



Marine Strategy Framework Directive (MSFD)

Common Implementation Strategy

**Reporting on the 2026 update of Article 11 for the Marine
Strategy Framework Directive**

MSFD GUIDANCE DOCUMENT 21

April 2026

VERSION ADOPTED– 24/04/2026

Further guidance for reporting, including use of the MSFD web reporting tool and schemas, is available from <http://cdr.eionet.europa.eu/help/msfd> and <https://reportnet.europa.eu>

Disclaimer:

This document has been developed through a collaborative programme involving the European Commission, all EU Member States, including the Regional Sea Conventions and other stakeholders and Non-Governmental Organisations. The document should be regarded as presenting an informal consensus position on best practice agreed by all partners. However, the document does not necessarily represent the official, formal position of any of the partners. Hence, the views expressed in the document do not necessarily represent the views of the European Commission.

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LIST OF ACRONYMS

AC	Arctic Council
BSC	Black Sea Commission for the Bucharest Convention
BWD	Bathing Water Directive
CA	Competent Authority
CDR	Central Data Repository
CEMP	OSPAR's Coordinated Environmental Monitoring Programme
CFP	Common Fisheries Policy
COMBINE	HELCOM's Cooperative Monitoring in the Baltic Marine Environment
WG DIKE	Working Group Data Information Knowledge Exchange
DPSIR	Drivers, pressures, state, impact, and response model of intervention
EEA	European Environment Agency
EU	European Union
GES	Good Environmental Status (MSFD Articles 3(5) and 9)
GIS	Geographic Information System (file types)
HELCOM	Helsinki Commission for the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area
ICCAT	International Commission for the Conservation of Atlantic Tunas
MRU	Marine Reporting Units
MS	Member States
MSFD	Marine Strategy Framework Directive
NEAFC	North-East Atlantic Fisheries Commission
OSPAR	OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic
QA	Quality assurance
QC	Quality control
Reportnet 3	Eionet's e-Reporting platform for reporting environmental and climate data to the European Environment Agency (e.g. used by Member States for reporting obligations under an EU Directive)
UNEP/MAP	United Nations Environment Programme - Mediterranean Action Plan (Barcelona Convention)
WFD	Water Framework Directive
WISE	Water Information System for Europe

Marine Strategy Framework Directive (MSFD)

Common Implementation Strategy

Reporting on the 2026 update of Article 11 for the Marine Strategy Framework Directive

1 Introduction

According to Article 17(2) of the Marine Strategy Framework Directive (MSFD) – 2008/56/EC¹, Member States (MS) have to update their marine strategies every six years. This includes the report on monitoring programmes under Article 11, which was prepared in 2014 and updated in 2020. The next update is due by 15 July 2026 and must be notified to the European Commission by 15 October 2026 at the latest.

This reporting guidance aims to support Member States in fulfilling their 2026 reporting obligation on updated monitoring programmes. The reporting requirements used for Article 11 reporting in 2020² have been revised and updated, where considered appropriate, in order to align with the 2024 reporting of Article 17 updates for Articles 8, 9 and 10³ and to simplify the reporting through the use of Reportnet 3. The main changes are related to the migration to Reportnet 3 platform, and consequent modifications of the data schema and update of enumeration lists.

2 Article 11 requirements

Article 11 requires that monitoring programmes should be established and implemented:

- for the ongoing assessment of environmental status;
- on the basis of the indicative lists of elements in MSFD Annex III;
- on the basis of the list in MSFD Annex V;
- by reference to the environmental targets established pursuant to MSFD Article 10.

The monitoring programmes shall be compatible within marine (sub)regions and with monitoring laid down:

- by Union legislation (e.g. Habitats and Birds Directives, Water Framework Directive);
- under international agreements (e.g. Regional Sea Conventions).

In the interest of coherence and coordination, Member States sharing a region or subregion should ensure that:

- monitoring methods are consistent across the marine region or subregion so as to facilitate comparability of monitoring results;
- relevant transboundary impacts and transboundary features are taken into account.

In addition, MSFD Annex V indicates a number of needs from the monitoring programmes, including:

- monitoring in accordance with the criteria and methodological standards defined pursuant to Article 9(3) (i.e. those in Decision (EU) 2017/848);
- generation of information enabling the identification of indicators for environmental targets, and to evaluate progress towards achievement of the targets;

¹ Directive - 2008/56 - EN - EUR-Lex

² [GD17 Reporting on the 2020 update of Article 11 of MSFD](#)

³ [GD20 Reporting on the 2024 update of Articles 8, 9 and 10](#)

- generation of information allowing the assessment of the impact and effectiveness of measures (Article 13), in particular with respect to the achievement of environmental targets;
- monitoring activities to identify the cause of change in environmental status and to confirm that corrective measures deliver the desired changes;
- aggregation of information in marine regions and subregions, and ensuring compatibility of assessment approaches and methods within and between regions and/or subregions.

Based on these requirements and the assessment of the 2020 monitoring programmes⁴, the Commission provided recommendations to the Member States: “Commission Notice on recommendations on the 2020 updated reports for Article 11 of the Marine Strategy Framework Directive (2008/56/EC)”⁵.

3 Update of Article 11 reports

3.1 General structure of the reports

The 2026 update of Article 11 Monitoring Programmes will take place for the first time on Reportnet 3 reporting platform available at <https://reportnet.europa.eu/>. Two dedicated dataflows are available to Member States to perform their reporting obligations via the new platform:

“**MSFD Article 11 – Monitoring programmes – Data – Reporting year 2026**”: for tabular data reporting (e-reporting)

“**MSFD Article 11 – Monitoring programmes – Text reports – Reporting year 2026**”: for text reports and support documentation delivery

The migration of the reporting tool to the new system led to the update and simplification of the data schemas’ structure.

For e-reporting, i.e. tabular data reports, the 2026 reporting information for the update of Article 11 is structured in the following three main blocks of datasets, each with a defined data schema, (Figure 1):

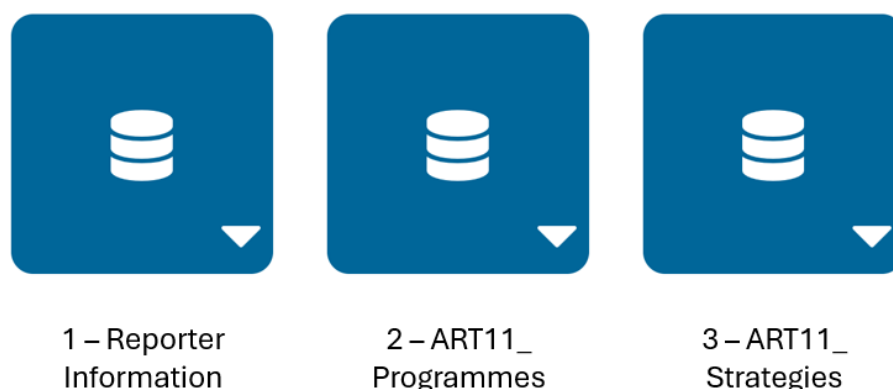


Figure 1. Datasets included in Reportnet 3 dataflow “MSFD Article 11 – Monitoring programmes – Data – Reporting year 2026”

⁴ [Tornero Alvarez M.V., Palma M., Boschetti S., Cardoso A.C., Druon J.-N., Kotta M., Louropoulou E., Magliozzi C., Palialexis A., Piroddi C., Ruiz-Orejón L.F., Vasilakopoulos P., Vighi M., Hanke G., Marine Strategy Framework Directive. Review and analysis of EU Member States’ 2020 reports on Monitoring Programmes \(MSFD Article 11\), Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/8457, JRC129363](#)

⁵ [Commission Notice on recommendations on the 2020 updated reports for Article 11 of the Marine Strategy Framework Directive \(2008/56/EC\) - European Commission](#)

- a. **Reporter Information:** gathers information on the reporters.
- b. **Art11 Strategies:** each strategy describes the overall approach to monitoring the descriptors and collects information on the coverage of GES criteria, targets and measures, as well as any gaps in the monitoring and plans to fill the gaps. In addition, it also gathers information related to the administrative set-up of the monitoring programmes, including regional cooperation processes, and public consultation.
- c. **Art11 Programmes:** gathers information on the practicalities of monitoring, reflecting different monitoring types, methods, spatial and temporal scope, etc. [Annex III](#) provides an indicative list of monitoring programmes, aiming to provide a logical structure and suitable resolution for a set of programmes for Article 11 purposes.

Each dataset and data schema contains one or several tables, or schema classes that must be populated by Member States. The tables available are the following:

- a) **Reporter Information** data schema
 - ReporterInfo
- b) **Art11_Strategies** data schema
 - Metadata
 - MonitoringStrategy
- c) **Art11_Programmes** data schema
 - MonitoringProgramme
 - Feature_Element_Criteria
 - RelatedIndicator
 - Datasets

In general, the use of reference and enumeration lists has been expanded in the 2026 reporting in particular by including the relevant code lists used in the 2024 update of Articles 8, 9 and 10 in order to allow linkages between the information reported under the different articles.

3.2 Information to be reported

The 2026 reporting system includes a number of fields requiring categorised information, as well as some free text fields, and URLs which must be provided to access the datasets from the monitoring programmes, as required by Article 19(3) of the MSFD.

In this section, a mapping of the 2026 fields is provided and compared to the 2020 reporting.

Specific information to be reported in 2026 via Reportnet 3 reporting platform, including a description of the fields that are part of the schemas, is provided in [Annex I](#). The code lists (enumeration lists) to be used are included in [Annex II](#).

For historical reference, the reporting requirements for the 2014 reporting are available here: [Marine Strategy - Library](#)

Table 1: Mapping of new data schema on 'Reporter Information'

2020	2026	Changed performed
CountryCode		Removed (no longer needed in Reportnet 3)
ContactName	ContactName	Added to Reporter Information dataset schema and removed from 'Art11_Strategies' and 'Art11_Programmes' schemas
ContactMail	ContactMail	
ContactOrganisation	ContactOrganisation	
ReportingDate		Removed (no longer needed in Reportnet 3)
Superseded		Removed (no longer needed in Reportnet 3)

Table 2: Mapping of schema class 'Metadata' currently available in data schema Art11_Strategies

2020	2026	Change performed
ResponsibleCompetentAuthority	ResponsibleCompetentAuthority	Use of an enumeration list
ResponsibleOrganisations	ResponsibleOrganisations	
RelationshipToCA	RelationshipToCA	Use of an enumeration list
PublicConsultationDates	PublicConsultationDates	Fixed date format
PublicConsultationSite	PublicConsultationSite	URL data type field
RegionalCooperation	RegionalCooperation	

Table 3: Mapping of schema class 'MonitoringStrategy' currently available in data schema Art11_Strategies

2020	2026	Changed performed
Descriptor	Descriptor	
MonitoringStrategyDescription	MonitoringStrategyDescription	
RelatedTargets	RelatedTargets	Code list for targets reported
RelatedMeasure_code	RelatedMeasure	Reference list for measures reported – concatenation of code and measure name. RelatedMeasure_code and RelatedMeasure_name merged into one single field RelatedMeasure.
RelatedMeasure_name		
Coverage_GEScriteria	Coverage_GEScriteria	
Coverage_Tartgets	Coverage_Targets	
Coverage_Measures	Coverage_Measures	
Gaps_Plans	Gaps_Plans	
MonitoringProgrammes	MonitoringProgrammes	

Table 4: Mapping of fields in schema class 'MonitoringProgramme' currently available in data schema Art11_Programmes

2020	2026	Change performed
ProgrammeCode	ProgrammeCode	Code list for Programme codes reported
ProgrammeName	ProgrammeName	Reference list for Programme names reported
UpdateType	UpdateType	
	ModifiedProgramme	New field
OldProgrammeCodes	OldProgrammeCodes	Code list for Programme codes reported
ProgrammeDescription	ProgrammeDescription	
MonitoringPurpose	MonitoringPurpose	
OtherPoliciesConventions	OtherPoliciesConventions	Use of enumeration list 'SourcePolicy'
RegionalCooperation_coordination	RegionalCooperation_coordination	Use of enumeration list 'SourcePolicy'
RegionalCooperation_countries	RegionalCooperation_countries	
RegionalCooperation_implementation	RegionalCooperation_implementation	
MonitoringDetails	MonitoringDetails	
SpatialScope	SpatialScope	
MarineReportingUnit	MarineReportingUnit	Update of the code list
RegionalAssessmentArea	RegionalAssessmentArea	
TemporalScope	TemporalScope	
MonitoringFrequency	MonitoringFrequency	
MonitoringType	MonitoringType	
MonitoringMethod	MonitoringMethod	Update of the code list
MonitoringMethodOther	MonitoringMethodOther	
QualityControl	QualityControl	
DataManagement	DataManagement	
Contact	Contact	
References	References	

Table 5: Mapping of fields in schema class 'Feature_Element_Criteria' currently available in data schema Art11_Programmes

2020	2026	Change performed
Feature	Feature	
Element	Element	Update of the code list
GEScriteria	GEScriteria	
Parameter	Parameter	Update of the code list
ParameterOther	ParameterOther	
	Element2	New field

Table 6: Table 6. Mapping of fields in schema class 'Datasets' currently available in data schema Art11_Programmes

2020	2026	Change performed
DataAccess	DataAccess_URL	Removed from schema class 'MonitoringProgramme' and added to new schema class 'Datasets' related with Article 19(3)
	DataAccess_MD_URL	New field
	DatasetVoidReason	New field

Table 7: Mapping of fields in schema class 'RelatedIndicator' currently available in data schema Art11_Programmes

2020	2026	Change performed
RelatedIndicator	RelatedIndicator	Update of the code list
RelatedIndicator_name	RelatedIndicator_name	Update of the name reference list

3.3 Reporting resources

Reporting for the 2026 update will be done via Reportnet 3 e-reporting platform. The dataflows for tabular data and supporting documents (text reports) for reporting on Article 11 are available in <https://reportnet.europa.eu/> under "**MSFD Article 11 – Monitoring programmes – Data – Reporting year 2026**" and "**MSFD Article 11 – Monitoring programmes – Text reports – Reporting year 2026**", respectively.

The resources available in Reportnet 3 to support reporting consist of:

- Reportnet 3 dataflow for tabular data (reporter information, monitoring strategies and monitoring programmes related data)
- Reportnet 3 dataflow for text reports and supporting documents
- Dataflow help documentation in the corresponding "Dataflow help" section in Reportnet 3
- Prefilling from 2020 reporting exercise
- QC rules

The Central Data Repository (CDR) help page, which is a reporting resources webpage available in <https://cdr.eionet.europa.eu/help/msfd/MSFD%20ART11%202026>, contains the following support information:

- Reporting guidance (MSFD Guidance Document 21)
- Enumeration and reference lists (code reference lists)
- QC rules

Prefilled information reported under the 2020 reporting exercise is made available on Reportnet 3-reporting platform, inside the corresponding table, using the “Import dataset data” functionality. To ensure efficient preparation of data reports, MS should utilise the prefilled information and adjust the reported data, including updating the codes from the enumeration lists, as necessary.

Quality control (QC) validations have been implemented in the dataflow in Reportnet 3 to ensure that the data submitted are as required in the schema specifications and this guidance. Among these, there are ‘element checks’, ‘within-schema checks’ and ‘cross-schema checks’. Feedback is provided to Member States through **errors**, **warnings** and **blockers**, so that one can be aware of any issues with the data and amend them before the release to data collection.

The QC rules (validations) are part of the reporting package and accessible in Reportnet 3 dataflow, under “QC rules” and also in CDR help page. A description of the QC procedures is included in [Annex IV](#).

4 Procedures and format for reporting

This section outlines the mechanisms for preparing the reporting information, its formats and the transmission procedure as part of the formal requirement to notify the Commission.

4.1 Technical support for reporting

For details on the technical preparation of the reports, including data schemas and use of enumeration lists, prefilling and QC rules, please refer to the Dataflow Help section in Reportnet 3 and CDR Help reporting resources page available at <https://cdr.eionet.europa.eu/help/msfd/MSFD%20ART11%202026>

During the reporting process, the **MSFD Helpdesk** (msfd.helpdesk@eionet.europa.eu) will be in operation to support both content and technical inquiries which may arise.

Note that only nominated (lead) reporters are able to report. The lead reporters list has been added to Article 11 dataflow in Reportnet 3. Each lead reporter may add secondary reporters to help prepare the digital reports. A Member State (members from WG DIKE or the MSCG) may request changes to one or more of its nominated reporters by contacting [MSFD Helpdesk](#).

4.2 Procedure for preparing the tabular data report

To report the tabular data in Reportnet 3 dataflow **“MSFD Article 11 – Monitoring programmes – Data – Reporting year 2026”**, the reporter should follow the steps outlined below:

- 1) **Analyse reference and enumeration lists:** ensure all necessary codes are present such as lists for competent authorities, elements and indicator codes.
 - a. If the list of competent authorities needs updating, this can be done via data release in **“MSFD Article 7 Competent Authorities dataflow” in Reportnet 3**.

