not assess if the actions proposed will influence the balance.
France	2023	yes	update	yes	yes	yes	The AP was updated with new segments in Outermost regions. The actions for these segments do not relate to fleet capacity reduction. The new actions added for the vessel's segments (operating in Mediterranean and Atlantic) provided in previous AP. Time frame was extended to 2024.
Germany	2022	yes	Update	yes	yes	yes	The updated 2021 action plan proposes specific measures for eight fleet segments which operate in the Baltic Sea region. AP presents a wide range of measures of both a general type applicable for all fleets, as well as specific type to those fleet segments identified as being out of balance. Some of measures are as an ongoing basis from 2015. The measure for permanent cessation of fishing activities is applicable to the 2021-2022 period. In 2022, a provided action plan required the fleet reduce by TM VL2440 segment due to the implementation of a permanent cessation measure.
Germany	2023	yes	Update	yes	yes	yes	Updated from 2022. The AP proposes specific measures for some fleet segments and clearly indicate baseline for targets and measures to be set for the fleet segments concerned.

MEMBER STATE	Year*	Action plan presented?	Status	Appropriately targeted?	Timeframe described	Tools described	EWG comments
Greece	2022	no	/	/	/	/	MS considers that certain fleet segments are not in balance with their fishing opportunities. An Action plan is in preparation but was not submitted with the annual fleet report. There is no clear time plan provided by MS.
Greece	2023	no	/	/	/	/	No action plan proposed by MS, justifications are provided in the fleet report
Ireland	2022	No	-	-	-	-	Ireland, based on the the Irish fleet Report 2021 considers that structural imbalance does not exist in any of its fleet segments and no action plans are proposed. The Irish view is that the imbalance identified in some fleets in the report is due to a difference in the rate of interest used in the calculation of the indicators.
Ireland	2023	No	-	-	-	-	Based on the available information, Ireland considers that structural imbalance does not exist in any of its fleet segments and no action plans are proposed,
Italy	2022	Yes	Update	Partly	Partly	Yes	Updated from at least 2017. Objectives are not specifically targeted at the fleet segments that are out of balance. The action plan describes several measures to be taken to reduce fishing mortality. Of these, only temporary closure periods are explicitly described. The other measures are mostly unfinalized and have not been implemented yet.
Italy	2023	Yes	Update	No fleet segments mentioned	Partly	Partly	Updated from at least 2017. Objectives are not specifically targeted at the fleet segments that are out of balance, but rather refer to GSAs. The action plan describes several measures to be taken to reduce fishing mortality. Of these, only temporary closure periods are explicitly described and percentage targets for a reduction of fishing capacity for specific GSAs were issued. The other measures are mostly unfinalized and/or have not been implemented yet.
Latvia	2022	No	-	-	-	-	Ongoing AP provided with 2019 fleet report. MS implemented measure for reducing the capacity in fleet segment TM VL2440 operating in the Baltic Sea through permanent withdrawal from fishing activity of a number of vessels, which were involved in cod fishery in 2014-2018.
Latvia	2023	Yes	New	Yes	Yes	Yes	Timeframe: 31.12.2023. The target is the Baltic fleet segment of trawlers TM VL2440 through permanent withdrawal from fishing activity of 9 vessels involved in sprat and herring fishery. The EWG could not assess if the actions proposed will influence the balance.
Lithuania	2022	No	-	-	-	-	Ongoing AP provided with 2020 fleet report. Timeframe: 2021-2023. Two types of measures targeting fleet segments NAO DFN VL1012 and NAO DTS VL2440 operating in the Baltic Sea - a system of transferable fishing concessions and a scrapping scheme with public compensation for permanent cessation of fishing for reducing overcapacity. No action plan for the distant water fleet segment (OFR TM 40XX).
Lithuania	2023	No	-	-	-	-	Ongoing AP provided with 2020 fleet report. Timeframe: 2021-2023. Two types of measures targeting fleet segments NAO DFN 1012 and NAO DTS 2440 operating in the Baltic Sea - a system of transferable fishing concessions and a scrapping scheme with public compensation for permanent cessation of fishing for reducing overcapacity.
Malta	2022	yes	resubmitted	no	no	no	Resubmitted the 2016 action plan. More a statement of intent to improve monitoring. The EWG could not assess if the actions proposed will influence the balance.
Malta	2023	yes	new	no	yes	no	The proposed action plan is largely a statement of intent to improve monitoring activities.
Netherlands	2022	No	-	-	-	-	No rationale for not presenting AP is elaborated in the fleet report.
Netherlands	2023	No	-	-	-	-	No rationale for not presenting AP is elaborated in the fleet report.
Poland	2022	yes	Update	yes	yes	yes	An action plan accompanied with 2020 fleet report was reviewed by MS. An action plan is proposed for eight of the fishing fleet segments which operated in the Baltic Sea region. The action plan includes three main measures which were specified for each segments identified by MS that were out of balance. A time frame is for three to five years without specific dates.
Poland	2023	yes	Update	yes	yes	yes	Some updates were performed in the action plan which were added to the 2023 MS report. An action plan applies to the vessels operating within the Baltic Sea region. The DTS VL1824 segment was withdrawn from the action plan due to it being definitively wound down in 2022. A timeframe is for three to five years without specific dates. However, a 5 year period was indicated for 2023 to 2027. The remedial measure for seven segments set out in the action plan will be implemented under the European Marine, Fisheries and Aquaculture Fund.
Portugal	2022	yes	new	yes	yes	yes	Action Plan clear, targeted and limited in time (2022-2023): it targets the fleet HOK > 12m
Portugal	2023	yes	Update	yes	yes	yes	Action Plan from 2022 and extended to the end of 2025 which provides permanent cessation of activity of 16 vessels from the fleet HOK >12m. The AP is strengthened by temporary cessation measure in 2023 for 40 vessels from the same fleet. The AP is clear, targeted and limited in time.

MEMBER STATE	Year*	Action plan presented?	Status	Appropriately targeted?	Timeframe described	Tools described	EWG comments
Romania	2022	yes	update	yes	yes	yes	Action Plan from 2020 and extended to 2027. The AP targets all 6 fleet segments but the objectives are unclear. The lack of relevant information means that the EWG is unable to assess the potential effects of the proposed measures.
Romania	2023	yes	update	no	yes	yes	The action plan proposed the previous year is still ongoing and ends in 2027. The action plan does not specifically target any fleet segments for indicators that appear out of balance.
Slovenia	2022	No	-	-	-	-	MS considers that all fleet segments are in balance. The EWG does not concur with the assessment. It appears that socio-economic objectives (employment) may have priority over stock conservation.
Slovenia	2023	No	-	-	-	-	Slovenia considers that MS fishing activity is extremely low and have insignificant impact, but is committed to achieving a sustainable balance between fishing capacity and fishing opportunities. MS considers that all segments of Slovenian fleet are in balance and did not present an action plan.
Spain	2022	Yes	Update	Yes	Yes	Yes	Updated from 2021. The objectives are clearly defined and the measures to achieve them are described. The objectives are appropriately targeted to the fleet segments which are not in balance. The AP implies that the targets are to be met by the time the AP expires, but it is not made explicit. Some parts of the AP set for 2021-2023 were met in 2022 and can be considered successful.
Spain	2023	Yes	New	Yes	Yes	Yes	New AP. The objectives are clearly defined and the measures to achieve them are described. The objectives are appropriately targeted to the fleet segments which are out of balance.
Sweden	2022	no	/	/	/	/	AP 2021 is valid until 2023. MS has implemented a measure for reducing overcapacity in fleet targeting cod in the Baltic Sea. MS reported on the progress of AP 2021 implementation in the annual fleet report in 2022.
Sweden	2023	no	/	/	/	/	The action plan submitted by Sweden in 2021 expired in 2022. The MS has implemented permanent cessation of fishing activities aimed at reducing overcapacity in fleet targeting cod in the Baltic Sea. MS reported on the final results of AP 2021 implementation in the annual fleet report 2023.

TOR 5: The assessment of the balance situation in the outermost regions, taking account of the comments in Section 6.3 of STECF PLEN-23-02 regarding the ad hoc STECF contract that analysed data-limited parameters for the calculation of the indicators to assess the balance between fleet capacity and fishing opportunities (ref. STECF 2341).

STECF notes that there is a significant shortage of relevant data to compute the biological indicator SHI. SAR was available for 91% of the 64 segments identified in the OMR. However, the SHI could be computed for only 17% of these segments (see table 5.4.5).

Table 5.4.5. Balance indicators and their assessment available for each OMR by Member State for the year 2021

	Fleet segments (total)			SAR	SHI	VUR	Fleet segments (clustered)			
		Assessed FS	Imbalance				Rofta	CR/BER	VUR ₂₂₀	
France	33	Assessed FS	31	7	31	16	Assessed FS	15	15	16
		Imbalance	12	1	3			Imbalance	7	7
	% imbalance	39	14	10	% imbalance	47	47		94	
Portugal	19	Assessed FS	15	1	19	15	Assessed FS	15	15	15
		Imbalance	0	0	5			Imbalance	4	3
	% imbalance	0	0	26	% imbalance	27	20		67	
Spain	12	Assessed FS	12	3	12	6	Assessed FS	6	6	6
		Imbalance	2	0	3			Imbalance	3	3
	% imbalance	17	0	25	% imbalance	50	50		100	
Total	64	Assessed FS	58	11	62	37	Assessed FS	36	36	37
		Imbalance	14	1	11			Imbalance	14	13
	% imbalance	24	9	18	% imbalance	39	36		84	

STECF notes that new stock assessments conducted by IFREMER were presented to DG MARE via the French authorities. These were made available to the EWG with a view to increasing the proportions of fleet segments' catches accounted for by species for which values of F and F_{MSY} are

available. This potentially would increase the number of fleet segments for which a meaningful SHI value could be computed. STECF further notes that these assessments were produced using the SPICT assessment model as endorsed by STECF (STECF PLEN 23-02). These assessments have not been independently reviewed.

STECF notes that the EWG 23-13 provided a comparison of the SHI indicator for the French OMR fleet segments with and without these additional stock assessments provided to the EWG. The EWG found that the inclusion of them in the SHI calculation would provide a meaningful value for the SHI for three fleet segments. Only one additional fleet segment would reach the 40% threshold included in the guidelines. This implies that by the inclusion of these stock assessments the coverage would increase from 17% to 19% of fleet segments.

Regarding the economic indicators, STECF notes that the coverage of the economic indicators is close to 100% (36 out of 37 clustered segments are provided with CR/BER and RoFTA indicators) and that the majority of them (60%) indicated to be in balance according to the guidelines.

STECF conclusions

STECF concludes that all terms of reference were successfully addressed by EWG 23-13.

Conclusions on the indicators by supra-region

Based on the findings of the EWG 23-13 and according to the criteria in the Commission Guidelines (COM(2014) 545), STECF concludes the following:

A meaningful value for the SHI could be calculated for 36% of the fleet segments in the North Atlantic Ocean (NAO) of which 63% are indicated to be in balance with fishing opportunities. There is an improving trend in the SHI for many fleet segments in the NAO.

Economic indicators are showing most fleet segments in the NAO to be in balance, although, overall, the trends indicate a worsening situation which appears to be related mainly to the increasing evolution of the main cost items of fleets throughout Member States.

A meaningful value for the SHI could be calculated for 31% of the fleet segments in the Mediterranean and Black Sea (MBS), of which 31% are indicated to be in balance with fishing opportunities. There is an improving trend in the SHI for many fleet segments in the MBS.

For the MBS, economic indicators show fleet segments to be in balance with fishing opportunities. However, the trends indicate a deteriorating situation, which appears to be related mainly to the increasing evolution of the main cost items of fleets throughout Member States.

A meaningful value for the SHI could be calculated for 33% of the fleet segments in the Other Fishing regions (OFR), of which 76% are indicated to be in balance with fishing opportunities. There is an improving trend in the SHI for many fleet segments in the MBS. No reliable assessment of the trends in biological indicators could be made for the majority (83%) of the OFR fleet segments due to a lack of relevant data.

For the OFR, economic indicators show a deteriorating or no clear trend for most of the fleet segments.

For the technical indicators, no clear trends can be detected for any of the supra-region's NAO, MBS and OFR.

Conclusions on the indicators of Outermost Fishing Regions (OMR)

Based on the findings of the EWG 23-13 and according to the criteria in the Commission Guidelines (COM(2014) 545), STECF concludes the following:

A meaningful value for the SHI could be calculated for only 17% of the fleet segments in the Outermost regions (OMR) of which 91% are indicated to be in balance with fishing opportunities.

Economic indicators are showing the majority of fleet segments (60%) in the OMR to be in balance.

For the technical indicators, no clear trend can be depicted for the OMR.

Including the 18 additional SPICT stock assessments provided by IFREMER for French fisheries in the OMR only increased the number of segments for which a meaningful value for the SHI could be computed by one segment (i.e. from 2, to 3 segments).

For the OMR, meaningful values for the SHI are limited to only a small proportion (17%) of the total number of fleet segments. In order to increase the coverage of the SHI it is desirable that all Member States concerned (France, Spain and Portugal) make every effort to collect and report stock-specific fishery dependent and where possible, fishery independent data as input for stock assessments. STECF suggests that where appropriate the National programmes of the Member States concerned could be amended accordingly.

Conclusions on the process

STECF concludes that the global coverage of the SHI indicator is limited in all the regions (36%, 31%, 33%, and 17% of the active fleet segments for NAO, MED, OFR and OMR, respectively), which hinders any reliable assessment of the biological balance indicators at overall regional level.

STECF concludes that it would also be informative to measure the coverage considering not only the number of segments for which any of the indicators is calculated, but also accounting for the number of vessels that each fleet segment includes.

STECF concludes that the VUR220 indicator is largely uninformative and if an alternative theoretical maximum number of days at sea is deemed more appropriate and used by Member States to provide a vessel utilisation indicator, the justification for its use should be clearly explained in the Member State's fleet report.

STECF concludes that if an alternative theoretical maximum is used it is imperative that when submitting their fleet reports, Member States also submit the data used to compute the indicator value so that the EWG is able to reproduce the indicator values for each fleet segment.

STECF concludes that poor data remains a hurdle for the proper estimation of F/F_{MSY} and SHI, and that ongoing efforts to improve the collection of declarative data (e.g., logbook data) and biological data in places where they are deficient should be sustained and supported. STECF expects that progress in obtaining additional values for F and F_{MSY} (or relevant proxies) will develop slowly and incrementally.

5.5 EWG 23-14: Economic Report on the EU fish processing industry

Request to STECF

STECF is requested to evaluate the findings of the STECF Expert Working Group meeting and make any appropriate comments, endorsements and recommendations. In particular STECF is requested to:

- Assess the economic data and performance indicators (e.g., revenue items, cost items, earnings, profitability, etc.), including contrasting company size (e.g., SMEs vs. non-SMEs), where possible.
- Validate the 2022 outlook chapter based on nowcast and the provided analysis on raw materials if it is included.

Overview of EWG 23-14

EWG 23-14 met virtually, between 23-27 October 2023, to produce the Economic report for the EU fish processing sector. The meeting was attended by 26 experts, 3 observers and 3 JRC experts.

The 2023 Economic report of the EU fish processing supersedes all previous reports. Comparisons with previous reports should not be made. This is mainly due to data corrections from Member States, the exclusion of the United Kingdom and the shift of the primary data source for some Member States from DCF/EU-MAP data to Eurostat data.

The report contains information on the number of enterprises, employment, income and costs. The profitability and performance of the sector is reported in terms of gross value added, profits (gross and net), profit margins and labour productivity. It covers the period 2013 to 2021 (including 2022 where available). The years 2008 to 2012 are excluded from this version of the report to improve readability. This exclusion does not diminish the analyses and quality of the report, since the main focus is on the most recent developments in the industry. Using 2013 as the first year aligns with the adoption of the latest CFP reform and the Annual Economic Report (AER) for fisheries. Furthermore, a full set of Croatian data is available from this year on. The data for the period 2008-2012 can still be found on the JRC website (<https://stecf.jrc.ec.europa.eu/reports/economic>).

Summary of the Main Findings

- The overall number of enterprises carrying out fish processing as main activity was equal to around 3,200 firms. In 2021, the industry generated a turnover of €29.4 billion and employed more than 111 thousand people (corresponding to 102 thousand full time equivalent (FTE)), the highest level over the period 2013-2021.
- SMEs (< 250 employees) make up 98% of the enterprises of which 86% are small-sized (< 50 employees) and more than half are micro-enterprises (< 10 employees). The distribution of enterprise by size-classes is different across MS. Finland, Slovenia, Sweden, Greece and Netherlands have more than 70% micro-enterprises. The highest shares of large industries (> 250 employees) are located in Poland, Lithuania and Romania.
- Spain has the largest number of enterprises (18% of the total) and has the highest share of turnover (26%) of the EU total. Italy is in second place, in terms of number of firms (14%), while France is the second largest in terms of turnover (17%).

- Over the period 2013-2021 there has been a decrease (-10%) of micro-enterprises (< 10 employees) and an increase of larger enterprises (> 50 employees). Furthermore, over the period 2013-2021 turnover is increasingly concentrating in enterprises with more than 50 employees. Micro-enterprises make up a smaller share of the total number of enterprises.
- Although there was a general increase in production costs, the increase in sales value was even higher resulting in a Gross Value Added (GVA), equal to EUR 5.7 billion, in 2021. This is an increase of 8% since 2019, but a decrease of 6% compared to 2020. Overall, the economic performance indicators reveal an upward economic trend in the sector over the period 2013 to 2021.
- The purchase of fish and raw material is the dominant cost item for the sector, accounting for more than 70% of the total production costs. Understanding which industry segments and MS rely on domestic raw material or imports (fisheries or aquaculture) is of importance to assess the strengths and vulnerabilities of the EU processing sector.
- In the light of the Farm to Fork strategy, it is important to track fish and aquaculture products along the value chain, from fishing grounds or farming area to the end market. Only eight Member States provided data on raw material. Based on these data, the most important species used were salmon, Alaskan pollock and herring representing 15.8%, 14.6% and 7.3%, respectively, of total raw materials used.
- Knowledge from experts highlighted that salmon is primarily imported from Norway and UK and is an aquaculture product. Alaskan pollock is originating from fisheries primarily imported from Norway and Russia or in the form of filet from China. Herring is originating from fisheries in the North Atlantic and is imported from Norway or landed by EU countries operating in the North Atlantic.
- In relation to the social aspects, the analysis revealed the importance of female labour in the fish processing industry covering 56% on average in the EU. The 40-64 age class made up the largest proportion (58%) of people employed in the processing industry and most employees hold a medium education. The vast majority (87%) of people employed in the sector are EU nationals of their own country.

STECF general comments

STECF reviewed the report and notes that EWG 23-14 was able to address all the ToRs assigned. However, STECF also notes that the analysis carried out by experts was impacted by the following data issues:

- 15 countries have delivered data according to their data collection programmes under the DCF/EUMAP (Collection of processing data is no longer a mandatory requirement under the DCF).
- Eurostat data was used to fill the gap for 10 countries not delivering data. However, Eurostat published the 2021 data on the last day of the EWG meeting. Data were then made available to the EWG, resulting in considerable work outside the meeting to complete the report.
- 8 countries delivered data on raw material based on their data collection programmes.
- There was a lack of homogeneity of data submitted, especially concerning raw material and social data.

STECF comments on data and procedure

STECF notes that when aggregating national indicators to obtain the EU totals, EWG 23-14 has paid special attention to maintain a homogeneous number of Member States and avoiding bias for EU totals over the years, by the inclusion (or exclusion) of other Member States, throughout the period analysed. The compilation of EU aggregates required the use of external sources (Eurostat/SBS data) and, for some variables, the use of an estimation protocol (approved by STECF 19-02, adapted by the EWG 21-14 and further adjusted by EWG 23-14).

STECF further observes that the EWG report includes a brief analysis for the 10 countries not delivering data under the DCF/EU-MAP. Exceptions are Cyprus and Luxembourg, for which no data was available from either source.

STECF notes that the analysis carried out by the EWG was strongly impacted by data issues. The lack of harmonised data on raw material is a major issue, as it is time consuming to make data comparable.

STECF notes that for raw material data to be meaningful, it should be collected by geographical origin and production environment.

STECF notes that, the EWG suggested that data is collected by type of activity, (e.g., filleting, freezing or canning). As an example, the analysis of energy costs has been limited by the availability of more disaggregated data allowing to better identify the cost structure of fish processing firms according to the different types of processing.

STECF comments on impacts of recent economic shocks

STECF observes that the impact of the Covid-19 pandemic was not as severe as initially expected in the 2021 report. In general, STECF observes that the analysis shows that the EU fish processing industry has been able to manage the impacts of the pandemic disruptions quite well and negative effects seem to be only a short-term effect. Despite a slight decrease of the overall EU turnover (-1%) in 2020, turnover increased 3% in 2021 compared to 2019. However, some processors were negatively affected, in particular those supplying fish to the Food Service sector (e.g., Hotels, Restaurants and Catering (HORECA)). These enterprises were impacted significantly during 'lockdowns' introduced as a result of the pandemic.

STECF notes that since the beginning of 2022, the conflict in Ukraine has resulted in an increase in global energy prices. In the fish processing industry, energy constitutes a relatively small part of the total production cost (2% in 2021), hence the increase in energy price effect is also relatively small and has minor effects on the economic performance of the sector. Nevertheless, the projections carried out for 2022 and 2023 highlight that the impacts may differ substantially between Member States depending on the individual country's energy price regimes and subsidies in place.

STECF notes that the report indicates that, besides a direct impact on costs, the increase of energy prices is also likely to affect the price of commodities produced by the industry, in particular for frozen products. This increase will most likely be transferred to the consumers in the form of increased commodity prices.

STECF notes that the increase in energy prices can indirectly affect the sector through higher raw material prices (price effects from fisheries and aquaculture), which may be more important because raw material contributes more than 70% of the overall cost in the industry. Other effects of the conflict have been a shortage of some raw material coming from Russia and Ukraine. An example of this is higher prices for whitefish (e.g., cod, saithe, haddock) due to increasing tariffs

or bans on the import of Russian seafood. Other factors, such as the increasing inflation post covid-19, have played an additional role in raw material price increases.

STECF notes that the impact of Brexit is still an issue that continues to affect the supply of raw material due to decreased landings by EU vessels following quota transfers to the UK under the Trade and Cooperation Agreement (TCA). Processors have also been impacted by changes in the trading arrangements between Member States and the UK, leading to increases in logistics costs and 'red tape'. This is especially the case for countries dependent on importing and exporting raw material to and from the UK (e.g., Ireland, Denmark and the Netherlands) as well as EU vessels operating in UK waters under UK regulations.

STECF conclusions

STECF concludes that all terms of reference were successfully addressed by EWG 23-14, noting the data issues highlighted and the lack of homogeneity between the data submitted, especially concerning raw material and social data.

Data and procedure

STECF concludes that the report on the economic performance of the fish processing industry provides a comprehensive overview of the most recent information available on the structure and economic performance of the EU fish processing industry.

STECF concludes that the analysis on the raw material going into the processing industry comes from only 8 countries. STECF reiterates its previous conclusion from PLEN 21-01 that it is difficult to obtain this data from Member States, due to the complexities in deriving this information directly from industry. Therefore, STECF suggests DG MARE should decide whether the collection of data on raw materials is essential for the report.

STECF concludes that by continuing to use the Eurostat data for countries not providing data under the DCF/EU-MAP, the report offers a more comprehensive picture of the EU fish processing sector. However, STECF acknowledges that the late publication of the 2021 Eurostat data puts extra pressure on the EWG, limiting the time for deeper economic analysis at the meeting. The time of release of EUROSTAT data should be considered when planning the next EWG meeting for the processing industry. Preferable the EWG should be scheduled later in the year (e.g. November/December).

Recent economic shocks

STECF concludes that impacts from the COVID-19 pandemic on the processing industry had a short-term effect in the year 2020 and far less than expected in 2021. The processing industry appears quite resilient to adapt to such kind of shocks within the value chain.

STECF concludes that the direct effect of increasing energy costs will only affect the industry to a minor extent seeing that only 2% of the total cost is used for energy consumption. However, indirect effects resulting from increasing raw material costs, which constitute more than 70% of the total cost, may have a larger impact on the industry's profitability. This will depend on how much of this increase in prices can be passed on to consumers.

STECF concludes that the impact of Brexit is still an issue and can affect the availability of raw materials and changed trading conditions leading to higher logistics costs and more 'red tape'.

5.6 EWG 23-16: Evaluation of Work Plans for data collection and data transmission issues

Request to STECF

STECF is requested to review the report of the STECF Expert Working Group meeting.

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 23-16 met virtually from 23 to 27 October 2023 to:

- evaluate updates to the Member States' (MS) national Work Plan (WP) under the Data Collection Framework (DCF) for the years 2024 and beyond (within the multi-annual period 2022-2024(2027))
- evaluate the Regional Work Plans (RWP) submitted by the Regional Coordination Group (RCG), in accordance with Article 10 of Regulation (EU) No 2017/1004
- evaluate Data Transmission issues (DTi) from the 2023 Fleet Economics data call (EWG 23-03 and EWG 23-07)
- test and provide input on the DCF IT platform

STECF considers that the EWG adequately addressed the TORs and has the following specific comments on the ToRs addressed by EWG 23-16.

1. Evaluation of Member States' Work Plan updates

STECF notes that 5 Member States (MSs) submitted amended WPs for 2024 (within the multi-annual period 2022-2024(2027)). The amendments covered the different sections of the WP, as clearly presented by the overview of the evaluations in the EWG report.

STECF notes that a 'ping-pong' information exchange was conducted as in previous years. Member States were requested to reply to the issues identified by the EWG experts during the meeting. These exchanges closed most issues by the end of the meeting, leaving only a few issues that had to be dealt with bilaterally between the Commission and Member States. The exception was France, where some issues still remained that could not be closed during the EWG and were therefore re-assessed during PLEN 23-03.

On request by DG MARE, STECF re-assessed the French WP update based on revised versions of the text and tables received during PLEN 23-03 and added a column to the EWG assessment grid (electronic annex 1), reflecting the STECF observations on the latest WP amendments. In the re-assessment of the WP, STECF concludes that France has rectified the issues reported by the EWG, leaving only very minor editorial amendments necessary for the adoption of the WP.

STECF notes that the evaluation sheets (assessment grids) and guidance for evaluators developed by STECF during 2020-2022 were used. The detailed outcomes of the evaluations by each Member State were reported in the evaluation sheets (assessment grid) to keep track of the adjustments and comments made during the multiannual WP evaluation process.

STECF observes that some Member States provided an overview of the sections in the WP that have been amended and all Member States used the colour/track changes to highlight the revisions in the WP text and tables. This was found helpful for the evaluation.

STECF notes that it is useful to give feedback on inconsistencies that are noticed after the initial review of the WP, even though the WP is already formally accepted.

2. Evaluation of the Regional Work Plans

STECF notes that the EWG evaluated the 5 Regional Work Plans (RWPs) that were provided by the corresponding Regional Coordination Groups (RCGs). The Large Pelagics (LP) RWP and the Economic Issues (ECON) RWP were evaluated by the EWG for the first time, whereas for others, this was the second for the Mediterranean and Black Sea (Med&BS) or third evaluation in the case of the Baltic and North Atlantic, North Sea & Eastern Arctic (NANSEA).

STECF notes that the EWG very much appreciated the work done by the RCGs to propose the RWPs, as they are well-structured, clearly formulated, and came with detailed annexes.

