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Rome, 1st October 2024

To: Charlina Vitcheva
Director General MARE

Cc: Maria Moset DG MARE focal point,
MARE-AC

Object: MEDAC contribution to the ToRs of the STECF EWG 24-16 on technical measures

Given that:

- in the report from the Commission to the European Parliament and the Council on the implementation of the Technical Measures Regulation (Regulation (EU) 2019/1241), the Commission refers to the call for Member States to work together in the context of the regional groups (on the basis of the procedure set out in Art. 18 of Regulation 1380/2013) to define regionally relevant measures which the Commission may adopt by way of delegated acts;
- the Commission highlighted that regional implementation was progressing at a different speed and at different levels in the various areas. It was noted that only one out of fourteen delegated acts adopted concerned the Mediterranean Sea – namely the derogation from the minimum conservation references size for Venus shells in Italian territorial waters. This can be explained by the fact that many measures are defined in the framework of the GFCM, thus ensuring a level playing field for EU and non-EU countries;
- in order to protect commercial species in the Mediterranean, Member States have implemented various national measures, such as spatial and temporal restrictions to protect spawning areas and juveniles, as well as stricter rules on technical specifications for fishing gear;
- STECF, through its specific expert working group, meets yearly to discuss, assess and advise on the implementation of technical measures in order to build the scientific basis for enhanced implementation. This includes work to outline what changes are necessary and, above all, feasible to achieve the highest sustainable yields;
- the strategy suggested by STECF for the future focuses on the possible introduction of a bio-economic assessment of achievable changes in fishing techniques and patterns and their potential consequences (socio-economic, changes in catches, chances in catch value, and environmental);
- this strategy is strongly supported by the MEDAC, which has repeatedly emphasised the importance of striking a balance between environmental, social and economic aspects in fisheries management;

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- for the next meeting of STECF (EWG 24-16), scheduled for October 2024, the following ToR (Terms of Reference) are among those put forward:
    - ToR 2 – Apply the framework identified in EWG 23-15 to two case studies: hake in Bay of Biscay mixed fisheries and hake in the Western Mediterranean mixed fisheries. Each case study will where possible assess in the short term:
        - a. the impacts of increasing the size-selectivity of gears on the species caught in mixed fisheries in terms of catch, effort, fishing mortality and recruitment.
        - b. the likely costs and potential benefits associated with gear changes for fleets on the short-term (1 year forecast).
    - ToR 3 – Identify meaningful management scenarios that could be produced with these models, and the additional information/data/models that would be required to produce additional scenarios.

With a view to full and effective cooperation, the MEDAC considers it of particular relevance for the STECF expert working group 24-16 to explore the following issues regarding innovations in fishing gear technology and their impact on the economic and social dimensions of the sector, including analysis of the results of the key studies on fishing gear selectivity mentioned hereafter:

1) <u>Assessment of a new fishing gear</u>

- in this regard, we propose assessing an innovative gear in terms of its environmental and, importantly, its socioeconomic impact. According to several sector operators in various Italian and Spanish maritime districts, many of its characteristics would appear to favour the optimisation of swordfish fisheries, not only in terms of catch capacity, but also for a series of reasons better described in the attached datasheet, provided by the Italian research consortium “Unimar”;
- this gear, which is reportedly already well known in both Italy and Spain, in simple terms involves connecting a series of concentric rings to a branchline which hangs from the longline main line, and an artificial lure is hung in the centre of each of these concentric rings that are looped together;
- the Unimar report says that: “*the multi-strand bait consists of a series of loops of monofilament nylon, ranging from 6 to 8 rings of increasing size, these are joined together in one point, at the top, where a short wire is placed with a swivel, this used to connect it to the branchline which hangs from the main line, or groundline, (as in a longline fisheries with hooks). In the upper part of the gear, a lure is placed fitted with a hook, sometimes this includes some natural bait, sometimes it does not, and this hangs at the centre of the loops. The longline along the main line has some branchlines equipped with these multi-strand baited traps interspersed with normal ones (those equipped with a normal hook with natural bait), the proportion varies according to criteria decided by the vessel owner/captain. These multi-strand baits work by luring the fish which becomes entangled when it attempts to eat*

the bait, because the rings act like a mesh as the pectoral fins and the tail rotate, this ensures capture even when the bait alone is not efficient nor able to restrain the prey on the longline".
Those who tested this gear immediately pointed out, pending in-depth scientific trials, that the innovative features of this gear make it possible to save a great deal in terms of natural bait obtained from fisheries operations, contributing to a reduction in costs, which is not to be underestimated for operators who are currently struggling with the widely acknowledged difficulties facing the sector.
In our opinion, this gear is not actually a new gear, it represents a new accessory for the traditional longline, it can be defined as a "multi-strand bait".
In terms of scientific and technical support for the proposal, in addition to the UNIMAR note quoted above, attached hereto is a study cited in an ICCAT SCRS 2024/064 document written by F. Garibaldi *et al*., from which a number of considerations emerge based on both direct on-board observations and information received from fishers regarding the various technical solutions adopted when using this accessory. The ICCAT document highlights, quite appropriately, the need to define its characteristics clearly and unambiguously in order to assess its impact and regulate its management.

