

Review Summary Memo

Review of: Ad Hoc Contract Report on Iberian Common Sole (17 September 2026)

Contract ref: STECF ad hoc contract 2698

Date: 22/09/26

1. Purpose and Background

The European Commission requested a contractor under STECF ad hoc contract 2698 to produce an economic and fisheries assessment of alternative catch-limit scenarios for Iberian common sole (*Solea solea*) in Iberian waters (sol.27.8c9a). This request arose following the exhaustion of the TAC for common sole (SOL/8CDE34) under Regulation (EU) 2026/249 and the closure of the fishery on 19 June 2026, and subsequent representations by Portugal in August 2026 regarding the choke effects of that closure on mixed demersal fisheries.

Per Annex I of the contract, the contractor was asked to:

- describe the extent to which common sole, Senegalese sole and sand sole are caught in mixed fisheries and assess the potential for choke species scenarios;
- produce an economic assessment of four specified alternative TAC scenarios;
- project expected closure dates under those scenarios and evaluate associated economic impacts; and
- assess the uncertainties associated with the projections and provide recommendations for addressing them.

This memo constitutes the independent review of the contractor's report. Its purpose is to provide comments on the report, assess adherence to the original tasks as set out in Annex I, and identify any technical corrections that would strengthen the report before submission to the Commission. Comments and track changes have also been added to the original report. This review does not constitute a re-analysis of the underlying data. In preparing this review, the reviewer examined the report text, the Annex 1 data alignment plots, and the R analysis scripts supplied in the supplementary material.

2. General Assessment

This is a well-constructed and technically coherent piece of work addressing a genuinely difficult analytical problem. Combining the FDI and AER datasets is challenging given that they differ in temporal coverage, resolution and aggregation. This provides a challenging task and the approach taken is transparent, well-documented, and consistent with established practice in this area. The uncertainty section is particularly strong: the limitations of the analysis are honestly characterised throughout, and the framing of results as indicative rather than precise is appropriate given the data constraints. The future recommendations list is specific and practically useful.

The principal areas for strengthening relate to partial adherence to the specific scope requirements of the ToR: the choke species analysis does not apply the filter conditions specified in the contract text; the scenario (iv) projection does not deliver the specific TAC tonnage requested; and the landing obligation, explicitly flagged in the ToR's contextual guidance, receives no substantive treatment. Review of the analysis scripts also identifies a discrepancy between the documented BER formula and its code implementation, an error in Spain's stated quota allocation share, and a

potential double-increment in the quarter variable that may affect closure timing projections. These are set out in full in Sections 3 and 4 below.

A particularly useful finding from the Annex 1 alignment plots is that landings weight alignment between FDI and AER the primary basis for the effort-partitioning underlying the economic calculations is reasonably good for the key analysis segments in 2022 and 2023. This is an important positive assurance that the report does not currently foreground.

3. Assessment of Adherence to Original Tasks

Task 1 — Mixed fisheries characterisation and choke species potential

The report makes good use of FDI Tables A, G and J to characterise the sole fishery in Iberian waters. The identification of GTR_DEF (demersal trammel nets) and GTN_DEF (set nets) as the dominant métiers, and the species composition summaries for each, provide a solid empirical foundation. The integration of the ICES WKOS findings on species identification is particularly helpful in contextualising the analytical challenges involved.

Two areas could be strengthened for full alignment with Annex I. First, the ToR requests characterisation of mixed-fishery status for all three sole species common sole, Senegalese sole and sand sole. The text needs to be made clearer if all three were included in the analysis or if *Solea* spp. (SOO) was also included.

The report identifies co-caught species by métier but does not apply the ToR's three criteria to assess the economic and management significance of the species being blocked by the sole closure. A short assessment of which co-caught species are economically material to the affected fleet segments would give the Commission a clearer picture of why the choke situation matters beyond sole itself. However, this may be out of the ToR and difficult to demonstrate.

Task 2 — Scenario design and “total effect” assessment

The scenario design is well-reasoned and the decision to use 2024 rather than a three-year average as the reference fishing pattern is clearly justified and scientifically sound. The finding that profitability indicators are substantially more sensitive to TAC changes than revenue, explained through fixed and capital cost absorption, is one of the report's strongest analytical contributions. The five scenarios as parameterised are consistent with the ToR specifications.