STECF notes the importance of integrating the RWP within the WP submission, as the latter is the only legally binding document and is required for the evaluation of the Annual Report (AR). The linkage between the RWP and the WP requires modifications to the WP templates and of the Master Code List. STECF notes that major modifications of the current RWP should be discussed in the forthcoming ISSG RWP meeting, scheduled for early December 2023. Because of the restricted timeline of action to implement the RWP 2025-2027 in 2024, the EWG proposed interim solutions to provide a link with the RWP without modifications of the WP.

STECF notes that the EWG identified some inconsistencies between the different RWPs for a specific section as well as between Member States within an RWP. The EWG notes that there should be a consistent approach and maximum effort to follow the guidelines, as this is essential for the evaluation of the WP and AR.

STECF notes that the EWG identified a difference in the degree of completeness between the RWPs for one specific section relating to recreational fisheries.

STECF notes that the EWG provided overarching and detailed comments on each RWP that will be forwarded to the respective RCG to improve the RWPs.

3. Evaluation of Data Transmission issues (DTi)

STECF observes that the EWG evaluated 31 Data Transmission issues (DTi) from the 2023 Fleet Economics data call (EWG 23-03 and 23-07), which is less than the number of issues reported in the previous two years (48 issues in 2022 and 60 issues in 2021).

STECF observes that following the updated DTMT guidance and decision tree (version October 2023), most of the issues (19 out of 31), were assessed as 'follow up needed' and require in most cases (12 out of 19) a follow up/an upload of the corrected data in the following data call by the Member State.

STECF observes that according to the guidelines, the assessment option 'follow-up needed' encompasses issues in which Member States did not answer the question, the comment from the Member State to the issue is unclear and the information provided by end-users and Member State is contradictory. Additionally, the assessment criteria 'follow-up needed' also includes Data Transmission issues where Member States did not submit data or submitted incorrect data but indicated that the data/corrected data would be submitted in the next data call. To further improve the assessment of DT issues, STECF suggests that the DTMT guidance document and the decision tree is updated accordingly:

- The DT issue should only be assessed as '**follow-up needed**' when Member States did not answer the question, the comment from the Member State to the issue is unclear, and the information provided by end-users and the Member State is contradictory.
- If the Member State indicates that the issue (incorrect or missing data) can be resolved in the next data call, the DT issue should be assessed as '**unsatisfactory-to be revised**'. This option will more clearly indicate that missing or incorrect data might have had an impact on the end-user's work but that the issue will be solved by the Member State in the next data submission.
- If the Member State is not able to re-upload correct or missing data, the issue should be assessed as '**unsatisfactory**'.
- The issue type (quality, coverage or timeliness) should be added to the decision tree to provide clarity.

4. DCF IT platform

STECF observes that the EWG carried out intensive testing of the DCF IT platform for submitting and evaluating the WPs, by uploading new, already existing as well as intentionally modified WPs.

STECF notes that the EWG was overall very positive about the DCF IT platform in terms of user friendliness, the ability to explore tables, text boxes and list of annexes in parallel and the facility to do auto-formatting checks.

STECF observes that some of the data validation rules which are essential to the DCF IT platform for the evaluation of WPs and subsequently ARs are still under development.

STECF observes that there are still some inconsistencies reported by the EWG in the error list and notes that the EWG should provide comments to DG MARE on possible improvements and suggestions.

STECF conclusions

STECF endorses the outcomes of EWG 23-16 presented during STECF PLEN 23-03 and concludes that all ToRs were appropriately addressed.

STECF acknowledges that the STECF WP evaluation was simplified by the provision of a summary table by some Member States, clearly identifying the sections that have been amended and highlighting the revised parts in the text and tables. STECF concludes that this common approach is very useful and should be followed by all Member States for future evaluations.

STECF concludes that within the multi-annual WP evaluations, it is useful to give feedback on inconsistencies that are noticed after the initial review of the WP, even though the WP is already formally accepted.

STECF concludes that a lot of effort has been made to improve the regional coordination tasks and that this is reflected in the comprehensive, detailed and well-structured evaluated RWPs.

5.7 EWG 23-17: Social data in EU fisheries

Request to STECF

STECF is requested to review the report of the STECF Expert Working Group meeting.

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

Overview of EWG 23-17

This report on the social dimension of the CFP is the fourth report in a series of STECF reports operationalising the social dimension of the CFP and in particular the development of an analytical framework and indicators to provide data and information to assess the social aspects of the CFP.

The group met virtually, from the 16th until the 20th of October 2023 and consisted of 19 independent experts of which two were STECF members (co-chairs), two members from JRC and two observers. The meeting was attended on a regular basis by representatives from DG MARE.

The report addressed three specific areas:

- ToR 1 assessed and updated the National Fisheries Profiles (NFP) based on the Dutch, Danish and Spanish experiences.
- ToR 2 addressed the relevance of social data to answer policy questions drawn up by DG MARE.
- ToR 3 addressed the responses of the Member States towards the European Commission's (EC) web-based questionnaire developed by EWG 22-14 about the implementation of Article 17 of Regulation (EU) No 1380/2013.

STECF General comments

STECF considers that the EWG adequately addressed the three TORs.

STECF notes that the three ToRs are interrelated, with the National Fisheries Profiles (NFPs) assessed under ToR 1 being part of the social indicators framework that is addressed in ToR 2. Additionally, the allocation of fishing opportunities (subject of the questionnaire in ToR 3) could be included in the National Fisheries Profiles (ToR 1) and a possible subject of study for the framework in ToR 2.

STECF notes the NFPs need to provide an analysis of the social impacts of the policy developments on the fishing communities to be meaningful. For this, the importance of developing community profiles needs to be underlined.

STECF notes that to properly analyse and interpret the social aspects of fisheries management, national expertise is required. For the next data call for social data, a dedicated EWG is needed with experts from the relevant Member States to arrive at a proper and context specific interpretation of the national social data.

STECF notes that when a social data call is issued (currently every three years), an additional EWG may be required to analyse and interpret social data. This implies that for the current years an annual EWG is required to further the development of the NPF, set of policy questions and related social indicators, data sets and additional ways of collection data.

STECF comments on specific TORs

ToR 1: Assessment and conclusion of the three developed national fisheries profiles (for the Netherlands, Denmark and Spain)

STECF notes that, based on the experience of the NFPs developed for the Netherlands, Denmark and Spain as well as experiences from Greece and France, several observations were made by the EWG on the preparation of NFPs:

- The development of NFPs requires sufficient time to collect data, reflect on the information gathered, allow analysis, and discuss with peer reviewers.
- The development of NFPs requires a multi-disciplinary team including a social scientist and an economist who have access to the different datasets. The disciplines of the experts should allow the interpretation of the different data sources available and provide context to the NFPs.
- Typically, a team consists of two experts who would require between 10 to 14 days (hence 5-7 days for each expert, depending on the size and complexity of the Member State's fisheries) to prepare the NFP. The social scientist should coordinate the task.

STECF notes that data availability differs temporally and between Member States. Some differentiation in preparing the NFP will be unavoidable, but as much as possible comparable data sources and time periods should be used.

STECF re-iterates the observations of PLEN 23-01 that web-based NFPs would facilitate regular updates as needed, allow customised reports to be produced for the needs of end-users and support an active link to data with automatic updates. A web-based version will also facilitate standardisation and harmonisation among Member States.

STECF notes that the systematic comparative analysis across the EU on fishing dependency developed a decade ago (JRC, 2012-2013) needs to be updated. There are immediate gains (the methodological approach is defined and can be improved with the knowledge advances and evidence delivered by ICES WGSOCIAL) supporting the development of NFPs, community profiles and the understanding of trends across Europe.

STECF notes that the EWG 23-17 discussed the possibility of an Intersessional Subgroup to be established under RCG ECON which will focus on potential improvements and refinements in the collection and analysis of social data in EU fisheries and be custodian of the NFP web-based application. While STECF agrees that the national fisheries profiles need a (virtual) home, STECF has doubts whether RCG ECON is the proper hosting platform. As there are no apparent alternatives for hosting NFPs, possible options should be further discussed by STECF with DG MARE.

ToR 2: Selection of Social indicators

STECF notes that EWG 23-17 analysed the seven questions and their sub-questions provided by DG MARE in the scoping paper for STECF EWG 23-17 'policy questions for social indicators'. For each question, the EWG identified i) the social concepts associated, ii) the potential indicators, iii) whether the data was already available and where or how to collect it and iv) at which level the data should be collected.

STECF notes that the number of identified indicators is currently high. Discussions with the wider stakeholder community would help to prioritise and identify the most relevant policy questions and the related indicators to be monitored.

STECF notes that the development of the indicators which will then be integrated in the wider framework of ecological and economic data should be considered by future Social Data EWGs.

ToR 3: Member States' responses to questionnaire over article 17 implementation

STECF notes that the online questionnaire developed by EWG 22-14 was completed by 22 Member States covering all coastal Member States. This is higher than in previous years.

STECF notes that the level of completeness of the Member States answers is difficult to assess because of a lack of context or an available baseline for fleets, areas, fisheries, and species.

STECF notes that there are multiple interpretations of the term "fishing opportunity", from TAC and quotas to effort limits and spatial and temporal allocations. The definition of fishing opportunities should be better specified in the questionnaire, as it has a strong influence on the quantity of information delivered (e.g., in the Mediterranean there is a large majority of stocks that are not subject to quotas). Too narrow a definition of fishing opportunities potentially will result in some relevant information not being provided.

STECF notes that quite a substantial part of the information in the questionnaire is expected to be stable over time and an annual questionnaire would be repetitive. Therefore, STECF considers that integrating the allocation process of fishing opportunities in the NFP with revisions every three to five years or when important changes are expected (e.g., after a decommissioning scheme or a major policy change such as Brexit) may be more suitable.

STECF notes that most Member States include the use of historic rights as their main criterion for allocation. STECF notes that whether this criterion has social, economic or ecological characteristics depends on how its elements are defined (e.g., type of stock, fleet segment, duration of period considered). STECF further notes that Member States that allocate their TAC under a ITQ/TFC system report that this does not fall under article 17, can nevertheless describe the criteria used for their primary allocation of rights (state to PO/firms/individuals) even if data on the secondary allocation (e.g., through the market) is not known.

STECF notes that there are quite a few examples where specific ecological or social criteria are used in the allocation of fishing opportunities. Several countries (e.g., Spain, Italy, Croatia, Bulgaria) mention support to fishing communities as one of the social criteria justifying the allocation of fishing opportunities.

STECF conclusions

STECF concludes that the work of the EWG 23-17 has advanced the integration of the social dimension in the management of fisheries by addressing the ToRs.

STECF concludes that every three years, when a data call for social data is issued, a second social EWG may be required. This EWG would be additional to the annual EWG currently advancing the development of the NFPs, set of policy questions and related social indicators, data sets and additional ways of collection data.

ToR 1 - Conclusions on NFP importance

STECF concludes that the work on the NFPs is an important step towards the integration of the social dimension into fisheries management and fisheries advice and should be extended to all Member States. How to organise the establishment of the remaining NFPs is for DG MARE in conjunction with STECF to decide.

STECF concludes that while planning for the development of initial national fishing profiles, particular attention should be taken to ensure the experts are allocated sufficient time to do the

work; have access to and knowledge of the existing data; and that an interdisciplinary team of experts is required to provide enough context to the analysis.

STECF re-iterates its conclusion of PLEN 23-01 that the NFPs should be web-based, to allow for regular partial updates and possibly production of tailor-made reports for end-users needs. A web-based version will also facilitate standardisation and harmonisation among Member States.

STECF concludes that advances are needed on the community profiles development, including the definition of a number of critical notions such as the concept of community. This will be further developed in future Social Data EWGs.

ToR 2: Selection of Social indicators

STECF concludes that the next step will be for DG MARE to consult the wider stakeholder community to prioritise the set of policy questions. Based on this consultation, a second analysis of relevant social indicators and way of collecting data could be developed.

STECF concludes that future Social Data EWGs should further the work on how social data can answer policy relevant questions and develop indicators which will then be further integrated in the wider framework of ecological and economic data.

ToR 3: Member States' responses to questionnaire over article 17 implementation

STECF concludes that the description of the allocation of fishing opportunities including the implementation of article 17 should be included in the NFPs and be updated, when necessary, but at least revised every three to five years.

Given the limited number of NFPs available, and the expected time to complete them for the remaining Member States, STECF concludes that an improved version of the current questionnaire be used, encompassing the improvements suggested by EWG 23-17 relating to the completeness of the answers and the definition of fishing opportunities.

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

6.1 Assessment of Recommendation containing measures to reduce common dolphin by-catch in the Bay of Biscay

Background provided by the Commission

A preliminary joint recommendation was submitted by the Southwestern Waters group on the 26th of October 2020, as a response to the ICES advice of 26 May 2020. This joint recommendation provided for:

- (1) the equipment of mid-water pelagic trawls (OTM, PTM) and demersal twin trawls (PTB) with acoustic deterrent device in ICES subarea VIII and demersal trawls (OTB) in ICES subarea VIIIC all-year long.
- (2) the obligation for all EU fishing vessels to report the incidental by-catches in the logbook, with an encouragement to fishermen to engage in the tagging of dead common dolphins, in association with scientific institutes.
- (3) the increased data collection on incidental catch through observations at sea or camera on board, with a minimum of 2% of the total effort of each fleet of concern should be observed (by observers or CCTV).
- (4) the improvement of the knowledge on the state of the common dolphin population and stranding events, via a surveillance program and the creation of a European network to monitor strandings
- (5) the development and testing of new technical solutions to reduce protected by-catches.

STECF assessed this joint recommendation during its spring plenary 2021 but considered that the measures proposed in the JR were insufficient to reduce incidental by-catches of common dolphins in the Bay of Biscay.

No delegated act had therefore been adopted by the European Commission on this basis.

On **25 October 2023**, the SWW Member States Group submitted a new joint recommendation, including spatio-temporal closures and technical measures to minimise incidental by-catches of common dolphin in the Bay of Biscay (ICES subareas 8).

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

STECF is requested to analyse the joint recommendation from the South Western Waters Member States group and **advise on the contribution that the proposed measures to reduce accidental catches of the common dolphin in the Bay of Biscay**, if implemented, would make to the achievement of objectives set out in Article 3, paragraphs 2(b) and 2(d) and the target set out in Article 4 Paragraph 1(b) of Regulation (EU) 2019/1241.

STECF is requested to review and make any appropriate comments and recommendations on the proposed set of measures and their **effectiveness** to reduce the by-catch of common dolphin in the Bay of Biscay and to improve knowledge, in line with the recommendations of the latest ICES advice.

In particular, STECF is requested to assess if the spatio-temporal closures coupled with the technical measures can minimize or reduce by-catch of common dolphins and if the current proposed measures would contribute to provide the required level of protection of common dolphin in the Bay of Biscay. STECF is also requested to comment on the level of reduction of by-catch through the implementation of these measures.

STECF is requested to provide its analysis on the proposed **observer coverage scheme and the use of on-board cameras**.

Finally, STECF is requested to comment on the **controllability of the measures** proposed.

Summary of the information provided to STECF

STECF was provided with the SWW JR text, and several background documents collated by DG MARE:

SWW JR text ("corrected ICES advice 2023 29-6-23.pdf")

In correspondence to DG MARE, and given Art. 7.1, 7.2, Art 18.7 of CFP Reg. 1380/2013, and Art. 21 in Reg. 2019/1241, the Southwestern Waters High-Level Group (SWW-HLG) submitted a Joint Recommendation (JR) aiming to reduce incidental catches of small cetaceans in the Bay of Biscay (ICES area 8).

The JR addresses issues from the ICES Special Request published on the 29th of June 2023 (ICES 2023). It proposes a series of measures designed to mitigate the interaction between fisheries and common dolphins in the Bay of Biscay. The JR describes two measures:

1. A call for more experimentation and improved knowledge and data transmission to reduce bycatch in ICES area 8 (Spain and France and non-EU vessels) for pelagic and demersal trawlers, netters and seiners over the period 2024 to 2026.
2. Implementation of a time-area closure (10 calendar days, 22 Jan to 31 Jan 2024 + 20 calendar days for individual vessels to choose from between 15 Jan-31 March) or vessels voluntarily equip themselves with Electronic Monitoring (EM) or pingers (or an equivalent technique) from 2024 to 2026.

ICES Special Request published on the 29th of June 2023

The ICES advice issued in June 2023 entitled 'EU request on mitigation measures to reduce bycatches of common dolphin (*Delphinus delphis*) in the Bay of Biscay (ICES Subarea 8)' provides an evaluation of a series of management measures to reduce bycatch. This was based on an analysis carried out by ICES Working Group on Bycatch of Protected Species (WGBYC), 2022 (ICES 2022). The ICES advice is built upon the recommendations of the ICES Marine Mammal Ecology (WGMME) and WGBYC. The ICES advice is based on data from 2019–2021 and bycatch estimates derived from at-sea monitoring programmes data or from a drift model parameterised on the number of stranded animals. The strandings data provides much higher bycatch estimates than sea-sampling (Peltier et al., 2019).

Based on at-sea sampling programmes mortality estimates, ICES found that six out of fifteen proposed bycatch mitigation scenarios investigated are likely to reduce short-beaked common dolphin (*Delphinus delphis*) bycatch below the Potential Biological Removals (PBR) limit (See Table 2 in ICES, 2023). The six scenarios identified were:

- Scenario C (two-month closure [mid-Jan–mid-Mar] all métiers and scenario L (scenario C + pingers PTM/PTB rest of year).

- Scenario D (six-week closure [mid-Jan–end of Feb] all métiers) and scenario H (scenario D + pingers PTM/PTB rest of year)
- Scenario B (annual effort reduction of 40% for all métiers).
- Scenario G (pingers PTM/PTB all year and same six-week closure for all other métiers)

ICES estimated that the risk of not reducing bycatch to below PBR is high to very high for scenarios D, B, and G as follows:

- For Scenario D, a six-week closure is less likely to capture the peak in mortality compared to longer closures.
- For Scenario B, there is a high risk of not achieving the objective because bycatch is only reduced by 20%.
- For Scenario G, there is a high risk due to the short duration of the closure. A six-week closure is less likely to capture the peak in mortality compared to longer closures. The bycatch reduction is estimated to be only 18%.

Hence, ICES concluded that Scenario C is the scenario that meets the objective with a minimal risk of failure. ICES anticipated it would reduce bycatch by 33%. However, ICES also stated that, based on bycatch estimates derived from strandings data, none of the fifteen proposed mitigation scenarios would reduce the bycatch of the common dolphin in the Bay of Biscay below the Potential Biological Removal (PBR) limit.

ICES recalled that mitigation measures applied for Subarea 8 only are much less efficient than if implemented in a larger area that includes Subarea 8 and Division 9 (ICES, 2023a). ICES also recommended enhanced monitoring to assess the effectiveness of management measures (including pinger use) and to augment precision in bycatch mortality estimates of common dolphins.

Report of the LICADO French project on pingers testing in gillnet fisheries of the Bay of Biscay (“Rapport_LICADO_2022_fileyeurs.pdf”) (in French)

The aim of this project was to develop and test effective acoustic deterrent devices for gillnetters in the Bay of Biscay that triggered a response from marine mammals and did not lead to habituation to the acoustic signals generated. As part of the testing, the project also aimed to assess the suitability of the devices tested in terms of ease of use (deployment) and reliability (battery autonomy, etc.). Deployment of the gear and the vessel were considered. The researchers also attempted to take account of background noise created by the acoustic devices and limit acoustic pollution and loss of devices.

The project concluded that using the prototype pinger tested was not easy in practice when operating gillnets. The results were inconclusive and did not definitively prove the effectiveness of the pinger in reducing bycatch events. This was due to the low number of recorded bycatch events in this study which meant the results were not statistically significant.

Report of the DOLPHINFREE project “Dolphins free from fishery by-catch” (“DOLPHINFREE-Rapport_destine_a_profession-2023.pdf”) (in French)

The DOLPHINFREE French project has developed and tested common dolphin-specific pingers to be deployed by gillnetters. The device emits signals corresponding to trains of echoes from echolocation clicks performed on a fishing net or a fishing net containing a dead common dolphin. During the project, several versions were tested to improve the performance (Version 1 lacked battery autonomy and was difficult to deploy; the acoustic signal in Version 2 was found to be

ineffective, and Version 3 was deemed the best option). The DOLPHINFREE V3 is deployed by placing one device every 500 m along the net. The costs involved are not trivial; each pinger has an expected cost of ca. 1000 Euro in addition to about 3000 Euro for a server station to receive the signals, plus the cost of charging the pingers, which may last 1 month on a single charge according to the technical specifications.

The outcome of in-field testing has been published in Lehnhoff et al. (2022). The authors are confident that the DOLPHINFREE V3 pinger could effectively reduce bycatch events in gillnet fisheries because it could *“provide promising means to signal the presence of fishing nets to common dolphins and potentially to limit by-catch”*. The magnitude of this reduction has not been robustly estimated as yet. The designers state that this pinger is only suitable for deployment on gillnets and not pelagic trawls since such mobile fishing gears require the animals to be quicker to detect and avoid the fishing gears.

French Policy document “decision conseil d etat.pdf” (in French)

The decision Nos 449788, 449849, 453700, 459153 taken by the Conseil d’état of the French Republic was also provided to STECF. It stipulates in Art. 4 that, within 6 months from 20 March 2023, time-area closures must be implemented in France if acoustic deterrent devices are not proven to be effective in reducing bycatch of common dolphins in the Bay of Biscay.

Spanish document on monitoring of bycaught animals in the Cantabrian area 8c NOTA RECOPILOC DATOS CETACEOS junio 2022 (in English)

The document provides estimates of bycatch rates for different Spanish fleet segments active in area 8c (referenced Table 4 from the report below). The document concludes as follows:

- “Stranding data in winters 2021 and 2022 in 8c: an important decrease has been observed.”
- “Significant effort to establish improvements in data collection, always under scientific advice (electronic and onboard observers).”
- “The Spanish Scientific explained to the Commission in the May Meeting that the % bycatch rate is very low and not significant statistically.”

Table 4. Data from 2017-2020 describing monitoring effort, fishing effort, monitoring coverage, bycatch numbers and bycatch rates by ICES Division and métier DCF Level 3, taken from Table 5.1 in the 2021 WGBYC report (ICES, 2021). Blue-shaded rows correspond to data derived from the Spanish DCF at-sea sampling program.

ICES Division	Metier L3	Spp.	Observed effort (DaS)	Total effort (DaS)	Coverage	Incidents	No. specimens	Bycatch rate
27.8.a	Bottom trawl	DCO	72.96	512675.85	0.0001	4	21	0.2878
	Bottom trawl	PHR ¹	123.03	47999.69	0.0026	1	1	0.0081
	Nets	DCO	709.08	468598.09	0.0015	9	9	0.0127
	Nets	PHR	164.83	220741.60	0.0007	1	1	0.0061
	Pelagic trawl	DCO	294.63	50574.24	0.0058	17	67	0.2274
27.8.b	Bottom trawl	DCO	164.07	123485.13	0.0013	4	8	0.0488
	Longlines	DCO	5.13	20958.44	0.0002	1	1	0.1951
	Nets	DCO	475.45	152198.58	0.0031	11	14	0.0294
	Nets	PHR	393.59	28178.72	0.0140	5	5	0.0127
	Pelagic trawl	DCO	59.45	10321.46	0.0058	10	24	0.4037
	Pelagic trawl	DCO	4.00	24.00	0.1667	2	0	0.0000
	Pelagic trawl	PHR	8.50	1747.74	0.0049	1	1	0.1176
27.8.c	Pelagic trawl	PHR	4.00	24.00	0.1667	1	0	0.0000
	Bottom trawl	DCO	62.00	14730.24	0.0042	1	1	0.0161
	Nets	DCO	49.00	27969.71	0.0018	1	1	0.0204
	Pelagic trawl	DCO	10.53	187.84	0.0560	1	1	0.0950
	Pelagic trawl	PIW	86.00	3399.53	0.0253	1	5	0.0581
27.8.d.2	Bottom trawl	DCO	9.00	5295.43	0.0017	1	4	0.4444
27.9.a	Nets	DCO	434.00	170840.28	0.0025	4	6	0.0138
	Nets	DBO	323.00	277467.92	0.0012	2	2	0.0062
	Seines	DCO	45.00	15715.00	0.0029	1	2	0.0444
	Surrounding	DCO	194.00	25571.00	0.0076	4	4	0.0206

STECF observations

In addition to the documents provided, STECF is aware of additional projects and trials currently ongoing in Member States (and referred to in ICES WKEMBBYC2 2023), with some reports already available online. STECF has also considered additional information available from the published scientific literature.

Contribution that the JR proposed measures make to reduce accidental catches of common dolphins in the Bay of Biscay

The SWW Joint Recommendation partially based its proposal on the outcome of the ICES Special Request Advice published on 28 June 2023. The scenarios put forward by ICES to reduce bycatches of common dolphin (*Delphinus delphis*) in the Bay of Biscay were either a reduction of fishing effort by 40% or a temporal closure of all métiers of concern and application of pingers on pair trawlers to mitigate bycatch outside of the closure period.

STECF observes that the set of measures proposed in the JR to reduce the bycatch is not fully aligned with any of the six scenarios, and, therefore, it cannot be expected to reduce bycatch to below the PBR limit of 4927 animals.

STECF notes that the 30 calendar-day closure proposed in the JR in combination with the mandatory use of pingers required on French pelagic trawlers since 1st of January 2021¹, partially corresponds to Scenario I from the ICES advice (*"Pinger PTM/PTB all year and same four-week closure (mid-Jan, mid-Feb) all other métiers"*). However, STECF notes that according to ICES that scenario presents a high risk of not achieving the objective of reducing bycatch below the PBR limit of 4927 animals. ICES estimated that Scenario I would lead to an estimated bycatch of 5276 animals. Further, STECF notes that the 10-day closure period with an additional 20 days closed on an individual basis may be less constraining than a fixed four-week closure.

Furthermore, STECF observes that the proposed time-area closure in the JR is made optional in the JR proposal as the vessels fishing in the Bay of Biscay within the French EEZ that voluntarily equip their vessels with electronic monitoring systems or alternatively deploy pingers (or any equivalent technique) from 2024 onwards would be exempted from the closure.

STECF notes that the JR remains less restrictive than Scenario I altogether, and the contribution of the JR to the objectives will at most, and most likely be less than the contribution of Scenario I, since the closure will likely affect a greater proportion of the bycatch reduction than the use of pingers.

It is nevertheless not possible for STECF to evaluate quantitatively the expected contribution of the JR to bycatch reduction, since (i) the proportion of the fleets choosing the closure or the exemptions options in 2024 is not known, and (ii) the JR does not contain a specific list of allowed technical devices that vessels could use to obtain exemption from the proposed closure. The JR only refers to, "Other *experimental technical measures identified by the Member States to reduce small cetaceans bycatches*", and mentions that a "*list of technical devices has been established by the SWW group and may be updated each year*". However, STECF has not been provided with that list. STECF notes further that detailed technical specifications and pieces of evidence on effectiveness motivating the selection of allowed devices are needed for STECF to assess the performance of such proposals.

STECF notes that the supporting studies provided only relate to the performance of some specific acoustic devices. No data or information relates to the other many practical aspects linked to the exemptions, such as the practicalities of installing on-board EM, monitoring stations onshore, proofs that the pingers are charged and operating correctly, as well as any information on the amount and quality of the data to be collected by the exempted vessels.