- b. Only if necessary, update MRUs via Article 4 dataflow in Reportnet 3⁶.
 - c. For all other codes, contact [MSFD Helpdesk](#) for updates.
- 2) **Populate /modify tables in the following order:**
- i. Populate “ReporterInfo” table.
 - ii. Populate/modify all tables in “Art11_Programmes” data schema.
 - iii. Populate/modify all tables in “Art11_Strategies” data schema.
- 3) For the data schemas “Art11_Programmes” and “Art11_Strategies” the following procedure is recommend:
- a. **Import prefilling from 2020 reporting exercise:** utilise the prefilled data from the previous reporting exercise to simplify and expedite the reporting process.
 - b. **Export and edit locally:** export the tables with prefilled data and update the content of all fields and tables outside the reporting tool. Note that the reference list’ codes may require updates.
 - c. **Import dataset:** import the updated dataset back into the reporting tool.
 - d. **Run validations:** execute the validation process to identify any issues.
 - e. **Correct issues:** address any “blockers”, “errors”, or “warnings” identified during the validation process.
- 4) **Release datasets:** once the tables are populated and all issues are resolved for the 3 datasets (“Reporter Information”, “Art11_Programmes” and “Art11_Strategies”), release the datasets to data collection.

By following these steps, the reporter can ensure that the tabular data is accurately and efficiently reported in compliance with the MSFD guidelines.

4.3 Procedure for delivering supporting documents and text reports

To deliver text reports or any other supporting document, the dataflow “***MSFD Article 11 – Monitoring programmes – Text reports – Reporting year 2026***” must be used. This dataflow is composed by the data schema “Supporting documents” that comprises a single class/table with the same name and which includes two mandatory fields:

- **Description:** Describe here the content of the document being uploaded. This is a free text field with a maximum of 2500 characters.
- **Document:** Field to upload the relevant file. The maximum file size is **100 MB** and all files’ extensions are accepted. However, the upload of text reports in PDF format is recommended.

One can upload only 1 file per row but there is no limit on the number of files that can be uploaded.

4.4 Reporting language

Member States have the right to complete their reports in any official EU language.

However, reporting in English is strongly encouraged by the Commission services for the following reasons:

- a. The information reported is needed to support and enhance ongoing cooperation among MS

⁶ These should be submitted before the rest of the reports in order to have the MRU codes available to populate the ‘Art11_Programmes’ data schema.

within a region or subregion; use of a common language will facilitate such cooperation.

- b. The translation of a Member State's information into a common language will support its further use in aggregation of the information to regional, European and global scales and for future assessments and products related to the state of the marine environment.
- c. The Commission has 6 months from receiving all Member States' reports in which to undertake the assessment required by MSFD Article 12. If the information is available in a common language, this assessment will be greatly assisted. This short time period means it is not feasible to have the information formally translated; consequently, translation by the Member States itself prior to submission will help avoid misinterpretation of the information reported.

4.5 Reporting format

As the format for reporting⁷ has not been *formally* specified in the Directive, Member States have the right to provide their reports in any format.

However, e-reporting via tabular data in Reportnet 3 is strongly encouraged by the Commission services for the following reasons:

- a. The information reported is needed to support ongoing cooperation among MS within a region or subregion so that the monitoring strategies are coherent and follow common approaches, as required under MSFD Article 5(2) and 11; use of an electronic format enables the information to be made available in WISE-Marine and will facilitate such regional and subregional cooperation;
- b. Provision of the information in a common format, such as through use of standard code lists (enumeration lists), will support its further use in aggregation of the information to regional, European and global scales and for future assessments and products related to the state of the marine environment;
- c. The Commission has 6 months from receiving all Member States' reports in which to undertake the assessment required by Article 12 of the MSFD. If the information is available in a common electronic format, this assessment will be greatly assisted. This short time period means it is not feasible to adequately assess and compare across Member States information which is provided in free-text reports following different structures and styles.

4.6 Formal notification

The procedural details of the formal notification of the Commission have not been formally specified in the Directive, however such notification should follow the following standard practice:

The Member State's Permanent Representation to the European Commission should send to the Commission a) a suitable cover letter indicating the relevant Directive and articles to which the notification refers and b) the confirmation receipt(s) obtained from Reportnet 3 of all the e-reports that have been released in relation to this notification.

The cover letter and Reportnet 3 confirmation receipt(s) can be sent in hard copy or electronically (as pdf). The reports released via Reportnet 3 as part of the notification should be:

- a. Corresponding to the tabular data and/or text report released in dataflows "MSFD Article 11 – Monitoring programmes – Data – Reporting year 2026" and "MSFD Article 11 – Monitoring

⁷ MSFD Article 24 provides for technical formats to be adopted for the purposes of transmission and processing of data, including statistical and cartographic data. MSFD implementation to date has relied upon definition of such technical formats (i.e. XML and GIS shapefiles) through informal agreement via the MSFD Common Implementation Strategy, including this reporting guidance.

programmes – Text reports – Reporting year 2026”.

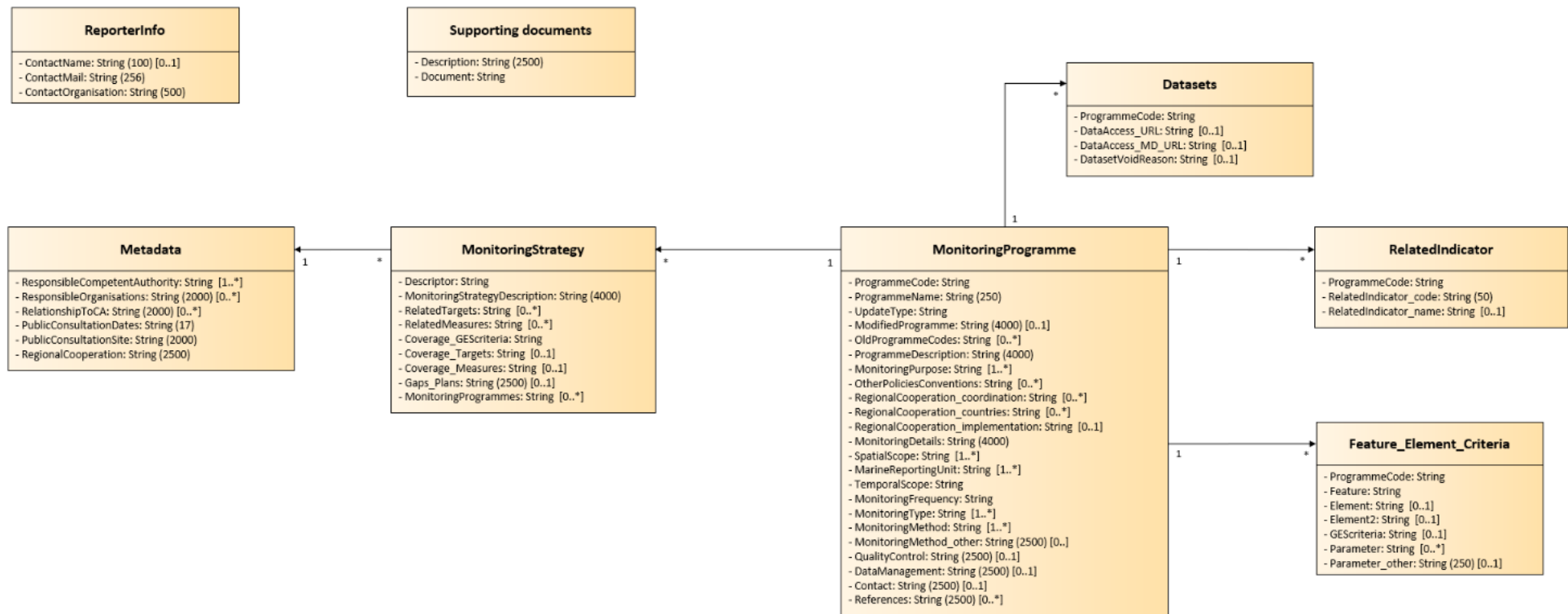
- b. In cases where the Marine Reporting Units need to be updated, the corresponding spatial data (geopackage)¹⁰ should be delivered via “MSFD Article 4 – Marine Reporting Units (Spatial data)” dataflow.
- c. In case of update of the competent authorities, data released for the “MSFD Article 7 – Competent Authorities” dataflow.

In addition, the Member State's Permanent Representation can also send to the European Commission any further information the Member State considers appropriate as part of its formal notification. This could, for example, include joint documentation ('roof report') prepared via a Regional Sea Convention or summary documentation used for the Article 19(2) public consultation where this differs to the text-based report under point (a).

ANNEX I: Data Schemas and guidance per field

This Annex serves as a comprehensive guide to the data schemas required to fill in regarding the update of Article 11 Monitoring Programmes. It outlines the necessary procedures, technical formats, and reporting requirements, which Member States must adhere to in order to ensure accurate delivery and processing of the data content.

Figure 2. Structure for all data schemas



DATAFLOW “MSFD Article 11 – Monitoring programmes – Data – Reporting year 2026”

A. Reporter Information

The schema fields and guidance for dataset ‘Reporter Information’ are provided in Table 8. The reporting tool allows that more than one reporter is provided (e.g. lead reporter and supporting reporter with ‘read-write’ permissions).

Table 8: Reporter Information’ schema fields and guidance

Schema class	Schema field	Description	Property	Guidance
ReporterInfo	ContactName	Name of the reporter <i>(One reporter per row)</i>	Optional	Free text (max. 100 characters).
ReporterInfo	ContactMail	Email of the reporter or functional email of the organisation <i>(One email per row)</i>	Required	Enter the corresponding email address (max. 256 characters).
ReporterInfo	ContactOrganisation	Name of the reporter’s organisation and address <i>(One per row)</i>	Required	Free text (max. 500 characters).

B. Art11_Strategies

The schema fields and structure are provided in Figure 3 and guidance is provided in Tables 9 (Metadata) and 10 (MonitoringStrategy).

Figure 3. Structure for schema 'Art11_Strategies'

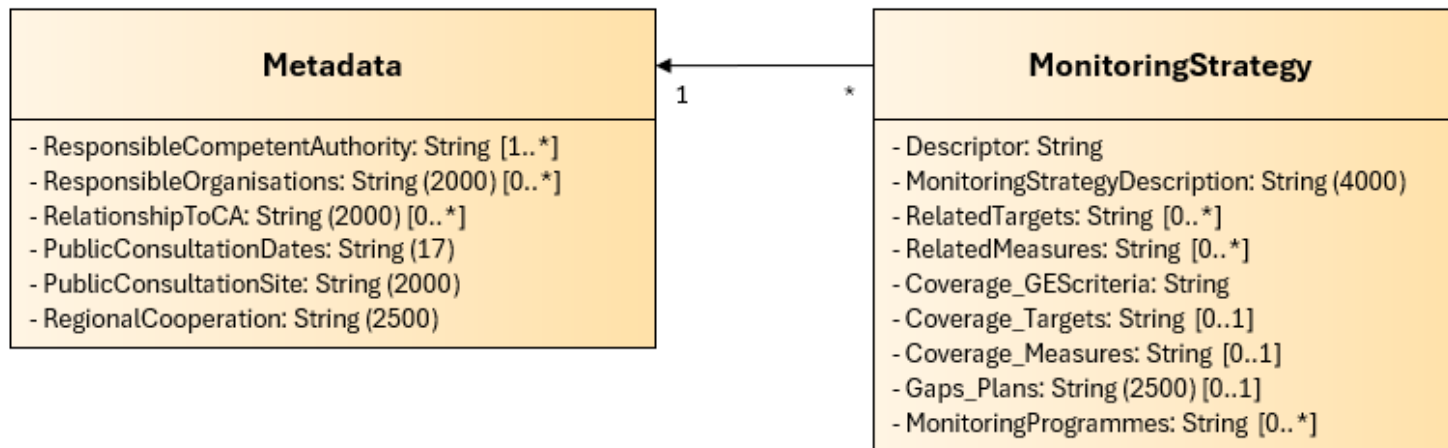


Table 9: 'Art11_Strategies' schema fields and guidance – METADATA schema class

Schema class	Schema field	Description	Property	Guidance	List available
Metadata	ResponsibleCompetentAuthority	Name of the Competent Authority(s) (CA) which is responsible for the Article 11 monitoring programmes and who will act as a contact point for the Commission <i>(multiple values allowed)</i>	Required	<p>Enter the Competent Authority(s) available in the reference list 'CompetentAuthorityName,' (as reported by Member States under Article 7) which is formally responsible (within government) for ensuring the MSFD Article 11 monitoring programmes are implemented. In cases where several Competent Authorities share this responsibility (e.g. for different regions within the country), give one of these who will act as the contact point, if needed, for the Commission.</p> <p>Note that the Competent Authority may differ from the organisation(s) that actually undertake the monitoring, such as research institutes or consultants. These organisations can be indicated in 'ResponsibleOrganisations'.</p>	CompetentAuthority Name
Metadata	ResponsibleOrganisations	Name(s) of responsible organisations <i>(multiple values allowed)</i>	Optional	<p>Free text (max. 2000 characters). If the delivery of the monitoring programmes is delegated by the competent Authority to other organisations, these can be listed. In case of several organisations being reported, please separate each responsible organisation with “;”.</p> <p>These are the organisations that actually undertake or manage the monitoring (e.g. a technical agency or research establishment which has the role of doing the monitoring assigned to it by the responsible competent authority).</p> <p>Where the monitoring is sub-contracted to a number of consultants, which may vary from year to year, it is not recommended to report this information here.</p> <p>The relationship(s) of the responsible organisations to the competent authority must be reported under 'RelationshipToCA'.</p>	

Schema class	Schema field	Description	Property	Guidance	List available
Metadata	RelationshipToCA	Relationship(s) of the responsible organisations to the relevant competent authority (e.g. an agency of the competent authority) <i>(multiple values allowed)</i>	Conditional (required if 'Responsible Organisations' field is filled in)	Enter the corresponding relationship(s) available in list 'RelationshipToCA'.	RelationshipToCA
Metadata	PublicConsultationDates	Start and end date for Article 19(2) public consultation related to this update of Article 11	Required (for all relevant descriptors)	Fixed date format YYYYMMDD-YYYYMMDD.	
Metadata	PublicConsultationSite	Website for the public consultation	Required (for all relevant descriptors)	Enter the URL web link (URL data type field with max. 2000 characters).	
Metadata	RegionalCooperation	Regional cooperation undertaken in the establishment and implementation of the monitoring programmes	Required (for all relevant descriptors)	Free text (max. 2500 characters). Please describe the nature of regional cooperation and the organisations involved.	

Table 10: 'Art11_Strategies' schema fields and guidance – MONITORING STRATEGY schema class

Schema class	Schema field	Description	Property	Guidance	List available
Monitoring Strategy	Descriptor	Descriptor for which this monitoring strategy applies <i>(single value allowed)</i>	Required	Enter the corresponding Descriptor code from list 'GESDescriptor'. A monitoring strategy is to be provided for each Descriptor. Relevant GES criteria are entered in the associated 'Art11_Programmes' schema. All descriptors should be reported. In case of GES component not applicable as D1 Biodiversity - Reptiles in the Baltic sea, this descriptor is considered as not relevant in the reporting and this should be indicated in the fields: 'MonitoringStrategyDescription', 'Gaps_Plans' and 'Coverage_GEScriteria'; no other reporting is needed in such cases.	GESDescriptor
Monitoring Strategy	MonitoringStrategyDescription	Description of the strategy, including rationale for how activities, pressures, impact and state are monitored (DPSIR framework), how the risk of not achieving GES or of deteriorating from GES is addressed by the strategy, and how the strategy will enable progress with related targets and measures to be assessed.	Required	Free text (max. 4000 characters). Please describe here whether the strategy includes the use of a low-risk approach. Whenever a Descriptor is not relevant/not applicable (e.g. D1 Biodiversity - Reptiles), enter 'Descriptor not relevant for Member State's waters'.	
Monitoring Strategy	RelatedTargets	Target(s) defined under Article 10 that are relevant for the descriptors covered by this strategy and monitored within this strategy (e.g. targets addressing relevant pressures and impacts) <i>(multiple values allowed)</i>	Required (for all relevant descriptors)	Enter as many target codes as relevant from the list 'RelatedTargetCode' (as reported by Member States under the 2024 reporting of Article 10). Include targets for which monitoring is not yet in place and indicate timescale for implementation in 'Coverage_Targets'.	RelatedTargetCode
Monitoring Strategy	RelatedMeasure	Measure code(s) and name(s) (concatenated field) defined under Article 13 that are relevant for the descriptor(s) covered by this strategy and monitored within this strategy (e.g. measures addressing relevant pressures and impacts) <i>(multiple values allowed)</i>	Required (for all relevant descriptors)	Enter as many measures (codes and names) as relevant from the list 'RelatedMeasure' (as reported by Member States under the 2022 reporting of Article 13 or 2025 reporting of Article 18). Include measures for which monitoring is not yet in place and indicate timescale for implementation in 'Coverage_Measures'.	RelatedMeasure

Schema class	Schema field	Description	Property	Guidance	List available
Monitoring Strategy	Coverage_GEScriteria	In relation to the GES criteria addressed, indicate when sufficient monitoring was in place or by when sufficient coverage will be in place <i>(single value allowed)</i>	Required	Enter one value from list 'Coverage' to indicate the timeframe for when sufficient monitoring was or will be in place to provide sufficient coverage. If the Descriptor (e.g. D1 Biodiversity - Reptiles) is not relevant/not applicable, select the option 'Not relevant' with description 'Monitoring for this descriptor is not relevant'.	Coverage
Monitoring Strategy	Coverage_Targets	In relation to the targets addressed, indicate when sufficient monitoring was in place or by when sufficient coverage will be in place <i>(single value allowed)</i>	Required (for all relevant descriptors)	Enter one value from list 'Coverage' to indicate the timeframe for when sufficient monitoring was or will be in place to provide sufficient coverage.	Coverage
Monitoring Strategy	Coverage_Measures	In relation to the measures addressed, indicate when sufficient monitoring was in place or when sufficient coverage will be in place <i>(single value allowed)</i>	Required (for all relevant descriptors)	Enter one value from list 'Coverage' to indicate the timeframe for when sufficient monitoring was or will be in place to provide sufficient coverage.	Coverage
Monitoring Strategy	Gaps_Plans	Description of the implementation gaps and plans to complete the establishment and implementation of this monitoring strategy	Required (when applicable)	Free text (max. 4000 characters). Should particularly address aspects indicated in the three 'Coverage' fields (for GES criteria, targets and measures), where implementation is not yet fully in place. If the Descriptor (e.g. D1 Biodiversity - Reptiles) is not relevant/not applicable, enter 'Monitoring for this descriptor is not relevant'.	
Monitoring Strategy	MonitoringProgrammes	Monitoring programmes that contribute to this monitoring strategy <i>(multiple values allowed)</i>	Required (for all relevant descriptors)	Enter as many programme codes as necessary (as reported by Member States in the 'Art11_Programmes' data schema). No codes need to be entered if under <i>Coverage_GEScriteria</i> the values 'Monitoring is not being put in place for this descriptor due to a low risk' or 'Monitoring for this descriptor is not relevant' are provided. Note that a Monitoring programme can be linked to more than one Monitoring strategy.	