My understanding of Task 3 is that it asked for an explicit projection of the TAC for 2026 and 2027 in line with scenario (iv) specifically the tonnage that would allow relevant mixed fisheries to reopen as of 30 September or 31 October. The contractor has addressed this through two scenarios: 220 tonnes based on 2024 Q3 landings as a proxy for 2025 effort, and 314 tonnes based on the three-year average Q3 landings. Both the data and the reasoning behind presenting a range rather than a single figure are clearly documented, including the contractor's well-founded reservations about the reliability of the three-year average given the recent biomass decline. The reviewer would suggest confirming with the Commission that they are satisfied with this interpretation of the ToR requirement and the caveats attached, rather than treating it as a gap requiring further analysis.

Task 3 — Closure date projections and economic impact assessment

Table 6.3.1 and Figure 6.3.1 deliver clearly presented closure-date projections across all scenarios and Member States. The economic impact tables (6.4.1–6.4.5) cover all three Tor-specified

indicators revenue, GVA, gross profit and net profit. The addition of BER as a supplementary indicator is a useful enhancement, subject to the formula correction noted in Section 4.

The report would also benefit from the addition of cross-scenario summary tables at the close of section 6.4, presenting GVA, GP and NP percentage changes for all fleet segments across all five scenarios in a single table per indicator. The current structure — one table per scenario — makes it difficult to compare the gradient of impact across scenarios for a given fleet segment. Three additional tables (one each for GVA, GP and NP) would allow the Commission to read off the sensitivity of each fleet segment to incremental TAC changes at a glance, which is precisely the comparison the Commission needs for policy purposes. The underlying data are already produced; this is a presentation addition only.

The report confirms Spain's quota allocation as 30% and Portugal's as 62%. Review of the analysis code confirms Spain's allocation is implemented as **38%** ($62\% + 38\% = 100\%$), so the 30% figure in the text is an error. As the code implementation is correct, the MS-level projections in Table 6.3.1 are reliable; the text requires correction only.

Task 4 — Uncertainty assessment and recommendations

The uncertainty section is thorough, well-structured and honest. The principal uncertainty sources are clearly identified, and the future recommendations are specific and directly implementable.

A review of the supplementary Annex 1 alignment plots suggests that effort metric alignment between FDI and AER for some Spanish fleet segments may deteriorate in 2024 relative to earlier years, potentially as a result of the AER imputation method used for that year. If this is the case, it could have implications for the reliability of the partitioned economic estimates for those segments specifically. The reviewer acknowledges that this observation is based on a visual inspection of the supplementary plots and may reflect a misreading of the outputs. It is nonetheless suggested that the contractor be asked to confirm whether the 2024 effort alignment for the Spanish segments was examined as part of the quality assurance process, and if so, whether any additional caveats are warranted in the results tables.

Possible correction summary

The following corrections are recommended before the report is finalised. Items are grouped by priority.

Principal corrections

No	Issue	Detail
1	BER formula: code does not match documented methodology	The formula described in the report's methods section and the formula implemented in the R code are different. The documented formula is a standard break-even calculation: fixed costs divided by one minus the variable cost ratio (variable costs / Revenue). BER as presented in the AER is $BER = (\text{Fixed costs} + \text{opportunity costs of capital} + \text{depreciation}) / (1 - (\text{crew costs} + \text{unpaid labour} + \text{energy costs} + \text{repair and maintenance costs} + \text{other variable costs}) / \text{Revenue})$