STECF observes that as underlined by ICES, mitigation measures applied in Subarea 8 only are likely to be much less efficient than if implemented in a larger area that included Subarea 8 and Division 9.a given the wide distribution and highly migratory nature of common dolphins.

The effectiveness and controllability of proposed measures

STECF is requested to provide its analysis of the proposed observer coverage scheme and the use of on-board cameras. STECF is also requested to comment on the controllability of the measures proposed to mitigate the bycatch issue.

STECF gathered some information from published reports on time-area closure, deterrent

¹ https://www.legifrance.gouv.fr/eli/arrete/2020/11/27/MERM2033160A/jo/texteJORF_n°0292_du_3_décembre_2020

devices, and electronic monitoring for effectiveness (defined as the ability of a measure to reach its objectives in a cost-efficient way) and controllability (defined as the ability of the system to be implemented and controlled for compliance with the rules). STECF observes that the most appropriate measures to implement should combine high effectiveness with high controllability.

STECF observes that based on the best available information from ICES (ICES WKEMBYC2 2023), associating a seasonal closure covering the peak of interaction to the use of pingers over the rest of the season, and with EM onboard fishing vessels is expected to deliver the best combination of effectiveness and controllability as concluded in STECF PLEN-21-01 and the ICES Special request of June 2023.

STECF notes that time-area closures are usually implemented to avoid interactions between fishing activities and specific ecosystem components to be protected (certain fish life stages such as juveniles, marine mammals, birds, or turtles). STECF observes that static or flexible area-based management tools and input controls on the number and time-of-day of fishing operations can be monitored with vessel monitoring system (VMS, AIS, etc.), provided that the ping frequency is adequate. However, if real-time flexible closures are to be implemented instead of fixed seasonal closures, the vessel monitoring system would need to be associated with electronic monitoring (including cameras) to effectively adapt to the observed start of a peak of interactions. Delay in detecting an increase in bycatch would, however, impair the effectiveness of such real-time management.

STECF notes from previous and recent supporting studies that the effectiveness of pingers varies for different species (STECF PLEN 21-01). In its review of the implementation of EU Regulation (EU) 812/2004 on the incidental catches of cetaceans (STECF 19-07), STECF noted that the specifications for the pingers/acoustic deterrent devices (ADDs) prescribed in Reg (EU) 812/2004 mainly mitigate the bycatch of harbour porpoise. For other species, including dolphins, results were less conclusive, and might be dependent on the kind of ADDs used. Furthermore, studies have shown that the use of pingers may present significant operational problems in terms of deployment, while pinger failure rates exceeding 50% have also been observed in some cases (STECF 20-02). It is not clear to STECF to what extent significant technological progress has been achieved since these studies identified these operational shortcomings.

More recently, STECF observes that Puente et al. (2023) tested fully charged dolphin deterrent devices (DDD@03H03H) over 467 hauls in the pair bottom trawl fishery in the south Bay of Biscay to assess their effectiveness. Among these hauls, 26 common dolphins were caught in 15 hauls, 25 of which were caught in hauls without DDDs (1–4 individuals per haul). Results show that there is a statistically significant lower proportion of hauls with bycatch and a lower number of individuals bycaught per haul when DDDs are deployed, even if the bycatch events captured by the study were rare (26 animals bycaught).

STECF observes that besides the use of time-area closure and acoustic deterrent devices such as pingers, previous scientific works have reviewed possible changes in gear designs and fishing methods with various mechanisms for reducing bycatch, or, if caught, for reducing the probability of mortality (e.g., Gilman et al., 2022).

Analysis of the proposed observer coverage scheme and the use of on-board cameras

STECF notes that Electronic Monitoring (EM) systems have the potential to provide more representative coverage of the fleet than observer programs and are generally more cost-efficient, particularly for rare events such as cetacean bycatch. They also provide continuous coverage of the location and activity of fishing operations (Murphy et al., 2022 – Table 2), which

can lead to better compliance with interaction avoidance and mortality reduction (handling) measures.

STECF observes that EM can provide more reliable data in both small- and large-scale fisheries (van Helmond et al., 2020; Dalskov et al., 2021) because it overcomes sources of statistical sampling bias faced by observer programs. EM systems can monitor continuously and be used in a cost-effective audit model, where all vessels have EM systems and random samples of imagery and sensor data are reviewed (Plet-Hansen et al., 2019). The efficiency of the review phase itself can be increased, for example, by reviewing at speeds faster than real-time and supporting review with computer vision tools (Pierre et al., 2022), particularly for rare events.

STECF notes that France has recently experimented with EM onboard gillnetters for monitoring cetacean bycatch in the Bay of Biscay (OBSCAMe program)². The final report describes that up to 4 times more captures of marine mammals were reported from the EM data analysis than with onboard observers. STECF notes that the monitoring program has estimated that 20% of dolphin bycatch falls from the gear before reaching the board (Cloâtre et al. 2023).

Ecological drivers and implications of the unwanted interaction

STECF notes that an aerial survey was renewed in 2023 and showed that common dolphin abundance estimates in the wider area of the European Atlantic did not vary much among the three surveys - SCANS-II/CODA, SCANS-III/ObSERVE and SCANS-IV (SCANS-IV 2023). However, STECF notes that there are several other observations suggesting an increase in common dolphin abundance in the Bay of Biscay over recent years. This increase has likely resulted from an influx of dolphins into the Bay of Biscay, potentially from oceanic/southern waters, rather than a population increase in the entire North-East Atlantic (the ICES Assessment Unit in SCANS-IV) per se (Murphy et al., 2022). The distribution of common dolphins appears to be strongly concentrated in shelf waters. Common dolphins may prefer shallower waters, as also shown in Lacey et al. (2022) where the spatial model estimated a negative relationship with increasing depth for common dolphins.

STECF observes that ICES identified ongoing issues with data availability and quality, which contribute to high levels of uncertainty in estimating population abundance, distribution, bycatch, and other major threats for small cetaceans (Murphy et al. 2022). Notably, ICES (2023) showed that the percentage of observer coverage has steadily increased in the trawl fisheries between 2016-2018 and 2019-2021. However, the percentage remains nevertheless very low in the gillnet and trammel nets fisheries (<3% and <1% respectively). In this regard, STECF acknowledges the proposal in the JR to increase the degree and coverage of monitoring of fishing operations.

STECF acknowledges the extensive ongoing efforts to understand the drivers for interactions between fishing activities and the common dolphin, that could help design appropriate and effective management measures that would minimise negative economic impacts on fishing operations. This could be achieved by considering, possibly in real-time, the accurate identification of the period of peak interactions that likely depends on the distribution and the body condition of the fish prey shared by the common dolphins and fishermen (small pelagic species). ICES has listed (in ICES WKEMBBYC2 2023) several projects set up in France to develop and test mitigation

² <https://professionnels.ofb.fr/fr/node/1624>

devices for pelagic trawlers and gillnetters.

STECF conclusions

While acknowledging the work carried out in France, STECF concludes that the measures proposed in the 2023 SWW JR are unlikely to minimize and will not eliminate incidental catches of common dolphin in fisheries in the Bay of Biscay in the context of Articles 3.1b and 4.1b of the EU Technical Measures Regulation.

STECF concludes that according to the ICES scenario I, the proposed time-area closure, if fully implemented for all vessels (of the French, Spanish and non-EU fleets) fishing in the French EEZ of the ICES area 8 may contribute to reduce bycatch but cannot be considered sufficient to reduce the mortality below the PBR limit of 4927 animals.

STECF concludes considering that pingers are likely to achieve lower bycatch reduction than closure and that EM is not a bycatch reduction measure, the actual contribution of the JR to reducing bycatch, although it cannot be quantified, will certainly be less than ICES scenario I, and will depend on the relative proportion of the fleets covered by the closure or exempted from the additional closure periods.

STECF concludes that the list of pingers, together with their technical and operational specifications and expected effectiveness on common dolphins would be required to fully evaluate the expected impact of the JR.

STECF concludes that if different types of pingers are implemented by different vessels, and together with some part of the fleets being subject to closure, it will be impossible to distinguish the effect of each individual option on potential future reductions in the number of stranded animals.

STECF concludes that pingers are already mandatory for trawlers in the Bay of Biscay. Therefore, the JR would not affect these fisheries any more than they already are.

STECF concludes that, as underlined by ICES, a 30-day closure is still relatively short and could miss the peak in mortalities. STECF recalls that for the time-area closure to effectively reduce the bycatch, it would need to span over the period where the peak of the interaction between fishing activities and the dolphins would occur and not be made optional.

STECF concludes that, while EM is not an avoidance measure, it is an effective way of collecting data that will inform bycatch rates through increased coverage. It is also considered a cost-effective way of collecting data and, if extensively adopted, would complement the information currently collected by on-board observers.

STECF concludes that the issue of bycatch needs to be addressed in the long term, as it is likely to continue beyond the start of 2024 while the closure is only specified for 2024.

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6.2 Recommendations of the Regional Coordination Groups

Background provided by the Commission

The Liaison Meeting brings together the chairs of the Regional Coordination Groups (RCGs), end users (ICES, STECF, Regional Fisheries Management Organisations) and the Commission. On the first day of the Liaison Meeting, the main end users are invited to present their data needs and planning of forthcoming activities. On the second day, the RCG chairs exchange on data collection activities, with special reference to regional coordination. This year's Liaison Meeting took place on 26 and 27 September 2023 in Brussels and was chaired by Marie Storr-Paulsen from DTU Aqua, Denmark. Previous Liaison Meeting reports can be accessed through the [DCF website](#).

The RCGs and the Liaison Meeting have put forward numerous recommendations, and herewith are selected those that are relevant for STECF. These are either directly addressed to STECF, relate to issues of data collection and/or reporting, relate to data calls that are handled by STECF, and/or STECF EWGs (past or future), highlight possible data gaps or relate to data availability: [to be provided by the chair of the Liaison Meeting]

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

Previously, STECF was requested to discuss the RCG recommendations³ and commented on the relevant recommendations. Therefore, for PLEN 23-03, STECF is requested to analyse the recommendations of the RCGs in the light of their possible impact on the scientific advisory process (stock assessment, annual economic report, management measures assessment) and to inform the Commission on the possible effect of the recommendations on the data coverage, quality and availability.

The STECF opinion, after publication of this report, will be communicated to the RCG chairs, the [RCG Secretariat](#) and the Liaison Meeting chair, as well as to other end users, where a common task is proposed.

STECF observations

STECF considered each of the RCG recommendations selected by DG MARE. STECF observes that important topics relevant to the various EWGs have been addressed by the RCGs.

Regarding the collection of economic and social data of the processing industry, STECF considers that the Structural Business Statistics is already providing the definition for the variables collected. Therefore, STECF observes that Member States need to follow these, so that data is comparable between Member States and Eurostat. The addition of "new" variables should, be carefully considered in light of any revision of the Union Programme for Data Collection (EU-MAP).

STECF welcomes the involvement of stakeholders in the provision of data and information from aquaculture, (e.g., in the EWG on aquaculture). In this context, EWG 22-17 on aquaculture has

³ STECF Plenary 17-03, 18-03, 20-03.

already been in contact with the Aquaculture Advisory Council (AAC) regarding provision of data on production volumes.

Several workshops and studies, (e.g., on energy consumption, capital value, fleet segmentation and transversal data) have been proposed by the RCG ECON, which STECF supports. However, STECF, suggests that these activities are closely linked to the work of the relevant EWGs (e.g., FDI data).

STECF supports the use of available tools for data processing and agrees with RCG Mediterranean and Black Sea that the establishment of the regional database (RDBFIS) is an important step in this process.

The RCG Mediterranean and Black Sea has made several recommendations on the improvement and better utilisation of surveys by (e.g., adding the collection of acoustic or plankton data). STECF supports these initiatives. As for the timing of MEDITS and MEDIAS, STECF considers keeping the time frame for survey conduction as narrow as possible to avoid seasonality effects.

STECF observes that Member States should take actions (e.g., clear planning of activities at sea, chartering of vessels, etc.) to avoid as much as possible breaching survey timelines. STECF acknowledges that delays can occur due to *force majeure* causes (e.g., technical problems with the vessels, adverse weather conditions, etc.). In those cases, Member States should duly document and justify deviations from the survey timelines.

STECF notes that Member States are facing increasing demands for data, not only from the regular end-users such as STECF EWGs and GFCM, but also from research projects. In order to make this process as efficient and multi-purpose as possible, STECF supports the development and utilisation of the regional database RDBFIS as far as possible.

STECF comments on RCG recommendations

Detailed comments by STECF on each RCG recommendation are provided in the following tables.

RCG ECON:

Recommendation 01. Feedback from the ISSG Fish processing	
ECON-2023_R01	<p>The population of fish processing shall refer to enterprises whose main activity is defined according to the EUROSTAT definition under NACE Code 10.20: 'Processing and preserving of fish and fish products'. Accordingly, a footnote should be added in the Regional Work Plan draft with the definition of the frame population of fish processing enterprises.</p> <ul style="list-style-type: none"> • The group proposed a new definition for the variable raw material: 'Weight of raw material per species and origin (optional)' to be added in the RWP/guidance template. • MS should provide raw material data using 3-alpha FAO code for species. • In case the raw material reporting is based on 'commodities', to convert these 'commodities' into species (and live weight?).
Justification	<p>Several data issues were detected during STECF EWG 21-14. RCG ECON 2022 proposed a workshop to solve these issues. A questionnaire on the possible issues was sent before the meeting, replies from 17 MS. Main issues found:</p> <ul style="list-style-type: none"> • Frame population and identifying the main-activity enterprises and non-main activity enterprises. Approximately one-third of the MS have difficulties defining the frame population. The group suggested including a footnote to the Guidance for the Regional Work Plan with the definition of the frame population. • Low coverage and high heterogeneity in reporting when providing data on raw materials. The group suggested changing the name of the variable (raw materials) for the adaptation of the Regional Work Plan.
Follow-up actions needed	<ul style="list-style-type: none"> • Regional Work Plan draft should take these modifications into account. • JRC should adjust the data call template for the raw material to allow MSs to clearly provide data in line with the 4 categories recommended by RCG ECON: Weight and value of raw material by: <ul style="list-style-type: none"> • Species (3-letter FAO code) • Production environment Origin (Capture based fishery and aquaculture sector) • Country of Origin (Domestic, other EU, non-EU) <p>Recommendation: If collecting the volume of raw material also by typology of processing it is recommended to provide data</p>

	according to the following categories: fresh, frozen and semi-processed materials.
Responsible persons for follow-up actions	RCG ECON chairs to adjust the Regional Work Plan draft
Time frame / Deadline	2023 adjusting the Regional Work Plan draft
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	<p>STECF supports the suggestions for modification of the Regional Work Plan by the RCG. However, as the collection of processing industry data is non-mandatory under the DCF, the general understanding should be to stay as close to the Structural Business Statistics as possible.</p> <p>STECF considers that the amendments to the Processing data call should be discussed between DG MARE and JRC, based on the recommendation.</p>

Recommendation 02. Feedback from ISSG Fish processing	
ECON-2023_R02	MS that has included the data collection of fish processing into their National Work Plans should collect the income and cost variables or social variables where possible that are part of the Regional Work Plan draft. MS are asked to follow the categories for social variables in the guidance document.
Justification	The current legislation does not include a Table of variables to be collected for the fish processing. Thus, the list of variables provided by the MSs can vary and some income or cost variables may be reported combined. In the light of the optionality characterising the fish processing data collection and emerging from the MSs replies on specific variables, e.g. the non-main "segment" (some MSs collecting both No. of enterprises and turnover, others just No.), the RCG ECON was asked to provide a general clarification on what can be considered optional or not, on the understanding that MSs are obliged to collect and report only what is planned in their approved Work Plans.
Follow-up actions needed	Update the guidance document for fish processing accordingly.
Responsible persons for follow-up actions	RCG ECON chairs to update the guidance document accordingly. JRC to publish the guideline document on the data collection webpage.
Time frame / Deadline	2023

Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	STECF supports this recommendation, with the aim to improve comparability of the collected data.

Recommendation 03. Feedback from ISSG Fish processing	
ECON-2023_R03	To consider including two turnover variables in the future in the data collection: Turnover or Gross premium written (e.g. total turnover) and Turnover from the principal activity at 3-digit level NACE Rev. 2 as in SBS.
Justification	The definition of turnover was discussed thoroughly in ISSG fish processing and it was noted that the current definition differs from the definition of turnover in the SBS. The group acknowledges that SBS data provide two variables: Turnover or Gross premium written (e.g. total turnover) and Turnover from the principal activity at 3-digit level NACE Rev. 2. In order to have a full picture of the income returns from different activities, the group suggests having turnover from the main-activity (fish processing) and turnover from non-main activities reported separately.
Follow-up actions needed	Discuss the proposal during the development of the new DCF
Responsible persons for follow-up actions	RCG ECON chairs
Time frame / Deadline	2025
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	STECF considers that the specification of the turnover variables should be considered when revising the multi-annual Union programme for Data Collection (EU-MAP).

Recommendation 04. Stakeholder feedback presentation by the Commission	
ECON-2023_R04	Member States should decrease the response burden for the data providers and make every effort to combine the questionnaires on different subjects and make them available online where possible. The group would like to remind that the members of the EU producer organisations can apply as observers in the STECF EWG on aquaculture.

Justification	<p>AAC 2021-04 gave several recommendations on the DCF (March 2021). RCG ECON reviewed these recommendations and considered the following points (3 and 5) as the most relevant:</p> <p>Point 3. Member States should make every effort to combine the questionnaires and make them available online.</p> <p>Combining social data into economic surveys is becoming common practice, and the same approach should be encouraged for environmental data. The efficient use of online questionnaires for data transfer is essential for simple and fast collection and analysis.</p> <p>Point 5. A feasibility study should investigate the potential for farmers’ associations to play an active role in collecting data. Cooperation of the producers’ associations is indispensable for several reasons:</p> <ul style="list-style-type: none"> • They are an end user—the link between detailed indicators (as proposed below) and data collection will be beneficial for prioritisation and implementation. • To promote the legitimacy of analysis based on that data so that results are not disputed or discredited as being based on biased information. • Data analysis should remain to be executed by organisations already involved in the compilation of statistical data. <p>After COM answer (July 2021), AAC followed up: The AAC would also welcome the Commission’s support to encourage Member States to achieve recommendation 3 via the Open Method of Cooperation.</p> <p>COM replied (January 2023) that DG MARE acknowledges the AAC recommendation on the questionnaires which is addressed to the MS and will bring it to the attention of the RCG ECON.</p> <p>Recommendation 5 has been partly reiterated in AAC 2022-17 Recommendation on STECF Aquaculture Report 2022 (June 2022).</p> <p>Point 2. Explore options for involving EU producer organisations in data collection.</p> <p>COM replied (January 2023) that regarding the options to include producer organisations in data collection, the relevant forum to discuss such options would be the RCG ECON.</p>
Follow-up actions needed	MS should combine the questionnaires on different subjects and make them available online where possible.

Responsible persons for follow-up actions	MS and STECF EWG aquaculture
Time frame / Deadline	By the next aquaculture data call and STECF EWG aquaculture meeting in 2024
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	<p>STECF considers that observers are welcome to the EWG on aquaculture to contribute with data and information relevant for the EWG.</p> <p>STECF notes that the aquaculture EWG has been in contact with the AAC about providing data on production volume, which should be one year ahead of the EU-MAP data collection. However, for the meeting, no data was received. The EWG will continuously stay in contact with the AAC and other relevant stakeholders in order to qualify the data foundation of the report.</p>

Recommendation 05. Data needs to support the energy transition on EU fisheries and aquaculture	
ECON-2023_R05	The RCG ECON recommends organizing a workshop to discuss the methods used for the data collection and estimation of energy consumption. Based on the results from this workshop, pilot studies could be included in the national work plans on providing more data on energy consumption in the fleet and aquaculture sectors. This can be done after end users have provided more guidance on the data needs.
Justification	From the end user's perspective more data on energy consumption is needed for an improved economic and policy analysis. Fluctuating energy prices in the recent year creates profitability problems in the fleet and aquaculture sectors. The EU Commission has also set up a target of being carbon neutral by 2030. There is a current need to improve the quality and coverage of energy consumption data. RCG ECON needs more guidance from the end users about what additional data is needed.
Follow-up actions needed	Organising a workshop for sharing the best practices on the data collection and estimation of the energy consumption for the fleet. The workshop should also consult end users to understand if more detailed data is needed in order to respond to the broadening data needs of the end users.
Responsible persons for follow-up actions	RCG ECON chairs

Time frame / Deadline	2023
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	STECF supports setting up a workshop to address the collection and analysis of energy consumption data.

Recommendation 06. Feedback from ISSG Evaluation of tangible and intangible capital values	
ECON-2023_R06	MS should report assumptions used when applying PIM ⁴ for valuing the fleet or the alternative methods of PIM in the NWP ⁵ and AR ⁶ . In the case the alternative valuation method to PIM is used, MS should provide justification for this. MS should also describe the method used to estimate investments and intangible assets in the methodological Annex of the NWP. A detailed description of the methods used to estimate investments (PIM or other methods) by segments would be reported in the methodological Annex of the NWP. In the NWP to specify which variables are collected according to the methodologies adopted (e.g PIM – sales of onboard equipment, SURVEY – sales and purchases of onboard equipment). MS should also include the methods of estimation of intangible assets by segment in the methods section of the NWP and AR. The outcomes of the valuations should be reported in data calls, but MSs should add a warning in the comments, i.e. not to use the data as this is a work in progress.
Justification	A detailed description of PIM assumptions, by fleet segments, should be reported in the methodological Annex of the National Work Plan. In case PIM is not applied and methods of estimation of fixed capital are implemented, according to the Guidelines MSs are requested to justify this choice in their NWP and AR. The methodology for determining the discount rates and life times for fishing rights could be harmonized further.

⁴ perpetual inventory method

⁵ National Work Plan

⁶ Annual Report

Follow-up actions needed	<p>The Work plan guidance should be updated considering these recommendations. To report in the methodological Annex of the NWP a description of PIM assumptions used should be given for valuing the fleet, by fleet segments according to the following scheme:</p> <ul style="list-style-type: none"> • Data sources for vessel value used for PCU⁷ • Price per capacity unit (to be included in the AR) • Service life by assets • Depreciation rates by assets and depreciation scheme • Assets share on total fixed value. • Price indexes used. <p>According to the Guidelines Investments in tangible assets= Gross investment in vessel and onboard equipment minus sales of (vessel and) onboard equipment. Methodologies include:</p> <ol style="list-style-type: none"> 1. Obtained directly from survey. 2. Estimated from PIM method. 3. Obtained from administrative source. <p>However, with PIM it is not possible to produce net investment as currently defined as the use of PIM does not allow to estimate sales of onboard equipment but only the estimated "gross investments" in vessel and onboard equipment</p>
Responsible persons for follow-up actions	<p>MS to report in the NWP and AR the assumptions used in PIM or alternative methods used for estimating the capital value of the fleet and investments. To specify how the data for sales of onboard equipment has been collected or estimated, eg.</p> <ol style="list-style-type: none"> 1. Sales of onboard equipment if PIM is used, 2. Sales and purchases of onboard equipment if a SURVEY is carried out. <p>Sales and purchases of onboard equipment if BALANCE SHEETS are used</p>
Time frame / Deadline	2024
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	STECF supports the RCG suggestions to improve Member State reporting on the methodology for the evaluation of tangible and intangible capital value.

⁷ price per capacity unit

Recommendation 07. Feedback from ISSG Evaluation of tangible and intangible capital values	
ECON-2023_R07	The RCG ECON recommends a study on the hedonic valuation of intangibles and a workshop on valuation of intangible assets. When applying the discounted cash flow method for valuing the fishing rights, RCG ECON recommends the MSs to consider the ISSG recommendations (eg. using gross vs. net profit for valuation).
Justification	The current implementation the hedonic valuation by MS is low, and the data collection context might not result in increased involvement of MS. Therefore, more cases would be needed to gain experience with this method. An exchange of experiences with the valuation of intangibles is very useful and leads to further development of these methods. Therefore, a series of follow up meetings for exchange of experiences will be needed in the coming years to increase the application of the methods and the quality of the resulting estimates. Sometimes MS end up having negative values for fishing rights when applying the Discounted Cash Flow Method using net profit. The ISSG proposed to use the gross profit, which might be a better proxy of current cash flows than net profit that already considers a capital cost.
Follow-up actions needed	A study on the hedonic valuation of intangibles. To organise a workshop on valuation of intangible assets to increase MS involvement and to gain more experience with the methods and enable the discussion on different and potential indicators.
Responsible persons for follow-up actions	MS, ISSG chairs
Time frame / Deadline	2024
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	STECF supports the conduction of the suggested study and workshop. However, the funding of such study is a matter for DG MARE to decide.

Recommendation 09. Feedback from ISSG Effects of alternative segmentation	
ECON-2023_R09	RCG ECON recommends continuing the development of the alternative segmentation approach in the next year to further analyse the issue of pre-segmenting by gear as well as the question of how to address the use of various gears by vessel (polyvalency) throughout the year. Moreover, the grouping of catches to describe typical catch profiles should be assessed. Moreover, RCG econ recommends to the group to extend the analyses on the consistency of the segmentation result over longer time periods and the regional comparison of the resulting segments in order to assess if the novel approach also leads to results that may facilitate better quality regional analyses.
Justification	<p>The results of the ISSG were presented. The group made progress on the pre-segmentation of the fleets and showed the results from cases for which the segmentation worked and also some cases for which the application of the alternative approach did not result in more homogeneous fleet segments. The group found four criteria for proper segmentation:</p> <ul style="list-style-type: none"> • Connection to specific fisheries (high priority): Segmentation should aim for a closer link of segments to stocks or groups of stocks. • Cost structure (high priority): Segments should combine vessels with homogeneous cost structure (reflected by indicators or proxies) • Feasibility (high priority): The segmentation procedure has to be clear, doable without excessive extra burden, and repeatable. • Compatibility (lower priority): It is desirable that the segmentation is compatible with an existing time series. <p>The novel segmentation has a more direct link to the fish stocks and may lead to a lower number of segments in some cases. In other cases, the method still results in a large number of small highly specific segments which might be due to the use of multiple gears by individual vessels and the occurrence of a high number of species and stocks in the catch. In order to further increase the usefulness of the method the group proposes to carry out additional analyses on these topics (standardising the use of gears in the pre-segmentation and the segmentation of species). Besides RCG econ concluded that although there are some indicative results about the effects of the alternative segmentation on the variability of the cost structure in the segments and clusters, these analyses, would need to be extended. Also, the consistency of the segmentation approach through time and among MS could be elaborated further.</p>

Follow-up actions needed	The group identified a need for an additional workshop to solve the issues identified by the ISSG: standardising the use of gears in the pre-segmentation and the dimensionality reduction of heterogeneous, diverse catch profiles.
Responsible persons for follow-up actions	Jörg Berkenhagen, Erik Sulanke
Time frame / Deadline	Before the next RCG ECON.
Comments	Agreed
Comments Decision Meeting 2023	There is an ongoing collaboration between <i>ISSG Effects of alternative segmentation</i> and <i>ISSG Metier and transversal variables issues</i> in order to align the approaches and to avoid duplications between the groups.
STECF comments	STECF supports setting up the suggested workshop, taking the activities of the relevant ISSGs into account, as pointed out in the Decision Meeting. In any case, the continued usability of the data, (e.g., time series recently re-uploaded to the FDI database at DCF fleet segment level), should be ensured by a fleet segmentation that allows reporting/aggregation of the data on the level of current data sets. STECF also suggests including biologists and data providers reporting to the FDI database to be included in any future discussions on fleet segmentation.