C. Art11_Programmes

The schema fields and structure are provided in Figure 4 and guidance is provided in Tables 11 (MonitoringProgramme), 12 (Feature_Element_Criteria), 13 (RelatedIndicator) and 14 (Datasets).

Figure 4. Structure for data schema 'Art11_Programmes'

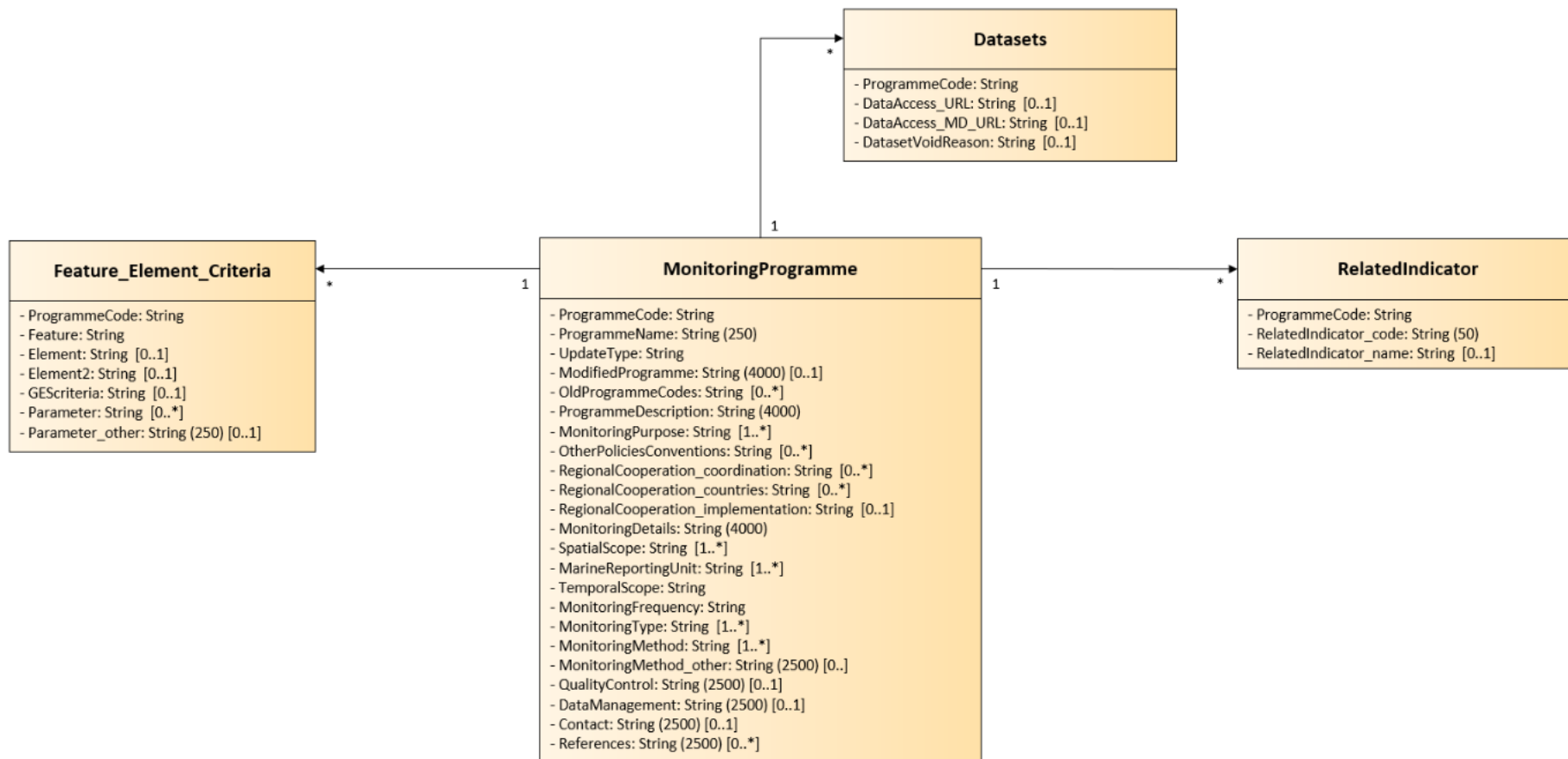


Table 11: 'Art11_Programmes' schema fields and guidance – MONITORING PROGRAMME schema class

Schema class	Schema field	Description	Property	Guidance	List available
Monitoring Programme	ProgrammeCode	Unique identifier for the monitoring programme (single value allowed)	Required	Enter the monitoring programme code reported in 2020 and available in the list 'ProgrammeCode'. In case of new programmes, use MS code plus MS-defined alpha-numeric code (e.g. IT-D08-01). Note that symbols like “,” and “;” can't be used in programme code syntax. Only “-” and “_” are accepted. Please contact MSFD Helpdesk in advance to add new codes to the reference list. For monitoring programmes already existent, the programme code will be compared to the ones available in the reference list 'ProgrammeCode'.	ProgrammeCode
Monitoring Programme	ProgrammeName	Name of monitoring programme (single value allowed)	Required	Free text (max. 250 characters). Short name that reflects the main focus of the programme, such as the ecosystem elements, pressures and associated policy, e.g. OSPAR CEMP contaminants monitoring, Habitats Directive <i>Posidonia</i> monitoring. An indicative list of names is provided in Annex III . For monitoring programmes already existent, the programme name will be compared to the ones available in the reference list 'ProgrammeName'. For new monitoring programmes names, please contact MSFD Helpdesk in advance and provide the name to the corresponding new programme code. In case the 'ProgrammeName' has been renamed but there are no changes to the 'ProgrammeCode', contact MSFD Helpdesk in advance and provide the updated name to the corresponding programme code. Please mention in 'ProgrammeDescription' the previous/old 'ProgrammeName' and reasons for the update.	ProgrammeName
Monitoring Programme	UpdateType	Report on whether the programme is the same as reported in 2020, modified from the 2020 report, is a new programme, or is no longer in place (single value allowed)	Required	Enter one value from list 'UpdateType': 'Same as previous programme', 'Modified compared to the previous programme', 'New programme' or 'Programme no longer in place'. All programmes reported in 2020 need to be accounted for in the 2026 report. Use 'Same as previous programme' when the programme remains essentially the same as in 2020 (i.e. it has the same purpose, features/elements/parameters, spatial scope and monitoring frequency, type and method, or with only minor changes). If these aspects are modified use 'Modified compared	UpdateType

Schema class	Schema field	Description	Property	Guidance	List available
				to the previous programme' and provide an explanation of the changes in 'ModifiedProgramme'. In cases where the value 'Modified compared to the previous programme' involves a change of the codes, enter all the codes from the corresponding 2020 programmes in the field 'OldProgrammeCodes'. In cases where 'Programme no longer in place' is selected, provide a reason in 'ProgrammeDescription'.	
Monitoring Programme	ModifiedProgramme	Description of the updates of the monitoring programme	Conditional (required when "UpdateType" is equal to "Modified compared to previous programme"	Free text (max. 4000 characters) Provide explanations and details on the modifications to the monitoring programme. This field is required when 'Modified compared to the previous programme' is selected under the field 'UpdateType'.	
Monitoring Programme	OldProgrammeCodes	Codes from the old programmes related to the reported programme (<i>multiple values allowed</i>)	Required (where applicable)	Enter as many old (2020) programme codes as needed from list 'ProgrammeCode'. This field is required whenever codes have changed and 'Modified from compared to previous programme' is selected under the field 'UpdateType'.	ProgrammeCode
Monitoring Programme	ProgrammeDescription	Description of the monitoring programme	Required	Free text (max. 4000 characters). Provide an introduction/overview of the programme, its purpose, aims and policy context, any (sub)regional cooperation, and the overall strategy including addressing risk (of failing to achieve GES or deteriorating from a GES situation). Include whether there are plans for implementing innovative monitoring. Describe here whether the programme will end before 2030 if replaced by innovative monitoring. In case the 'ProgrammeName' (not 'ProgrammeCode') has been renamed, please mention here the previous/old 'ProgrammeName' and reasons for the update. Specific details on how the monitoring is undertaken should be described in 'MonitoringDetails'.	
Monitoring Programme	MonitoringPurpose	Main purpose(s) for collecting the data and information (<i>multiple values allowed</i>)	Required	Select one (or more) option(s) from list 'MonitoringPurpose': <ul style="list-style-type: none"> 'Environmental state and impacts' 'Pressures in the marine environment' 'Pressures at source' (land-based, riverine, sea-based and atmospheric sources) 	MonitoringPurpose

Schema class	Schema field	Description	Property	Guidance	List available
				<ul style="list-style-type: none"> • 'Human activities causing the pressures' • 'Effectiveness of measures' <p>The categories provided are related to the DPSIR model and are intended to reflect the main focus of the programme. As programmes should be defined separately according to the main elements being monitored (e.g. particular species/species groups or habitats, specific pressures), it is expected that typically only one category will be relevant per programme. However, monitoring of certain naturally occurring elements (e.g. nutrients, underwater sound) is sometimes considered as 'state monitoring', whilst the reason for this monitoring is to assess whether the levels are raised above natural levels (i.e. whether it is acting as a pressure) – in these cases, the category 'pressure in the marine environment' should be selected. Where the elements monitored are being changed due to a pressure (e.g. oxygen levels resulting from nutrient enrichment), they should be categorised as 'environmental state and impacts'.</p> <p>Sea-based 'Pressures at source' refers to monitoring pressures from sea-based activities where the monitoring is directly at the activity rather than at a distance from or time period after it is generated by the activity (e.g. D1 incidental by-catch when fishing, D2 ballast water discharges, D6 use of bottom fishing gear, D8 contaminant discharges and pollution events from a vessel or pipeline, D11 impulsive sound events from a vessel or platform).</p> <p>'Effectiveness of measures' refers to monitoring that is expected to show effects of implemented measures. Such effects can be shown either through improvements in state/impact or declines in pressures or human activities. Therefore, this category is typically selected in combination with one of the other categories.</p>	
Monitoring Programme	OtherPoliciesConventions	Monitoring for other Union legislation or international agreements that contribute to the programme <i>(multiple values allowed)</i>	Required (where applicable)	Enter as many Directives and Conventions as necessary from list 'SourcePolicy'. In addition to the MSFD, state to which other EU policies and international agreements (including Regional Sea Conventions), this programme contributes. If the intended Directive/Convention is not in list 'SourcePolicy' contact MSFD Helpdesk .	SourcePolicy

Schema class	Schema field	Description	Property	Guidance	List available
Monitoring Programme	RegionalCooperation_coordination	Corresponding Regional Sea Convention or other coordinating body <i>(multiple values allowed)</i>	Required (where applicable)	Select one (or more) option(s) from list 'SourcePolicy' (e.g. HELCOM, OSPAR, UNEP/MAP, BSC) If the coordinating body is not in list 'SourcePolicy' contact MSFD Helpdesk .	SourcePolicy
Monitoring Programme	RegionalCooperation_countries	Which other countries are involved in practical implementation of this monitoring programme <i>(multiple values allowed)</i>	Conditional (required where applicable; not required if 'RegionalCooperation_coordination' was filled in)	Provide a list of countries involved in the programme from list 'CountryCode_cooperation'. No need to complete this field if 'RegionalCooperation_coordination' has been filled in.	CountryCode_cooperation
Monitoring Programme	RegionalCooperation_implementation	Indicate the degree of cooperation among countries within the same (sub)region for this monitoring programme <i>(single value allowed)</i>	Required (where applicable)	Indicate the level of implementation by selecting one of the following from list 'RegionalCooperation_implementation': <ul style="list-style-type: none"> • Agreed data collection methods • Common monitoring strategy (spatial and temporal design of programme) • Coordinated data collection (delivered separately by each country) • Joint data collection (multinational delivery using same platform and/or algorithms) 	RegionalCooperation_implementation
Monitoring Programme	MonitoringDetails	General description of how the monitoring is undertaken (how the data are collected)	Required	Free text (max. 4000 characters). Use this field to describe the general characteristics of how monitoring is conducted, including the procedures used for data collection. Enter a more specific description of the characteristics of the monitoring programme only if the general aspects reported in the other fields do not apply uniformly. In such cases please specify: (i) the effort of monitoring (number of observations/stations per year, or area monitored within the MRU), what is monitored (features, elements, parameters) and where (spatial scope), (ii) when (start date and end date, frequency) and (iii) how (methods for data collection and sample handling/QA, QC). If no further details need to be provided beyond what is already included in the relevant fields, please enter: "Monitoring details for the programme have been provided in the relevant fields".	