		All BER values in the scenario tables are computed from the code implementation. As BER is a supplementary indicator beyond the ToR's required variables, the core indicators are not affected, but the discrepancy should be resolved as BER is to be included. The formula should be restated correctly in the text, Revenue added to the denominator, the parenthesis corrected, and the code updated accordingly before the BER values are relied upon.
2	Spain's quota allocation stated as 30% in text; code implements 38%	The analysis code correctly applies 62% to Portugal and 38% to Spain (62% + 38% = 100%). The report text states Spain's share as 30%. The type needs to be corrected. The MS-level projections in Table 6.3.1 are based on the code and are therefore internally consistent; this is a text-only correction.
3	Newer AER data available but not used	The analysis script contains a commented-out section attempting to load STECF 26-05 AER data, defaulting to STECF 25-07. The reason for the fallback is not documented. If STECF 26-05 includes revised 2023 estimates or partial 2024 data, not using it should be explicitly justified given the acknowledged limitation of AER data currency. It would be good to include the reason it wasn't used (availability, etc.) before going to STECF.
4	Scenario (iv) TAC projection	The ToR requires an explicit TAC figure for the quantity of additional quota that would allow reopening as of 30 September and 31 October respectively. The report presents two bracketing scenarios but does not state a specific prospective tonnage. Need clarity from COM that this is enough.
5	Suggested addition: cross-scenario summary tables	The report would benefit from three additional tables at the close of section 6.4, each presenting percentage changes in one indicator (GVA, GP and NP respectively) for all fleet segments across all five scenarios side by side. The current one-table-per-scenario structure requires the reader to cross-reference five tables to assess how a given fleet segment's profitability responds to incremental TAC increases. An additional cross-scenario layout would make these scenario results directly visible and is the comparison most useful to the Commission for policy purposes. The data are already produced; this requires presentation work only.

Minor corrections

No	Issue	Detail
1	Internal baseline tonnage inconsistency	The ToR text, executive summary and Table 6.3.1 all specify 165 tonnes as scenario (i). Table 5.2.1 gives

		160 tonnes. The correct figure should be used consistently throughout.
2	Table 6.4.3 heading error	The table is headed “Landings by September 2026 scenario” but presents results for the “Landings by June 2026” (160/165t) scenario. This appears to be a copy-paste error and should be corrected.
3	Duplicate ICES 2025a reference	ICES 2025a is assigned to two different documents in the reference list: the WKOS workshop report and the ICES advice technical guidelines for category 2 and 3 stocks. One should be relabelled (e.g. ICES 2025c) and all in-text citations updated.
4	Table 5.2.1 incomplete source field	The baseline scenario source reads “Based on the landing reported to ???” — an unresolved placeholder. The correct source (DGMARE) should be inserted before submission.
5	Net profit formula non-standard	NP is calculated as GP minus (assets × 0.35). See comments on document for AER calculation of NP.
6	Annex 2 date range	“The last 3 years (2021–2022)” should specify the correct three-year period — 2021–2023 or 2022–2024 as appropriate.
7	Typographical error — “weas”	Methods section: “AER economic data weas then merged” should read “was.”
8	Typographical error — “preformed”	Methods section: “Calculations were preformed using the following formulas” should read “performed.”
9	Typographical error — “the used”	AER section: “enables the used to explore the impact trends” should read “the user.”
10	Species name error in Table 4.1.1 caption	The table caption reads “Catches (in tonnes) of Soles solea” — should read “ <i>Solea solea</i> .”
11	Section heading	“Potential closure data of fishery” should read “Potential closure date of fishery.”
12	Page numbers added	
13	Track changes	There are a number of smaller track changes on the file to address

4. Summary Recommendation

This is a substantive and well-executed piece of work that addresses a complex analytical brief under real data constraints and limitations. The principal items requiring attention before submission are the NP, and BER formula discrepancy between the documented and implemented calculation, the Spain allocation text error (30% should be 38%), and the potential quarter double-increment in the closure analysis code. These should be verified and corrected directly with the contractor rather than left as written-review comments, given that two of them affect tabulated values.

The choke species screening step and the explicit scenario (iv) TAC projection are required for full ToR adherence. The species-split sensitivity analysis and the cross-scenario comparison tables would materially improve the report’s utility to the Commission without requiring new analysis — both are presentation or minor additional computation on data already produced.

A revised version of the report addressing the substantive items in Section 4 should be produced and reviewed before submission to the Commission. The minor corrections listed are straightforward and can be addressed in the same revision pass.

Sources reviewed:

- *Report text (Claire Moore, 17 September 2026); annotated report with track changes (EJ, September 2026);*
- *Annex I contract specification; Annex 1 data alignment plots (FDI vs AER: total weight, total value, totkwfishdays, kwseadays, seadays, totfishdays, totves — 2021–2024);*
- *R analysis script (2695_02_analysis_sole_in_iberian_waters_new.Rmd); Regulation (EU) 2026/249;*
- Scientific, Technical and Economic Committee for Fisheries (STECF) – The 2025 Annual Economic Report on the EU Fishing Fleet (STECF 25-03 & 25-07)