Recommendation 10. Feedback from the STECF EWGs	
ECON-2023_R10	Voluntary variables (Geo indicator, Gear, Fishery, Activity level) should be used only for the purpose they are designed for following the guidelines in data collection website and they should be used consistently in time. New length class should be applied for the Baltic Sea (0-8 m and 8-12 m). The group recommends using these new classes for the whole time series where possible based on the data available.
Justification	In the data call for AER 2023 there were new voluntary variables included: Geo indicator, Gear, Fishery, Activity level. Some MS used these voluntary variables when reporting the data for AER, but the variables were not always used appropriately. In addition, there are new length classes for Baltic Sea SCF in the current regulation: VL0008 = Vessel less than 8 meters in length. VL0812 = Vessel between 8 and 12 meters in length. Only a few member states in the Baltic Sea region provided the data using the new vessel length classification. For the next data call for AER, the new length classification should be applied, ideally for the whole time series depending on the data availability in the MS of Baltic Sea region.

Follow-up actions needed	In the next data call for AER, the MSs should consider these recommendations.
Responsible persons for follow-up actions	MS to follow the recommendation by RCG ECON.
Time frame / Deadline	2023 onwards
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	STECF considers that the new vessel length classes are used for the FDI data call, to ensure consistency between data sets. Moreover, if the time series with new vessel length categories is re-uploaded by Member States to the AER database, the same should be done when reporting to the FDI database.

Recommendation 11. Feedback from STECF EWG social & ICES social (national profiles, and analysis of social data)	
ECON-2023_R11	RCG ECON recommends that the working groups of STECF and ICES which are concerned with the development of the social variables to take into consideration the practical aspects of data collection and data availability and that the timelines for adjustment of the DCF are adhered to.
Justification	Both in ICES and STECF work has been carried out to implement the social dimension of the CFP. For the data collection, this involves further development of the exploitation of the variables that are currently already included in the DCF and potentially extending the data collection on social aspects with new variables. RCG Econ discussed these developments and adjusted the guidelines for the social variables where needed. With regards to the possible inclusion of new variables RCG Econ concluded that the practical aspects of collection of the data and availability from other sources should be taken into account.
Follow-up actions needed	
Responsible persons for follow-up actions	STECF
Time frame / Deadline	2023-2025
Comments	
Comments Decision Meeting 2023	STECF and ICES to take into consideration the practical aspects of data collection on social variables.

STECF comments	STECF considers that coordination with ICES regarding the provision of social variables is ongoing and that the practical aspects of the collection of these data are fully discussed.
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Recommendation 15. Work towards combining FDI and AER data calls	
ECON-2023_R15	To organise a workshop on raising transversal data from FDI data call for the AER report purposes. The workshop should also include experts working with the FDI data call. This workshop should take into account the work that has been done in the FDI meeting on 9/2023 on comparing the FDI and AER data. The workshop should also consider responses from the questionnaire regarding harmonization data submission for AER and FDI data calls (landings, effort and capacity) that is analysed in STECF EWG 23-10 FDI.
Justification	In recent years, there have been efforts to harmonise definitions used in different data calls and to decrease the amount of data calls on transversal variables. The goal is to submit all the transversal data needed for the AER and FDI in one data call (=FDI). Steps towards this goal have been taken during the 2023, and the FDI meeting in 9/2023 compared the data from AER and FDI data calls to see if there are discrepancies in the data reporting between these two data calls. A questionnaire regarding harmonization data submission for AER and FDI data calls (landings, effort and capacity) was sent to the data providers to collect data. The questionnaire as filled in by data submitters for AER and FDI data and analysed by the STECF EWG 23-10 FDI. After that, a test run on raising the transversal variables from FDI for the purposes of the Annual Economic Report is needed. This could be done in a workshop including economists and the experts preparing the FDI data.
Follow-up actions needed	To organise a WS on raising transversal data from FDI data call for the AER report purposes.
Responsible persons for follow-up actions	WS chair
Time frame / Deadline	2023
Comments	Agreed
Comments Decision Meeting 2023	No further comments
STECF comments	EWG 23-10 supported the RCG ECON proposal to have a specific workshop on raising transversal data from FDI data call for the AER report purposes. This workshop should gather together economists, biologists and data scientists. The aim is to define clear agreed definition for all variables including methodology to

	apply, to harmonize codifications and reference table between the two data calls and ensure that all the AER needs could be feed by fishing activity estimates available in the FDI data call. In particular, it should tackle with the issue related to fleet definition and fleet segmentation. The workshop is now scheduled for December 2023.
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RCG Med & BS:

Recommendation 01. Data requirements and data transmission issues	
Med&BS_2023_R01	Following-up the process of transferring biological data from Mediterranean and Black Sea Data Call to FDI, including in the process the RCG Med&BS (ToR1: End- users input - Data requirements and data transmission issues)
Justification	Currently, information of biological data from the Mediterranean and Black Sea is being submitted in a Data Call with specific formats. In addition to this, MS submit data to the FDI. A process has started to include data from the official Med&BS Data Call to the FDI. However, it would be necessary include in the "Id" field in the Med&BS Data Call the information of "Domain" to make possible the transfer of information. Although there was a proposal to do this in the Med&BS Data Call 2024, there are still concerns about the possibility and adequacy to do so. For this reason, it was proposed to include the RCGMed&BS in the follow-up of this topic. In addition to this, the role of the RDBFIS in the data transmission process should also be considered in the future.
Follow-up actions needed	Include in the discussion the RCGMed&BS
Responsible persons for follow-up actions	FDI JRC focal, DGMARE, RCG Med&BS chairs, STECF
Time frame / Deadline	Before making any modifications to the Data Call Med&BS
Comments	
Comments Decision Meeting 2023	No further comments
STECF comments	STECF notes that work is ongoing to address this issue. At the FDI Methodology EWG 23-05, the changes needed in data calls to make a transfer has been discussed. An ad-hoc contract has been conducted with the aim to process the data from one format to another and a pilot study has been proposed by EWG 23-05 for this purpose. STECF agrees that the role of the RDBFIS in the data transmission process should also be considered in the future.

Recommendation 04. Marine Action Plan – Inclusion in the WP activities covered by other programmes	
Med&BS_2023_R04	Establishing guidelines on how to include work done by other programmes or projects (e.g. MSFD) in the WP (ToR 2: COM input on priorities and relevant initiatives)

Justification	Currently, marine data is collected not only from the DCF but also from other programmes (such as Marine Strategy Framework Directive) and projects. With the increasing sampling that the implementation of the Marine Action Plan will bring, it is important to coordinate the activities of the different programmes, in order of not to duplicate efforts, but also to inform the relevant authorities (DGMARE, DGENV) of the work performed in these other programmes. However, if these activities are included in the WPs, it would imply a request of funding, which would not be needed as these programmes have their own sources of funding. So, it is necessary to establish clear guidelines on how MS can communicate the different activities carried out under these programs and how to integrate all the data collected by them.
Follow-up actions needed	Establish clear guidelines to MS about how to integrate all the data collected by different programmes
Responsible persons for follow-up actions	LM, DGMARE, STECF, RCGs, MSs
Time frame / Deadline	LM 2023
Comments	
Comments Decision Meeting 2023	Text Box 1B of the WP was proposed as a possible solution. More discussions are expected in the joint special group in support of the MAP meeting on 6 October 2023.
STECF comments	STECF agrees with the Decision Meeting comment.

Recommendation 05. Surveys – Sampling season for scientific surveys	
Med&BS_2023_R05	Establishing a limit period of time for which the seasonality of the scientific surveys (e.g. MEDITS and MEDIAS) would not affect the information obtained (ToR 7: Scientific surveys)
Justification	Internationally coordinated scientific surveys include specific time frameworks in which their activities should be carried out, in order to reduce the variability of the data collected. For instance, according to the MEDITS handbook, the period of the MEDITS survey should be centered around June (from May to July) and keep the sampling period consistent among years. In relation to the MEDIAS handbook, the period of the MEDIAS survey should be in the summer and autumn season from June to October. June-July is the best period for MEDIAS survey for biological reasons, however depending on vessel availability the period could be extended to October.

	However, due to different reasons, the period can vary among GSAs and years and this could make that data obtained are not useful for the purposes of its collection. In this sense, it is requested to mark a limit of time, before and after the mentioned months, for which it is considered that the seasonality would not significantly affect the results of the information obtained.
Follow-up actions needed	Establish a limit of time for which it is considered that the seasonality would not significantly affect the results.
Responsible persons for follow-up actions	Scientific survey Coordination Groups (e.g. MEDITS and MEDIAS), GFCM and STECF
Time frame / Deadline	Spring 2024
Comments	
Comments Decision Meeting 2023	HRV: Suggested to include end-users in the follow-up actions. Include STECF and GFCM. There is the need for some legislative buffer. HRV it is of the opinion that if the discussions go back to the groups, nothing will change.
STECF comments	STECF suggests that Member States should adhere as closely as possible to the time frame suggested in the survey manual (and also set out in RWP Table 2.6 Surveys at Sea), leaving a tolerance of one month before and one month after the designated period.

Recommendation 06. Surveys – Quality checks	
Med&BS_2023_R06	Using the available tools for quality checks of data before being submitted to the Data Call (ToR 4: Cooperation with regional projects / ToR 7: Scientific surveys)
Justification	<p>In the last years, several tools have been developed in order to check the quality of the data collected before being submitted to any data call, such as RoME for MEDITS survey or the RDBQC R package for the information obtained in the monitoring of the commercial fleet. In addition to this, the Qualitrain project will be providing training on quality checks, which will be a a very good opportunity for building capacity and improve the quality of Med and BS data. Regarding these training activities, it is recommended that the hands-on training session foreseen in 2024 is scheduled in April not to clash with a too busy period already in May.</p> <p>All MS should be well aware of these tools which may help to provide consistent information to all end-users through the different data calls. It is also recommended that MS go into the QualiTrain github (https://github.com/COISPA/RDBqc) and follow-up the process of the project regarding quality checks. Additionally, there is a purpose to organise a network of training experts and</p>

	two reference people by MS should be appointed to this group and work complementarily to the network of experts on data optimisation.
Follow-up actions needed	<ul style="list-style-type: none"> MS should use the available quality check tools to ensure the consistent information provided to end-users. MS should appoint two experts to be part of the network organised by the Qualitrain project
Responsible persons for follow-up actions	MSs, QualiTrain consortium
Time frame / Deadline	Before submitting information to any Data Call
Comments	
Comments Decision Meeting 2023	No further comments
STECF comments	STECF considers that it is important to assure all Member States are using the available tools. This could improve the quality of the data that is submitted and save time and effort in the EWGs.

Recommendation 07. Surveys – Acoustic data collection during the pelagic trawl surveys in the Black Sea	
Med&BS_2023_R07	Investigating the possibility to collect acoustic data during the Pelagic Trawl Survey in the Black Sea (PTSBS). (ToR 7: Scientific surveys)
Justification	In order to have consistent and harmonized surveys for the assessment of pelagic species in the Black Sea the RCG recommends to the Black Sea Member States to ensure the availability and use of equipment according to MEDIAS protocol. In addition, Software and training could be provided by the MEDIAS scientific network.
Follow-up actions needed	Investigate the possibility to ensure the use of equipment according to MEDIAS protocol (e.g. Simrad EK80).
Responsible persons for follow-up actions	Bulgaria and Romania (both NC and experts), MEDIAS Coordination Group
Time frame / Deadline	End of 2023
Comments	
Comments Decision Meeting 2023	No further comments

STECF comments	STECF supports this initiative as it has the potential to collect useful data to improve the advice on small pelagic stocks in the Black Sea.
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Recommendation 08. Surveys – test study for new sampling during acoustic MEDIAS survey	
Med&BS_2023_R08	Including test studies in MS National Work Plans for egg and meso-zooplankton sampling and processing during MEDIAS surveys. (ToR 7: Scientific surveys)
Justification	<p>According to the conclusions of MEDIAS steering committee in 2023 (Report of 16th meeting for Mediterranean International Acoustic Surveys) MSs shall explore the potential for plankton and eggs sampling in parallel with acoustic sampling. To achieve this objective, they are encouraged to seek funding for a test study via the DCF to cover additional efforts.</p> <p>The reasons for this proposal are numerous. First of all, sampling of plankton scattering layers using plankton nets could facilitate echogram interpretation by providing a ground truth of some targets in the acoustic data, so that, during the acoustic processing, these targets could be discarded with a higher degree of certainty, while separating the small pelagic fish echoes from unwanted plankton echoes. The accuracy of this process could be further enhanced through the knowledge of the kind of planktonic organisms that are prevalent in a certain area.</p> <p>Plankton and eggs sampling are also important because of the potential relationships between acoustic surveys and anchovy stock assessments based on the daily egg production method. Finally, by knowing plankton abundance it is possible to have an index of productivity, and thus prey availability, that is important in the study of small pelagic fish abundance over the years and of their spatial distribution; this ecosystem indicator could also be important in the Marine Strategy Framework Directive.</p> <p>This proposal may concern the MEDIAS surveys that are held along the Iberian coast (GSA 1 and 6) carried out by IEO (Spain), Gulf of Lion (GSA 7) by IFREMER (France), Sicily Channel (GSA 16 and 15) by CNR-IAS (Italy), western Adriatic Sea (GSA 17 and 18) by CNR-IRBIM (Italy), eastern Adriatic Sea (GSA 17) by IOR (Croatia) and eastern Ionian Sea and Aegean Sea (GSA 20 and 22) by HCMR (Greece). The proposal also concerns the acoustic survey carried out by CNR-IAS (Italy) in the Tyrrhenian and Ligurian seas (GSAs 9 and 10), that are part of the MEDIAS since 2017. However, MSs should include in their NWP only those GSAs in which the test</p>

	<p>study could be carried out, taking into account an adequate timing of the study.</p> <p>A proper number of stations (depending on transect length) could be performed along dedicated transects in order to collect information on meso-zooplankton and eggs with an appropriate resolution. A 3-year test study can be carried out for this purpose. Thus, a proper financial support is needed in order to plan and perform this kind of activities, including funding for the acquisition of equipment for sampling (i.e. WP2 plankton nets, flow meter, laboratory staff for the preservation) and for the analysis of the samples (i.e. conventional counting under a microscope or using a ZooCAM a in-flow imaging system for fast onboard counting, sizing and classification of fish eggs and meso-zooplankton already used within the ICES WGACEGG working group).</p>
Follow-up actions needed	MSs interested in adding these additional data collection activities should ensure that the above justification is included in the "test study" section (text box 1a) in their National Work Plans.
Responsible persons for follow-up actions	MSs from the MEDIAS group
Time frame / Deadline	Submission of the next NWP
Comments	
Comments Decision Meeting 2023	No further comments
STECF comments	STECF supports this initiative as it has the potential to collect useful data to improve the advice on small pelagic stocks.

Recommendation 09. Data Calls – increasing demand on MS	
Med&BS_2023_R09	Identifying ways to facilitate the managing of the increasing number of data calls through different ways, such as looking for commonalities, specific times for the data calls or tools that may facilitate the work. (ToR 8: Regional data requirements)
Justification	In the last years, an increasing number of data calls for Med and BS data have ended in a situation in which MSs found it difficult to answer all the data calls in time and with consistent information. This is peculiarly important as the data requested is often the same, but the different formats and details have increased the workload of the MSs. Although the implementation of the RDBFIS could be a solution at the medium term, it is necessary to identify ways to facilitate their management and adequate response. In this situation, end-users may have an important role in order to find

	commonalities, fitting an adequate calendar or even specific tools that may help MSs to answer to all the data calls in time. This discussion may be carried out in a group including all the end-users involved.
Follow-up actions needed	Reconvene the end users' group to facilitate the managing of the increasing workload of MS with the data calls.
Responsible persons for follow-up actions	End-users (STECF, GFCM, ICES), DGMARE, RCG chairs, MSs
Time frame / Deadline	Before next RCG Med&BS
Comments	
Comments Decision Meeting 2023	ITA and ESP, both strongly support this recommendation.
STECF comments	STECF supports the identification of ways to make the process of data provision more efficient. However, STECF, considers that the role of the GFCM data calls should be discussed. These data calls are increasing and creating a burden on the Member States who have to deal with a large amount of data requests, including demands from research projects. In this sense, the regional database (such as RDBFIS) should be very helpful but not a complete solution.

6.3 Withdrawn

6.4 Withdrawn

6.5 Evaluation of: Joint Recommendation of the Italian Member State Management plan on Sardine fry fisheries in the Italian territorial water (GSA 9)

Background provided by the Commission

On 23 March 2023, the Italian Administration has expressed its intention to re-launch a traditional fishery carried out in the Italian waters of the Ligurian Sea (GSA 9) for boat seines targeting sardine fry. As this is a new request of derogation from Regulation (EC) No 1967/2006 article 9/13 in terms of distance and minimum depth from the coast in the Ligurian Sea (GSA 09) as well as derogations from Reg. 2019/1241 Annex IX part. B "Mesh sizes" and the Minimum Conservation Reference Size (MCRS) for *Sardina pilchardus*, Italy, in the context of regionalization has subsequently submitted a Joint Recommendation on 14 June 2023 on the subject. A management plan supports the request for derogation.

Following Article 18 of Regulation (EU) n. 1380/2013, the Italian Member State is proposing a Joint Recommendation (JR) for a new Management plan on Sardine fry fisheries (*Sardina pilchardus*) in GSA 9 that applies only to Italian territorial waters and to the Italian fleet.

Italy, as the single Member State with a direct management interest in this fishery, developed the proposed Management plan that involves only the Liguria region. This type of fishing activities has a great historical and cultural value for the area. It represents a traditional fishing technique from which derives typical Ligurian products.

The procedure that led to the development of the proposed Management plan is described as follows. The Central Administration following the request from the Liguria Region received in 2020, applied the provisions set out in Article 25 of the Reg. (EU) n.1241/2019 "Scientific research" which provides, in par. (e) that the activities having this purpose have to be conducted by a maximum of 6 vessels and that the product of this fishery cannot be marketed.

Italy has communicated this intention to the European Commission and, following the designation by the regional administration, and the list of authorized vessels thereof in compliance with the provisions of the afore mentioned article of the TMR Regulation.

The Liguria Region, with the support of the partner scientific body, started this "Scientific research" activity in 2020, and the trial will end in 2023. The data deriving from this research activity made it possible to develop the management plan referred to in Annex A of the JR.

Italy involved in this process also the MEDAC which endorsed the management plan (ANNEX B - MEDAC Ref.:98/2023 advice on sardine fry fisheries GSA9). After the entry into force of the new

Technical Measures Regulation (Regulation (EU) 2019/12419) Member States have the possibility to develop joint recommendations that can be used to amend certain regional baseline selectivity standards through the Commission empowerment to adopt delegated Acts on the basis of these joint recommendations. This permits the tailoring of detailed and technical rules so as to take into account regional specificities.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

TOR 1. Advice and assess whether the new management plan (Annex A) for boat seines targeting sardine fry in the waters of GSA 9 (Ligurian Sea, Italy) complies with the conditions set out in Art 19 of MedReg, is aligned to the CFP and 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) 2019/12411.
- 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 CFP2 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 non-availability 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 aspects

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

TOR 2. Evaluate whether the following conditions set by the MEDREG and by TMR (Regulation (EU) 2019/1241) are fulfilled:

2.1 Derogation to the distance from the coast (Article 13– Paragraphs 5 and 9)

- 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.
- The fisheries are regulated in order to ensure that catches of species mentioned in Annex IX of Regulation (EU) 2019/12413 with the exception of mollusc bivalves, are minimal
- The fisheries do not target cephalopods.
- The fisheries do not operate above seagrass beds of, in particular, *Posidonia oceanica* or other marine phanerogams.

2.2 Derogation to Annex IX part. B "Mesh sizes" of Reg. 2019/1241:

The technical measures adopted in the Joint Recommendation, expressed by Italy in line with TMR Art 15(2), meet the conditions outlined in Art 15(4-5) of that regulation.

- The fisheries are highly selective and have a negligible effect on the marine environment; and

2.3 Derogation to the Minimum Conservation Reference Size (MCRS) for *Sardina pilchardus* as reported in Annex IX (A) of Reg. (EU) n.1241/2019 and fulfillment of the two conditions listed in footnote 4 of Annex IX part A of TMR:

- the existence of a national management plan sensu Art 19 of MedReg (covered by TOR 1) and
- ensuring that the stock of sardine is within safe biological limits.

Summary of the information provided to STECF

STECF received the following document:

"Joint Recommendation of the Italian Member State Management plan on Sardine fry fisheries in the Italian territorial water (GSA 9)",

with three Annexes:

Annex A: Updated "Management plan for sardine (*Sardina pilchardus*) fry fishery with boat seines in Liguria (GSA 9)"

Annex B: MEDAC advice – 12 June 2023

Annex C: MEDAC advice – 31 October 2023

The documents concerned the revision of the management plan (MP) for the sardine fry fishery which was reviewed by STECF PLEN 23-02.

STECF notes that changes were made in the plan in response to the PLEN-23-02 comments and suggestions. The main revisions are listed below:

1. Regarding the derogation from Regulation (EC) No 1967/2006 article 9/13 and the condition that the vessels concerned must have a track record of more than 5 years, it is now explained in the plan (p. 25) that "*that sardine fry fishing was practiced by all boats with*

valid licences over the period 1995-2010 for more than five years, although not on a continuous basis in all years....”.

2. Regarding the monitoring of catches and fishing operations, it is mentioned that an electronic sampling system (mobile application for Android and iOS) has been fully developed. This monitoring system (IOPESCO) will be distributed to the authorised shipowners to facilitate sending in real time information to the Authority and/or bodies responsible for the monitoring of data on fishing locations (lat/long) and daily logbooks.
3. A JABBA biomass dynamic model, using data up to 2021, was applied providing estimates of B/Bmsy and F/Fmsy. Following guidelines of ICES WKMSYSPICT for stocks evaluated with surplus production models applying the Schaefer function (with shape parameter $m=2$), two additional biomass reference points (Blim and Btrigger) were calculated: $B_{lim} = 0.3 \times B_{msy}$ and $B_{trigger} = 0.5 \times B_{msy}$. B/B_{lim} was 4.73, $B/B_{trigger} = 2.84$ and $B/B_{msy} = 1.42$.
4. Following the suggestion of STECF PLEN 23-02, an annual catch limit of 6 tonnes, a value close to the average landings over the period 1995-2010 when the fry fishery was open, is now added as a management measure.
5. Following the comment of STECF PLEN 23-02 *“that the exact management actions to be taken in case that the management targets are not satisfied should be pre-defined and specified in a quantitative manner in the MP”*, remedial actions have been revised as follows:
 - i. In the first year, if the mean monthly CPUE (end of February) falls below the CPUE threshold, i.e., below 5.8 kg/day/boat, the total fishing days allowed per boat (40 days) will be reduced by 5 days per boat during the following fishing season.
 - ii. Sardine fry fishery TAC reduction: if the value of $B/B_{msy} < 1$, $F/F_{msy} > 1$ and $B/B_{trigger} > 1$, the annual quota will be reduced by 50% in the following season (3 tonnes).
 - iii. Sardine fry fishery suspension: if the value of $B/B_{trigger} \leq 1$ and $F/F_{msy} > 1$, the sardine fry fishery will be suspended for two consecutive years.

STECF observations

STECF notes that the changes recommended by STECF PLEN 23-02 have been considered and addressed. The changes made to the plan were few (see above) and do not warrant a detailed response to the ToRs in a point-by-point manner. This would largely replicate the work done in PLEN-23-02.

STECF re-iterates the comments and conclusions of PLEN-23-02 and notes the inclusion of an annual catch limit in the list of management measures and the *a priori* specification of the exact management actions to be taken in case that the management targets are not satisfied.

STECF notes that the proposed implementation of a mobile electronic data collection system, for Android and iOS platforms, will facilitate real-time monitoring of the fishing activity.

STECF observes that the plan foresees the future revision of the annual TAC: It is mentioned in page 29 that: *“If the MP was to be approved for the 3-year period 2024-26, it is arranged that, through the data obtained by the planned monitoring, the TAC implemented can be revised, if necessary, following: the evaluation of the actual fishing effort and testing the effect of varying levels of sardine fry catches on the dynamics of the sardine stock in GSA 9”*.

STECF notes that at present a management plan for boat seines targeting transparent goby (*Aphia minuta*) is in place in GSA 9. Although technically a vessel may be authorised to fish under both MPs, the sardine fry MP states that it is forbidden to exploit the two species within the same fishing day.

STECF notes that the MP proposes a two-step procedure to check if management corrective measures are needed. The first based on the CPUE threshold is to be performed at the end of February and the second at the end of the calendar year, to assess the state of exploitation of the adult sardine stock ($B/B_{msy} < 1$, $F/F_{msy} > 1$ and $B/B_{trigger} > 1$). The first check is only to be applied for the first management year. STECF notes that there is no clear explanation why this is only proposed for the first management year.

STECF observes that the CPUE threshold (if presumed that failing to reach it signifies weak recruitment) could be used every year for in-season management reactions (e.g. reduction of the number of fishing days per boat) before the end of the fry fishing period. Examples of such an approach can be found in other artisanal coastal fisheries like in the national management plan for boat seines fishing on transparent goby in Murcia (Spain), or in the boat seine fishery for transparent and Ferrer's gobies (*Aphia minuta* and *Pseudaphya ferreri*) and the boat seine fishery for picarel (*Spicara smaris*) in Balearic Islands (Spain) (see STECF PLEN 23-01 report).

STECF notes that, in addition to the assessment adopted by GFCM for sardine in GSA9, an *ad hoc* assessment is also included in the MP which uses a different methodological approach from that of GFCM. It is unclear whether such an alternative assessment will be used to trigger management reactions (B/B_{msy} , F/F_{msy} , $B/B_{trigger}$) or whether the results of the GFCM assessment will be used.

STECF is aware that the current provision of advice by GFCM is prepared by the Working Group on Stock Assessment of Small Pelagic Species (WGSASP) in December every year (Y), using information (catches and surveys) up to the previous year (Y-1). The advice is then reviewed and adopted by SAC in the following year (Y+1). If the management reactions for the sardine fry fishery would be based on the input of the approved GFCM assessment that would imply a delay in management reactions.

STECF notes that in order to reduce the lag between the fry fishery (year Y+1) and the input assessment (to inform management reactions) the management plan could establish an assessment procedure, being run in December every year, based on provisional catches and survey indices for year Y, fitted in a standard pre-agreed methodology. Any decision on the assessment input would benefit from a testing of its performance through a Management Strategy Evaluation (MSE).

STECF conclusions

STECF reiterates its conclusion from STECF PLEN 23-02 that the proposed MP for the management of the fishery for sardine fry represents a pragmatic and precautionary attempt to restrict the fishery for sardine fry which has been closed since 2011.

STECF concludes that the changes suggested by STECF PLEN 23-02 were addressed. The addition of an annual limit on catches of sardine fry will provide an additional safeguard for the sardine stock in the Ligurian Sea. Additionally, the requirement to *a priori* specify, quantitatively, the exact management actions to be taken in case the management targets are not met (i.e., in case that the sardine stock in GSA9 is declining below safe limits) has also been satisfied.

STECF notes that the origin of the assessment upon which management reactions are to be triggered should be clarified (i.e., how and by whom the stock status of adult sardine is to be assessed to serve as input for management).

