

ICES Request form

Request from	European Commission, DG Environment
Committee making the request	DG ENV Unit C.2 'Marine Environment And Clean Water Services'
Request announced	14 May 2025
Request received	14 May 2025
Answer deadline client	Date for ICES to make an offer (usually 4-6 weeks after announcement)
Request code (client)	Request 1-2025-D6C5
Request code (ICES)	
Request	Application of operational methods for supporting TG Seabed's proposal for quality thresholds for seafloor integrity (MSFD D6C5) in EU marine waters.
<p>Request to ICES</p> <p>This request to ICES is intended to support TG Seabed work towards proposing threshold values for seabed integrity, descriptor 6 (D6C5) under the MSFD.</p> <p>In relation to the item under DG ENV-ICES service contract "Further scientific advice on the biodiversity-related descriptors (Marine Strategy Framework Directive descriptors 1, 4, and 6), including contributions to the development of criteria elements, threshold values and methodological standards and assessing consequences of setting alternate thresholds (with associated uncertainty)", ICES is requested to advise on operational methods for defining quality thresholds for seafloor integrity (D6C5) in EU marine waters, and associated options for thresholds.</p> <p>Concretely speaking, ICES is requested to perform the following work:</p> <p>1) STEP 1 - Technical Service (data call, quality control, feedback and data compilation)</p> <ul style="list-style-type: none"> - Bring together data and methods for defining quality thresholds for seafloor integrity (D6C5) that can be applied across the EU marine waters, via targeted calls to EU Member States (via and/or with the assistance of TG Seabed) and ICES member countries. Data and methods would need to meet minimum standards (e.g. scales on which they apply, types of response indicator to include, preparedness/documentation of code). To help meet the timeline set in TG Seabed's work programme 	

2024-2027¹, providers should provide evidence that methods could be operationalised before the end of 2025.

- The data call should cover data sets appropriate to undertaking the various steps of the request, including databases (or robust proxies to these) that would allow covering pressures affecting seabed habitats and species, such as mobile bottom-contacting gears, eutrophication or oxygen depletion.

- Facilitate the production of standardised/sufficient documentation, code, and understanding of uncertainties, to enable the testing and comparison of candidate methods.

2) STEP 2 - Technical Service (stakeholder review of data, methods and policy needs)

Demonstrate analysis that can best inform the setting of quality thresholds using available data and methods via TG Seabed (Step 1), covering multiple indicators, threshold-setting methods, pressure gradients, and reference sites. This would be brought together in an open workshop, with the outcomes delivered as a technical service (target delivery: Q3 2025).

3) STEP 3 - Advice (Special Request)

- Review and report on the strengths, weaknesses, assumptions, treatment of uncertainty and data requirements of the methods/indicators for defining quality thresholds for seafloor integrity (D6C5) that can be applied in EU waters. The review should be based on the evaluation of methods/indicators, data and databases and evidence collected in the ICES Technical Service Report (Steps 1 and 2).

- Identify the most effective and scientifically grounded threshold-setting methods and options, also using a framework to assess and inform on the spatial consequences of selecting different threshold/indicator combinations, including associated uncertainties.

- The advice should include examples of application of the prioritised methods and options for thresholds-setting, with a commentary and worked examples to show how uncertainty and risk are incorporated and addressed. The worked examples should cover all the EU sea basins and regional/sub-regional levels for which data have been submitted in Step 1. Considering the final objective of providing an overall assessment of the broad benthic habitat types defined in the MSFD, the work should also consider i) the implications of the cumulative impacts of the main prevalent pressures in each EU sea basin, to the extent possible, and as relevant for each EU sea basin, and ii) the consequences of integrating information from indicators that respond to different pressures, through assessing a suite of possible integration rules (target delivery: Q1 2026).

Timeline

Steps 1 and 2 would need to be delivered by September 2025, and step 3 by end of March 2026.

Background

One of the goals of TG Seabed is to propose “methodological standards for the Union-level requirements of the GES Decision concerning seabed habitats and sea-floor integrity, including threshold values for adverse effects on the status of a habitat”.