2) <u>Analysis of the results of studies on the improvement of fishing gear selectivity</u>

With regard to Terms of Reference 2 and 3 submitted to STECF Expert Group 24-16, the results of the following studies should also be taken into consideration as they are deemed to be significant:
- the ICRMARE study in Civitavecchia (Western Mediterranean - Italy) "Bioeconomic impact of increasing the minimum mesh size in bottom trawling" in which, with reference to the findings of trials with larger mesh sizes, it was concluded that "In the event that modifications are made to the net utilised, the potential effects on the income statement of a bottom trawl vessel using 60 mm mesh in the codend can be summarised as follows:

- reduction of turnover by 22.88% corresponding in absolute terms to approximately EUR 82 million;

- reduction of income from capital of over 40% and up to 43.25% of gross saleable production;

- loss in terms of return on investment of more than nine percentage points: ROI drops from 19% to 10%;

- greater impact on the "other fish" group compared to "crustaceans" and "molluscs", for which, although the trend is negative in terms of turnover, demonstrate lower levels of sensitivity to changes in codend mesh size.

In the context described, it is not realistic to imagine that sector operators will independently and spontaneously behave in a responsible manner, enacting technical changes that would penalise the fleet from both a technical and economic perspective. Without clear prospects for the improvement of yields in the future, achieving levels which would guarantee the security and stability of the

operators' future income, it is unfeasible to expect operators to accept a reduction in turnover of 23% and a reduction in return on investment of 9%.

- Western Mediterranean - Spain "Effects of the implementation of T90 extension and 52 mm square mesh codend on the bottom trawl hake fishery of the northwestern Mediterranean" (Ferragut-Perello F, Vasapollo C, Valls M, Farriols MT, Massut´ı E, Guijarro B, Joher S, Bibiloni-Socias M and Ordines F (2023) Front. Mar. Sci. 10:1035448. doi: 10.3389/fmars.2023.1035448. "*The 52 mm square meshed codend showed a clear discard reduction for M. merluccius and a generalized improvement of selectivity for most commercial species. This improvement raised the 50% retention length (L50) for M. merluccius to 22.2 cm, well above its MCRS (20 cm), allowing to escape 90% of the undersized individuals. However, the implementation of the 52 mm square meshed codend would involve important economic losses for main target species, like M. merluccius and Mullus barbatus, representing up to 32 and 28% of the incomes, respectively****. Considering all analysed species, economic losses using the 52 mm square meshed codend would represent 27% of the incomes obtained using the current 40 mm square meshed codend in force.*** *Despite it, transition analyses showed that the yield per recruit of the main target species would recover after two years, and even increase up to 30% and 17% for M. merluccius and M. barbatus, respectively, after the fourth year of the implementation of the 52 mm square meshed codend*."

- Western Mediterranean - Spain "Assessment of the relative catch performance of hake, red mullet and striped red mullet in a modified trawl extension with T90 netting". Sola I, Maynou F. Sci. mar. [Internet]. 2018Dec.30 [cited 2024Sep.18];82(S1):19-26. Available from: https://scientiamarina.revistas.csic.es/index.php/scientiamarina/article/view/1756
"We studied the relative catch performance of a modified trawl fitted with an extension piece using a 90º turned mesh (T90) in comparison with a standard trawl net used in NW Mediterranean bottom trawl fisheries employing a diamond mesh net. The comparison was made by means of paired experimental hauls using the same fishing vessel with alternate deployments of the standard net (control) and the experimental net. We used the catch comparison approach for three target species of the fishery: European hake, red mullet and striped red mullet. Our results show that the experimental net significantly reduces the catches of small-size hake and red mullet (though there was no discernible difference for striped red mullet), reducing unwanted catches of regulated species under the Landings Obligation. The overall catch rates of hake, pooled over all sizes, also increased by an estimated 50%, while the catch rates of red mullet and striped red mullet were significantly lower. ***However, considering all commercial species, the experimental net produced losses of commercial catch and income estimated at 17% and 18%, respectively, which may pose a barrier to the adoption of this relatively simple, inexpensive solution."***

- Moreover, in "Relative Catch Performance of Two Gear Modifications Used to Reduce Bycatch of Undersized Fish and Shrimp in Mediterranean Bottom Trawl Fisheries"[1] Francesc Maynou, Alfredo G. García-de-Vinuesa, Pedro Martínez-Baños, Pilar Sánchez, Montserrat Demestre stress that **"*Therefore, social and economic measures to facilitate the adoption of more selective fishing gear must accompany the strictly technical work. In this sense, technical solutions originating from a dialogue between the fishing industry and fisheries technologists and tested in commercial conditions (O'Neill et al. 2019[2]; Veiga-Malta et al. 2019[3]) are advantageous*."**

Kind regards,

Antonio Marzoa Notlevsen
Chair

[1] Maynou, F., García de Vinuesa, A. G., Martínez-Baños, P., Sánchez, P., and Demestres, M. (2021). Relative catch performance of two gear modifications used to reduce bycatch of undersized fish and shrimp in Mediterranean bottom trawl fisheries. Mar. Coast. Fisheries: Dynamics Management Ecosystem Sci. 13, 529–544. doi: 10.1002/mcf2.10178

[2] O'Neill, F. G., J. Feekings, R. J. Fryer, L. Fauconnet, and P. Afonso. 2019. Discard avoidance by improving fishing gear selectivity; helping the fishing industry help itself. Pages 279–296 in S. S. Uhlmann, C. Ulrich, and S. J. Kennelly, editors. The European Landing Obligation. Springer-Verlag, New York.

[3] Veiga-Malta, T., J. Feekings, B. Herrmann, and L. A. Krag. 2019. Industry-led fishing gear development: can it facilitate the process? Ocean and Coastal Management 177: 148–155.