STECF concludes that it is desirable that any corrective management measures required be based on an end-of-year assessment using data and information from the fishery and surveys collected in-year and implemented at the commencement of the subsequent year's fry fishing season.

6.6 Evaluation of the ad hoc contract on selectivity indicators

Background provided by the Commission

Art 31.1 of EU Regulation 2019/1241 on Technical Measures tasks the Commission with the preparation of a report on the implementation of the Regulation. This report should include progress on achievement of the objectives of the Regulation.

Previously, STECF advised that it would be useful for reporting purposes and to monitor progress, to develop appropriate metrics that would facilitate an assessment of the optimisation of fishing patterns. Such indicators were first considered by EWG 18-158 and further developed by EWG 20-02, 21-07 and 22-19. This was incorporated into the first report on Regulation 2019/1241 adopted in September 2021.

For the second report on the implementation of Regulation 2019/1241 to be adopted early in 2024, DGMARE considers it necessary to continue exploring the work started in by EWGs 18-15, 20-02, 21-07 and 22-19. With this in mind, an ad hoc contract has been put in place to explore the temporal development of specific selectivity indicators, as well as setting up the scene for investigating potential selectivity reference points.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

STECF is requested to review the latest ad hoc contract on the exploration of temporal development of selectivity indicators and make any appropriate comments and recommendations.

In particular, STECF is requested to comment on the most appropriate selectivity indicator and associated reference points.

Summary of the information provided to STECF

An ad hoc report and presentation were supplied to STECF. This ad hoc contract explored the temporal development of specific selectivity performance indicators shortlisted during previous STECF EWGs (STECF 20-02; STECF 21-07; STECF 22-19). It also investigated potential reference points for some of these indicators.

The terms of reference of the ad hoc were as follows:

1. Estimate the temporal development (2003-2021) of selectivity indicators: i) F_{rec}/F_{bar} ; ii) F_{juv}/F_{apical} ; iii) A_{50} for all 23 ICES stocks available (Vasilakopoulos *et al.* 2020; STECF 20-02).
2. Where feasible, construct three-dimensional isopleths of A_{50} - F_{apical} -Yield and A_{50} - F_{apical} -SSB in equilibrium depicting the combinations of A_{50} and F_{apical} generating the highest equilibrium yields (STECF 21-07; STECF 22-19), as well as the observed combinations of A_{50} and F_{apical} in 2019, 2020 and 2021. Estimate how far selectivity lies from optimal levels in each year.

⁸https://stecf.jrc.ec.europa.eu/c/document_library/get_file?uuid=27794e17-6ab8-4899-8751-b4a8248cb31d&groupId=43805

STECF observations

STECF notes that the ad hoc report presents graphical representations of the temporal development (2003-2021) of 3 selectivity indicators. The indicators presented are age at 50% selection (A_{50}), F of recruits to F_{bar} ($F_{\text{rec}}/F_{\text{bar}}$) and F of juveniles to F_{apical} ($F_{\text{juv}}/F_{\text{apical}}$) (Table 6.6.1).

These indicators have been developed and explored as outputs from several EWG's, during which $F_{\text{juv}}/F_{\text{apical}}$ was found to be the most appropriate indicator to describe the impact of selectivity for a stock (STECF-18-15; STECF-20-02). This was confirmed by the ad hoc contract, which concluded that $F_{\text{juv}}/F_{\text{apical}}$ is an appropriate selectivity indicator, if applied with stock specific stock-recruit relationships, to stocks which are assessed with a dynamic selectivity. This indicator can detect trends in the changes of the selection pattern without being too sensitive when recruitment catches/harvest are close to zero. Methods were developed to identify the optimised selectivity in terms of protecting juveniles, and maximising yield (STECF-21-07; STECF-22-19).

Table 6.6.1: Summary of selectivity indicators presented in the ad hoc contract.

Indicator	Components and limits
$F_{\text{rec}}/F_{\text{bar}}$	<p>F_{rec} = fishing mortality of the first age appearing in the stock object (recruits) F_{bar} = the mean fishing mortality over the age classes representative to the fisheries</p> <p>✓ Can track changes in selectivity, is robust to changes in recruitment and F_{bar} × Sensitive when recruitment age is not well represented in the catch.</p>
$F_{\text{juv}}/F_{\text{apical}}$	<p>F_{juv} = mean fishing mortality of the juvenile age-classes of the stock (i.e. those with a proportion of mature fish less 50%) F_{apical} = the maximum fishing mortality across all ages observed in each year.</p> <p>✓ F_{juv} performs well when F is close to zero at recruitment age (Probst, 2023) ✓ F_{apical} provides a more stable instantaneous F, avoiding unintended peaks in F under different selectivity scenarios</p>
A_{50}	<p>A_{50} = The estimated age where 50% of the selectivity occurs.</p> <p>✓ Capture some information regarding the sustainability of the fishery. ✓ Can track changes in selectivity × This indicator becomes problematic when the selectivity curve is far off the logistic shape (e.g., 'saddle-shaped') and/or substantial inter-annual shift in the age where maximum selectivity occurs.</p>

The ad hoc contract applied these three F-based selectivity indicators to 23 ICES stocks for the years 2019-2021 (See Table 2 of the ad hoc contract).

STECF observes the ad hoc contract addressed the terms of reference by estimating temporal stability of selectivity indicators. However, no insights were provided regarding the relevance or utility of the trends. Therefore, STECF selected 2 stocks (cod.27.7e-k and meg.27.7bk8abd) to present the indicators and attempted to analyse their meaning in terms of the stock status and the fishery.

Stock focus: Celtic Sea Cod (cod.27.7e-k)

According to the ad-hoc report, all three selectivity indicators are considered to show improving selectivity for this stock (Table 6.6.2). However, STECF notes that this trend is not evident from the stock status where fishing pressure on the stock is above F_{MSY} and between F_{pa} and F_{lim} , and spawning-stock size is below $MSY B_{trigger}$, B_{pa} , and B_{lim} (ICES 2021a). This stock provides an example of how selectivity indicators should not be interpreted in isolation and should be considered with stock status (Figure 6.6.1, left).

STECF notes that in cases where recruitment is low and fishing pressure is high, caution is needed in describing the trend shown by the selectivity indicators as it is not possible to determine if the decreasing average selectivity of the juveniles is actually affecting in a positive way the status of the stock. Additionally, the magnitude of the selectivity trend should also be reported, as a minor improvement (i.e., <5%), as in this case it may not indicate any significant trend.

STECF notes that it would be useful if selectivity indicators were considered together with the overall status of the stock (F , SSB , recruitment) and expert knowledge of the fishery. Additionally, STECF notes it would be beneficial to report selectivity indicators with quality indicators or estimates of confidence.

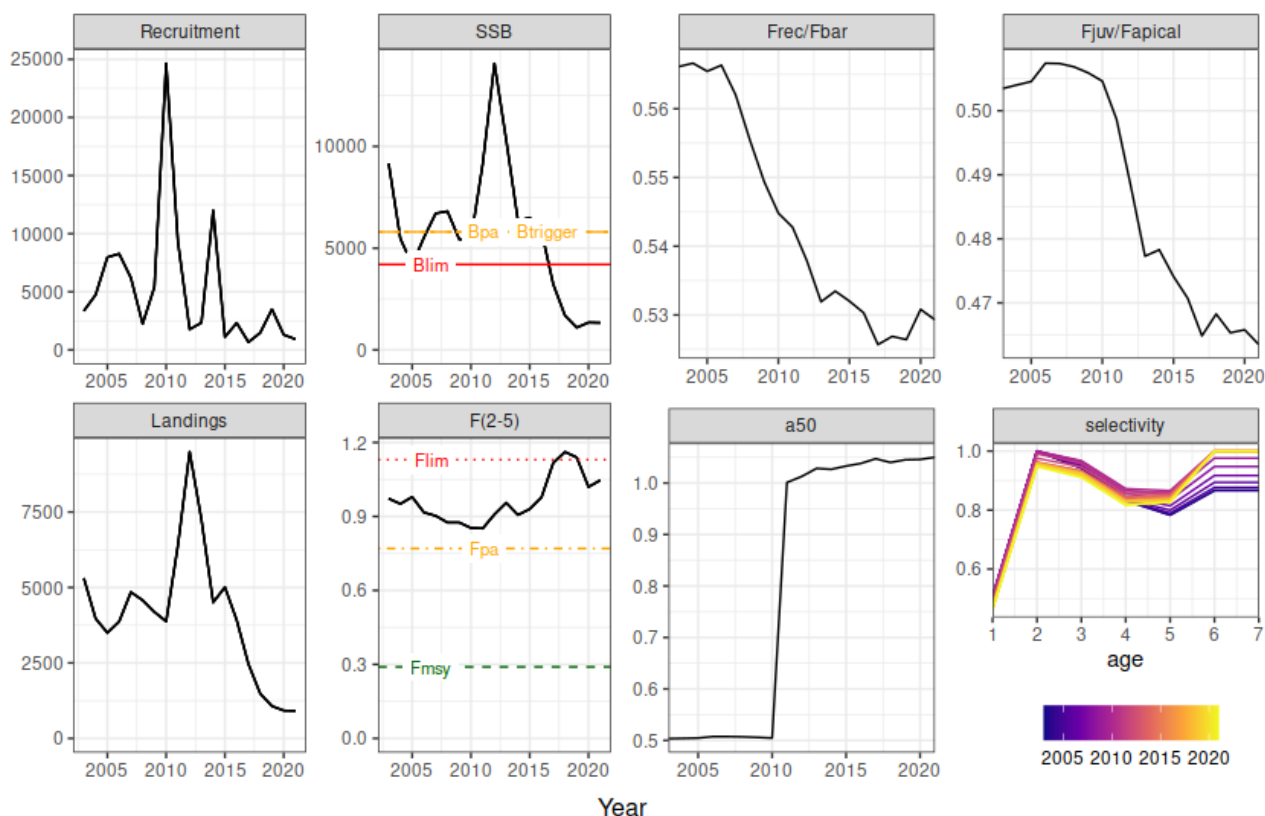


Figure 6.6.1: Four panels on the left summarise the stock status for cod.27.7e-k (ICES 2021a), four panels on the right summaries the temporal development of the three selectivity indicators (Frec/Fbar, Fjuv/Fapical and a50) and the population selectivity.

Stock focus: Megrin (meg.27.7bk8abd)

All three selectivity indicators show a stable selectivity for this stock (Table 2, Figure 2, right). This stability is an artefact created by the application of the indicators to a stock which has fixed selectivity imposed in its stock assessment. This selectivity is fixed due to uncertainty and/or convergence issues in the stock assessment. Although fixed selectivity is not common for ICES stocks, it is common in the Mediterranean, where selectivity is typically fixed. Therefore, the proposed selectivity indicators may only be suitable for stocks assessed with dynamic selectivity.



Figure 6.6.2: Four panels on the left summarise the stock status for meg.27.7bk8abd (ICES 2021b), four panels on the right summaries the temporal development of estimated selectivity indicators.

Ongoing work

During PLEN 23-03, the author of the ad hoc presented a summary of on ongoing work around the estimation of reference points. Although the ratio of F juveniles to F_{apical} (F_{juv}/F_{apical}) is a robust indicator of selectivity, more work needs to be done to establish reference points (the selectivity curve that maximizes yield under current F), and threshold (estimated curve that provides 'pretty good selectivity') for the proposed indicators.

The author of the ad hoc contract proposed a reference point linked to the selectivity that results in maximum yield under the current F (light blue dot, figure 6.6.3). The reference point is calculated as the F_{juv}/F_{apical} for the respective selectivity curve. In addition to that 'maximum yield' reference point, another candidate reference point was presented during the STECF PLEN 23-03, defined as the selectivity corresponding to the minimum A_{50} that can produce 90% of the global maximum

yield for F_{apical} closest to F_{MSY} (dashed white line in figure 6.6.3). This 'global' reference point has an advantage over the 'maximum yield' one in that it is detached from current levels of F , but it is less informative for F values that are too high or too low compared to F_{MSY} (figure 6.6.3). However, its limit (90% of global maximum) can only be achieved if F is close to F_{MSY} . This 'global' reference point is currently being further explored at the JRC.

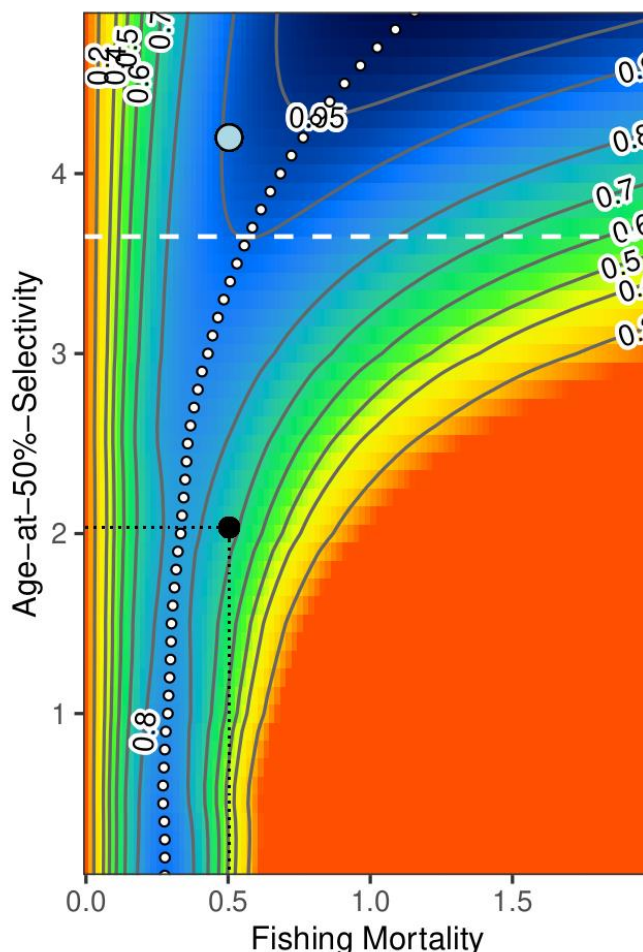


Figure 6.6.3. An example of isopleth of equilibrium yield under different selectivity scenarios (A_{50}) and values of fishing mortality (F_{apical}). The black dot represents the current estimate under current selectivity and F . The white dots represent the F_{msy} values for each selectivity scenario, the light blue dot is the reference point where under current F_{apical} , yield is maximized, and the dashed white line is the threshold (selectivity corresponding to the minimum A_{50} that can produce 90% of the global maximum yield).

STECF observes that stock specific stock-recruit relationships are required for all stocks to estimate equilibrium yield, and this will have an impact on the outcome of the selectivity indicator reference points.

STECF notes that to avoid misinterpretation, selectivity indicators should be reported and interpreted together with indications of stock status, confidence intervals of the indicator or quality

indicator (if possible), and information on whether the selectivity used in single species stock assess has fixed/dynamic selectivity. Additionally, STECF notes that indicators should be reported with conceptual guidance on how the reader should interpret the indicator trend in the context of the stock status and expert knowledge of the fishery.

STECF notes that reporting the magnitude of the trend identified by the selectivity indicator, and statistical significance of the trend would improve usability of the indicator and reduce misinterpretation.

STECF observes that only conceptual preliminary work was presented to STECF on how reference points could be estimated. Before the estimation of reference points can be operationalised, sensitivity testing should be completed on the impact of scenario selection, and the assumed stock recruitment relationship on the determination of the reference point, and stability of trends.

STECF notes that much work needs to be done to define a method for reporting these indicators to ensure that the methods proposed here are accessible for end users.

STECF conclusions

STECF concludes that the ad hoc contract was completed appropriately. For TOR 2, two isopleths were presented to the absence of stock recruitment relationships in other ones.

STECF concludes that stock specific stock recruit relationships are required to correctly calculate selectivity indicator reference points.

STECF concludes that based on previous STECF work and in the context of the findings from the ad hoc contract, F_{juv}/F_{apical} is an appropriate selectivity indicator, if applied with stock specific stock-recruit relationships, to stocks which are assessed with a dynamic selectivity. This indicator can detect trends in the changes of the selection pattern without being too sensitive when recruitment catches/harvest are close to zero.

STECF concludes that selectivity indicators should be reported and interpreted in conjunction with stock status, and some form of confidence intervals or quality indicator.

STECF concludes that further work to be carried out to define appropriate threshold/reference points for the selectivity indicators in order to operationalise these indicators for end users. Sensitivity testing should be completed on the impact of scenario selection, and the assumed stock recruitment relationship on the determination of the reference point, and stability of trends.

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6.7 Moved to 7.4

6.8 Review of the update to Report 1 for the STECF Opinion on VMEs, with corrected ES data (6.1 Assessment of a socio-economic analysis of Vulnerable Marine Ecosystems)

Background provided by the Commission

On 28 July 2023, STECF PLEN 23-02 adopted its opinion on the assessment of a socio-economic analysis of VMEs, based on the review of the results of two ad-hoc reports:

1. Report 1 – GIS analysis, based on FDI data
2. Report 2 – Scenarios for the Socio-economic Analysis, based on AER and VMS data

Report 1 is based on FDI data set, submitted by each Member States, over the period 2013-2022. Report 1 presented figures on the losses encountered by some Member States fleets but concluded that FDI data are not the relevant scale for this analysis, because the spatial resolution of the FDI data (0.5 x 0.5 degrees) is too coarse to provide precise estimations of fishing effort and landings at the smaller spatial scale of the ICES c-square (0.05 x 0.05 degrees).

Report 1 highlighted an issue with the set of data submitted by Spain for the years 2018-2021 which seemed to bear an underestimation of activities, which was confirmed by Spain after the issue of the STECF opinion.

Hence, Spain re-submitted a corrected set of data in the FDI in September 2023, allowing for a re-run of the Report 1 analysis on the ES figures.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

STECF is requested to review the revised Report 1 further to the correction of ES data set in the FDI, and to include/update any relevant information in its PLEN-23-02 opinion on VMEs.

Publication of the revised set (Report 1 and Opinion) should be contextualised.

Summary of the information provided to STECF

A revised and updated report regarding ad hoc contract STECF 2314 and 2315 (hereafter referred to as Revised Report 1) was made available to PLEN 23-02.

All Member States included in the original Report 1 resubmitted their data sets to include extra data for 2022, as well as any possible data revisions to previous years. This included an updated data set for Spain with significant corrections for the years after 2017.

The approach used to carry out the analysis and the format used to present the summary of the results have not changed in the Revised Report 1, while the full data sets resulting from the analysis continue to be provided as an electronic annex. Appendix 2 of the original Report 1, with the results of the analysis carried out for Spanish data from the ICES VMS/logbook dataset, is still included in the Revised Report 1 and was not updated as the original data was correct.

Overview of the results from Revised Report 1

The results of the three scenarios carried out under the Revised Report 1, considered updated and revised information from Germany, Spain, Ireland, France and Portugal and for the periods 2013-

2022. The dataset used contained 9 gear types for the Scenario 2-option 1 scenario as well as for Scenario C, and 8 gear types for Scenario D (see table 2, page 10 in the Revised Report 1 for the gear types per scenario).

Revised Report 1 indicates that the number of VME areas differs in the three considered scenarios, with 87 VMEs in Scenario 2 option 1, 115 in Scenario C and 104 in Scenario D. The average number of VME areas where the analysis estimated some fishing activity for the whole time-series from the Report 1 (2013-2021) and the Revised Report 1 (2013-2022) is shown below in Table 6.8.1.

Table 6.8.1. Average number of VME areas where the analysis estimated some fishing activity from the Report 1 (2013-2021, Left) and the Revised Report 1 (2013-2022, Right) (Taken from Table 3, page 11 from both reports Report 1 and Revised Report 1).

Original data 2013-2021				Revised data 2013-2022			
country code	scenario 2 option 1	scenario C	scenario D	country code	scenario 2 option 1	scenario C	scenario D
DEU	13	20	19	DEU	15	23	22
ESP	63	83	73	ESP	76	107	94
FRA	53	66	60	FRA	53	66	60
IRL	20	24	19	IRL	18	23	18
PRT	18	25	21	PRT	17	24	20

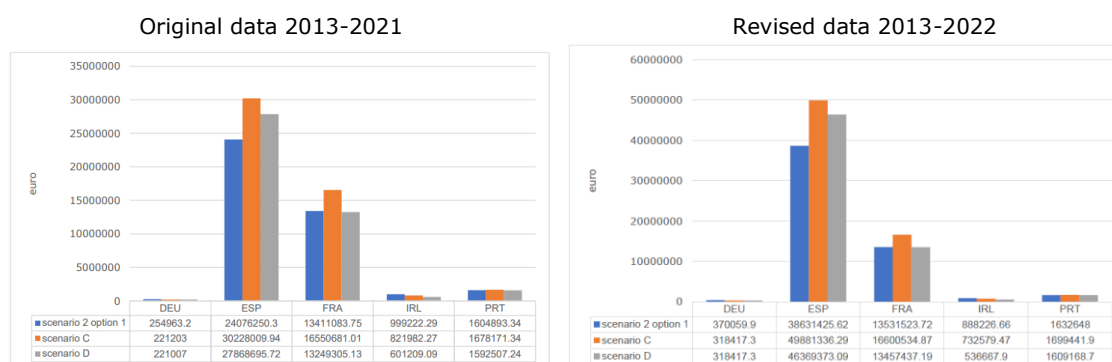


Figure 6.8.1. Estimated landings value average for the time-series by scenario (Taken from Figure 5, page 13 from both reports Report 1 and Revised Report 1).

STECF observations

All comments made at the STECF PLEN 03-02 are still relevant and applicable, specifically regarding assumptions and limitations of the data and the analyses, gains of biodiversity and future process. Therefore, STECF considers that the results presented shall not be taken as being the definitive impacts associated with the VME closures. As such, the results should be treated with caution and not be overly interpreted.

STECF notes that in the Revised Report 1 the data for Spain is now consistent throughout the years 2013-2022. It does not now show the decrease in activity from 2018 that was noted in the original Report 1.

STECF notes that Germany submitted data for 2017 until 2022 for the Revised Report 1, while previously the data of Report 1 was from 2013-2014 and 2019-2021.

STECF continues to observe that for the whole period 2013-2022 the Spanish fleet is by far the most impacted (figures above). STECF notes that the results presented for Spain are highly variable with the average impact per year now estimated at between €38.6 million to €49.9 million per year for the three scenarios over the period 2013-2022. These values have increased between 60% to 62% from the original Report 1.

STECF continues to note that with the high degree of variability and limitations highlighted in Revised Report 1, notably due to the differences in c-square resolution, STECF cannot comment definitively on the accuracy of the results presented in this report.

STECF conclusions

All STECF PLEN 23-02 previous conclusions are still relevant and applicable. Specifically, the results presented should not be overinterpreted, as they may not be completely representative of the likely economic impacts of the different scenarios and may not provide a sufficient basis for taking management decisions.

STECF concludes that although the data for Member States was revised, particularly for Spain, and 2022 data was added, the main results of the original Report 1 have not changed.

STECF PLEN 23-02 and 23-03 (ToR 7.1) have proposed a process for follow-up work next year regarding the improvement of the analysis of socio-economic impacts, following the protocol agreed in STECF (2010) and including a dedicated Expert Working Group. STECF considers this still to be the most appropriate approach.

6.9 Joint recommendation on a high survivability exemption for catch and by catch of plaice and on a de minimis exemption for haddock below MCRS

Background provided by the Commission:

STECF has considered these two requests previously. The high survivability exemption for catch and bycatch of plaice was considered separately by STECF PLEN 23-02 and by EWG 23-0406. EWG 23-0406 concluded:

"No additional survival estimates have been provided to support the high survivability exemption for plaice. EWG 23-04 reiterates the finding of EWG 22-05 that given the relatively high estimated discard rates and relatively low survival rates for plaice in some of the fisheries covered by this exemption, significant quantities of plaice discarded may not survive. Regarding the request from Denmark regarding the removal of the mesh size specification for bottom trawls so that pilot selectivity studies with mesh sizes other than those specified in the exemption for bottom trawls are included under the exemption, there is not enough information for EWG 23-04 to make any further comment. The conclusions of PLEN 23-02 remain valid".

EWG 23-0406 considered the request for a de minimis exemption for haddock below MCRS and concluded the following:

"This is a new exemption and EWG 23-04 notes that it is different to most other exemptions proposed. The arguments are not strictly related to selectivity or disproportionate costs (economical), as per the conditionalities specified in Article 15 of the CFP. The justification centres on a perceived problem related to high recruitment of juvenile haddock into the stock that will lead to an increased likelihood of significant increase in unwanted catches. The JR argues this will potentially lead to increased costs for the vessels involved in the fishery. EWG 23-04 notes that the JR indicates that improvements in selectivity are being considered but no detail is provided on what gear modifications are proposed over and above what is already used in the fishery. EWG 23-04 also questions why the de minimis exemption is needed before any selectivity improvements can be implemented. If the problem has been identified, then it would seem prudent to act as quickly as possible to help alleviate the problem. The justification is also centred around participation in a CCTV monitoring programme. The exemption would be limited to vessels participating in the monitoring programme. No indication is provided of likely uptake and how many vessels would be able to use the exemption. Additionally, the observation in the JR, that CCTV will lead to behaviour change that will mitigate the problem and remove the need for the exemption, is unsubstantiated. EWG 23-04 concludes it is difficult to make any judgement as to whether the exemption is justified or not. On the one hand, it undoubtedly is trying to address an issue that will likely lead to increases in unwanted catches of haddock. However, on the other it could be considered outside the definition of de minimis as envisaged in Article 15".

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

Based on a new Joint Recommendation and supporting information submitted by the Scheveningen Group STECF is requested to review the new information and whether it affects or changes the conclusions issued by STECF PLEN 23-02 and EWG 23-0406.

Summary of the information provided to STECF

The Scheveningen Group submitted an updated Joint Recommendation (JR) with minor amendments compared to the JR versions that was previously evaluated by PLEN 23-01 and by EWG 23-0406. As before, the JR requests to amend Art. 6 ("Survivability exemption for catch and bycatch of plaice" and Art 11 ("De minimis exemptions for pelagic and demersal fisheries") of Regulation (EU) 2020/2014. The new JR provides some new supporting information to underpin the two exemption requests. The requests themselves were identical to those evaluated by PLEN 23-01 and EWG 23-0406 and are repeated below for clarity:

High survivability exemption for catch and bycatch of plaice

The JR requests an amendment of the high survivability exemption for catch and by-catch of plaice in ICES division 3a and ICES subarea 4 in Article 6 of Commission Delegated Regulation (EU) 2020/2014⁹. Art. 6 grants a high survivability exemption to land undersized plaice in ICES areas 4 (North Sea) and 3a (Skagerrak-Kattegat). The JR proposes to simplify the exemption by removing mesh size specifications related to using bottom trawls (OTB and PTB gears) currently set out in Art. 6c (see Table 6.9.1).

Table 6.9.1. Left: Art.6 "Survivability exemption for catch and bycatch of plaice" in Delegated Regulation (EU) 2020/2014 specifying details of the implementation of the landing obligation for certain fisheries; right: the JR proposal for amending Art 6c.