Intended use of the	Support TG Seabed work towards proposing threshold values for seabed integrity, descriptor 6 (D6C5) under the MSFD.
---------------------	---

¹ Tasks 1.1 and 1.2 on page 36: <https://circabc.europa.eu/ui/group/326ae5ac-0419-4167-83ca-e3c210534a69/library/cbc3f5bc-7c73-41bf-8607-000a390ba79f/details>

request output	
Planning ICES	-
WG(s) involved	<ol style="list-style-type: none"> 1. Data Collection & Preparation (June-August 2025): Issue data call, compile and QC datasets, document metadata in a technical report. 2. Stakeholder Workshop (September 2025): Open workshop to present methods and gather input; document in a technical report. 3. Expert Workshop & Evaluation (February 2026): Assess methods, develop worked examples, and evaluate integration options; publish as a workshop report.
Preparation timing	-
Review group	February/March 2026
Advice drafting group	ADG (April 2026) ADG synthesis into formal advice, signed off by ACOM and delivered to DGENV.
ACOM Webex	April 2026
Release dates	Technical Service 1: 24 October 2025 Technical Service 2: 24 October 2025 Advice release: early May 2026

ICES technical service and advice on Defining Threshold Values for Seafloor Integrity (D6C5, MSFD)

To provide technical and scientific support to TG Seabed and advice to DGENV on operational quality thresholds for seabed integrity (MSFD Descriptor 6, Criterion D6C5), across EU marine waters.

Deliverable 1: Technical Service – Data Collection and Preparation

Timeline: Pre/post summer 2025 (~3 weeks)

Delivery: Data call and compilation (Q4 2025)

- Issue targeted ICES data call to Member States and ICES network. TG Seabed will be requested to encourage that requested data is forthcoming from Member States. (input via TG Seabed).
- Collect relevant datasets and methods for defining thresholds, ensuring adherence to minimum standards (e.g. spatial scales, indicator types, documentation, operational readiness).
- Include data covering key pressures (e.g. bottom trawling, eutrophication, hypoxia).
- Perform quality control, compilation, and preparation of data and supporting code.
- Ensure that submissions are documented and ready for analysis and method testing.
- Document final data (i.e. meta data) in a Technical Service Report.

Deliverable 2: Technical Service – Stakeholder Input and Method Demonstration

Timeline: September 2025 (~6 weeks)

Delivery: Open workshop and Technical Report (Q4 2025)

- Conduct open workshop to review compiled data, methods, and policy needs. TG Seabed encouraged to promote that Member States technical experts contribute.
- Present multiple indicators, threshold-setting methods, and pressure-response relationships.
- Demonstrate applicability across gradients, reference sites, and regions.
- Facilitate stakeholder engagement and feedback to ensure policy relevance.
- Document outputs in a Technical Service Report.

Deliverable 3: ICES Advice

Timeline: March 2026 (~6 weeks)

Delivery: ICES Special Request Advice (Q2 2026)

- Evaluate tested methods, consider stakeholder input, and review the strengths, uncertainties, and data needs of indicators and threshold-setting approaches.
- Identify and prioritize operational, scientifically-grounded threshold-setting options, including worked examples across all EU sea basins demonstrating uncertainty and risk management, as well as spatial consequences of threshold selection.
- Assess integration of multiple indicators using candidate integration rules, including cases where indicators are responsive to different pressures.
- Peer review and consolidate findings to deliver ICES advice with application examples and implications for regional and EU-level seafloor integrity assessments.

Project Milestones

Deliverable	Target Date
Deliverable 1: Data Call & Preparation	October 2025
Deliverable 2: Stakeholder Workshop & Report	October 2025
Deliverable 3: ICES Advice	May 2026

This is a stepwise and collaborative process for developing scientifically robust, operational, and regionally adaptable threshold values for seafloor integrity under the MSFD. It enables strong engagement with stakeholders and alignment with TG Seabed’s work programme and policy needs.