Schema class	Schema field	Description	Property	Guidance	List available
Monitoring Programme	SpatialScope	Spatial coverage of the programme according to the jurisdictional zones of marine waters <i>(multiple values allowed)</i>	Required	<p>Select one (or more) option(s) from list 'SpatialScope':</p> <ul style="list-style-type: none"> • 'Terrestrial part of MS' • 'Transitional waters (WFD)' • 'Coastal waters (WFD)' • 'Territorial waters' • 'EEZ (or similar) (e.g. Contiguous Zone, Fishing Zone, Ecological Protection Zone)' • 'Continental shelf (beyond EEZ)' • 'Beyond MS Marine Waters' <p>This question is intended to give only a coarse categorization of the areas (zones) covered by the programme. If only a proportion of the selected category is covered by the programme; this can be described in 'MonitoringDetails'.</p> <p>'Terrestrial part of MS' refers to any monitoring above the high-water mark.</p> <p>'Continental shelf (beyond EEZ)' refers to monitoring of Member State seabed/subsoil beyond the zone where the Member State has jurisdiction over the water column (e.g. beyond 200nm of EEZs or the Territorial Waters/Contiguous Zone of some Mediterranean states).</p> <p>'Beyond MS Marine Waters' refers to monitoring in Areas Beyond National Jurisdiction (ABNJ), including monitoring in the water column/air above MS Continental Shelf areas (i.e. high seas). It can also be used for monitoring in waters of neighbouring countries.</p> <p>If multiple spatial zones are nested within one another (i.e., one zone fully contains others), report only the zone with the largest spatial extent. This approach assumes that the larger area implicitly includes the smaller areas within it. If the spatial zones are distinct and do not overlap, please select multiple options.</p>	SpatialScope
Monitoring Programme	MarineReportingUnit	Area(s) where the programme takes place <i>(multiple values allowed)</i>	Required	<p>Enter all relevant Marine Reporting Units (MRUs) codes from list 'MarineReportingUnit' and as reported via Article 4 dataflow in Reportnet 3 ('MarineReportingUnitId'), for the Member States marine waters where the programme takes place.</p> <p>The MRUs reported should be compatible (with same boundaries) with those used for the associated Article 8 assessments (e.g. the same MRUs or a single MRU covering all the related Article 8</p>	MarineReportingUnit

Schema class	Schema field	Description	Property	Guidance	List available
				<p>MRUs).</p> <p>In cases where the MRUs need to be updated, the corresponding spatial data (geopackage) must be delivered in advance via 'MSFD Article 4 – Marine Reporting Units (spatial data)' dataflow available in Reportnet 3. Only then will the MRU codes be added to the enumeration list for Article 11. For further guidance on how to update the MRUs please consult the relevant supporting documentation available in the corresponding dataflow or in https://cdr.eionet.europa.eu/help/msfd/MSFD%20Art4.</p> <p>Each MRU must sit within a region/subregion and not extend beyond its boundary. MRUs from different region/subregion can be reported under the same monitoring programme, provided that all aspects of the programme are identical across all selected MRUs, subregions, or regions.</p> <p>This includes, but is not limited to:</p> <ul style="list-style-type: none"> • Monitoring objectives and scope • Elements monitored (e.g., substances, species, litter types) • Sampling methodology (e.g., gear type, survey protocol) • Temporal resolution (e.g., frequency and timing of sampling) • Spatial resolution and coverage • Quality assurance/quality control (QA/QC) procedures • Data processing and evaluation methods 	
Monitoring Programme	TemporalScope	Start and end date of the programme	Required	<p>Format YYYY-YYYY (if the end date is unknown, provide '9999' as end-date). Only one start date and one end date are permitted.</p> <p>Temporal scope should be the time series available for the monitoring programme and should not be limited to the temporal window for the GES determination. The start date should be the earliest date that the programme started, going back as many years as possible before 2014. Whilst data quality issues may have improved over time (i.e. data from the long past may be of less quality) such past data nevertheless can usefully contribute to a time-series dataset for this programme.</p> <p>If the start date is unknown, provide '9999' and state in 'MonitoringDetails' the reason why the date is not known.</p>	

Schema class	Schema field	Description	Property	Guidance	List available
				If monitoring programmes have no planned end date – in such cases, enter '9999'. This situation may change in future reporting cycles to reflect the changing needs of the monitoring. There will be cases where the earliest start date varies amongst elements/parameters of the same programme. Here, the earliest starting date of a particular element/parameter of the programme should be used. If additional detail or clarification is required, this should be provided in 'MonitoringDetails'.	
Monitoring Programme	MonitoringFrequency	Frequency of the monitoring <i>(single value allowed)</i>	Required	Enter corresponding frequency from list 'Frequency'. If "Other" is selected or additional frequency should be reported, please specify the frequency in field 'MonitoringDetails'.	Frequency
Monitoring Programme	MonitoringType	Type of monitoring (in-situ, remote sensing, etc.) <i>(multiple values allowed)</i>	Required	Select relevant options from list 'MonitoringType': <ul style="list-style-type: none"> • 'In-situ sampling offshore' • 'In-situ sampling coastal' • 'In-situ sampling land/beach' • 'Remote surveillance' (e.g. buoys) • 'Remote satellite imagery' (satellite observations) • 'Remote flight imagery' (orthoimages) • 'Numerical modelling' • 'Ecological modelling' • 'Administrative data collection' • 'Visual observation' • 'Other' If multiple monitoring types are selected, please clarify in the 'MonitoringDetails' field which specific aspects of the monitoring programme they apply to.	MonitoringType
Monitoring Programme	MonitoringMethod	Guidelines/protocols describing the method for monitoring <i>(multiple values allowed)</i>	Required	Enter corresponding method code(s) from list 'MonitoringMethod'. If the 'MonitoringMethod' used is not in the enumeration list, enter "Other" and provide this information in field 'MonitoringMethod_other' Additional information can be added in the field "MonitoringDetails".	MonitoringMethod
Monitoring Programme	MonitoringMethod_Other	Guidelines/protocols describing the method for monitoring	Conditional (if 'Monitoring Method' is "Other")	Free text (max. 2500 characters) or URL web link. Additional information on methodology can also be entered, if needed, to complement the information provided under	

Schema class	Schema field	Description	Property	Guidance	List available
				'MonitoringMethod' (e.g. adjustments to the published methodology).	
Monitoring Programme	QualityControl	Identify what type of Quality Control is used	Optional	Free text (max. 2500 characters) or URL web link. QC refers to the systems or checks put in place to ensure the monitoring is undertaken according to the methodological guidelines (i.e. as reported under 'MonitoringMethod').	
Monitoring Programme	DataManagement	General description of the data management (post data collection)	Optional	Free text (max. 2500 characters). Provide a description of the data storage (where, how), quality control (on data), processing/analysis, access and reporting (where the data are sent).	
Monitoring Programme	Contact	Institute (responsible/coordinator), contact email (functional)	Optional	Free text (max. 2500 characters).	
Monitoring Programme	References	Reference(s) to publications about the monitoring programme	Optional	Provide URL link(s) or free text (max. 2500 characters).	

Table 12: 'Art11_Programmes' schema fields and guidance – FEATURE_ELEMENT_CRITERIA schema class

Schema class	Schema field	Description	Property	Guidance	List available
Feature_Element_Criteria	Feature	Feature(s) monitored (ecosystem components, pressures, activities) <i>(single value allowed)</i>	Required	<p>Enter the code of the feature (only one feature per row) from list 'Feature'. To report multiple features, use separate rows, as this field allows for only a single selection.</p> <p>This list includes four sections, each focusing on specific aspects of monitoring, but not limited to these:</p> <ul style="list-style-type: none"> • Ecosystem components (relevant for monitoring and assessment for Article 8(1a) for D1C2-C5, D3, D4, D6C3-C5, D7C2) • Pressures and impacts in the marine environment (relevant for monitoring and assessment for Article 8(1b) for D1C1, D2, D5, D6C1-C2, D7C1, D8, D9, D10, D11) • Pressure inputs to the marine environment (relevant for monitoring and assessment for Article 10) • Uses and human activities (relevant for monitoring and assessment for Article 8(1c) and 13) <p>For features related to 'Ecosystem components' or 'Pressures and impacts in the marine environment', at least one element has to be provided (see features marked in bold blue in the list 'Feature', Annex II.m).</p> <p>For features related to 'Pressure inputs to the marine environment' and 'Uses and human activities', no elements are reported, but parameters may be reported.</p> <p>A summary of the features and elements to be used per descriptor and criterion is given in Annex V.</p>	Feature
Feature_Element_Criteria	Element	Element(s) monitored (e.g. specific species, habitats, contaminants, litter categories) <i>(single value allowed)</i>	Required (where applicable)	<p>When required, enter the specific corresponding element from the 'Element' list that is to be monitored—only one element per row is allowed. For features highlighted in bold blue under 'Feature' (Annex II), at least one element must be specified. To report multiple elements, use a separate row for each, as only a single selection is allowed per row. Elements must be reported for:</p> <ul style="list-style-type: none"> • species (D1C1-C5, D2C2, D3, D5C3, D8C2, D10C4) • species group (D2C3) • habitat (D1C6, D2C3, D6C3-C5, D7C2, D8C2) • trophic guild, physical, hydrological and chemical characteristics (D4) • eutrophication-related elements (D5) • hydrographical elements (D7C1) • contaminants (D8C1, D9C1) • litter category (D10C1-C3) • frequency band (D11C2) 	Element

Schema class	Schema field	Description	Property	Guidance	List available
				<p>The elements are to be selected from the MSFD Reporting Reference List of Elements available in Reportnet 3 and CDR (https://cdr.eionet.europa.eu/help/msfd/MSFD%20ART11%202026). If the list does not contain the elements needed, contact MSFD Helpdesk.</p> <p>For criteria D2C1 and D8C4 the elements monitored cannot be predefined, so enter 'Not applicable'.. The relevant parameters monitored for all these criteria can be entered in the field 'Parameter'.</p> <p>For features in the lists 'Pressure inputs to the marine environment' and 'Uses and human activities' no elements are defined. Relevant parameters may be reported in the field 'Parameter' by entering 'Not applicable' for the element.</p> <p>For some monitoring methods the elements present (e.g. species, habitats) will vary between locations and sampling times; in such cases enter the main target elements for the programme at a suitable resolution (e.g. phytoplankton communities). A summary of the features and elements to be used per descriptor and criterion is given in Annex V.</p>	
Feature_Element_Criteria	Element2	Associated element of the Element that is monitored (e.g., the species used to assess a contaminant (the Element) in biota, or the specific population (stock) of a commercial species (the Element) <i>(single value allowed)</i>	Conditional (when 'GEScriteria' is D1C6, D3C1, D3C2, D3C3, , D8C1, D9C1 or D10C3 and the 'Element' needs secondary specification)	<p>Enter from list 'Element2' (only one Element2 per row as this field is single selection and connected to Element reported), the name of:</p> <ol style="list-style-type: none"> whether the bird species being monitored is a 'breeding' or 'non-breeding' population (D1) phytoplankton/zooplankton/other component of the pelagic habitat (Element) being monitored (D1C6) population (stock) for the commercial species monitored (D3) habitat/ecotype for the elements monitored (D5C1, D5C2, D5C4). This option should be used only where necessary to serve a specific national purpose species used to assess parameter 'Concentration in biota' (D8C1). Note other matrices (water or sediment) may also be reported for the same Element (contaminant) species used to assess the contaminant level (D9) subtypes of Artificial Polymer (single-use plastics, fishing gear, other) (D10C1) species used for litter ingestion assessment (D10C3) species used for underwater noise assessment, if appropriate (D11C2) <p>'Element2' should not be duplicated within an 'Element' report (for a particular Feature/Criteria). If the list does not contain the 'Element2' needed, contact MSFD Helpdesk.</p>	Element2

Schema class	Schema field	Description	Property	Guidance	List available
Feature_Element_Criteria	GEScriteria	GES criteria monitored <i>(single value allowed)</i>	Conditional (when Element is provided)	For each element, enter the corresponding GES criterion code—one per row—selected from the 'GEScriteria' list. Enter 'Not relevant' whenever parameters are to be reported for features from the 'activities' or 'pressure inputs' lists.	GEScriteria
Feature_Element_Criteria	Parameter	Parameter(s) monitored <i>(multiple values allowed)</i>	Conditional (when GES criterion is provided)	For each criterion, enter the relevant parameter(s) monitored from list 'Parameter'. If the parameter monitored is not in the list, enter "Other" and include the description of your parameter in 'ParameterOther'. The species monitored under D8C1 are supposed to be included at the Element2 level. Please use 'ParameterOther' to report the tissue: e.g. 'CONC-B-xx' (xx being the corresponding tissue, as in the Parameters list).	Parameter
Feature_Element_Criteria	Parameter_Other	Parameter monitored Other	Conditional (if 'Parameter' is "Other")	Free text (max. 250 characters). Use this field for species and tissues used for D8C1 monitoring, or if the parameter monitored is not in the 'Parameter' list.	

Table 13: 'Art11_Programmes' schema fields and guidance – RELATED INDICATOR schema class

Schema class	Schema field	Description	Property	Guidance	List available
RelatedIndicator	RelatedIndicator_code	Indicator code(s) to which the programme contributes <i>(single value allowed)</i>	Required	<p>Enter as many indicator codes as necessary (one per row) from list 'IndicatorCode' (as reported by Member States under the schema 'Indicators' used in the 2024 update of Articles 8, 9 and 10).</p> <p>If the 'RelatedIndicator_code' used for the programme is new or is not in the enumeration list contact MSFD Helpdesk.</p> <p>For new indicators use sub(region) code <u>plus</u> RSC/MS code <u>plus</u> defined alpha-numeric code. When a regional indicator that is published is used, enter the regional code. If the regional indicator has not been published and there is a national indicator, enter the national code. (e.g. ABI-OSPAR-Nutrients2017 for a regional indicator and ABI-PT-Nutrients2017 for a national indicator) (max. 50 characters).</p> <p>If the programme has no related indicator, please select option 'Not available'.</p>	IndicatorCode
RelatedIndicator	RelatedIndicator_name	Indicator name(s) to which the programme contributes <i>(single value allowed)</i>	Conditional (when Related Indicator_code is provided)	<p>Enter the corresponding name of the indicator(s) (one per row). Contact MSFD Helpdesk if the indicator name is new and is not in the 'IndicatorName' list.</p>	IndicatorName

Table 14: 'Art11_Programmes' schema fields and guidance – DATASETS schema class

Schema class	Schema field	Description	Property	Guidance	List available
Datasets	DataAccess_URL	Link where monitoring data can be accessed (Art. 19(3)) <i>(One link per row)</i>	Conditional (required if 'DatasetVoidReason' is not filled in)	URL type field. Provide the URL link(s) or DOI, where the datasets from the monitoring programmes are (or will be made) available. Provide one URL link per row.	
Datasets	DatasetVoidReason	Given reason not to report any dataset <i>(single value allowed)</i>	Conditional (required when dataset is not reported)	Enter one of the following from List 'DataVoidReasons': a. 'Data-InPrep' - Data being prepared for publication b. 'Data-NotPublic' - Data not publicly accessible c. 'Data-NotElectronic' - Data not in an electronic format	DataVoidReason
Datasets	DataAccess_MD_URL	Unique reference identifier where monitoring metadata can be accessed (Art. 19(3))	Optional	URL type field. Provide the URL links (s) or DOI, where the metadata from the monitoring programmes are (or will be made) available. Provide one URL link per row.	

D. Supporting Documents

The schema fields and guidance for dataset ‘Supporting Documents’ are provided in Table 15.

Table 15: Supporting documents’ schema fields and guidance

Schema class	Schema field	Description	Property	Guidance
Supporting documents	Description	Brief description of the document	Optional	Free text (max. 2500 characters).
Supporting documents	Document	File to be uploaded	Optional	File with text report or any other relevant supporting document. Several documents can be uploaded, one per row. Each file can have maximum file size of 100 MB.

ANNEX II: Enumeration lists

The enumeration and reference lists will be available in the corresponding Reportnet 3 dataflow and in the Central Data Repository at <https://cdr.eionet.europa.eu/help/msfd/MSFD%20ART11%202026>. The lists marked with * are described in the annex.

- CompetentAuthorityName (as reported in Article 7 dataflow)
- RelationshipToCA*
- GESDescriptor*
- RelatedTargetCode (as reported in 2024 Article 10)
- RelatedMeasure (as reported in 2022 Article 13 or reporting of 2025 Article 18)
- Coverage*
- ProgrammeCode (as reported in 2020 Article 11)
- ProgrammeName (as reported in 2020 Article 11 and, for guidance, see Annex III)
- UpdateType*
- MonitoringPurpose*
- SourcePolicy*
- CountryCode_cooperation*
- RegionalCooperation_implementation*
- SpatialScope*
- MarineReportingUnit (as reported in Article 4 dataflow)
- Frequency*
- MonitoringType*
- MonitoringMethod*
- Feature*
- Element (as provided for the 2024 reporting of Articles 8, 9 and 10)
- Element2 (as provided for the 2024 reporting of Articles 8, 9 and 10)
- GEScriteria*
- Parameter
- IndicatorCode (as reported in 2024 Article 10 or 2018 Article 10 reporting exercise)
- IndicatorName (as reported in 2024 Article 10 or 2018 Article 10 reporting exercise)
- DatasetVoidReason

a) RelationshipToCA

Code	Description
Intergovernmental scientific organisation	Intergovernmental scientific organisation
Public research organisation	Public research organisation
National university	National university
Agency of the competent authority	Agency of the competent authority
Government department	Government department
Governmental organisation	Governmental organisation
Non-governmental organisation	Non-governmental organisation
Regional authority	Regional authority
Other national authority	Other national authority
Other	Other

b) GESDescriptor

Code	Description
D1B	D1 Biodiversity - birds
D1M	D1 Biodiversity - mammals
D1R	D1 Biodiversity - reptiles
D1F	D1 Biodiversity - fish
D1C	D1 Biodiversity - cephalopods
D1P	D1 Biodiversity – pelagic habitats
D2	D2 Non-indigenous species
D3	D3 Commercial fish and shellfish
D4/D1	D4 Food webs/D1 Biodiversity - ecosystems
D5	D5 Eutrophication
D6/D1	D6 Sea-floor integrity/D1 Biodiversity - benthic habitats
D7	D7 Hydrographical changes
D8	D8 Contaminants
D9	D9 Contaminants in fish and seafood
D10	D10 Marine litter
D11	D11 Energy, including underwater noise

c) Coverage

Code	Description	Observation
2014	Adequate monitoring was in place in 2014	Year of implementation of Art. 11
2018	Adequate monitoring was in place by 2018	Year implementation was previously reported for some programmes
2020	Adequate monitoring was in place by 2020	Date for last update of monitoring programmes
2024	Adequate monitoring was in place by 2024	Year for updates of Art. 8, 9, 10
2026	Adequate monitoring is in place by July 2026	Date for updating monitoring programmes
2030	Adequate monitoring will be in place by 2030	Year for next updates of Art. 8, 9, 10
LowRisk	Monitoring is not being put in place for this descriptor due to a low risk	
Not relevant	Monitoring for this descriptor is not relevant	Monitoring does not occur in Member States waters (note this option is not relevant for targets or measures, where monitoring is expected to enable progress with the targets or measures to be assessed). This value should be used when a monitoring strategy does not apply to a descriptor.