<p>1.The survivability exemption referred to in Article 15(4)(b) of Regulation (EU) No 1380/2013 shall apply in the Union waters of ICES division 3a and subarea 4 to:</p> <ul style="list-style-type: none"> (a) plaice (<i>Pleuronectes platessa</i>) caught with nets (GNS, GTR, GTN, GEN); (b) plaice caught with Danish seines; (c) plaice caught with bottom trawls (OTB, PTB): <ul style="list-style-type: none"> (i) with a mesh size of at least 120 mm when targeting flatfish or roundfish in the Union waters of ICES division 3a and subarea 4; (ii) with a mesh size of 90 to 119 mm equipped with Seltra panel with a top panel of 140 mm mesh size (square mesh), 270 mm mesh size (diamond mesh) or 300 mm mesh size (square-mesh), which target flatfish or roundfish in the Union waters of ICES division 3a; (iii) with a mesh size of 80 to 119 mm targeting flatfish or roundfish in the Union waters of ICES subarea 4. <p>2. When discarding plaice caught in the cases referred to in paragraph 1, the plaice shall be</p>	<p>1.The survivability exemption referred to in Article 15(4)(b) of Regulation (EU) No 1380/2013 shall apply in the Union waters of ICES division 3a and subarea 4 to:</p> <ul style="list-style-type: none"> (a) plaice (<i>Pleuronectes platessa</i>) caught with nets (GNS, GTR, GTN, GEN); (b) plaice caught with Danish seines; (c) plaice caught with bottom trawls (OTB, PTB): <ul style="list-style-type: none"> (i) with a mesh size of at least 120 mm when targeting flatfish or roundfish in the Union waters of ICES division 3a and subarea 4; (ii) with a mesh size of 90 to 119 mm equipped with Seltra panel with a top panel of 140 mm mesh size (square mesh), 270 mm mesh size (diamond mesh) or 300 mm mesh size (square-mesh), which target flatfish or roundfish in the Union waters of ICES division 3a; (iii) with a mesh size of 80 to 119 mm targeting flatfish or roundfish in the Union waters of ICES subarea 4. <p>2. When discarding plaice caught in the cases referred to in paragraph 1, the plaice shall be</p>
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⁹ Commission Delegated Regulation (EU) 2020/2014 of 21 August 2020 specifying details of implementation of the landing obligation for certain fisheries in the North Sea for the period 2021-2023 OJ L145, 10.12.2020, p.10.

released immediately.	released immediately.
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De minimis exemption for haddock below MCRS

The JR also requests to amend Article 11 of Commission Delegated Regulation (EU) 2020/2014 with a new de minimis exemption in demersal fisheries for vessels equipped with electronic monitoring systems, including CCTV or vessels equipped with Seltra panel with 300 mm square mesh as defined in Article 2, using bottom trawls (OTB, OTT, TBN, PTB) with a mesh size equal to or larger than 90 mm, in the Union waters of ICES division 3AS:

"a quantity of haddock below the minimum conservation reference sizes, up to a maximum of 1,5 % of the total annual catches of haddock in ICES division 3A."

Definition to be inserted in Article 2:

(5) The Seltra panel with 300 mm square mesh:

- Consists of a top panel of at least 300 mm mesh size (square mesh) placed in a four-panel section consisting of four panels of equal width and at least six meters length. The two side-panels and the bottom panel shall be made of diamond mesh of at least 90 mm mesh size.
- Is at least 3 meters long and consists of 3 open meshes in width.
- Is positioned no more than 3 meters from the cod line.
- Is the full width of the top sheet of the trawl (i.e. from selvedge to selvedge)."

As most of the text in the updated JR are identical to the ones previously summarised and evaluated by PLEN 23-01 and EWG 23-0406, these details are not further described. The "STECF comments" section below describes and comments on the new information in the current JR version in accordance with the request to STECF PLEN 23-03.

STECF observations

High survivability exemption for catch and bycatch of plaice

STECF notes that instead of the previous motivation to simplify the scope of the exemption, the focus is now to harmonise its scope with a similar exemption included in the discard plan for Northwestern waters. The JR claims that the fisheries and discard rates in the North Sea region and in Northwestern waters are identical and that there is no reason for a different approach between the two sea basins. However, STECF observes that the JR contains no documentation or references to support these claims.

The submitted information of plaice catches including estimated discards is identical to the previous JR-version (evaluated by EWG 23-0406). However, STECF observes that data for the major demersal fleet catching plaice in 3a is missing from the information provided.

According to FDI-data (2021), 90-99 mm trawls (mesh size range category 80D100 in FDI) accounted for 85% (1009 tonnes) of total plaice discards in 3a with a discard rate of 68%. This mesh size range includes both fisheries for *Nephrops* and fisheries for demersal fish. The FDI data shows close to 40% of total plaice discards stem from the demersal fish fishery (which is included

in the requested exemption) and the remaining 60% from the *Nephrops* trawl fishery (target assemblage CRU in FDI; which is not included in the requested exemption- see next paragraph).

STECF reiterates that data for all relevant fleets, not least the ones that dominates the catches and discards, are needed to make informed assessments of potential consequences of a landing obligation exemption request. STECF recalls previous findings of EWG 22-05 and EWG 23-04 that medium survival rates in high discarding and important fisheries covered by this exemption can lead to significant mortality of plaice discarded.

Related to the previous paragraph, STECF notes that the JR requests to keep the limitation of the exemption to fisheries for flatfish and roundfish only (thus excluding *Nephrops* fisheries) in the North Sea discard plan despite this not being required in the Northwestern Waters plan. STECF agrees that such a condition is sensible as discard survival of plaice is affected by catch composition so that an intermixture of *Nephrops* in the catches lowers the discard survival of plaice significantly.

STECF notes the conclusion in EWG 20-04 that in order to manage and control this condition in the exemption, a definition of fisheries for roundfish and flatfish is needed so that the exemption cannot be used as a carte blanche for discarding in crustacean fisheries with low discard survival rates for plaice. Granting the requested exemption without a definition of fisheries for roundfish and flatfish would also potentially remove any remaining incentive to improve the selectivity of bottom trawls to reduce unwanted catches of undersized plaice.

STECF notes that the JR clarifies that the harmonization will not change the obligation to uphold the baseline technical measures in normal commercial fisheries (Annex V, part B of the Technical Measures Regulation (EU) 2019/1241).

STECF observes that the JR states that alignment of the exemptions for the North Sea and the Northwestern waters would allow the exemption to apply equally to scientific research projects approved in accordance with Article 25 of the Technical Measures Regulation.

STECF reiterates the conclusion by PLEN 23-01 that if the carrying out of pilot selectivity studies is impeded by the current exemption, Member States could use the provisions in Art. 25 of the technical measures regulation to accommodate such trials and consider the use of the 2% tolerance for scientific studies set out in Article 33 ("Recording of catches and fishing effort") in the Control regulation.

STECF notes that the JR clarifies that the scope of the exemption would only be extended to a few vessels participating in scientific research carried out in accordance with Article 25 of the Technical Measures Regulation (TMR). Currently Denmark has granted permission for seven such projects in 2022-2023, each including one vessel. STECF notes that the JR request is meant to accommodate scientific research by allowing trials with mesh sizes not currently covered by the exemption. STECF reiterates that that the JR does not clearly explain why pilot scientific studies on improving selectivity would include testing codend mesh sizes lower than those defined in the TMR.

De minimis exemption for haddock below MCRS

STECF observes that the background to the request is an increased abundance of haddock below the minimum conservation reference size that has been observed since 2021. The updated JR is more clearly focused than the previous version on the conditionality included in Article 15 of Regulation (U) 1380/2013 relating to disproportionate costs. The JR argues that without this exemption, the Danish industry will suffer significant financial losses associated with complying with the landing obligation.

STECF notes that according to ICES (ICES 2023), the haddock stock in Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak) is in good condition with fishing mortality below F_{msy} , F_{pa} , and F_{lim} , and spawning-stock size above B_{pa} , and B_{lim} . Notably, haddock in 3AS (the Kattegat) where this request applies is outside the stock area but is included under the 3a TAC.

STECF notes that new information in the form of opinions from the industry is included in the JR. This information claims that avoidance behaviour through move-on rules to avoid catching haddock seldom work, that increased mesh size does not have any significant impact on reducing bycatches of small haddock, and that mesh size increases would result in a loss of catch of the targeted species. These opinions are not further supported or documented. Furthermore, information is also put forward that the influx of haddock has more than doubled the catch sorting time. STECF notes that some new estimates are provided with regards to increased catch sorting time (see below).

STECF notes that the updated JR presents a new estimation from the industry of the on-board sorting and handling time used during normal fishing in the Kattegat, compared to fishing trips where haddock is caught. The calculation assumes that haddock is caught to a degree that presents challenges in every 3rd haul. According to an extrapolation of the working time, an extra 10,000 working hours for the 85 affected Danish vessels are needed annually to comply with the landing obligation. The JR does not contain similar information from other Member State fleets. No new information is put forward in the JR, to validate the estimates and numbers used in the extrapolation. Therefore, STECF cannot make any judgment as to whether these estimates are realistic.

STECF notes that the scale of the problem is unclearly presented in the JR. In the second paragraph it is reported that haddock recruits have caused more than a doubling of the sorting time in the fishery, while later in the text the calculations assumes 2 extra working hours independent of crew size in every third haul (i.e. sorting time increases in every third haul from 3 to 5 hours for a single hand crew and from 4 to 6 hours for vessels with a crew of 2-3 men, all other work elements being unaffected). STECF understands that if the latter description is correct the numbers do not indicate a more than doubling of working hours but a 22% and 17% increase respectively in working time overall.

STECF considers that the statement that mesh sizes do not have any significant impact on bycatches of haddock is questionable given the scientific literature on haddock selectivity in otter trawls (Kennelly and Broadhurst 2021 and references therein). These studies show that contrary to cod, a species that is typically not very active or do not exhibit a directed escape behaviour, the literature generally show that haddock is more active and typically rise and escape a trawl through the top panel. STECF considers that increased selectivity remains the main way to reduce unwanted catches of haddock.

Overall STECF has followed the assessment methodology used in EWG 23-0406, which is based on that judging at which level costs are disproportionate is not possible as there is no way of assessing objectively what level of costs constitutes disproportionate. For this reason, when assessing de minimis exemptions, the relationship between the de minimis volume, the actual level of unwanted catches and the overall status of the stocks involved has been the focus of the assessments. No such information is available in the JR provided or can be inferred from the information contained in the JR.

Related to this, STECF observes that information about the relationship between the de minimis volume and the actual level of unwanted catches is lacking in the JR. STECF notes that the total catches of haddock in 3A in 2022 according to ICES was 4316 tonnes (ICES 2023). This implies a

de minimis volume of 65 tonnes (1.5% of 4316 tonnes in accordance with the request). It is not possible to relate this to the estimated de minimis volume with likely discard volumes under the proposed exemption as the latter information is also lacking in the JR.

STECF reiterates that for a meaningful assessment to be possible, the relationship between the permitted volume of unwanted catches discarded under the exemption and the estimated total amount of unwanted catches in the relevant fleets is needed. STECF also notes that a peculiarity of the request is that the exemption will be applicable in 3AS only (the Kattegat) whereas the basis for the calculation of the de minimis volume is 1.5% of all haddock catches in the whole of 3A (The Kattegat and Skagerrak).

STECF notes that a technical description of the Seltra 300, the gear requested to be used to be covered by the exemption, is included in the JR. STECF considers that the information and level of detail is adequate and sufficient for legislative purposes.

STECF notes that with regard to mitigation of increased sorting time it is difficult to understand how a de minimis exemption is proposed as a relief for the fishery given that all catches for any species under the landing obligation, whether subject to an exemption or not, must be recorded by species in the logbook (Art. 15(1) of Regulation (EU) No 1380/2013 and Art. 14(4) of Council Regulation (EC) 1224/2009). Therefore, if the exemption is granted vessels involved will still need to sort and record haddock above and below MCRS with little apparent gains in terms of crew working time, which is contrary to the stated purpose of this (and other) requested exemption.

STECF conclusions

STECF concludes that some new information was provided for both exemption requests. However, this information does not materially affect or change previous conclusions of PLEN 23-01 and EWG 23-0406.

High survivability exemption for catch and bycatch of plaice

STECF concludes that the updated JR instead of the previous simplification of the exemption focuses on harmonisation with a similar exemption in the Northwestern waters. However, no supporting arguments or information has been provided to support this assertion.

STECF concludes that the claims in the JR that i) the fisheries and discard rates in the North Sea region and in Northwestern waters are identical and ii) that there is no reason for a different approach to this exemption between the two sea basins are not backed up by any substantive evidence.

STECF concludes that to assess the request, data for the major fleets in terms of plaice discards in 3a (trawls within the mesh size range 80-100 mm) is required. STECF reiterates that data for all relevant fleets are needed to assist informed assessments of the potential consequences of a landing obligation exemption request.

STECF reiterates the conclusion from EWG 20-04 that to manage and control this exemption a definition of fisheries for roundfish and flatfish is needed so that the exemption is limited to the fishery that exhibits a documented higher plaice discard survival rate.

STECF concludes that the new information does not change the PLEN 23-01 conclusion that work to improve the size selectivity of plaice in trawl fisheries should continue to reduce catches of undersized plaice.

STECF concludes that if the carrying out of pilot selectivity studies is impeded by the current exemption, then Member States could use the provisions in Art. 25 of the technical measures

regulation to accommodate such trials. This includes using the 2% tolerance for scientific studies set out in Article 33 (“Recording of catches and fishing effort”) in the Control regulation.

De minimis exemption for haddock below MCRS

STECF concludes that quality of the new information of extra working hours needed to handle undersized haddock in the fleet (10 000 hours per year) is difficult to evaluate as no independent documentation or validation of the estimates and numbers used in the extrapolation is presented in the JR.

STECF concludes that the JR statement that mesh sizes do not have any significant impact on bycatches of haddock is questionable given the rather extensive scientific literature on haddock selectivity in otter trawls that show the opposite (reviewed by Kennelly and Broadhurst 2021).

STECF concludes that information about the relationship between the de minimis volume and the actual level of unwanted catches for the relevant fleet is lacking in the JR. STECF reiterates that the relationship between the permitted volume of unwanted catches discarded under the exemption and the estimated total amount of unwanted catches in the relevant fleets is needed for a meaningful assessment to be possible.

STECF concludes that it is unclear that this de minimis exemption would diminish catch handling and sorting time. According to article 15, all discards under a de minimis exemptions should be reported in logbooks. This means that regardless of an exemption being in place, catches still need to be sorted and recorded.

References

- ICES. 2023. Haddock (*Melanogrammus aeglefinus*) in Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, had.27.46a20. <https://doi.org/10.17895/ices.advice.21840795>
- Kennelly, S. J., and Broadhurst, M. K. 2021. A review of bycatch reduction in demersal fish trawls. *Reviews in Fish Biology and Fisheries*, 31: 289–318. doi:10.1007/s11160-021-09644-0.

6.10 Derogation for 'gangui' trawlers in certain territorial waters of France

Background provided by the Commission:

In accordance with Article 13(1) of Regulation (EC) No 1967/2006 (hereafter the MedReg), the use of towed gears is prohibited within 3 nautical miles of the coast or within the 50m isobath where that depth is reached at a shorter distance from the coast. In addition, Article 13(2) prohibits the use of trawl nets within 1.5 nautical miles from the coast. At a request of a Member State, derogation from Article 13(1) and (2) may be granted, provided that the conditions set in Article 13(5) and (9) are fulfilled.

Furthermore, Article 4(1) of MedReg prohibits fishing with trawl nets, dredges, purse seines, boat seines, shore seines or similar nets above seagrass beds of, in particular, *Posidonia oceanica* or other marine phanerogams. Derogation from this article may be granted, provided that the conditions stipulated in Article 4(5) are fulfilled. If a fishery benefits from derogation under Article 4(5), then a derogation to the minimum distance from the coast and depth shall be allowed.

Finally, a general condition for all derogations is that the fishing activities concerned are regulated by a management plan provided for under Article 19 of the MedReg. 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 have regard to:

- a) the conservation status of the stock or stocks.
- b) the biological characteristics of the stock or stocks.
- c) the characteristics of the fisheries in which the stocks are caught.
- d) the economic impact of the measures on the fisheries concerned.

This traditional fishery is in a phasing-out process, while 36 vessels were operating in 2014, there were only 9 in 2022. The vessels are eligible only if they comply with the requirements above and if they have '*a track record in the fishery of more than five years and not involving any future increase in the fishing effort deployed*'. The specific '*bouilleur de cru*' regime will mechanically result in this fishery disappearing in the medium term because the fishing authorisation is withdrawn and annulled if either the vessel authorised is sold or the fisher owning the authorisation retires.

In application to their commitments, the French authorities published on 16 March 2018 an '*arrêté ministériel*' reinforcing the management framework for this fishery. Those provisions exceed the requirements of the relevant EU fisheries regulations:

- a) conditioning the granting of a fishing authorisation for '*gangui*' to the fitting of a VMS transponder, irrespective of the size of the vessel.
- b) reinforcing substantially the control objectives for this fishery.
- c) reinforcing substantially the control of the landings.
- d) mandating the landing of the catches only in designated ports;

e) mandating the declaration of all catches, irrespective of the weight of the catch and the length of the vessel.

On 18 August 2022, France revised its Ministerial Order laying down technical regulations for professional fishing in the Mediterranean Sea amending the weight of the doors in 'gangui' fishery accordingly so as to prohibit heavy doors.

Commission Implementing Regulation (EU) 2022/2363 granted derogation from Article 4(1), 13(1) and 13(2) of the MedReg in territorial waters of France adjacent to the coast of the Provence-Alpes-Côte d'Azur region to '*gangui*' trawlers. This derogation applies until 11 May 2024 and French authorities have expressed their wish to renew the derogation.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

The STECF is requested to review the implementation report of the '*gangui*' fisheries, and the additional documents provided to support the French request to renew the derogation. The STECF is also requested to present its findings and make appropriate comments with respect to the conservation and management requirements/objectives stipulated by Council Regulation (EC) No 1967/2006 ("MedReg") and by the Regulation (EU) No 1380/2013.

More specifically, STECF is requested to advise and comment on whether the documents provided contain adequate and up-to date scientific and technical justifications ensuring that:

1) the conditions set by the MedReg are still fulfilled:

- the fishing vessels concerned have an overall length of less than or equal to 12 meters of overall length and engine power of less than or equal to 85 kW, in accordance with the first subparagraph of Article 4(5) of MedReg.

- the fishing activities concerned affect not more than 33% of the area covered by seagrass beds of *Posidonia oceanica* within the area covered by the management plan and not more than 10% of seagrass beds in the territorial waters of France, in line with requirements of points (ii) and (iii) of the first subparagraph of Article 4(5) of MedReg.

- catches of species subject to minimum conservation size as mentioned in Annex III are minimal, in line with Article 13(9) of MedReg.

- the mesh size complies with the requirement of at least a square-meshed net of 40mm or a diamond meshed net of 50mm and panels of netting smaller than 40mm mesh size are not used for fishing or kept on board, in line with Article 9 of MedReg.

- appropriate steps have been undertaken to ensure the collection of scientific information with a view to the identification and mapping of *Posidonia* habitat, in line with Article 4(6) of MedReg.

2) the impact on the *Posidonia* beds has been mitigated further since 2014, in the years of the implementation of the management plan, in particular ensuring an effective reduction of the fishing capacity and effort. In the event that these justifications are not sufficient, the experts shall provide recommendations on the additional information needed and on the likely migration measures to counteract possible nonfulfillment.

3) the current management measures would continue ensuring a sustainable exploitation of species targeted by '*gangui*' trawler without jeopardizing the socio-economic sustainability of the overall fishing fleets involved in exploiting those resources in the coastal area.

Summary of the information provided to STECF

Ten documents were provided to PLEN 23-03 to support this request:

Annex 1: New *Gangui* report for renewal 2024

Annex 2: Previous *Gangui* report for renewal 2022

Annex 3: Sensitivity of Mediterranean benthic habitats to physical pressures, 2016

Annex 4: Synthesis of potential links between fishing activities and physical pressures in the marine environment by Ifremer, 2019

Annex 5: Physical pressure matrix

Annex 6: Var *gangui* profile – fishing activities of vessels under 12 metres between 2008 and 2018

Annex 7: Analysis of the risk of undermining the conservation objectives of Community marine habitats through professional fishing activities, Natura 2000 site – FR9301613 "Hyères rade" Habitats Directive

Annex 8: Socio-economic weight of *gangui* – Toulon Maritime Quarter 2022

Annex 9: State of play of *gangui* fishing in France, CNPMM, 2023

Annex 10: Estimating the maximum *gangui* footprint in 2022 using VMS data

The supporting documents were available in French and English, except Annex 6 which was available only in English.

Annex 1: *Gangui* report for renewal 2024

This report presents the background to the *gangui* fishery and details compliance with the regulatory conditions for granting the derogation.

The control of *gangui* activity is in the guidelines of the National Control Plan 2023-2024 and is based on a risk analysis carried out in the Hyères rade, where the *gangui* vessels operate. It takes account the characteristics and management of this fishery. The report concludes that there is a moderate risk of undermining the conservation objectives of the Plan when using trawls with lightweight panels at shallow depths (only this type of *gangui* trawl is still used by French professionals) on *Posidonia* beds.

The report confirms the following:

- All vessels are equipped with a vessel monitoring system (VMS).
- The *gangui* fleet targets demersal species in coastal waters. Its catches consist mainly of serranidae, labriids and *rascasses* (*Scorpaena porcus*).
- The number of *gangui* trawlers has gradually decreased from 36 in 2014, when the first management plan was implemented, to 7 active vessels in 2022. The *gangui* fishing license

is permanently withdrawn when a fisher retires, or the vessel is replaced or sold. The licensing system aims at the gradual cessation of the activity.

- The total number at sea is limited to 180 days a year. The number of effective fishing days decreased by 23% from 2019 to 2022 (940 days in 2022).
- Data on the catch composition in 2022 show that the *ganguis* trawlers do not target cephalopods.
- The reported CPUE data are not updated; in 2018 the daily catch was similar to that in 2008 (around 80 kg/day).
- The surface of *Posidonia* beds affected by the *ganguis* fishing in 2022 is estimated to be 17.2% of the *Posidonia* beds in the PACA region (Provence-Alpes-Côte d'Azur) and 6.1% in the French Mediterranean territorial waters. These values are lower than those defined the Mediterranean Regulation (33% and 10%, respectively), and also lower than the footprint estimated for 2021 (21% in the PACA region and 7.6 in the French Mediterranean territorial waters).

Annex 2: *Ganguis* report for renewal 2022

This is a previous report submitted to STECF and assessed by PLEN . It outlines the previous scientific management, control and monitoring mechanisms put in place in the French '*ganguis*' trawl fishery.

It details three main management measures put in place since 2018:

- A reduction in the number of European fishing authorisations (EFAs) with a view to reducing the fleet.
- A fishing effort monitoring regime, based on on-board VMS; and
- The implementation of a plan for the control and monitoring of landings.

In addition, the Natura 2000 risk analysis for commercial fishing activities carried out in 2020 describes the monitoring of the *ganguis* fishing activity and its impact on the marine environment.

The report states that the *ganguis* operating in the Hyères rade are hard bottom *ganguis* that operate above *Posidonia* meadows, with 1 m vertical opening and 6 m horizontal opening equipped with 50-60 kg panels. These *ganguis* fish all year round, between 12 and 30 m depth, at 1,5 knots. The duration of the hauls is approximately 1 hour, and 5-6 hauls are done daily, usually between 1 and 11 hours.

Seven vessels remained active in 2021. On average, fishing effort has been 129 days/vessel/year, well below the effort ceiling of 180 days/vessel/year.

The report showed that the surface of *Posidonia* beds does not cover more than 33% of the beds in the area covered by the management plan, and not more than 10% of the French Mediterranean territorial waters. This calculation was done using VMS data (Annex 10).

Vessels are equipped with VMS system. Compliance of 100% was confirmed for the fishing gear and the number of fishing days at sea. The catch is landed in designated ports and reported within 48 hours.

The conclusion of the risk analysis performed for this gear and habitat was that there is a risk of surface abrasion involving the removal of leaves but without destruction of the deep-rooted habitat, rhizomes, dead matte and endofauna sheltered (Annex 7).

The report states that *Gangui* fishing has a relatively small impact on *Posidonia* as it fishes above the *Posidonia* beds. The trawl used are equipped with a cylinder 1m long and Ø 70 mm in the middle of the footrope (daïe) intended to bend rather than break the the green leaves and to avoid collecting too many dead *Posidonia* leaves

Annex 3: Sensitivity of Mediterranean benthic habitats to physical pressures, 2016

This document is an excel file with the results of the evaluation of the sensitivity of Mediterranean demersal benthic habitats to physical pressures (habitat loss and change, substrate extraction, compaction, surface, shallow and deep abrasion, low and important sediment supply, change in hydrodynamic conditions and in particle load). It is based on the best available knowledge and experts' consultation. In the case of "Biocenosis of *Posidonia oceanica* beds" very high sensitivity is reported for habitat loss, substrate extraction and shallow and deep abrasion.

Annex 4: Synthesis of potential links between fishing activities and physical pressures in the marine environment by Ifremer, 2019

This document is an excel file that summarises the potential links between fishing activities and physical pressures in the marine environment. This study identified surface abrasion of *gangui* with light weight panels over sandy-muddy or sandy-rocky substrate and biobuilt reefs to be low.

Annex 5: Physical pressure matrix

This document is an excel file similar to Annex 3. It provides a matrix for the assessment of the sensitivity of a range of habitats in the Atlantic eco-region. This is relevant for the assessment of similar habitats in the Mediterranean.

Annex 6: Var *gangui* profile – fishing activities of vessels under 12 metres between 2008 and 2018

This study shows the trend of the *gangui* fishing activities at sea and lagoons between 2008 and 2018 and its relative importance in the Var (French geographic department) small scale fishery.

Annex 7: analysis of the risk of undermining the conservation objectives of Community marine habitats through professional fishing activities, Natura 2000 site – FR9301613 "Hyères rade" Habitats Directive

This report is a risk analysis designed to exempt the Frecnh authorities from the requirement to carry out an individual impact assessment in the Natura 2000 site. This analysis studied the interaction between 19 selected habitats in the Rade d'Hyères and five bottom fishing activities, including the use of *gangui* trawls with light weight panels.

Regarding the *gangui* activity, the analysis assessed a high risk for *Posidonia oceanica* and *Cymodocea nodosa* beds and coralligenic. The physical pressures that can be generated are surface

abrasion, shallow abrasion and deep abrasion. Nevertheless, the implementation of measures related to fishing activity reduces the risk from high to moderate or low.

Annex 8: Socio-economic weight of *gangui* – Toulon Maritime Quarter 2022

The objective of this report is to provide additional socio-economic information to improve knowledge of the *gangui* fishery, through the collection of updated data on prices, catches and catch composition.

Four small scale activities were identified (polyvalent netters, exclusive netters, hook métiers and *gangui*). The average age of vessels is 43 years. The *gangui* fleet represents 4% of the varoise fleet in terms of number of vessels. It is a traditional fishing, and the only one that supplies catch used for the green varoise soup.

The *gangui* is used all year round, with highest activity in May. In 2022 a total of 788 fishing days were recorded, around 113 fishing days per vessel. *Gangui* fishing is the only source of fishing income for these vessels.

Bar one, all skippers are the owners of the *gangui* license. They acquired a first fishing vessel with a *gangui* fishing licence ranging from EUR 60 000 to EUR 100 000. They started their activity at 16-20 years old. The crew consists of the skipper and one crew member. Thirteen fishers are currently working in the *gangui* fleet. The average age is 55 years in 2023 was from 41 to 70 years, and eight are over 50 years old. It has been estimated that 16 families are still dependent on the fishery.

Wages in the fishery are a combination of a fixed wage and a share of the catch. The catch share is calculated based on 25 % for the vessel, 25 % for the crew, and 50 % for the skipper/owner. Employees (at sea) are remunerated EUR 1 700 gross salary per month (annual average). Employees have no costs and safety equipment is provided by the owner. The average share for the skippers is EUR 4 000 gross monthly.

The whole catch is marketed. In 2022 the daily catch consisted of "soup" (55% of the catch, around 50 kg; *Scorpaena* spp, *Serranus* spp, *Labrus* spp), other fishes (39%; 82% of these *Spicara smaris*), and with less than 5 kg, cuttlefish, octopus and sparidae (*Diplodus* spp). *Gangui* remain highly dependent on the "soup" catch.

The catch is marketed thorough wholesale market (52%), fishmonger (36%), restaurants (6%), private clients (3%) and table/market (3%).

The fishermen interviewed indicated that, in the case of a renewal of the derogation for several years, they planned work on safety and the repair of hulls, without increasing the capacity of the vessels.

The catch in 2022 ("soup", picarel, red mullet, octopus, sars, cuttlefish, squid and shrimp) was 70.4 tonnes, which is equivalent to 10 tonnes per vessel. The estimated value of the fishery was EUR 569 631, equivalent to EUR 81 400 per vessel. The *gangui* catch represents 29% and 22% of the total volume and value of the Var fishing fleet.

Maintenance and exploitation costs, EUR 16 236, include fuel (44%), maintenance of the ship and equipment (17%), electronic and packaging (18%) and services (21%). Average staff cost is

estimated at EUR 34 117. Then, gross operating surplus is EUR 31 023 and average added value EUR 65 141.

According to the skippers, it is expected the fishery will close within the next 10 years.

Annex 9: State of play of *gangui* fishing in France, CNPMEM, 2023

This document prepared by CNPMEM (Comité national des pêches maritimes et des élevages marins) summarises the current situation of the *gangui* fishery (characteristics of the vessels, number of vessels, fishing grounds). It also provides the trends in the fishery, from the first management plan in 2014 and subsequent measures implemented with a view to reducing the fishing activity and increasing the control of the fishery. It is stressed that from a social and economic point of view, an immediate closure of the fishery, even though rules for a gradual cessation have been introduced, would result in the fishermen concerned going bankrupt since there is no possibility of immediate conversion to other fisheries.

Annex 10: Estimating the maximum *gangui* footprint in 2022 using VMS data

This document presents the methodology used for the estimation of the maximum potential *gangui* footprint in 2022. The estimates are based on VMS data. VMS pings of authorised vessels are filtered based on speed < 2 knots; location of the port; and maximum delay between consecutive positions of 3 h.

The total estimated maximum footprint is estimated to be 53.46 km² in 2022. The estimated surface area of the *Posidonia* beds in the Provence-Alpes-Côte d'Azur region is about 311.68 km², and 872 km² in the Mediterranean French waters. Therefore, 17.2% of the surface area of the *Posidonia* beds in the PACA region and 6.1% in the Mediterranean French waters are affected by this fishing. These values are lower than the thresholds in the MedReg of 33% and 10% respectively.

STECF comments

STECF observes that the *gangui* trawls with light weight panels used in the fishery operate over *Posidonia oceanica* in the Rade d'Hyères Natura 2000 site. For this activity to continue, derogations regarding the prohibition to fish above protected areas, the minimum distance from the coast and the minimum sea depth are needed.

STECF notes the first management plan for *gangui* was implemented in 2014. Subsequent derogations were granted in 2017, 2020 and 2022. The current derogation will apply until 11 May 2024.

STECF observes that the submitted documents provide comprehensive information regarding different aspects of the *gangui* fishery and the results of the implementation of the management plan.

STECF has evaluated the derogation for *gangui* trawlers in certain territorial waters of France according to the request:

1) *the conditions set by the MedReg are still fulfilled:*

- *the fishing vessels concerned have an overall length of less than or equal to 12 meters of overall length and engine power of less than or equal to 85 kW, in accordance with the first subparagraph of Article 4(5) of MedReg.*

At present there are seven active fishing vessels in the fishery and the information on the characteristics of each vessel are presented in several of the submitted documents (e.g., Annex 2). Therefore, STECF considers this condition has been fulfilled.

- *the fishing activities concerned affect not more than 33% of the area covered by seagrass beds of *Posidonia oceanica* within the area covered by the management plan and not more than 10% of seagrass beds in the territorial waters of France, in line with requirements of points (ii) and (iii) of the first subparagraph of Article 4(5) of MedReg.*

A specific study about the *Posidonia* beds surface impacted by the *gangui* fishing has been provided. The maximum impact of *gangui* on *Posidonia* beds based on VMS data was estimated using the parameters proposed by STECF PLEN 19-03 (i.e., large *gangui* horizontal gear opening of 20 meters and fishing time increased by applying a filter at a speed of 2 knots). This assumes that *gangui* operates 100% of its activity on *Posidonia* meadows.

In 2022 the maximum footprint is estimated to be 53.46 km². The *Posidonia* beds surface is estimated to be 872 km² in the French Mediterranean waters and 311.68 km² in the PACA region. This means that the impacted surface of *Posidonia* beds by the *gangui* fishing is 6.1% in the French Mediterranean waters and 17.2% in the PACA region. STECF observes these values are below the thresholds contained in the MedReg Regulation provisions (10% and 33% respectively) so this condition has been met.

- *catches of species subject to minimum conservation size as mentioned in Annex III are minimal, in line with Article 13(9) of MedReg.*

Based on the information provided, STECF observes that the catches of species subject to minimum conservation reference sizes are likely to be minimal. The *gangui* fleet targets demersal species in coastal waters. The catch in 2022 ("soup", picarel, red mullet, octopus, sars, cuttlefish, squid and shrimp) was 70.4 tonnes, that is, around 10 tonnes per vessel on average. *Gangui* remain highly dependent on the "soup" catch. In 2022 the daily catch consisted of "soup" (55% of the catch, around 50 kg; *Scorpaena* spp, *Serranus* spp, *Labrus* spp), other fishes (39%; 82 % of these *Spicara smaris*), and with less than 5 kg, cuttlefish, octopus and sparidae (*Diplodus* spp).

- *the mesh size complies with the requirement of at least a square-meshed net of 40mm or a diamond meshed net of 50mm and panels of netting smaller than 40mm mesh size are not used for fishing or kept on board, in line with Article 9 of MedReg.*

Direct information on the compliance with the mesh size regulations has not been provided. STECF observes that the requested derogation relates to trawlers operating with mesh sizes not smaller than 40 mm and based on the information provided, square mesh netting below 40 mm is not used in *gangui* net rigging. STECF concluded that this condition was met in 2022 and without any other evidence assumes it has still been fulfilled in 2023.

- *appropriate steps have been undertaken to ensure the collection of scientific information with a view to the identification and mapping of *Posidonia* habitat, in line with Article 4(6) of MedReg.*

Maps of the Hyères rade are provided in Annex 7. The *Posidonia* beds distribution is known since the *Posidonia* beds surface affected by the *gangui* fishing has been estimated and, also, its relative importance regarding the *Posidonia* beds surface in the PACA region and in the French Mediterranean waters has been calculated. Therefore, STECF considers this condition has been met.

2) the impact on the Posidonia beds has been mitigated further since 2014, in the years of the implementation of the management plan, in particular ensuring an effective reduction of the fishing capacity and effort. In the event that these justifications are not sufficient, the experts shall provide recommendations on the additional information needed and on the likely migration measures to counteract possible nonfulfillment.

The non-renewal of licenses when the owner of the license retires or the vessel is replaced or sold has led to a gradual decrease on the number of active vessels, from 36 in 2014, when the first management plan was implemented, to 7 active vessels in 2022. Thus, STECF observes that both fishing capacity and effort have significantly reduced over time and the fishery is likely to be completely phased out over the next 10-years.

3) the current management measures would continue ensuring a sustainable exploitation of species targeted by gangui trawler without jeopardizing the socio-economic sustainability of the overall fishing fleets involved in exploiting those resources in the coastal area.

The information provided does not allow assessment of whether the management measures ensure a sustainable exploitation of species targeted by *gangui* trawler.

In socio-economic terms, the activity remains profitable. It has been estimated that at present 16 families are reliant on income from the *gangui* fishery. In case of cessation of this activity, according to the documentation provided, there is no possibility of immediate conversion or change of activity to a different fishery.

STECF notes that the catch composition of this fishery, in particular as regards the variety of species caught, is not reflected in any other fishery.

STECF conclusions

STECF concludes that the measures in force are effective in reducing the *gangui* fleet and its impact on the environment. In this respect, STECF concludes that the *gangui* fishery fulfills the requirements set by the MedReg.

STECF concludes that as the number of *gangui* vessels has significantly decreased since 2014, from 36 to 7 active vessels in 2022 the impacts of the fishery have continue to reduce over time.

STECF concludes that the fishery will be phased out within the next 10 years due to the non-renewal of fishing licenses of fishermen leaving the fishery.

ITEMS/DISCUSSION POINTS FOR PREPARATION OF EWGS AND OTHER STECF WORK

7.1 Preparation of EWG on socio-economic analysis of the VMEs closures

Background provided by the European Commission:

The **Deep-sea Access Regulation**¹⁰ is governing access to deep-sea fishing and setting conditions for protecting “Vulnerable Marine Ecosystems” (VMEs) in EU and international waters. The Deep-sea Access Regulation aims to establish a sustainable exploitation of deep-sea stocks while reducing the environmental impact of these fisheries and preventing significant adverse impacts on VMEs, and to improve the information base for scientific assessment, through data collection. On 15 September 2022, the Commission has adopted the **Implementing Act (EU) 2022/1614** determining the existing deep-sea fishing areas and establishing a list of areas where vulnerable marine ecosystems are known to occur or are likely to occur¹¹. The Implementing act is based on ICES advice (final advice in Jan. 2021 and coordinates in Feb. 2022)¹², which aims to balance the protection of VMEs with the continuation of fishing activities under **Scenario 2 – option 1**. A list of **87 areas** where VMEs occur or are likely to occur in EU waters has been established in the Implementing Act, based on the ICES advice. The Deep-sea Access Regulation provides that fishing with all bottom gears shall be prohibited in all listed areas below a depth of 400 meters.

As per article 9(6) of the framework Regulation (EU) 2016/2336, the Commission “*shall review the list annually on the basis of advice received from the Scientific, Technical and Economic Committee for Fisheries and, where appropriate, amend the list by means of implementing acts. The Commission may remove an area from the list provided that it determines, on the basis of an impact assessment and after consulting the competent scientific advisory body, that there is sufficient evidence to indicate that VMEs are not present, or that appropriate conservation and management measures have been adopted which ensure that significant adverse impacts on VMEs in that area are prevented.*”

On 18 April 2023, ICES released its second “**Advice on areas where Vulnerable Marine Ecosystems (VMEs) are known to occur or are likely to occur in EU waters**” where it presented 5 updated scenarios taking into account data submitted by EU Member States in the context of the VMS-VME data call of 2022 (2009-2021)¹³. The new ICES advice proposes to list more areas for VMEs protection, between 102 up to 115 areas against 87 areas listed in the

¹⁰ [Regulation \(EU\) 2016/2336](#) of the European Parliament and of the Council of 14 December 2016 establishing specific conditions for fishing for deep-sea stocks in the north-east Atlantic and provisions for fishing in international waters of the north-east Atlantic and repealing Council Regulation (EC) No 2347/2002.

¹¹ [Commission Implementing Regulation \(EU\) 2022/1614](#) of 15 September 2022 determining the existing deep-sea fishing areas and establishing a list of areas where vulnerable marine ecosystems are known to occur or are likely to occur.

¹² [ICES. 2021](#). EU Request to advise on the list of areas where VMEs are known to occur or are likely to occur and on the existing deep-sea fishing areas (ref. (EU)2016/2336).

¹³ [ICES. 2022](#). EU request for a Technical Service to provide data output of the ICES 2021 advice on the deep-sea access regulation (ref. (EU)2016/2336) as coordinates for EU waters area only.

Implementing Regulation (EU) 2022/1614. Overall, this corresponds to a total area size of 9 752 km² up to 14 885 km², compared to 16 419 km² under the current Regulation.

Further to the request of the European Commission, STECF Plenary-23-02¹⁴ delivered an opinion¹⁵ which reviewed the analysis undertaken by 2 ad-hoc reports, one analysing the FDI data, and the other ICES VMS data coupled with the Annual Economic Report.

Request to STECF

Building on the conclusions of STECF PLEN 23-02, STECF is requested to discuss and plan the delivery of an analysis of the socio-economic impacts of the VMEs closures according to the different scenarios, following the protocol agreed in STECF (2010). This includes the setting up of a dedicated Expert Working Group.

A scoping meeting should be organised, jointly by STECF and DG MARE, in order to:

- Analyse data availability, and in relevant cases, launch specific data calls.
- Analyse availability of bio-economic models or other tools to assess economic impacts.
- Gather stakeholders' inputs on the VMEs closures, notably on effort displacement.

STECF is requested to propose an adequate timeline for completion of this work and identify a chair and experts required to complete the work.

STECF observations

STECF observes that the two ad hoc contracts provided during PLEN 23-02 and an updated version for the FDI analyses in PLEN 23-03 include the analyses of the most recent public data available to assess possible (socio-economic) impacts of the VME closures. Therefore, an EWG in 2024 should focus on providing additional information and analyses at an individual fishing unit or fishery level. This will allow distinguishing between the impacts on the whole fleet, which was analysed to a certain extent in one of the ad hoc contracts (combining AER and publicly available VMS data collated by ICES), and at the level of individual vessels or at the fishery level. The analyses for the whole fleet showed on average a relatively low impact but that can be different for individual vessels or specific fleet segments.

STECF notes that this type of analyses cannot be easily done by an EWG as it would require types of VMS and logbook data usually not publicly available. Therefore, in the scoping meeting it must be discussed whether option 1 or 2 should be selected:

Option 1: A data call with the request of VMS data, Logbook data and data on cost structures of all vessels having a stake in landing deepsea. Analyses of the data with the DISPLACE model. At the scoping meeting MS need to agree to deliver the data to STECF.

¹⁴ [STECF – 73rd PLENARY REPORT](#) (STECF-PLN-23-02), 6.1 Assessment of a socio-economic analysis of Vulnerable Marine Ecosystems, July 2023.

¹⁵ [ICES. 2023](#). Advice on areas where Vulnerable Marine Ecosystems (VMEs) are known to occur or are likely to occur in EU waters.

Option 2: As alternative, the MS could do the analyses of the national data themselves and then the scientists which run the analyses participate in the EWG later in the year. For that a R-Script or a detailed description of the analysis flow needs to be developed which all MS can run with their data.

STECF notes that with Spanish data a similar analysis was completed already for the Cantabrian Sea (Fernández-Arcaya et al., 2023); a study also exists for France (Biseau and Begot, 2023).

STECF notes that the EWG needs to consider the issue of effort redistribution as a result of the area closures. The analyses of VMS and logbook data with a fine resolution would allow assessing where vessels fished in 2023 compared to 2022 and provide insights on the impacts of scenarios for effort displacement in the future. For the analysis of effort displacement, the bio-economic model 'DISPLACE' (Bastardie et al., 2014) could be applied to those fleets but would need national VMS and logbook data as inputs to assess the impacts of effort displacement. Sufficient time should be dedicated to parameterising the model on the case study.

However, STECF notes that as effort displacement has already likely taken place and companies will have to adjust their fishing activities in the future, interactions with the fishing sector could provide additional data (in the best case quantitative but also qualitative via semi-structured interviews) which could provide valuable insights of how effort has already been or will be displaced by the closures.

STECF notes that semi-structured interviews with representatives of the fishing industry would be useful to provide better insights into the impacts on fisheries, the economic situation, specific fleet segments or perceptions of the fishing sector of the VME regulation. Similarly, interviews with representatives of Member States could be informative for the assessment of socio-economic impacts.

STECF conclusions

STECF has developed a draft roadmap for advancing the work on VMEs. This will be further discussed with DG MARE and the STECF Bureau. The first step in this roadmap will be a scoping meeting organised by DG MARE to discuss data availability, appropriate bio-economic models, or other tools to assess economic impacts as well as discussing further issues which may be of interest for the assessment of impacts like dependency of regions on certain fisheries and social aspects.

STECF concludes that an EWG in 2024 should focus on providing additional information and analyses at an individual fishing unit or fishery level. This will allow distinguishing between the impacts on the whole fleet, which was analysed to a certain extent in one of the ad hoc contracts (combining AER and publicly available VMS data collated by ICES), and at the level of individual vessels or at the fishery level.

STECF concludes that an EWG in 2024 needs to consider the issue of effort redistribution as a result of the area closures using an appropriate bio-economic model (e.g., 'DISPLACE'). This model could be applied to relative fleets but would need national VMS and logbook data as inputs to assess the impacts of effort displacement. Sufficient time should be dedicated to parameterising the model on the case study.

STECF concludes that engagement with fishing sector would be important to provide additional quantitative and quantitative data that could provide valuable insights on the impacts of the VME closures as well as how effort has already been or will be displaced by the closures.

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7.2 Preparation monitoring the implementation of the landing obligation – STECF recommendations on data sources

Background provided by the Commission:

The Communication on the functioning of the Common Fisheries Policy¹⁶ emphasises that continued intense collaboration and exchange is needed to help reach a better understanding on implementing the landing obligation. The Communication indicates weak compliance, undocumented discarding and misreporting of catches undermine the accuracy of catch data and reporting: impacting the (reliable) data available which is key for scientific advice on fisheries conservation measures; and for an evaluation of the landing obligation that the Commission announced in the above forementioned Communication.

To this end, DGMARE has prepared terms of reference for a study to be launched in 2024 to support the evaluation of the landing obligation as a means to better inform policymakers on the effectiveness, efficiency, coherence, relevance and EU added value of the measures in place. Dialogue with all the stakeholders is of utmost importance, as preparation, on what key available data could feed into this evaluation, as well as stakeholder involvement during the study.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

To help with defining these terms of reference, STECF is requested to provide observations on what key (quantitative) data should feed into the study. In particular, what data could be used to create a comprehensive review of discard rates across EU fisheries using the data available – following the setup of the Impact Assessment of the Commission supporting the Review of the CFP in 2011 discard policies.

STECF should take account of the conclusions from PLEN 22-01 on monitoring the landing obligation; PLEN 23-02 discussions on the functioning of the CFP; EWG FDI conclusions; and STECF EWG technical measures (selectivity).

Ongoing work on modelling selectivity changes performed in the STECF EWGs on technical measures regulation, which might prove useful in the context of the landing obligation analysis could also be considered.

Summary of the information provided to STECF

Two documents were made available to PLEN 23-03:

- The report "Impact Assessment of Discard Reducing Policies (2011)" and its' three supporting annexes.

¹⁶ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL The common fisheries policy today and tomorrow: a Fisheries and Oceans Pact towards sustainable, science-based, innovative and inclusive fisheries management. COM/2023/103 final

- An extract from the terms of reference of a planned study entitled, 'Study supporting the evaluation of the landing obligation – Common Fisheries Policy' (FRAMEWORK CONTRACT CINEA/2021/OP/0011).

1) The Final Report "Impact Assessment of Discard Reducing Policies" (European Commission, Studies in the Field of the Common Fisheries Policy and Maritime Affairs - Lot 4: Impact Assessment Studies related to the CFP - June 2011)

In 2011 DG MARE commissioned an impact assessment on discarding policies to be implemented EU-wide, as part of the Comprehensive Impact Assessment (CFPIA) supporting the CFP Reform. The focus was on evaluating policy options for discard reduction. High levels of discarding, particularly in towed gear fisheries, were identified, and various reasons for discarding, including regulatory constraints and market incentives, were discussed.

The study comprised a research phase, including a literature review and case studies on discard rates across EU fisheries, as well as an analytical phase. Indicators covering environmental, economic, social, governance, and administrative aspects were used to assess the impact of discard reduction policies. The key indicators used to compare the different policies included state of the stocks, economic sustainability, employment, governance, and administrative burden.

The study identified discard rates over a range of time periods and across different gear types. It noted high levels of discards in particular, in beam trawlers and Mediterranean longlines, and lower rates in pelagic trawls and small-scale coastal fisheries. The main reasons for discards were found to vary, such as size restrictions, quota constraints, and market forces.

This report was supported with three annexes as follows:

- Case study annex: This Annex provided information on the international experiences with discard bans up to 2010, focusing on specific case studies (Iceland – since 1984, Norway – since 1986, and EU countries EM trials in the North Sea after 2008)
- FLR annex: This annex reported on a biological model developed in FLR used to reproduce stock and catch dynamics under the proposed management regimes. The fisheries were forward projected to 2030 using specific assumptions about recruitment, compliance, discarding and implementation of harvest control rules.
- EU discard rates annex: This annex presented a compilation and review of information on discarding levels in various EU fisheries, with a specific focus on understanding the reasons behind discarding practices. The information was gathered from two primary regions: ICES regions and Mediterranean waters. Fisheries were categorised broadly based on discard rates, aiming to assess the potential impact of discard bans on different types of fisheries. The objective was to identify general trends among groups concerning factors such as discarding levels, gear types, target species, and vessel sizes.

2) Extract from ToRs of the 'Study supporting the evaluation of the landing obligation – Common Fisheries Policy'.

The primary aim of this contract is to support DG MARE in evaluating the performance and functionality of the Landing Obligation. The study's results will be utilised by DG MARE to formulate an evidence-based evaluation, considering the justification for EU intervention, and potential improvements that could be implemented. The main task of this study will be to collect both quantitative and qualitative data to assess the effectiveness of the Landing Obligation.

A number of data collection methods are suggested, including both desk (e.g., documents, literature and monitoring data reviews, national evaluation reports) and field research (survey and interviews). The study will include a comprehensive review of:

- Discard rates across EU fisheries, utilising available data and following the methodology established in the Commission's 2011 discard policy review.
- An overview of unwanted catches, particularly those below the minimum conservation reference size (MCRS).
- Case studies addressing challenges in implementing the Landing Obligation, focusing on the handling and utilization of unwanted catches not intended for direct human consumption.
- Examination of specific experiences in selected fisheries, stocks, and in Member States regarding efforts to increase selectivity, reduce unwanted catches, and pilot projects.
- Analysis of experiences in cases where measures for increased selectivity are either not deployed or cannot be implemented.

Data management is crucial for this study, involving the integration of acquired information with a range of existing datasets (e.g., ICES stock assessments, fisheries overviews, and ecosystem overviews; Commission data sources; Specific catch data on landings, discards, and below minimum conservation reference size; STECF annual monitoring of the landing obligation and the assessment of exemptions to the landing obligation; any other relevant sources).

STECF general observations

STECF notes that CINEA (2021a and 2021b) studies supersede the 2011 impact assessment study to a large extent. Extensive analysis of the Landing Obligation has also been carried out under the EU research projects DiscardLess and Minouw (Uhlmann et al. 2019) Additionally, STECF recalls that numerous STECF EWGs and Plenary ToRs have addressed various aspects of the Landing Obligation since its' implementation.

STECF acknowledges that inaccurate reporting of catches (landings and discards) persists despite the introduction of the Landing obligation, adversely affecting the quality of available data in official and scientific databases.

STECF observes that PLEN 22-01 (and other STECF reports) underlined the limited impact of the Landing Obligation in mitigating unwanted catches across various fisheries, coupled with a lack of compliance by Member States.

STECF considers the socio-economic impacts and incentives are limited, resulting in minimal alterations in fishing practices stemming from the Landing Obligation. STECF recalls that EWG 23-0406 observed that the majority of EU fisheries/stocks are now operating under some form of exemption to the Landing Obligation (i.e., de minimis or high survivability), but the catches under exemptions remain largely unreported.

STECF observations on data sources

STECF acknowledges that Member States provide quantitative and qualitative discard data to a range of databases: FDI, MED&BS, ICES, GFCM DCRF data calls and for the compliance evaluations carried out by EFCA.

STECF notes that, despite this, no one data source is sufficient to review the impact of the Landing Obligation. Multiple data sources are required to assess trends in discarding in the context of fishing patterns (e.g., landing declarations, gear selectivity), stock status (e.g., single species advice) and

economic drivers (e.g., markets, system shocks etc.), which comprise of data from direct and indirect sources. STECF considers direct data as that declared to official sources (i.e., logbooks, observers and sales notes data) and for compliance (i.e., last haul analysis, VMS and remote electronic monitoring EM). Indirect data is provided from scientific discard estimates, survey data and selectivity/discard studies. STECF suggests that any review of the Landing Obligation would require both direct and indirect data sources to be considered.

FDI

STECF acknowledges that the FDI data represents one of the most comprehensive dataset of landings and discards estimates in EU fisheries. STECF notes, though, that in using this data for the purpose of the proposed study, the contractors should be aware that FDI data are obtained from Member States through sampling programmes (e.g., observer programmes, self-sampling and reference fleets). Therefore, the data contained in the FDI database may not be fully representative of the level of discarding or be statistically sound for all strata or fleets. This is the reality of all sampling plans, where low coverage and sampling design do not cover all fleets. This reality should be reflected in how the data is used, with limitations being reported alongside any analysis produced. All discard rates reported to assess the Landing Obligation should be accompanied with summaries of total landings (tonnes) and sampling coverage (percentage of strata with discard estimates), providing context on how the estimated discard rate may impact the stock/fishery, and the level of confidence in the estimates.

STECF cautions against the use of FDI data from before 2016 (sometimes referred to as “FDI classic”) for the purpose of evaluating the Landing Obligation. Discard rates post-2106 stored in the FDI-classic database were estimated following an automated procedures that used ‘fill ins’ that may result in biased estimates of discarding. Additionally, the FDI-classic data provides no indicators of discard estimate/rate robustness or quality.

Although the FDI data, post-2016 - provides information on the discarding patterns in EU fleet, STECF notes that EWG 23-05 emphasised the necessity for data end-users to have a deeper understanding of the statistical principles underlying the calculation of discard estimates. EWG 23-05 suggested following the approaches proposed by Cochran (1977), which provides basic principles of survey theory, and Vigneau (2023), who offered practical guidance for calculating discard estimates, their variance, and confidence intervals within the framework of survey theory. EWG 23-05 acknowledged that the theoretical and analytical calculation of discard estimate variances and confidence intervals can pose challenges, particularly for ratio estimators and in complex sampling designs. In such cases, EWG 23-05 highlighted that the bootstrap methodology, as introduced by Efron et al. (1994), can assist in estimating variances and confidence intervals.

Specific considerations in the Mediterranean and Black Sea

STECF observes that in 2014, the General Fisheries Commission for the Mediterranean (GFCM) introduced the Data Collection Reference Framework (DCRF). This framework was designed to facilitate the identification, collection, and subsequent transmission of fisheries-related data, including discards for major species in the Mediterranean and Black Sea. GFCM receives these data from Contracting Parties and Cooperating non-contracting Parties (CPCs), encompassing both EU and non-EU countries. For nationally identified commercial species, countries are required to provide information on the total catch (including discard) by area (GSA) and fleet segment. Discard data, where available, are collected and reported in the corresponding table, categorized by fleet segments and commercial species. Mandatory collection of discard information (i.e., weight in tonnes for the main commercial species) applies solely to fleet segments (e.g., trawlers 12-24 m) where the discard rate is deemed significant. A discard rate is considered significant if it surpasses

10 percent of the total volume of catch for a specific fleet segment in a designated GSA. In cases where the discard level is assessed as insignificant (<10%), there is no obligation to collect information on discards for the relevant segment.