d) UpdateType

Code	Description
Same as previous programme	Same programme as in 2020
Modified compared to the previous programme	Modified from 2020
New programme	New programme
Programme no longer in place	Programme no longer in place

e) MonitoringPurpose

Code	Description	Observation
Effectiveness of measures	Effectiveness of measures	
Environmental state and impacts	Environmental state and impacts	
Human activities causing the pressures	Human activities causing the pressures	
Pressures at source	Pressures at source	Land-based, riverine, sea-based and atmospheric sources
Pressures in the marine environment	Pressures in the marine environment	

f) SourcePolicy

Code	Description	Legislation or Convention
AC-AMAP	Arctic Council Monitoring and Assessment Programme	Arctic Council
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas	Bonn Convention
BathingWater	Bathing Water Directive (76/160/EEC)	European Commission
BD	Birds Directive (2009/147/EC)	European Commission
BONN	Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances	Bonn Agreement
BSC	Black Sea Commission for the Bucharest Convention	
CBD	Convention on Biological Diversity	
CFP-DCF-MAP	EU Data Collection Framework (DCF) under the Common Fisheries Policy (CFP) - multiannual programme (MAP) for data collection	European Commission
C-Hg	Minamata Convention on Mercury	United Nations
CMS	Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)	United Nations
CPH	Copenhagen Agreement	Copenhagen Agreement
C-POP	Stockholm Convention on persistent organic pollutants (POPs)	United Nations
DrinkingWater	Drinking Water Directive (80/778/EEC) as amended by Directive (2020/2184)	European Commission
EIA Directive	Environmental Impact Assessment Directive (85/337/EEC)	European Commission

Code	Description	Legislation or Convention
EQS	Environmental Quality Standards (EQS) Directive (2013/39/EU)	European Commission
EUBiodivStrategy	EU Biodiversity Strategy	European Commission
FD	Floods Directive (2007/60/EC)	European Commission
Foodstuffs	Regulation on contaminants in foodstuffs (EC 1881/2006)	European Commission
GFCM	General Fisheries Commission for the Mediterranean	
HD	Habitats Directive (92/43/EEC)	European Commission
HELCOM	Helsinki Commission for the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area	
IAER	Prevention and management of the introduction and spread of invasive alien species (Regulation 1143/2014)	European Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas	
ICES	International Council for the Exploration of the Sea	
IMO-BWM	International Convention on Maritime Organization's Ballast Water Management Convention (BWM Convention)	International Maritime Organisation
IMO-MARPOL	International Convention for the Prevention of Pollution from Ships	International Maritime Organisation
IMO-OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation	International Maritime Organisation
IMO-OPRC-HNS	Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances	International Maritime Organisation
IPPC	Integrated Pollution Prevention Control Directive (96/61/EC)	European Commission
CLRTAP	UNECE Convention on Long-range Transboundary Air Pollution	United Nations
MSP	Maritime Spatial Planning Directive	European Commission
National	Monitoring programme targeting at national legislation	National
NEAFC	North East Atlantic Fisheries Commission	NEAFC Monitoring of Fisheries
NEC	Directive on National Emission Ceilings for certain pollutants (2001/81/EC)	European Commission
Nitrates	Nitrates Directive (91/676/EEC)	European Commission
NRR	Nature Restoration Regulation (2024/1991)	European Commission
OSPAR	OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic	OSPAR Commission
Other	Other	
PPPP	Placing of plant protection products on the market (Regulation EC/1107/2007)	European Commission
PSD	Priority substances Directive (2013/39/EU)	European Commission
RAMSAR	Ramsar Convention on Wetlands	
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (EC 1907/2006)	European Commission
Seveso	Major Accidents (Seveso) Directive (96/82/EC)	European Commission
SSD	Sewage Sludge Directive (86/278/EEC)	European Commission
TWSC	Trilateral Wadden Sea Cooperation	Trilateral Monitoring and Assessment Programme (TMAP)
UNEP/MAP	UN Environment Programme/Mediterranean Action Plan (Barcelona Convention)	
UWWTD	Urban Wastewater Treatment Directive (91/271/EEC) as amended by Directive (2024/3019)	European Commission
WasteFD	Waste Framework Directive (2008/98/EC)	European Commission
WaterFD	Water Framework Directive (2000/60/EC)	European Commission

g) CountryCode_cooperation

Code	Description
AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czechia
DE	Germany
DK	Denmark
DZ	Algeria
EE	Estonia
EG	Egypt
EL	Greece
ES	Spain
FI	Finland
FR	France
GE	Georgia
HR	Croatia
HU	Hungary
IE	Ireland
IL	Israel
IS	Iceland
IT	Italy
LB	Lebanon
LT	Lithuania
LU	Luxembourg
LV	Latvia
LY	Libya
MA	Morocco
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PS	Palestine
PT	Portugal
RO	Romania
RU	Russian Federation
SE	Sweden
SI	Slovenia
SK	Slovakia
SY	Syria
TN	Tunisia
TR	Turkey
UA	Ukraine
UK	United Kingdom

h) RegionalCooperation_implement

Code	Description
Agreed data collection methods	Agreed data collection methods
Common monitoring strategy	Common monitoring strategy (Spatial and temporal design of programme)
Coordinated data collection	Coordinated data collection (Delivered separately by each country)
Joint data collection	Joint data collection (Multinational delivery using same platform and/or algorithms)

i) SpatialScope

Code	Description	Observations
Beyond MS Marine Waters	Beyond Member States Marine Waters	
Coastal waters (WFD)	Coastal waters (WFD)	
Continental shelf (beyond EEZ)	Continental shelf (beyond EEZ)	
EEZ (or similar)	EEZ (or similar)	Valid for similar zones such as Contiguous Zone, Fishing Zone or Ecological Protection Zone
Terrestrial part of MS	Terrestrial part of Member State	
Territorial waters	Territorial waters	
Transitional waters (WFD)	Transitional waters (WFD)	

j) Frequency

Code	Description
2-monthly	2-monthly
2-weekly	2-weekly
2-yearly	Every 2 years
3-monthly	3-monthly
3-yearly	Every 3 years
6-monthly	6-monthly
6-yearly	Every 6 years
As needed	As needed
Continually	Continually
Daily	Daily
Hourly	Hourly
4-weekly	4-weekly
Monthly	Monthly
One-off	One-off
Other	Other (specify)
Unknown	Unknown
Weekly	Weekly
Specific number per year	Specific number per year (e.g 2-3 times per year - spring and fall)

k) MonitoringType

Code	Description	Observations
Administrative data collection	Administrative data collection	
Ecological modelling	Ecological modelling	
In-situ sampling coastal	In-situ sampling coastal	
In-situ sampling land/beach	In-situ sampling land/beach	
In-situ sampling offshore	In-situ sampling offshore	
Numerical modelling	Numerical modelling	
Other	Other	
Remote flight imagery	Remote flight imagery	Orthoimages
Remote satellite imagery	Remote satellite imagery	Satellite observations
Remote surveillance	Remote surveillance	E.g. buoys
Visual observation	Visual observation	

l) MonitoringMethod

Code	Description	Observations
AMP-001	AMAP Trends and Effects Monitoring Programme (ATEMP)	
BC-001	UNEP/MAP Integrated Monitoring and Assessment Guidance (2016)	
BON-001	Bonn Agreement Aerial Operations Handbook, 2009	
BON-002	Bonn Agreement Aerial Operations Handbook, 2017	
BON-003	Bonn Agreement Counter Pollution Manual (BACPM)	
BSC-001	Black Sea: Guidelines for quality control of biological data - Phytoplankton	
BSC-002	Black Sea: Manual for phytoplankton sampling and analysis	
BSC-003	Black Sea: Manual for quantitative sampling and sample treatment of marine soft-bottom macrozoobenthos	
BWD-001	Bathing Water Profiles: Best Practice and Guidance (2009)	
CFP-001	International bottom trawl survey in the Mediterranean Manual (Version 9)	
CFP-002	Common protocol for the Pan-Mediterranean Acoustic Survey (MEDIAS) (v. 2017)	
CFP-003	SISP 6 - Manual for mackerel and horse mackerel egg surveys, sampling at sea	
CFP-004	SISP 15 - Manual of the IBTS North Eastern Atlantic Surveys	

Code	Description	Observations
CFP-005	SISP 7 - BITS Manual for the Baltic International Trawl Surveys	
CFP-006	SISP 8 - IBAS Manual for the International Baltic Acoustic Surveys	
CFP-007	SISP 10 - Manual for the International Bottom Trawl Surveys, Revision IX	
CFP-008	SISP 9 Manual for International Pelagic Surveys (IPS) - Version 1.00	
CFP-009	Manual for the Offshore Beam Trawl Surveys (WGBEAM)	
CPH-001	Copenhagen Agreement manual for cooperation on pollution control	
CWS-001	Wadden Sea - Trilateral Monitoring and Assessment Programme Handbook	
EC-001	Guidance on Monitoring of Marine Litter in European Seas [note: to be updated with specific guidance for beaches, water, seabed and microlitter when available from TG Litter]	
EC-002	Guidance on monitoring impulsive underwater noise	
EC-003	Guidance on monitoring continuous underwater noise	
HEL-001	HELCOM Guidelines for the annual and periodical compilation and reporting of waterborne pollution inputs to the Baltic Sea (PLC-Water)	
HEL-002	HELCOM Guideline for the determination of heavy metals in sediment	
HEL-003	HELCOM Guideline on the determination of perfluoroalkylated substances (PFAS) in seawater	
HEL-004	HELCOM Guidelines for sampling and determination of dissolved oxygen	
HEL-005	HELCOM Guidelines for determination of chlorinated hydrocarbons in sediment	
HEL-006	HELCOM Guidelines for determination of PAH in sediment	
HEL-007	HELCOM Guidelines for determination of POPs in seawater	
HEL-008	HELCOM Guidelines for determination of salinity and temperature using CTD	
HEL-009	HELCOM Guidelines for measuring chlorophyll a	
HEL-010	HELCOM Guidelines for measuring Secchi depth	
HEL-011	HELCOM Guidelines for measuring turbidity	
HEL-012	HELCOM Guidelines for monitoring of mesozooplankton	

Code	Description	Observations
HEL-013	HELCOM Guidelines for monitoring of non-indigenous species by eRAS	
HEL-014	HELCOM Guidelines for monitoring of radioactive substances	
HEL-015	HELCOM Guidelines for monitoring phytoplankton species composition, abundance and biomass	
HEL-016	HELCOM Guidelines for monitoring seal abundance and distribution in the HELCOM area	
HEL-017	HELCOM Guidelines for monitoring reproductive status of seals in the HELCOM area	
HEL-018	HELCOM Guidelines for sampling and determination of ammonium	
HEL-019	HELCOM Guidelines for sampling and determination of hydrogen sulphide	
HEL-020	HELCOM Guidelines for sampling and determination of nitrate	
HEL-021	HELCOM Guidelines for sampling and determination of nitrite	
HEL-022	HELCOM Guidelines for sampling and determination of pH	
HEL-023	HELCOM Guidelines for sampling and determination of phosphate	
HEL-024	HELCOM Guidelines for sampling and determination of silicate	
HEL-025	HELCOM Guidelines for sampling and determination of total alkalinity	
HEL-026	HELCOM Guidelines for sampling and determination of total nitrogen	
HEL-027	HELCOM Guidelines for sampling and determination of total phosphorus	
HEL-028	HELCOM Guidelines for coastal fish monitoring	
HEL-029	HELCOM Guidelines for coordinated monitoring of wintering birds	
HEL-030	HELCOM Recommendations and guidelines for benthic habitat monitoring in the Baltic Sea	
HEL-031	HELCOM Manual on co-operation in response to marine pollution	
HEL-032	HELCOM Manual for monitoring in COMBINE programme	
HEL-033	HELCOM guideline for Seal Abundance Monitoring	
HEL-034	HELCOM Guidelines for monitoring of biological effects - imposex and intersex	
HEL-035	HELCOM Guidelines for monitoring beach litter	
HEL-036	HELCOM Guidelines for monitoring continuous noise	

Code	Description	Observations
HEL-037	HELCOM Guidelines for management of dredged material at sea	
HEL-038	HELCOM Monitoring guidelines for seabird at sea	
ICC-001	ICCAT Manual: Data for Assessment and Research	
NFC-001	NEAFC: Recording of Catch and Fishing Effort	
NFC-002	NEAFC: Vessel Monitoring System	
OSP-001	OSPAR CEMP Guidelines on Quality Assurance for Biological Monitoring in the OSPAR Area (Agreement 2002-15)	https://www.ospar.org/convention/agreements?q=2002-15
OSP-002	OSPAR CEMP Guideline: Common Indicator - Marine Bird Abundance (B1) (Agreement 2016-09)	https://oap.ospar.org/en/ospar-monitoring-programmes/cemp/cemp-appendices/theme-b-biodiversity-and-ecosystems/theme-b-bdc/bb4-marine-bird-abundance-b1/
OSP-003	OSPAR CEMP Guideline: Common Indicator - Marine Bird Breeding Success/Failure (B3) (Agreement 2016-10)	https://oap-cloudfront.ospar.org/media/filer_public/7e/55/7e55579f-9e59-4fb6-bd6a-f86f329c7f0d/bb5_marine_bird_breeding_productivity_vers101.xlsx
OSP-004	OSPAR CEMP Guideline: Common Indicator - Seal Abundance and Distribution (M3) (Agreement 2016-11)	https://oap-cloudfront.ospar.org/media/filer_public/51/75/51753334-6736-4e58-83cb-519e578c0ed3/bb1_abundance_distribution_seals.xlsx
OSP-005	OSPAR CEMP Guideline: Common Indicator - Grey Seal Pup Production (M5) (Agreement 2016-12)	https://oap-cloudfront.ospar.org/media/filer_public/55/48/5548ab74-1935-4a12-bb7c-3b5158ffc8b0/bb3_grey_seal_pup_production.xlsx
OSP-006	OSPAR CEMP Guidelines Common Indicator: BH3 Extent of Physical damage to predominant and special habitats (Agreement 2017-09)	https://oap-cloudfront.ospar.org/media/filer_public/da/fc/dafc971f-ba68-4859-ae4f-edc1d9558578/bb9_bh3_cemp_app_vers-1-0-0.xlsx
OSP-007	OSPAR CEMP Guideline: Common Indicator - Changes to non-indigenous species communities (NIS3) (Agreement 2018-04)	https://oap-cloudfront.ospar.org/media/filer_public/15/c6/15c6aef1-b076-4334-ac36-9e04c5c13312/bb13_trends_arrival_nis.xlsx
OSP-008-FC1	OSPAR CEMP Guideline: Combined guideline for the common indicators [FC1], FC2, FC3 and FW3 for fish and food webs (Agreement 2018-05)	https://oap-cloudfront.ospar.org/media/filer_public/94/f6/94f6bb07-8f05-4b3a-95c3-cab7f29e383f/bb6_fish_abundance.xlsx
OSP-008-FC2	OSPAR CEMP Guideline: Combined guideline for the common indicators FC1, [FC2], FC3 and FW3 for fish and food webs (Agreement 2018-05)	https://oap-cloudfront.ospar.org/media/filer_public/40/fa/40fa6e93-8524-40bd-b93a-53b41051e5fc/bb7_proportion_large_fish.xlsx
OSP-008-FC3	OSPAR CEMP Guideline: Combined guideline for the common indicators FC1, FC2, [FC3] and FW3 for fish and food webs (Agreement 2018-05)	https://oap-cloudfront.ospar.org/media/filer_public/8a/41/8a413fd5-016f-41b5-9c95-ef87f7fa0002/bb19_mean_max_length_demersal_fish.xlsx
OSP-008-FW3	OSPAR CEMP Guideline: Combined guideline for the common indicators FC1, FC2, FC3 and [FW3] for fish and food webs (Agreement 2018-05)	https://oap-cloudfront.ospar.org/media/filer_public/37/0f/370f0ef8-6fd3-4d05-b20d-af776953b487/bb15_size_composition_in_fish_communities.xlsx
OSP-009	OSPAR CEMP Guideline: Common indicator: Condition of benthic habitat communities	https://oap-cloudfront.ospar.org/media/filer_public/cc/df/ccdfdcac-3d79-4196-a438-