STECF recognises that an additional EU data call (i.e., the MED&BS data call), covers the collection of discard data in the Mediterranean and Black Sea. In this context, discards are documented as total weight (along with corresponding abundance in length and age) per métier. These data are required to be recorded in two distinct files: 1) discards by length; and 2) catch-at-age. Under this data call, it is requested that Member States provide these data for all métiers, irrespective of whether they are selected by the ranking system or if biological samples are unavailable.

EFCA

Compliance evaluation reports collected by EFCA also provide useful information on the implementation of the Landing Obligation. These reports provide estimates of discard rates based on three methods; i) a comparison of logbook and inspection information (ii) discard estimates provided by scientific bodies (STECF and ICES) and (iii) trends in the number of suspected infringements related to non-compliance with the landing obligation. However, only the executive summaries are publicly available.

EFCA collects catch composition data during inspections at sea by Member States under the framework of joint deployment plans (JDP). It is known as “the last haul” (LH) programme and provides estimates of discards and the derivation of indicators of compliance with the landing obligation. During sea inspections, measures of quantities of fish below and above the minimum conservation reference size and grade categories of the legal-size catch are used to derive estimates of discards. The methods to estimate discards assume that the relative catch composition (discard ratios) obtained with the data collected during LH inspections reflects the true catch composition of the fleet segment operating with the same gear and mesh size and in that area. The comparison between these discard ratios and with what is reported in fishers’ logbook is then used to estimate the discard component (Nuevo et al., 2018)

Other potential data sources

The information and data provided in STECF EWGs on technical measures may be useful to explain some of the potential trends in the discard rates that this proposed study on the Landing Obligation may present (e.g., STECF-20-02, STECF-21-07, STECF-22-19).

STECF notes that to support ecosystem-based management advice, ICES provides quantitative discard estimates for many stocks (<https://www.ices.dk/advice/Pages/Latest-Advice.aspx>), with summary overviews of discarding available per ecoregion: Bay of Biscay and Iberian Coast (ICES 2022a), Barents Sea, Celtic Seas (ICES 2022b), Azores (ICES 2022c), Icelandic waters (ICES 2022d), Greater North Sea (ICES 2022e), Norwegian Sea (ICES 2022f), Baltic Sea (ICES 2022g), Greenland Sea (ICES 2022h), and most recently the Faroes (ICES 2023i). These discard rates are provided along with information of stock status, and where possible survey trends and qualitative insights into drivers of trends in fisheries.

Finally, discard information for specific fisheries and/or group of vessels are publicly available in the Public Certification Reports of the Marine Stewardship Council (MSC) certified fisheries (<https://fisheries.msc.org/en/fisheries/>). These fisheries could be used for example as possible case studies, although STECF acknowledges that any changes in discarding patterns reported in MSC reports may be related to other drivers and incentives than the Landing Obligation.

Future considerations

STECF notes that The Marine Stewardship Council (MSC) has introduced new data requirements for certifying fisheries in their latest Fisheries Standard review (MSC, 2022). This contains new requirements for minimum sampling levels (as opposed to no specified levels in the previous standard). It may eventually become a driver for improving fisheries monitoring programmes globally (Davies et al., 2023). Consequently, MSC certified fisheries could become an additional source of fisheries dependent data in the future. However, this will only come onstream over time and is therefore, is unlikely to be useful for the EU study.

STECF acknowledge that the recently adopted revised Control Regulation (PE-CONS 38/23) introduces requirements for all fishing vessels above 18 metres which pose a high risk of non-compliance with the Landing Obligation to be equipped with REM-systems (electronic monitoring). When fully implemented, the data from the REM-systems potentially will provide a further set of data for monitoring of the Landing Obligation. However, as there is a long leadin time to implement this measure, STECF notes that other than REM-systems already being implemented is some fleets (e.g., Danish pelagic fleet), this again will not provide any data that could be used in the EU study.

STECF conclusions

STECF concludes that the information and data available for the EU study will be very similar to previous studies on the Landing Obligation. The limitations in data relating to coverage and discrepancies in reporting landings and corresponding discard estimates identified previously by STECF are likely to remain.

STECF concludes that the FDI data call along with the EFCA last-haul analysis data represent the most comprehensive officially available dataset for discards in EU fisheries.

STECF concludes that discard data from one any one source cannot be used in isolation and trends in discard rate estimates from both direct and indirect data sources need to be analysed in the broader context of changes in fisheries over time.

STECF concludes that changes in the Control Regulation (PE-CONS 38/23) and advances in sustainability certification requirements are likely to generate additional data on discarding, but such information will only come on stream after the completion of the proposed study.

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7.3 CFP Monitoring

Background provided by the Commission:

At the summer 2023 plenary meeting, the STECF requested the JRC to:

1. conduct a leave-one out analysis with regards to the minimum observation error parameter of the state-space model JARA to be set in the protocol, and to
2. provide an updated version of the 2019 CFP Monitoring protocol (Jardim et al.) to derive indicators for presentation in future editions of the annual "Monitoring the performance of the CFP" report.

Background documents are published on the meeting's web site on: <https://stecf.jrc.ec.europa.eu/plen2303>

Request to the STECF

The STECF is requested to review the JRC's work and proposed changes made to the protocol. If approved by the STECF, the new version of the protocol will be used to produce CFP monitoring reports from 2024 onwards.

STECF observations

STECF acknowledges the work of the JRC in answering both requests from PLEN 23-02.

Leave one out analysis:

The leave one out analysis to test the changes of the mean square distance (MSD) as the minimum observation error (MOE) changes was run following the procedure as follows:

1. Set the minimum observation error value (between 0.01 and 0.25)
2. Leave out a random data point.
3. Run JARA.
4. Calculate the square distance between observed and predicted values.
5. Run from 1 to 4 for 1000 iterations.
6. Calculate the mean square distance from the set of iterations.

The MSD increased as MOE increased for all indicators (F/F_{msy} and B/B_{2003} for the Northeast Atlantic (NEA) and Med and Black Sea (MBS)) except for F/F_{msy} in the NEA, which showed a decreasing trend (Fig.7.3.1).

As within the JARA model, both process and observations errors follow log distributions. STECF requested to calculate the median square distance instead of the mean square distance over the leave one out iterations to avoid the bias from the extreme values on a log scale. Results showed that for the B/B_{2003} indicator the lowest median square distance corresponds to a MOE of 0.05 and for the F/F_{msy} indicator it corresponds to a MOE of between 0.01 and 0.05 (Fig.7.3.2).

Single stock trajectories were remodelled modifying MOE between 0.01 and 0.25. Results showed that when $MOE > 0.1$, in highly variable trajectories, extreme values would be outside confidence intervals (95% CI). The higher the MOE, the higher the risk of missing changes at the end of the time series as the trend would be less restricted (Fig. 7.4.3).

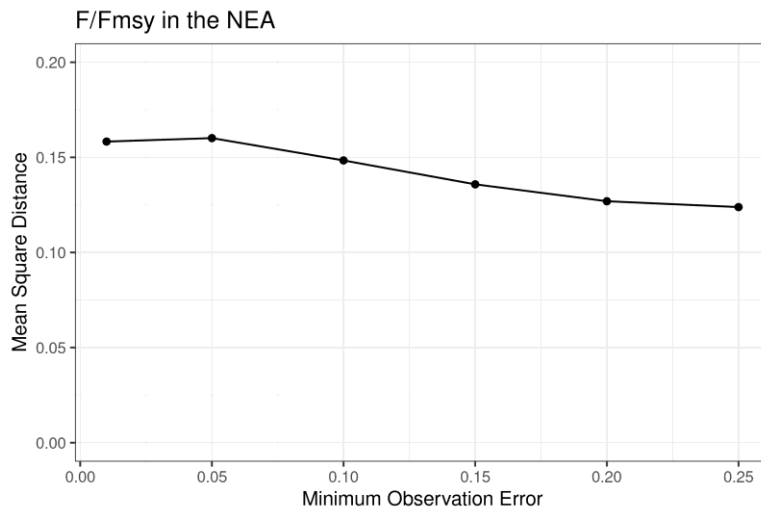


Figure 7.4.1 Mean squared distance vs MOE for F/Fmsy in NEA.

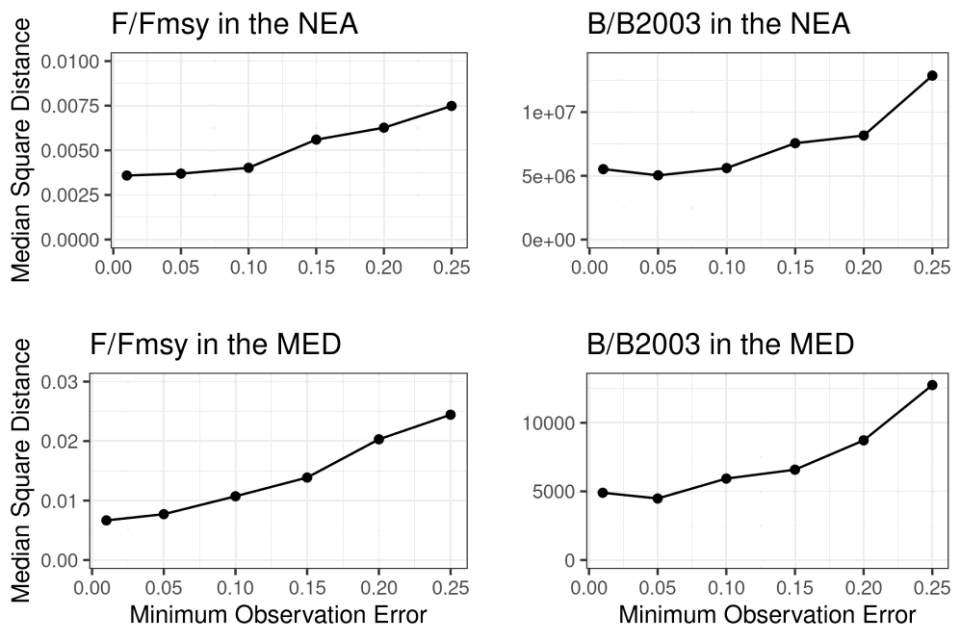


Figure 7.4.2 Median squared distance vs MOE.

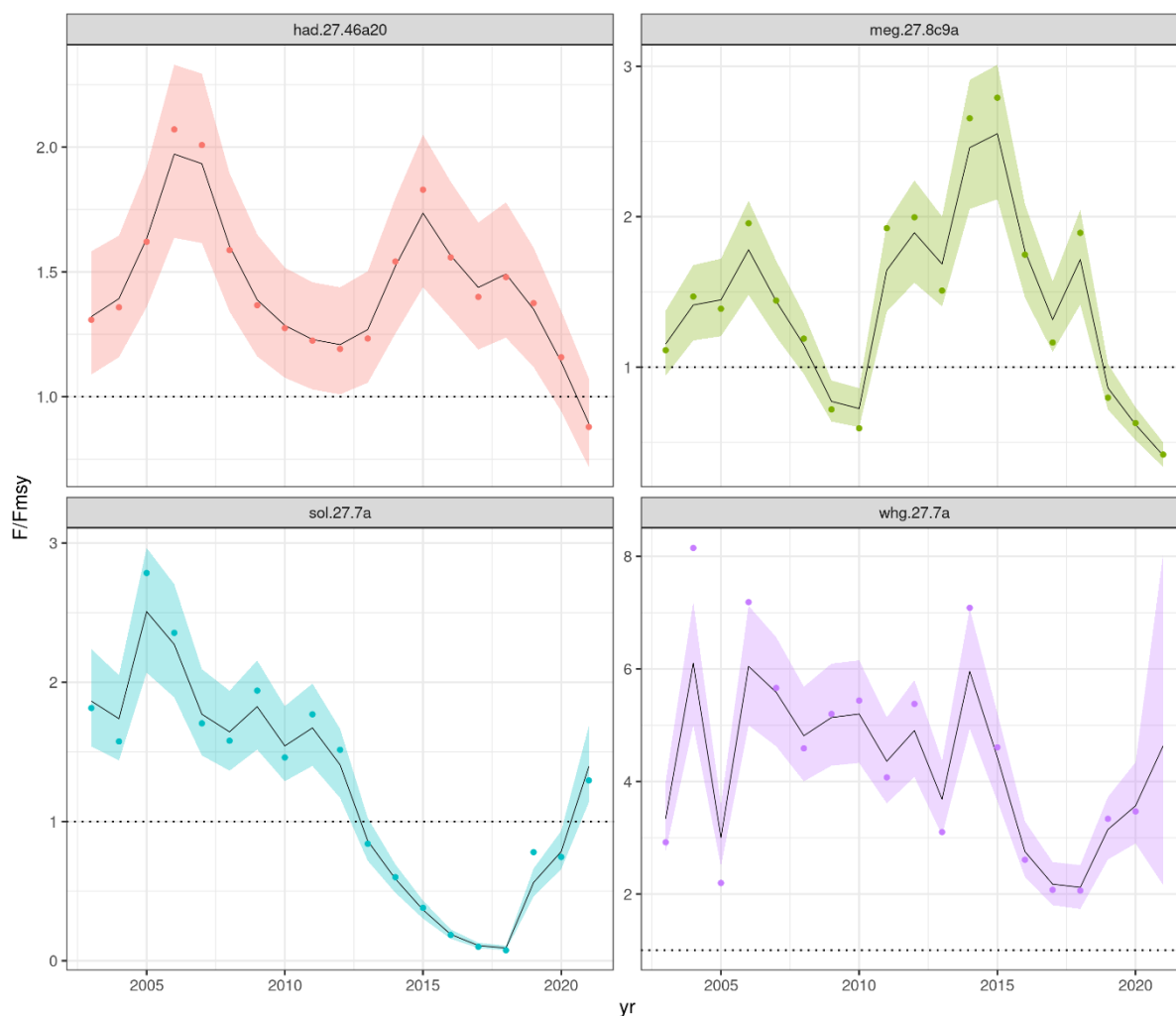


Figure 7.4.3 Single trajectories refitted with a MOE of 0.1.

Protocol revision:

STECF notes that an updated version (V 5.0) of the CFP monitoring protocol was presented by the JRC.

STECF notes that a higher level of detail was added in the protocol to be improve clarity in describing the analysis process from the data selection to the calculation of the indicators.

STECF highlights that, to date, the CFP monitoring has not considered stocks in the outermost regions, except for the Azores.

To be more consistent STECF notes that within the ICES ecoregions geographical representation, the Azores were added to the list of ecoregions in the "Scope" section of the protocol. Additionally, all the ICES areas and FAO GSAs included in the analysis were explicitly listed to avoid confusion.

STECF notes that within the "Data sources section" additional details were added to clarify how results from surplus production models are used in the monitoring analysis. Following the discussion

held during STECF PLEN 23-01 the following sentence was added: "Results from catch-based models with tuning indices that estimate time-series of fishing mortality and/or biomass are included in the analysis."

STECF highlights that in the future there may be an increase of models assessed with biomass dynamic models, many of which could use tuning indices from fisheries dependent sources. Therefore, a sensitivity analysis should be run to test the effect of such an addition within the CFP monitoring analysis. This will also follow suggestions from STECF PLEN 23-01 included under TOR 6.5.

STECF notes that the last point of the "Reference list of stocks" section was updated to account for the most recent years data.

STECF notes that equations in sections 3.1 and 3.2 were updated for clarity and accompanying text was added, although it should be highlighted that the counting process and calculations of the indicators has not changed.

STECF notes that section 3.3 was updated reporting details on the new modelling framework JARA used within the CFP monitoring analysis.

STECF recalls that during STECF PLEN 24-01, results from the new modelling framework will be compared to results from the old modelling framework (GLMM) to do a final check that the two frameworks are consistent.

STECF conclusions

STECF concludes that based on the material submitted by the JRC and based on additional tests run during the plenary, a minimum observation error of 0.05 should be set within the JARA framework when running the CFP monitoring analysis.

STECF concludes that version 5.0 of the protocol revised by the JRC and the plenary, is accepted and will be used as the new basis for the CFP monitoring analysis for 2024.

7.4 Study on two indicators used to assess the balance between fleet capacity and fishing opportunities in the Outermost Regions

Background provided by the Commission:

In 2014, the Commission developed guidelines for the preparation of the annual fishing fleet report. These set out a common methodology for the assessment of the balance over time, between fishing capacity and fishing opportunities, at fleet segment level.

These guidelines aim to:

- Use standard methods to ensure a level-playing field when different fleet segments are being compared.
- Follow best possible scientific, economic and technical practices, and ensure compatibility with standard biological, economic and social assessments.
- Use data collected according to the Data Collection Framework to facilitate comparisons and to avoid duplication of work.

Member States are invited to calculate a small number of biological, economic and technical parameters each year and compare the results against standard values. In order to keep the workload manageable, and to have standardised analyses, these parameters should be calculated using data collected under the Data Collection Framework.

The biological indicators are designed to reflect the extent to which the size of each fleet segment is not in balance with the stocks that they exploit. Where possible and available, these indicators will identify where imbalances lie. Short- and long-term profitability indicators are also being calculated, along with vessel utilisation indicators. These indicators provide information about the economic and operational state of a fishing fleet segment. They can be informative in the analysis of the balance, but also for other operational decisions to be made at Member State level.

In recent years STECF [2] has raised concerns regarding the applicability of two indicators, the SHI [3] biological indicator and the VUR220 technical indicator.

SHI

The STECF PLEN 23-02 observed that under the current Commission guidelines, a meaningful value for the biological indicator SHI can only be derived if the stocks caught by a fleet segment for which there are available values for F and FMSY (or relevant proxies), make up at least 40% of the total value of the landings of the segment. STECF acknowledges that the absence of meaningful values for the SHI is thus primarily due to an absence of estimates of F and FMSY (or relevant proxies) from stock assessments. In the absence of a dedicated EWG on the outermost regions, STECF under an ad hoc contract, investigated alternative data-limited assessment methods and reference points that might be used to derive proxy values for F/FMSY with a view to using such information in improving SHI coverage. The ad hoc contract provided a review of 14 candidate stock assessment methods capable of delivering alternative proxy values for F/FMSY, including sound general recommendations for considering whether data-limited assessment methods and proxy reference points would be appropriate for use in computing SHI.

STECF PLEN 23-02 also notes that the absence of F and FMSY (or relevant proxy) estimates is seldom due to lack of knowledge on stock assessment methods themselves, but rather to underpinning data issues that make it difficult to perform robust and trustworthy stock assessment

regardless of the method used. Due to a number of reasons listed under STECF PLEN 23-02, STECF expects that progresses in obtaining new values for F and FMSY (or relevant proxies) will develop slowly and incrementally. With the current 40% landings value threshold, it is likely that many species-specific stock assessments would be required to obtain sufficient estimates of F and FMSY (or appropriate proxies), in order to compute SHI values for fleet segments for which meaningful values for the SHI are currently unavailable. This is particularly true for fleet segments from the outermost regions whose catches are often made a of small quantities or a large number of different species. STECF therefore suggests that the effects of lowering the landings value threshold for a meaningful SHI should be investigated with respect to its utility and sensitivity.

STECF concludes that it is not advisable to include alternative proxy values for F and Fmsy to derive additional fleet-specific estimates for the SHI without first evaluating the utility and sensitivity of doing so.

VUR220

STECF has noted that the VUR is largely uninformative for small-scale and part-time fleet segments, because it only shows what proportion of the segment was inactive.

Objectives & Tasks

The objectives of this ad hoc contract are to investigate:

1. The possible effects of lowering the SHI landings' value threshold, on the SHI indicator's utility and sensitivity in the outermost regions.
2. The identification of a landings' value threshold that could be more appropriate to the specificities of the outermost regions.
3. The relevance of providing an alternative VUR indicator for the small (<12m) vessels in specifically in the outermost regions, to consider the polyvalent activities of these fleet segments, and greater exposure to climate conditions impacting operations.
4. The identification of an alternative VUR indicator and appropriate criteria for consideration specifically for small vessels in the outermost regions.
5. The pertinence of refining the geographic level of fleet segmentation for the outermost regions, to ensure that their activities are accurately represented, and ensuring that that this can be accommodated when calculating the biological and technical indicators.

These objectives form the basis for the terms of reference for the proposed ad hoc contract. Supporting information is available in STECF PLEN 23-02, STECF 23-07, STECF EWG 22-15 and if available, STECF EWG 23-13.

Request to the STECF

STECF is requested to review the objectives of this proposed ad hoc contract and assist DG MARE formulate appropriate terms of reference.

STECF observations

Tasks 1 and 2 SHI

STECF notes that issues of SHI coverage extend further than the outermost regions. STECF PLEN 22-03 has underlined that according to the latest Balance/Capacity EWG report (EWG 23-13), 36% of fleets were covered with a meaningful SHI in the Atlantic, 23% in the Mediterranean, and 13% in the Other Fishing Regions (data 2020). In 2023 (data 2021), that coverage was similar in all three regions of the order of 31%-36% (see Section 5.4 of this report). Therefore, STECF considers

that the impact of the 40% threshold on the SHI is worth investigating in all regions and not just for the Other Fishing Regions. In addition, STECF notes that there is likely to be more data available and more contrast across fleets in the North Atlantic region than in the Other Fishing Regions, which would permit a more informative, in-depth investigation to be conducted.

The current 40% threshold is used to select the fleets for which SHI can be meaningfully assessed to report on balance. Nevertheless, the indicator is calculated and available for all fleets for which some estimates of F/F_{MSY} are available from stock assessments. Lowering the threshold would not impact the calculation and value of the SHI for those fleets for which a value is already available, but a lower threshold would increase the number of fleets segments reported on in the EWG report for which the SHI would be considered meaningful.

The ad-hoc contract should be requested to produce analyses and graphs showing *inter alia*. the number of fleets included for various levels of threshold, for the various regions and, to the extent possible, over a 3–5-year period. That would help investigate the sensitivity of the SHI values and the stability of the proportion of fleets for which the SHI value according to the threshold chosen can be considered meaningful.

Additionally, based on historic data concerning the value of the catch taken from each fish stock (by DCF fleet segment), the corresponding assessment of the fishing mortality rate (F) and the fishing mortality rate corresponding to maximum sustainable yield (F_{MSY}), the ad-hoc contract should evaluate the relationship between the precision with which the sustainable harvest indicator can be estimated and the proportion of the catch of each DCF fleet segment that is assessed with respect to F and F_{MSY} . This includes bootstrapping analyses removing from the computation individual stocks that contribute to the SHI value as well as the progressive removal of each stock. Such analyses could help the STECF discuss the appropriateness of lowering the threshold from 40%. The contractor could also consider removing the threshold all together for reporting purpose and replace it with a coverage quality qualifier.

Regarding the outermost regions specifically, STECF is aware of the work ongoing in France to improve the quantity and the quality of stock assessments, as described in Ulrich et al. (2023)¹⁷. In particular, it is explained that France will convene its first dedicated national annual assessment EWG by the end of the year 2023, with the expectation that more assessments will be available in 2024 and beyond as input to the Balance/Capacity EWG. STECF stresses that the ongoing progress will directly contribute to a continuous increase in coverage of the SHI, but the extent and rate of increase cannot be foreseen at present.

STECF has also discussed the usefulness of the SHI in more general terms, acknowledging that the value of F/F_{MSY} is resulting from the combined impact of all fleet segments exploiting a stock. Depending on the size of their share of total fishing mortality, any mitigating action undertaken by a single fleet considered out of balance will not necessarily ensure that the stock as a whole return within sustainable exploitation limits. An example from the outermost regions is the minimal share that coastal fleets catch of large pelagic species like tuna or swordfish; within the activity of these fleets the value of large pelagic species can be significant compared to the combined value of other coastal species caught and therefore contributing heavily to the SHI value.

¹⁷ <https://archimer.ifremer.fr/doc/00851/96332/>

STECF suggests investigating alternative ways to evaluate balance as a whole. One alternative might be to ignore any threshold (current specified as 40% for a meaningful SHI Value) and consider all SHI values in conjunction with another appropriate indicator. In that way, the importance of the SHI value for a fleet segment in relation to its impact on the stocks it is exploiting, can be assessed. In this context, the Economic Dependency Indicator (EDI), which expresses the value of the catches from stocks that are fished at rates greater than F_{MSY} as a proportion of the total value of the catches of a fleet segment, may be a suitable candidate.

Another option would be to explore alternative formulations of SHI-like indicators, for example based on partial fishing mortality or weighting SHI with EDI-like calculations. One suggestion proposed by the STECF is that if

$$SHI_{old} = \frac{\sum_{i=1}^n V_i \frac{F_i}{F_{msy_i}}}{\sum_{i=1}^n V_i}$$

$$SHI_{new} = \frac{\sum_{i=1}^n V_i \cdot I_i}{\sum_{i=1}^n V_i} \quad \text{with } I_i = \begin{cases} 0 & \text{if } F_{tot_i} < F_{msy_i} \\ \left(1 - \frac{F_{tot_i}}{F_{msy_i}}\right) \cdot \frac{F_{partial_i}}{F_{msy_i}} & \text{else} \end{cases}$$

with $F_{partial_i}$ the partial mortality due to the fleet on species i

and

F_{tot_i} the total mortality of species i

Tasks 3, 4 and 5 - VUR

The Commission guidelines specify that Member States may provide the Vessel utilisation indicator based on the maximum (indicator = VUR) or the theoretical maximum number of days at sea for a fleet segment. The guidelines specify that for this calculation, the "observed maximum effort actually expended by a vessel in the segment" is replaced with a theoretical maximum number of days at sea that could be fished if there were no external constraints (e.g. if no effort regime was applied). This value would be assumed to be 220 days as a default value if no data are available, but otherwise should be estimated according to natural, technical and social conditions). This value should be determined by each Member State using an expert judgement and available information.

STECF has pointed out on many occasions that VUR220 is not always informative and for many fleet segments can be highly misleading e.g. for small scale fleets.

In cases where an alternative theoretical maximum number of days at sea is used by Member States to provide a vessel utilisation indicator, STECF considers that the justification for choosing the alternative is clearly explained in the Member State's fleet report together with the basis for the choice of the alternative. For example, in their fleet for 2022, the French Authorities provided a vessel utilisation indicator VUR_{90} , which does not mean that the theoretical maximum number of days is 90, but that the theoretical maximum represents the 90th percentile of the observed number of days expended by all vessels in the segment. It is also imperative that when submitting their fleet reports, Member States also submit the data used to compute the indicator value so that the STECF Expert group are able to reproduce the indicator values for each fleet segment.

STECF conclusions

STECF concludes that the proposed study is asked to investigate for threshold values lower than 40% i) the sensitivity of the resulting SHI values and ii) the stability of the proportion of fleets for which the SHI value can be computed. The investigation should not be restricted to fleet in the OMR but should include fleets from the relatively data-rich NAO and the MBS.

STECF concludes that the investigation should also provide a range of examples for fleet segments from different regions to evaluate how informative interpreting the SHI in conjunction with the EDI proves to be as an indicator of the balance between capacity and fishing opportunities.

STECF concludes that Member States already have the facility to tailor their fleet segmentation to represent the geographical and technical characteristics of specific fleet components, provided that (i) transversal variables (fishing effort and landings by species) are reported separately by fleet segment and that (ii) such segments can be allocated to a cluster as defined in the fleet economic data call, to ensure that the economic variables can be reported at the level of the clustered fleet segment.

STECF concludes that by adopting the above approach will ensure that the biological and technical indicators can be computed separately for each segment in the cluster even though the economic indicators will only be reported for the clustered segment.

7. CONTACT DETAILS OF STECF MEMBERS AND OTHER PARTICIPANTS

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