Code	Description	Observations
	(BH2) – common approach (Agreement 2018-06)	6711bc661445/bb8_condition_benthic_habitat_defining_communities.xlsx
OSP-010	OSPAR CEMP Guideline: Common Indicator: PH1/FW5 Plankton lifeforms (Agreement 2018-07)	https://oap-cloudfront.ospar.org/media/filer_public/dd/f8/ddf8bb82-2b5b-4fa7-bf0e-3b802dcfb052/bb10_plankton_lifeforms.xlsx
OSP-011	OSPAR CEMP Guideline: Common indicator: Abundance at the relevant temporal scale of cetacean species regularly present (M4) – Interim version (Agreement 2018-09)	https://oap-cloudfront.ospar.org/media/filer_public/7e/80/7e802fb1-9959-4959-9d33-801538cb1a47/bb2_cetacean_abundance_distribution.xlsx
OSP-012	OSPAR CEMP Guideline: Common indicator in Region IV: Change in average trophic level of marine predators (FW4) (Agreement 2018-08)	https://oap-cloudfront.ospar.org/media/filer_public/54/06/540693bd-7a0a-46d4-9018-43033c8a747b/bb16_changes_in_average_trophic_level_of_marine_predators.xlsx
OSP-013	OSPAR CEMP Guidelines for the assessment of dumping and placement of waste or other matter at sea	https://oap-cloudfront.ospar.org/media/filer_public/25/9a/259adb69-ebc8-4f41-9951-89d53688ff14/be7_dumping_placement_of_wastes_002.xlsx
OSP-014	OSPAR CEMP Guidelines for monitoring marine litter washed ashore and/or deposited on coastlines (beach litter)	https://oap-cloudfront.ospar.org/media/filer_public/85/68/85680af4-8ff8-44f4-b9d1-d1b0c2fe57ec/be1_marine_litter_on_beaches_vers_3_0_0.xlsx
OSP-015	OSPAR CEMP Guidelines on Litter on the Seafloor	https://oap-cloudfront.ospar.org/media/filer_public/a1/0e/a10e266a-bba1-43b3-8f97-3e6b895a437d/be2_seafloor_litter_vers_3_0_0.xlsx
OSP-016	OSPAR CEMP Guidelines for Monitoring and Assessment of loud, low and mid-frequency impulsive sound sources in the OSPAR Maritime Region	https://oap-cloudfront.ospar.org/media/filer_public/95/e5/95e54a2f-0f95-4193-80bc-81f7798d52fd/be4_impulsive_noise.xlsx
OSP-017	OSPAR Coordinated Environmental Monitoring Programme (CEMP) Guidelines for Monitoring and Assessment of plastic particles in stomachs of fulmars in the North Sea area	https://oap-cloudfront.ospar.org/media/filer_public/f5/34/f5348591-ad7c-4dfe-93d1-7ec7474d1223/be3_plastic_in_fulmars_vers_2-0-0.xlsx
OSP-018	OSPAR CEMP Guidelines for Monitoring Contaminants in Sediments (Agreement 2002-16). Revision 2018	https://www.ospar.org/documents?d=32743
OSP-019	OSPAR JAMP Guidelines for Monitoring Chemical Aspects of Ocean Acidification (Agreement 2014-03e)	https://oap-cloudfront.ospar.org/media/filer_public/8e/32/8e32774c-9513-4de7-9afc-cd292695cbb3/a1_ocean_acidification.xlsx
OSP-020	OSPAR Revised JAMP Eutrophication Monitoring Guideline: Oxygen (Agreement 2013-05) (Replaces Agreement 1997-03)	https://www.ospar.org/documents?d=32949
OSP-021	OSPAR CEMP Eutrophication Monitoring Guideline: Nutrients (Agreement 2025-18)	https://www.ospar.org/documents?d=32948
OSP-022	OSPAR JAMP Eutrophication Monitoring Guidelines: Chlorophyll a in Water (Agreement 2012-11) (Replaces Agreement 1997-04)	https://www.ospar.org/documents?d=32933
OSP-023	OSPAR CEMP Eutrophication Monitoring Guidelines: Phytoplankton Species Composition (Agreement 2016-06)	https://www.ospar.org/documents?d=35398

Code	Description	Observations
OSP-024	OSPAR JAMP Eutrophication Monitoring Guidelines: Benthos (Agreement 2012-12) (Replaces Agreement 1997-06)	https://www.ospar.org/documents?d=32934
OSP-025	OSPAR JAMP Guidelines for Contaminant-Specific Biological Effects (OSPAR Agreement 2008-09)	https://www.ospar.org/documents?d=32799
OSP-026	OSPAR JAMP Guidelines for Contaminant-Specific Biological Effects (Agreement 2008-09) (Replaces Agreement 2003-10)	https://www.ospar.org/documents?d=32799
OSP-027	OSPAR CEMP Guideline on the analysis of PFASs in seawater (Agreement 2010-08)	https://www.ospar.org/documents?d=32869
OSP-028	OSPAR CEMP Guidelines for Monitoring Contaminants in Biota (Agreement 1999-02). Revision 2018	https://www.ospar.org/documents?d=32414
OSP-029	OSPAR CEMP guidelines for coordinated monitoring for eutrophication, CAMP and RID (Agreement 2016-05), Revised in 2018	https://www.ospar.org/documents?d=35414
OSP-030	OSPAR CEMP Guideline: Changes in phytoplankton biomass and zooplankton abundance (PH2) (Agreement 2019-06)	https://oap.ospar.org/en/ospar-monitoring-programmes/cemp/cemp-appendices/theme-b-biodiversity-and-ecosystems/theme-b-bdc/bb11-plankton-biomass-and-or-abundance/
OSP-031	OSPAR CEMP Guideline: Changes in plankton diversity (PH3) (Agreement 2019-07)	https://oap-cloudfront.ospar.org/media/filer_public/7a/fe/7afee770-726a-44c7-a596-2af77be16a8a/bb12_plankton_diversity_index.xlsx
OSP-032	OSPAR CEMP Guideline: Marine mammal bycatch (M6) (Agreement 2022-03)	https://oap-cloudfront.ospar.org/media/filer_public/73/cb/73cb5d1f-1f01-42e7-92f3-e65fc6f133dc/bb18_marine_mammal_bycatch_101.xlsx
OSP-033	OSPAR CEMP Guideline: Sensitive fish species (FC1) (Agreement 2022-04)	https://oap-cloudfront.ospar.org/media/filer_public/94/f6/94f6bb07-8f05-4b3a-95c3-cab7f29e383f/bb6_fish_abundance.xlsx
OSP-034	OSPAR CEMP Guideline: Sentinels of the Seabed (BH1) (Agreement 2023-02)	https://oap-cloudfront.ospar.org/media/filer_public/1c/a8/1ca850a8-877d-4052-9be9-023b8279dca5/bb21_bh1_cemp_app_vers_1-0-0.xlsx
OSP-035	OSPAR CEMP Guideline for the MPA assessment calculation methodology (Agreement 2023-03)	https://www.ospar.org/documents?d=51116
OSP-036-BH4a	OSPAR CEMP Guideline: Area of Habitat Loss (BH4[a]) (Agreement 2024-05)	https://oap-cloudfront.ospar.org/media/filer_public/94/b7/94b74324-5b2b-4a36-b9e6-161808fd26d4/bb20a_area_of_sealed_habitat_loss.xlsx
OSP-036-BH4b	OSPAR CEMP Guideline: Area of Habitat Loss (BH4[b]) (Agreement 2024-05)	https://oap-cloudfront.ospar.org/media/filer_public/19/ef/19efceb3-a837-475e-b3ed-48e5dfcb6fa9/bb20b_area_of_unsealed_habitat_loss.xlsx
OSP-037	OSPAR CEMP Guideline for MT1 - sea turtle bycatch - Leatherback turtle (OSPAR Regions I-V); Loggerhead turtle (OSPAR Regions IV and V) (Agreement 2025-08)	https://oap-cloudfront.ospar.org/media/filer_public/fd/35/fd356a8c-1592-470a-bcd0-bfa89f5f47db/bb28_sea_turtle_bycatch.xlsx
OSP-038	OSPAR CEMP Guideline for MT2 Loggerhead turtle abundance at sea – (OSPAR Regions IV and V) - (Agreement 2025-09)	https://oap-cloudfront.ospar.org/media/filer_public/e2/db/e2db12c9-f826-

Code	Description	Observations
		4e42-a8fb-432eb705fc17/bb29_loggerhead_turtle_abundance.xlsx
OSP-039	OSPAR CEMP Guidelines - Common Indicator: Marine Bird Bycatch (B5) (Agreement 2025-10)	https://www.ospar.org/documents?d=63715
OSP-040	OSPAR CEMP Guideline for the Management Effectiveness of Protected and Conserved Areas (MEPCA) Indicator (Agreement 2025-11)	https://www.ospar.org/documents?v=63715
OSP-041	OSPAR CEMP Guideline for Marine Birds Thematic Assessment Integration Method (Agreement 2023-04)	https://www.ospar.org/documents?d=51180
OSP-042	OSPAR CEMP Guideline for Marine Mammals Thematic Assessment Integration Method (Agreement 2023-05)	https://www.ospar.org/documents?d=51183
OSP-043	OSPAR CEMP Guideline for Fish Thematic Assessment Integration Method (Agreement 2023-06)	https://www.ospar.org/documents?d=51182
OSP-044	OSPAR CEMP Guideline for Pelagic Habitats Thematic Assessment Integration Method (Agreement 2023-07)	https://www.ospar.org/documents?d=51181
OSP-045	OSPAR CEMP Guidelines for Monitoring and Assessment of marine litter ingested by sea turtles	https://oap-cloudfront.ospar.org/media/filer_public/c5/c0/c5c085c9-924a-4472-a3cf-af78bd1cd438/be8_litter_ingested_by_turtles.xlsx
OSP-046	OSPAR CEMP Guidelines for the Candidate Indicator on Ambient Underwater Noise	https://oap-cloudfront.ospar.org/media/filer_public/d5/cb/d5cb5ab3-256b-4f5f-97b0-8ab56f1b3347/be9_ambient_noise.xlsx
OSP-047	OSPAR CEMP Guidelines for the monitoring of microlitter (including microplastics) in seafloor sediments for the OSPAR maritime area	https://www.ospar.org/documents?v=57834
OSP-048	OSPAR CEMP Guidelines for monitoring and assessment of plastic litter ingested by fledglings of Cory's shearwaters (<i>Calonectris borealis</i>) in OSPAR Region V	https://www.ospar.org/documents?v=63717
OSP-049	OSPAR JAMP Guidelines for the Integrated Monitoring and Assessment of Contaminants and their Effects (Agreement 2012-09)	https://www.ospar.org/documents?d=32928
OSP-050	OSPAR CEMP Guidelines for coordinated monitoring for hazardous substances (Agreement 2016-04). Revised in 2021	https://www.ospar.org/documents?d=35413
OSP-051	OSPAR CEMP Guideline: Cumulative effects assessment for the QSR 2023 (Bow Tie Analysis) (Agreement 2023-01)	https://www.ospar.org/documents?d=51117
OSP-052	OSPAR CEMP Guidelines for assessment of discharges of radioactive substances from the nuclear sector (OSPAR Agreement 2025-20)	https://www.ospar.org/documents?v=63761
OSP-053	OSPAR CEMP Guidelines for assessment of environmental concentrations of artificial radionuclides (OSPAR Agreement 2025-21)	https://www.ospar.org/documents?v=64178
Other	Other monitoring method	
UWW-001	Urban Waste Water Treatment Directive: Annex 1	

Code	Description	Observations
WFD-007	WFD Guidance document n.° 7 - Monitoring under the Water Framework Directive (monitoring framework)	
WFD-019	WFD Guidance document n.° 19 - Monitoring under the Water Framework Directive (surface water chemical monitoring)	
WFD-025	WFD Guidance document n.° 25 - Chemical Monitoring of Sediment and Biota	
WFD-032	WFD Guidance document n.° 32 - Biota Monitoring	
WFD-033	WFD Guidance document n.° 33 - Analytical Methods for Biota Monitoring	

m) Feature

This enumeration includes the ecosystem components and characteristics, the anthropogenic pressures, and the uses and human activities listed in MSFD Annex III tables (Commission Directive (EU) 2017/845), as well as the features corresponding to the pressure levels and impacts in the marine environment that are used for the GES assessments under Article 8. The features, where applicable, for which elements should be provided are highlighted in bold blue. The specific benthic and pelagic broad and other habitat types are to be reported as Elements.

Subject	Theme	Sub-theme	Label: Feature	Code
Ecosystem components (relevant for monitoring and assessment for Article 8(1a) for D1, D2C3, D3, D4, D6C3-C5, D7C2)	Species	Birds	Grazing birds	BirdsGrazing
			Wading birds	BirdsWading
			Surface-feeding birds	BirdsSurfaceFeeding
			Pelagic-feeding birds	BirdsPelagicFeeding
			Benthic-feeding birds	BirdsBenthicFeeding
		Mammals	Small toothed cetaceans	MamCetacSmall
			Deep-diving toothed cetaceans	MamCetacDeepDiving
			Baleen whales	MamCetacBaleenWhales
			Seals	MamSeals
		Reptiles	Turtles	RepTurtles
		Fish	Coastal fish	FishCoastal
			Pelagic shelf fish	FishPelagicShelf
			Demersal shelf fish	FishDemersalShelf
			Deep-sea fish	FishDeepSea
			Commercially exploited fish and shellfish	FishCommercial
	Cephalopods	Coastal/shelf cephalopods	CephaCoastShelf	
		Deep-sea cephalopods	CephaDeepSea	
	Habitats	Benthic habitats	Benthic broad habitats	HabBenBHT
			Other benthic habitats	HabBenOther
		Pelagic habitats	Pelagic broad habitats	HabPelBHT
			Other pelagic habitats	HabPelOther
	Ecosystems		Physical and hydrological characteristics	CharaPhyHydro
			Chemical characteristics	CharaChem
Ecosystems, including food webs		Coastal ecosystems	EcosysCoastal	
		Shelf ecosystems	EcosysShelf	
		Oceanic/deep-sea ecosystems	EcosysOceanic	
Pressures and impacts in the marine environment	Biological	Newly introduced non-indigenous species	PresEnvNISnew	
		Established non-indigenous species	PresEnvNISestablished	
		Species affected by incidental by-catch	PresEnvBycatch	
	Physical and hydrological	Hydrographical changes	PresEnvHydroChanges	
		Physical disturbance to seabed	PresPhyDisturbSeabed	
		Physical loss of the seabed	PresPhyLoss	

Subject	Theme	Sub-theme	Label: Feature	Code			
(relevant for monitoring and assessment for Article 8(1b) for D1C1, D2C1-C2, D5, D6C1-C2, D7C1, D8, D9, D10, D11)	Substances, litter and energy		Eutrophication	PresEnvEutrophi			
			Contaminants - non UPBT substances	PresEnvContNonUPBTs			
			Contaminants - UPBT substances	PresEnvContUPBTs			
			Contaminants – in seafood	PresEnvContSeafood			
			Adverse effects on species or habitats	PresEnvAdvEffectsSppHab			
			Acute pollution events	PresEnvAcuPolluEvents			
			Litter in the environment	PresEnvLitter			
			Micro-litter in the environment	PresEnvLitterMicro			
			Litter and micro-litter in species	PresEnvLitterSpp			
			Impulsive sound in water	PresEnvSoundImpulsive			
			Continuous low frequency sound	PresEnvSoundContinuous			
Pressure inputs to the marine environment (relevant for monitoring and assessment for Article 10)	Biological		Input or spread of non-indigenous species	PresBioIntroNIS			
			Input of microbial pathogens	PresBioIntroMicroPath			
			Input of genetically modified species and translocation of native species	PresBioIntroGenModSpp			
			Loss of, or change to, natural biological communities due to cultivation of animal or plant species	PresBioCultHab			
			Disturbance of species (e.g. where they breed, rest and feed) due to human presence	PresBioDisturbSpp			
			Extraction of, or mortality/injury to, wild species (by commercial and recreational fishing and other activities)	PresBioExtractSpp			
	Substances, litter and energy		Input of nutrients – diffuse sources, point sources, atmospheric deposition	PresInputNut			
			Input of organic matter – diffuse sources and point sources	PresInputOrg			
			Input of other substances (e.g. synthetic substances, non-synthetic substances, radionuclides) – diffuse sources, point sources, atmospheric deposition, acute events	PresInputCont			
			Input of litter (solid waste matter, including micro-sized litter)	PresInputLitter			
			Input of anthropogenic sound (impulsive, continuous)	PresInputSound			
			Input of other forms of energy (including electromagnetic fields, light and heat)	PresInputOthEnergy			
			Input of water – point sources (e.g. brine)	PresInputWater			
			Uses and human activities	Physical restructuring of rivers, coastline or seabed (water management)		Land claim	ActivRestrucLandClaim
						Canalisation and other watercourse modifications	ActivRestrucCanalisation
Coastal defence and flood protection	ActivRestrucCoastDef						
Offshore structures (other than for oil/gas/renewables)	ActivRestrucOffshStruc						
Restructuring of seabed morphology, including dredging & depositing of materials	ActivRestrucSeabedMorph						
Extraction of non-living resources		Extraction of minerals (rock, metal ores, gravel, sand, shell)		ActivExtrNonLivingMinerals			
		Extraction of oil and gas, including infrastructure		ActivExtrNonLivingOilGas			
		Extraction of salt		ActivExtrNonLivingSalt			
		Extraction of water		ActivExtrNonLivingWater			
Production of energy		Renewable energy generation (wind, wave and tidal power), including infrastructure		ActivProdEnerRenew			
		Non-renewable energy generation		ActivProdEnerNonRenew			
		Transmission of electricity and communications (cables)		ActivProdEnerCables			

Subject	Theme	Sub-theme	Label: Feature	Code
(relevant for monitoring and assessment for Article 8(1c) and 13)	Extraction of living resources	of living	Fish and shellfish harvesting (professional, recreational)	ActivExtrLivingFishHarv
			Fish and shellfish processing	ActivExtrLivingFishProcess
			Marine plant harvesting	ActivExtrLivingPlantHarv
			Hunting and collecting for other purposes	ActivExtrLivingHunt
	Cultivation of living resources	of living	Aquaculture – marine, including infrastructure	ActivCultivAquaculMarine
			Aquaculture – freshwater	ActivCultivAquaculFreshwa
			Agriculture	ActivCultivAgri
			Forestry	ActivCultivFores
	Transport		Transport infrastructure	ActivTranspInfras
			Transport – shipping	ActivTranspShip
			Transport – air	ActivTranspAir
			Transport – land	ActivTranspLand
	Urban and industrial uses		Urban uses	ActivUrbIndUrban
			Industrial uses	ActivUrbIndIndustrial
			Waste treatment and disposal	ActivUrbIndWaste
	Tourism and leisure		Tourism and leisure infrastructure	ActivTourismInfras
			Tourism and leisure activities	ActivTourismActiv
	Security/defence		Military operations (subject to Article 2(2))	ActivMilitary
	Education and research		Research, survey and educational activities	ActivResearch

n) GEScriteria

Primary criteria are in bold.

Code	Criterion
D1C1	D1C1 Mortality rate from incidental by-catch
D1C2	D1C2 Population abundance
D1C3¹¹	D1C3 Population demographic characteristics
D1C4¹²	D1C4 Population distributional range and pattern
D1C5¹³	D1C5 Habitat for the species
D1C6	D1C6 Pelagic habitat condition
D2C1	D2C1 Newly introduced NIS
D2C2	D2C2 Established NIS
D2C3	D2C3 Adverse effects of NIS
D3C1	D3C1 Fishing mortality rate (F)
D3C2	D3C2 Spawning stock biomass (SSB)
D3C3	D3C3 Population age/size distribution
D4C1	D4C1 Trophic guild species diversity
D4C2	D4C2 Abundance across trophic guilds
D4C3	D4C3 Trophic guild size distribution
D4C4	D4C4 Trophic guild productivity
D5C1	D5C1 Nutrient concentrations
D5C2	D5C2 Chlorophyll-a concentration
D5C3	D5C3 Harmful algal blooms
D5C4	D5C4 Photic limit
D5C5	D5C5 Dissolved oxygen concentration

Code	Criterion
D5C6	D5C6 Opportunistic macroalgae of benthic habitats
D5C7	D5C7 Macrophyte communities of benthic habitats
D5C8	D5C8 Macrofaunal communities of benthic habitats
D6C1	D6C1 Physical loss of the seabed
D6C2	D6C2 Physical disturbance to the seabed
D6C3	D6C3 Adverse effects from physical disturbance
D6C4	D6C4 Benthic habitat extent
D6C5	D6C5 Benthic habitat condition
D7C1	D7C1 Permanent alteration of hydrographical conditions
D7C2	D7C2 Adverse effects from permanent alteration of hydrographical conditions
D8C1	D8C1 Contaminant in environment
D8C2	D8C2 Adverse effects of contaminants
D8C3	D8C3 Significant acute pollution events
D8C4	D8C4 Adverse effects of significant acute pollution events
D9C1	D9C1 Contaminants in seafood
D10C1	D10C1 Litter (excluding micro-litter)
D10C2	D10C2 Micro-litter
D10C3	D10C3 Litter ingested
D10C4	D10C4 Adverse effects of litter
D11C1	D11C1 Anthropogenic impulsive sound
D11C2	D11C2 Anthropogenic continuous low-frequency sound
Not relevant	GES component not relevant

¹¹ Primary criterion for commercial fish (D1F) and cephalopods (D1C)

¹² Primary criterion for mammals (D1M), turtles (D1R) and Habitats Directive fish (D1F)

¹³ Primary criterion for mammals (D1M), turtles (D1R) and Habitats Directive fish (D1F)

o) DataVoidReason

Code	Criterion
Data-InPrep	Data being prepared for publication
Data-NotElectronic	Data not in an electronic format
Data-NotPublic	Data not publicly accessible

ANNEX III: Indicative list of monitoring programme names

The indicative list of monitoring programmes provided below was already included in the previous reporting guidance. This indicative list is provided to promote consistency between Member States in how to define the scope or level of detail of an individual monitoring programme (i.e. the level of aggregation or disaggregation).

Note the following:

- a. The programmes are formulated in a generic way and should thus have wide applicability across the regions; the titles could be made more specific for the Member State if required via the 'Programmename';
- b. The list is unlikely to be definitive and Member States can add further programmes as needed;
- c. Not all programmes are relevant for every Member State;
- d. In some cases, Member States may wish to define several programmes within the ones listed – perhaps to reflect different target elements (functional groups/species/habitats), differing areas/intensity of monitoring (e.g. MPAs, outside) or differing methods or internal organisation (e.g. inshore by a Member State agency, offshore through an international programme);
- e. As the list is intended to provide structure to the reporting to assist comparison and cooperation across Member States it is recommended that these programmes are not aggregated.

The list of programmes below has been categorised according to the main purpose of the monitoring, the main elements and parameters monitored, the relevant GES Descriptors and criteria from Commission Decision (EU) 2017/848 and the ecosystem components, parameters, pressures and activities from MSFD Annex III (Directive (EU) 2017/845).

Monitoring programmes	Purpose	Features/elements monitored	Parameter(s)	Descriptor	Criteria	
Mobile species – distribution, abundance and/or biomass	State/ Impacts	Highly mobile species Species groups or individual species of: Birds, mammals, reptiles, fish, cephalopods (including commercial species)	Species composition of the group Species abundance (numbers of individuals and/or biomass) Species distribution (location)	D1, D2, D3, D4	D1C2, D1C4, D2C2, D3C2, D4C1, D4C2	
Mobile species – population characteristics			Size, age and sex structure; fecundity, survival and mortality/injury rates Behaviour including movement and migration	D1, D3, D4	D1C3, D3C3, D4C3, D4C4	
Mobile species – health status				D8	D8C2	
Mobile species – state of habitats			Habitat for the species (extent, suitability)	D1	D1C5	
Mobile species – mortality/injury rates from fisheries (targeted and/or incidental)			Rates of mortality, injury or other adverse effects from anthropogenic activities	D1, D3	D1C1, D3C1	
Mobile species – mortality/injury rates from other human activities				D1, D8, D10	D1C2, D8C4, D10C4	
Seabed habitats - distribution and extent		Seabed habitats/ sea-floor	Seabed habitats, incl. habitat-forming species and biogenic reefs	Habitat distribution Habitat extent (mapping) - for single (targeted) habitat(s), or for all habitats Habitat volume	D6, D7	D6C3, D6C4, D6C5, D7C2
Seabed habitats - physical and chemical characteristics			Seabed habitats (physical/ chemical characteristics)	Substrate type and morphology, bathymetry, organic carbon, oxygen levels	D5, D6, D7	D5C5, D6C3, D6C5, D7C2
Seabed habitats - community characteristics			Seabed habitats (biological characteristics), specific benthic species (including commercial species)	Species composition, abundance (numbers of individuals or coverage of seabed) and/or biomass Size and age structure of species	D2, D3, D4, D5, D6, D7, D8	D2C3, D3C2, D3C3, D4C1, D4C3, D5C6, D5C7, D5C8, D6C3, D6C5, D7C2, D8C2, D8C4
Benthic species – abundance and/or biomass		D8			D8C2	
Benthic species – health status		Water column	Oceanography – physical/ hydrological	Temperature, salinity, turbidity, transparency, sound	D1, D5, D7	D1C6, D5C4, D7C1
Ice cover				Ice cover, duration, thickness		
Water column – hydrological characteristics				Wave and current regimes, upwelling. Mixing, residence time, freshwater input, sea level	D1, D7	D1C6, D7C1
Water column – chemical characteristics			Oceanography – chemical	Nutrients, O ₂ , pH/pCO ₂	D1, D5	D1C6, D5C1, D5C5

Monitoring programmes	Purpose	Features/elements monitored		Parameter(s)	Descriptor	Criteria
Pelagic habitats – community characteristics			Oceanography – biological (phytoplankton, zooplankton)	Species composition, abundance and/or biomass	D1, D2, D4	D1C6, D2C3, D4C1, D4C2
Plankton blooms (biomass, frequency)				Chlorophyll-a levels, plankton bloom frequencies and extent	D4, D5	D4C4, D5C2, D5C3
Non-indigenous species inputs - from specific sources	Pressures	Level of pressure at source	Nutrients, Litter, [noise], contaminants, [pathogens], non-indigenous species	Input quantity per area per time	D2	D2C1
Nutrient inputs - land-based sources					D5	
Nutrient inputs - from atmosphere					D5	
Nutrient inputs - sea-based sources					D5	
Contaminant inputs - from atmosphere					D8	
Contaminant inputs - land-based sources					D8	
Contaminant inputs - sea-based sources					D8	
Contaminant inputs – acute pollution events, incl. oil spills					D8	D8C3
Litter inputs - land-based (riverine) sources					D10	
Non-indigenous species - abundance and/or biomass		Level of pressure in marine environment	Nutrients, Litter, noise, contaminants, pathogens, physical loss, physical damage, [extraction of species incl. by-catch]	Distribution/extent in space and time, concentration	D2	D2C2
Nutrient and organic matter levels - in water column					D5	D5C1
Physical loss - distribution and extent (from e.g. infrastructure, coastal protection)					D6	D6C1
Physical disturbance - from bottom-contacting fishing gear					D6	D6C2
Physical disturbance - from dredging and disposal of dredged material	D6				D6C2	
Physical disturbance - from sand and gravel extraction	D6				D6C2	
Contaminant levels - in water/sediment	D8				D8C1	
Contaminant levels - in species, including seafood	D8, D9				D8C1, D9C1	
Microbial pathogen levels - in water column (bathing waters)						

Monitoring programmes	Purpose	Features/elements monitored		Parameter(s)	Descriptor	Criteria
Microbial pathogen levels - in biota (seafood)						
Litter - characteristics and abundance/volume on coast, water surface, seabed					D10	D10C1
Litter micro-particles - abundance/volume in water, sediment					D10	D10C2
Litter/micro-litter in biota					D10	D10C3
Impulsive underwater noise - distribution, frequency and levels					D11	D11C1
Continuous underwater noise - distribution, frequency and levels					D11	D11C2
Activities extracting living resources (fisheries including recreational, marine plant harvesting, hunting and collecting)	Activities	Activity	See list for 2024 reporting	Distribution/extent in space and time, intensity	All	All
Activities extracting non-living resources (sand, gravel, dredging)						
Activities extracting non-living resources (desalination)						
Activities producing food (aquaculture)						
Activities with permanent infrastructures (e.g. renewable energy, oil & gas, ports) or structural changes (e.g. coastal defences)						
Sea-based mobile activities (shipping, boating)						
Coastal human activities (e.g. tourism, recreational sports, ecotourism)						
Land-based activities						
Effectiveness of measures	Measures	Measures	Existing measures		All	All

ANNEX IV: Quality control procedures

A) Reporter Information

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
ReporterInfo		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
ReporterInfo	ContactMail	Field type EMAIL	Checks if the field is a valid EMAIL	The value does not follow the expected syntax for a valid email	FIELD	ERROR
ReporterInfo	ContactMail	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
ReporterInfo	ContactOrganisation	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
ReporterInfo	ContactName	Maximum Length of ContactName	The maximum length is 100 characters	Maximum length of 100 characters	FIELD	BLOCKER
ReporterInfo	ContactMail	Max Length ContactMail	The maximum length is 256 characters	Maximum length of 256 characters	FIELD	BLOCKER
ReporterInfo	ContactOrganisation	Max Length ContactOrganisation	The maximum length is 500 characters	Maximum length of 500 characters	FIELD	BLOCKER

B) Art11_Strategies

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
Metadata	PublicConsultationDates	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
Metadata	PublicConsultationDates	Length Public Consultation Dates	Fixed date format of 17 characters (YYYYMMDD-YYYYMMDD)	Fixed date format of 17 characters	FIELD	BLOCKER
Metadata	PublicConsultationSite	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
Metadata	PublicConsultationSite	Field type URL	Checks if the field is a valid URL	The value does not follow the expected syntax for a valid URL	FIELD	ERROR
Metadata	PublicConsultationSite	Max Length PublicConsultationSite	The maximum length is 2000 characters	Maximum length of 2000 characters	FIELD	BLOCKER
Metadata	RegionalCooperation	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
Metadata	RegionalCooperation	Length RegionalCooperation	Maximum of 2500 characters allowed in RegionalCooperation	Maximum of 2500 characters allowed in RegionalCooperation	FIELD	BLOCKER
Metadata	RelationshipToCA	Required RelationshipToCA	Required if ResponsibleOrganisations field is filled in	This field is required	FIELD	ERROR
Metadata	RelationshipToCA	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Metadata	ResponsibleCompetentAuthority	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
Metadata	ResponsibleCompetentAuthority	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Metadata	ResponsibleOrganisations	Max Length ResponsibleOrganisations	The maximum length is 2000 characters	Maximum length of 2000 characters	FIELD	BLOCKER
Metadata		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
MonitoringStrategy	Coverage_GEScriteria	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringStrategy	Coverage_GEScriteria	Reported Coverage GESCriteria	If "Descriptor" is considered not relevant then "Coverage_GEScriteria" must be equal to "Not relevant - Monitoring for this descriptor is not relevant"	If "Descriptor" is considered not relevant then "Coverage_GEScriteria" must be equal to "Not relevant"	FIELD	BLOCKER
MonitoringStrategy	Coverage_GEScriteria	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	Coverage_Measures	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	Coverage_Measures	Required Coverage Measures	Required if "RelatedMeasures" field is	This field is required	FIELD	WARNING

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
			not empty			
MonitoringStrategy	Coverage_Targets	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	Coverage_Targets	Required Coverage Targets	Required if "RelatedTargets" field is not empty	This field is required	FIELD	WARNING
MonitoringStrategy	Descriptor	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringStrategy	Descriptor	Reported Descriptor	If "Descriptor" is considered not relevant then the only fields required are 'MonitoringStrategyDescription', 'Coverage_GEScriteria' and 'Gaps_Plans'.	If "Descriptor" is considered not relevant then next fields are required: 'MonitoringStrategyDescription', 'Coverage_GEScriteria', 'Gaps_Plans'.	FIELD	BLOCKER
MonitoringStrategy	Descriptor	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	Gaps_Plans	Length Gaps Plans	The maximum length is 4000 characters	Maximum length of 4000 characters	FIELD	BLOCKER
MonitoringStrategy	Gaps_Plans	Reported Gaps_Plans	Checks if gaps and plans were reported	This field is required when applicable	FIELD	WARNING
MonitoringStrategy	Gaps_Plans	Reported Gaps_Plans	If "Descriptor" is considered not relevant then "Gaps_Plans" must be equal to "Monitoring for this descriptor is not relevant"	If "Descriptor" is considered not relevant then "Gaps_Plans" must contain "Monitoring for this descriptor is not relevant"	FIELD	BLOCKER
MonitoringStrategy	MonitoringProgrammes	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	MonitoringProgrammes	Reported MonitoringProgrammes	Not required when "Coverage_GEScriteria" is populated with values "Monitoring is not being put in place for this descriptor due to a low risk" or "Monitoring for this descriptor is not relevant"	This field is required depending on "Coverage_GEScriteria" values	FIELD	BLOCKER
MonitoringStrategy	MonitoringProgrammes	Reported ProgrammeCode	All codes must be reported in the ProgrammeCode field of the MonitoringProgrammes	All codes must be reported in the ProgrammeCode field of the MonitoringProgrammes	FIELD	BLOCKER
MonitoringStrategy	MonitoringStrategyDescription	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringStrategy	MonitoringStrategyDescription	Reported Monitoring Strategy Description	If field "Descriptor" is considered not relevant then "MonitoringStrategyDescription" must be equal to "Descriptor not relevant for Member State's waters"	If field "Descriptor" is considered not relevant then "MonitoringStrategyDescription" must contain "Descriptor not relevant for Member State's waters"	FIELD	BLOCKER
MonitoringStrategy	MonitoringStrategyDescription	Length	The maximum length is 4000	Maximum length of 4000 characters	FIELD	BLOCKER

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
		MonitoringStrategyDescription	characters			
MonitoringStrategy	RelatedMeasures	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	RelatedMeasures	Required RelatedMeasures	Checks if measures were reported	This field is required for relevant descriptors	FIELD	WARNING
MonitoringStrategy	RelatedTargets	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringStrategy	RelatedTargets	Reported RelatedTargets	Checks if targets were reported	This field is required for relevant descriptors	FIELD	WARNING
MonitoringStrategy		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
MonitoringStrategy		Missing GESDescriptor	Checks if all GESDescriptor codes in reference list were reported	Missing GESDescriptor codes to be reported: {%List_MissingDescriptors%}	TABLE	BLOCKER

C) Art11_Programmes

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
Datasets	DataAccess_MD_URL	Field type URL	Checks if the field is a valid URL	The value does not follow the expected syntax for a valid URL	FIELD	ERROR
Datasets	DataAccess_URL	Field type URL	Checks if the field is a valid URL	The value does not follow the expected syntax for a valid URL	FIELD	ERROR
Datasets	DataAccess_URL	Required DataAccess_URL	Required except when "DatasetVoidReason" is filled in	Required unless "DatasetVoidReason" is filled out	FIELD	BLOCKER
Datasets	DatasetVoidReason	Required DatasetVoidReason	Required when "DataAccess_URL" is not filled in	This field is required	FIELD	BLOCKER
Datasets	DatasetVoidReason	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Datasets	ProgrammeCode	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	BLOCKER
Datasets	ProgrammeCode	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	BLOCKER
Datasets		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
Datasets		Missing ProgrammeCode Datasets	All ProgrammeCodes reported in table "MonitoringProgramme" must be reported in table "Datasets"	All ProgrammeCodes reported in table "MonitoringProgramme" must be reported in table "Datasets"	TABLE	ERROR
Feature_Element_Criteria	Element	Required Element	Element must be provided for the features indicated	Element must be provided for the features indicated	FIELD	ERROR
Feature_Element_Criteria	Element	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Feature_Element_Criteria	Element2	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Feature_Element_Criteria	Feature	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
Feature_Element_Criteria	Feature	Feature Combinations	Required correct combinations and assignment of Feature-Element and Feature-Criteria	Required correct combinations and assignment of Feature, Element and Criteria	FIELD	WARNING
Feature_Element_Criteria	Feature	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Feature_Element_Criteria	Feature	Required Element	Evaluates if "Feature" requires or not an element to be reported.	An Element is required for this Feature.	FIELD	WARNING
Feature_Element_Criteria	GEScriteria	Required GEScriteria	GEScriteria must be provided when Element is provided	GEScriteria must be provided when Element is provided	FIELD	BLOCKER
Feature_Element_Criteria	GEScriteria	Primary GEScriteria	Primary criteria must be reported	GEScriteria must be reported because it's primary criteria	FIELD	ERROR
Feature_Element_Criteria	GEScriteria	Secondary GEScriteria	Secondary criteria should be reported	GEScriteria should be reported because it's secondary criteria	FIELD	WARNING

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
Feature_Element_Criteria	GESCriteria	Duplicate_GESCriteria	Duplicated GESCriteria for an Element gives back a blocker	GESCriteria can not be duplicated	FIELD	BLOCKER
Feature_Element_Criteria	GESCriteria	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Feature_Element_Criteria	Parameter	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Feature_Element_Criteria	Parameter	Required Parameter	Parameter must be provided when GESCriteria is provided	Parameter must be provided when GESCriteria is provided	FIELD	BLOCKER
Feature_Element_Criteria	Parameter_other	ParameterOther_required	If 'Parameter' = "Other", field 'ParameterOther' is required	If 'Parameter' = "Other", field 'ParameterOther' is required	FIELD	BLOCKER
Feature_Element_Criteria	Parameter_other	Length Parameter_other	Maximum of 250 characters allowed in Parameter_other	Maximum of 250 characters allowed in Parameter_other	FIELD	BLOCKER
Feature_Element_Criteria	ProgrammeCode	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	BLOCKER
Feature_Element_Criteria	ProgrammeCode	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
Feature_Element_Criteria		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
Feature_Element_Criteria		Table type uniqueConstraint	Checks if Feature, Element, Element2, GESCriteria and Parameter are uniques within table	Uniqueness and multiplicity constraints - The fields Feature, Element, Element2, GESCriteria and Parameter are uniques within table	TABLE	ERROR
Feature_Element_Criteria		Missing ProgrammeCode FeatureElementCriteria	All ProgrammeCodes reported in table "MonitoringProgramme" must be reported in table "Feature_Element_Criteria"	All ProgrammeCodes reported in table "MonitoringProgramme" must be reported in table "Feature_Element_Criteria"	TABLE	ERROR
MonitoringProgramme	Contact	Length Contact	The length must be of 2500 characters	Maximum length of 2500 characters	FIELD	ERROR
MonitoringProgramme	DataManagement	Length DataManagement	The length must be of 2500 characters	Maximum length of 2500 characters	FIELD	ERROR
MonitoringProgramme	MarineReportingUnit	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	MarineReportingUnit	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	ModifiedProgramme	Required ModifiedProgramme	Required if "UpdateType" = "Modified compared to previous programme"	This field is required.	FIELD	BLOCKER
MonitoringProgramme	ModifiedProgramme	Length ModifiedProgramme	Maximum Length of 4000 characters	Maximum Length of 4000 characters	FIELD	BLOCKER
MonitoringProgramme	MonitoringDetails	Required MonitoringDetails	Required if 'MonitoringFrequency' = "Other"	This field is required.	FIELD	ERROR
MonitoringProgramme	MonitoringDetails	Length MonitoringDetails	The length must be of 4000 characters	Maximum length of 4000 characters	FIELD	BLOCKER
MonitoringProgramme	MonitoringDetails	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	MonitoringFrequency	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	MonitoringFrequency	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	MonitoringMethod	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
MonitoringProgramme	MonitoringMethod	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	MonitoringMethod_other	Required MonitoringMethod_Other	MonitoringMethodOther must be provided when MonitoringMethod is 'Other'	MonitoringMethodOther must be provided when MonitoringMethod is 'Other'	FIELD	BLOCKER
MonitoringProgramme	MonitoringMethod_other	Length MonitoringMethod_other	Maximum of 2500 characters allowed in MonitoringMethod_other	Maximum of 2500 characters allowed in MonitoringMethod_other	FIELD	BLOCKER
MonitoringProgramme	MonitoringPurpose	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	MonitoringPurpose	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	MonitoringType	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	MonitoringType	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	OldProgrammeCodes	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	OtherPoliciesConventions	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	ProgrammeCode	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	BLOCKER
MonitoringProgramme	ProgrammeCode	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	BLOCKER
MonitoringProgramme	ProgrammeCode	Format ProgrammeCode	If "UpdateType" = "New programme", "ProgrammeCode" syntax must be: MS code - MS defined alpha-numeric code (e.g. IT-D08-01).	The syntax for "ProgrammeCode" is: MS code - MS-defined alpha-numeric code (e.g. IT-D08-01)	FIELD	BLOCKER
MonitoringProgramme	ProgrammeCode	Reported ProgrammeCode	Check if string reported is in reference list "ProgrammeCode" except when "UpdateType" value equal to "New programme"	This code is not in reference list "ProgrammeCode" or field "UpdateType" must be "New programme"	FIELD	BLOCKER
MonitoringProgramme	ProgrammeCode	Reported MonitoringProgramme	All codes must be reported in the MonitoringProgrammes field of the MonitoringStrategy.	All codes must be reported in the MonitoringProgrammes field of the MonitoringStrategy.	FIELD	BLOCKER
MonitoringProgramme	ProgrammeCode	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the referenced list.	FIELD	ERROR
MonitoringProgramme	ProgrammeDescription	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	ProgrammeDescription	Required Description	Required if "Update type"= "Modified from 2020" and "Programme no longer in place"	This is a required field.	FIELD	ERROR
MonitoringProgramme	ProgrammeDescription	Length ProgrammeDescription	The length must be of 4000 characters	Maximum length of 4000 characters	FIELD	BLOCKER
MonitoringProgramme	ProgrammeDescription	Updated_ProgrammeName	ProgrammeName has changed. Please mention in ProgrammeDescription the previous/old ProgrammeName and reasons	ProgrammeName has changed. Please mention in ProgrammeDescription the previous/old ProgrammeName and reasons	FIELD	WARNING

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
			for the update.	for the update.		
MonitoringProgramme	ProgrammeName	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	ProgrammeName	WrongProgrammeName	Programme Name must correspond to its Programme Code	Programme Name must correspond to its Programme Code	FIELD	BLOCKER
MonitoringProgramme	ProgrammeName	Length ProgrammeName	The length must be of 250 characters	Maximum length of 250 characters	FIELD	ERROR
MonitoringProgramme	QualityControl	Length QualityControl	The length must be of 2500 characters	Maximum length of 2500 characters	FIELD	ERROR
MonitoringProgramme	References	Length References	Maximum of 2500 characters allowed in References	Maximum of 2500 characters allowed in References	FIELD	BLOCKER
MonitoringProgramme	RegionalCooperation_coordination	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	RegionalCooperation_coordination	Reported_RegionalCooperation_coordination	Checks if RegionalCooperation_coordination was filled in	This field is required where applicable	FIELD	WARNING
MonitoringProgramme	RegionalCooperation_countries	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	RegionalCooperation_implementation	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme	RegionalCooperation_implementation	Reported RegionalCooperation_Implementation	Must be provided when RegionalCooperation_coordination or RegionalCooperation_countries have been filled in	This field is required.	FIELD	ERROR
MonitoringProgramme	SpatialScope	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	SpatialScope	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the referenced list.	FIELD	ERROR
MonitoringProgramme	TemporalScope	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	TemporalScope	Format TemporalScope	Checks if reporters followed the format YYYY-YYYY	The field's format is YYYY-YYYY	FIELD	ERROR
MonitoringProgramme	UpdateType	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
MonitoringProgramme	UpdateType	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
MonitoringProgramme		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
MonitoringProgramme		Table type uniqueConstraint	Checks if ProgrammeCode is unique within table	Uniqueness and multiplicity constraints - The field ProgrammeCode is unique within table	TABLE	ERROR
MonitoringProgramme		Reported_ProgrammeCodes2020	ProgrammeCodes from 2020 reporting exercise have not been reported in table MonitoringProgramme	ProgrammeCodes from 2020 reporting exercise have not been reported in table MonitoringProgramme. Missing codes: {%missing_code%}	TABLE	INFO

Table	Field	QC Name	QC Description	Message	Type of QC	Level Error
RelatedIndicator	ProgrammeCode	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	BLOCKER
RelatedIndicator	ProgrammeCode	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
RelatedIndicator	RelatedIndicator_code	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty	FIELD	ERROR
RelatedIndicator	RelatedIndicator_code	Length_RelatedIndicator_code	Maximum of 50 characters	Maximum of 50 characters	FIELD	BLOCKER
RelatedIndicator	RelatedIndicator_code	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
RelatedIndicator	RelatedIndicator_name	Required RelatedIndicator_name	Mandatory field if related indicator code was provided and is not equal to "Not available"	Mandatory field if related indicator code was provided and is not equal to "Not available"	FIELD	ERROR
RelatedIndicator	RelatedIndicator_name	Field type LINK	Checks if the record based on criteria is valid LINK	The value is not a valid member of the reference list.	FIELD	ERROR
RelatedIndicator		Mandatory table records check	When a table is marked as mandatory, checks at least one record is added	Mandatory table has no records	TABLE	BLOCKER
RelatedIndicator		Missing ProgrammeCode RelatedIndicator	All ProgrammeCodes reported in table "MonitoringProgramme" must be reported in table "RelatedIndicator"	All ProgrammeCodes reported in table "MonitoringProgramme" must be reported in table "RelatedIndicator"	TABLE	ERROR

ANNEX V: Features and elements to be used for the descriptors and criteria reported

See [Annex II](#) for GES component (descriptors and criteria) and Feature enumerations lists. See the MSFD Reporting Reference List for available elements (<http://cdr.eionet.europa.eu/help/msfd>). If the list does not contain the elements needed, contact msfd.helpdesk@eionet.europa.eu. In the table, primary criteria are in bold.

GES descriptor	Feature	Elements	GES criteria
D1 Biodiversity – birds, mammals, reptiles, fish, cephalopods	Species affected by incidental by-catch	Species list	D1C1
D1 Biodiversity – birds, mammals, reptiles, fish, cephalopods	Species groups for birds, mammals, reptiles, fish and cephalopods	Species list	D1C2; D1C3¹⁶; D1C4¹⁷; D1C5¹⁸
D1 Biodiversity - pelagic habitats	Pelagic broad habitats	Pelagic broad habitats list	D1C6
D1 Biodiversity - pelagic habitats	Other pelagic habitats	Other pelagic habitats list	D1C6
D2 Non-indigenous species	Newly introduced non-indigenous species	Not applicable	D2C1
D2 Non-indigenous species	Established non-indigenous species	NIS list	D2C2
D2 Non-indigenous species	Adverse effects on species or habitats	Benthic broad habitats list; Pelagic broad habitats list; Species groups	D2C3
D3 Commercial fish and shellfish	Commercially exploited fish and shellfish	Commercial species list	D3C1;D3C2;D3C3
D4 Food webs/D1 Biodiversity - ecosystems	Coastal ecosystems; shelf ecosystems; oceanic/deep-sea ecosystems	Trophic guilds list	D4C1;D4C2 ;D4C3;D4C4
D4 Food webs/D1 Biodiversity - ecosystems	Physical and hydrological characteristics; chemical characteristics	Physical, hydrological and chemical elements list (from MSFD Annex III Table 1)	D4C1;D4C2 ;D4C3;D4C4
D5 Eutrophication	Eutrophication	DIN; TN; DIP; TP; organic carbon ¹⁹	D5C1
		Chlorophyll-a	D5C2
		Harmful algal bloom species list	D5C3
		Photic limit (Transparency)	D5C4
		Dissolved oxygen (O ₂)	D5C5
		Benthic habitats - opportunistic macroalgae	D5C6
		Benthic habitats - macrophyte communities	D5C7
Benthic habitats - macrobenthic communities	D5C8		

¹⁶ Primary criterion for commercial fish (D1F) and cephalopods (D1C)

¹⁷ Primary criterion for mammals (D1M), turtles (D1R) and Habitats Directive fish (D1F)

¹⁸ Primary criterion for mammals (D1M), turtles (D1R) and Habitats Directive fish (D1F)

¹⁹ Organic carbon is an element from MSFD Annex III Table 1a that is of possible relevance for criterion D5C1

GES descriptor	Feature	Elements	GES criteria
D6 Sea-floor integrity/D1 Biodiversity - benthic habitats	Physical loss of the seabed	Physical loss of the seabed	D6C1
D6 Sea-floor integrity/D1 Biodiversity - benthic habitats	Physical disturbance to the seabed	Physical disturbance to the seabed	D6C2
D6 Sea-floor integrity/D1 Biodiversity - benthic habitats	Benthic broad habitats	Benthic broad habitats list	D6C3;D6C4;D6C5
D6 Sea-floor integrity/D1 Biodiversity - benthic habitats	Other benthic habitats	Other benthic habitats list (e.g. habitats from EUNIS and Habitats Directive)	D6C3;D6C4;D6C5
D7 Hydrographical changes	Hydrographical changes	Physical, hydrological and chemical elements list (from MSFD Annex III Table 1)	D7C1
D7 Hydrographical changes	Benthic broad habitats	Benthic broad habitats list	D7C2
D7 Hydrographical changes	Other benthic habitats	Other benthic habitats list (e.g. habitats from EUNIS and Habitats Directive)	D7C2
D8 Contaminants	Contaminants - non UPBT substances	Contaminants list	D8C1
D8 Contaminants	Contaminants - UPBT substances	Contaminants list	D8C1
D8 Contaminants	Adverse effects on species or habitats	Benthic broad habitats list; Other benthic habitats list; Species list	D8C2
D8 Contaminants	Acute pollution events	Acute pollution events	D8C3
D8 Contaminants	Adverse effects on species or habitats	Not applicable ²⁰	D8C4
D9 Contaminants in fish and seafood	Contaminants - in seafood	Contaminants list (from Foodstuffs Regulation)	D9C1
D10 Marine litter	Litter in the environment	10 litter categories of GES Decision	D10C1
D10 Marine litter	Micro-litter in the environment	2 litter categories of GES Decision	D10C2
D10 Marine litter	Litter and micro-litter in species	2 litter categories of GES Decision	D10C3
D10 Marine litter	Adverse effects on species or habitats	Species list	D10C4
D11 Energy, including underwater noise	Impulsive sound in water	Not applicable	D11C1
D11 Energy, including underwater noise	Continuous low frequency sound	Sound frequency categories	D11C2
Any	Features in list 'Pressure inputs to the marine environment'	Not applicable	Any
Any	Features in list 'Uses and human activities'	Not applicable	Any

²⁰ Elements are not applicable, since the species or habitats affected by acute pollution events cannot be predefined. After the implementation of the monitoring programmes, those elements (species and habitats) can be specified under the next Article 8 report.