3rd WISE Implementation Plan (2018-2020)

Third draft (EEA, 3rd April 2018)

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The objective of the 3rd WISE Implementation Plan 2018 – 2020 is to describe:

1. the governance of WISE and the roles and responsibilities of the organisations involved,
2. the ambition level for 2018-2020, and provide an indication of the activities and deliverables with a view to (a) mobilise and secure adequate resources and (b) coordinate activities of the WISE partners in an effective and efficient manner.

What is WISE?

WISE is a joint initiative of the European Commission and the EEA, which have a mandate in freshwater and marine legislation and knowledge at European level.

WISE has two main components, freshwater and marine environment. For each of these there is both an input of data and information and an output side in terms of making these available to stakeholders:

	Input[1]	Output
WISE-Freshwater	- WFD - FD - Water industry directives: UWWTD, BWD, DWD - WISE - State of Environment data call	https://water.europa.eu/ https://water.europa.eu/freshwater
WISE-Marine	- MSFD - WISE - State of Environment data call - ICES - EMODNET - Copernicus Marine Environment Monitoring Service (CMEMS)	https://water.europa.eu/ https://water.europa.eu/marine

The development of WISE was based on a decision from EU Water Directors and initiated in 2006. WISE-Freshwater was launched on World Water Day in 2007 (22 March).

WISE-Marine was launched in October 2017 at the Our Ocean Conference held in Malta. The planning, development and implementation of WISE-Marine is governed and described in the WISE-Marine Business Plan (See Annex IV).

The current level of development is different for WISE-Freshwater and WISE-Marine and therefore each will have specificities in terms of implementation. However, in the long term, there is a need for pooling resources for both freshwater and marine and ensure those are used in the most effective, efficient and coherent manner.

The principles that drive the development of WISE are as follows:

- Transparency
- Inter-operability
- Report once, use many times
- Possibility of accessing data at different locations
- All data/information available in WISE will be public, except when confidentiality is requested, with adequate justification, taking into account existing regulations on access to environmental information
- WISE covers the EU member states and the EEA member countries

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[1] The input to WISE mainly channels through Reportnet (https://www.eionet.europa.eu/reportnet).

Governance of WISE

The strategic direction is provided by the WISE Steering Committee, whose members are the services of the European Commission that have a stake in freshwater and marine activities (specifically DG ENV, DG MARE, JRC, ESTAT, RTD) and the EEA. The operational management of WISE is the joint responsibility of DG ENV and EEA, which lead the development and implementation of the WISE Implementation Plan.

The policy context frames the development and implementation of WISE and, with regard to the freshwater and marine environment, relates specifically to:

- The series of evaluation and reviews of Directives undergoing and planned for the 2018-2020 period (see Annex II for further details).
- The European Commission 'Streamlining Environmental Reporting' initiative (http://ec.europa.eu/environment/legal/reporting/fc_actions_en.htm, http://ec.europa.eu/environment/legal/reporting/pdf/action_plan_env_issues.pdf).
- The discussions and outcomes stemming from the Environmental Knowledge Community (EKC[2]; DG ENV, EEA, DG JRC, DG ESTAT, DG RTD, DG AGRI, DG MARE), particularly with regard to the Task Force on Information Systems and Data Centres (chaired by EEA) and Inter-operability (chaired by JRC). See Annex I for an overview of the EKC Information Platforms and Data Centres.

In addition, the development and implementation of WISE will need to reflect the outcomes of upcoming policy developments, including the following:

- New EP and EC (2019)
- New MFF 2021-2028
- Possibly a 8th EAP (post-2020)
- EEA' evaluation (2017/20018) and EEA's MAWP (beyond 2020)

To ensure coherence, effectiveness and efficiency in the implementation of WISE, the European Commission and the EEA have put in place Inter-Institutional Framework Contracts, which will be used as much as possible, when relevant, to facilitate the alignment of IT systems with those used at the EEA.

The co-responsibility of the European Commission and the EEA towards the strategic development and implementation of WISE means each organisation contributes in line with its mandate, resources and expertise.

WISE users and purposes of use

The users of WISE and main purpose of use are as follows:

1st cluster

- Policy makers at European, national, regional, local and international levels

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[2] The Environmental Knowledge Community (EKC) is a collaboration between different services of the European Commission and the European Environment Agency (EEA) to exploit new ways of creating and exchanging knowledge that is related to environmental policy-making.

- o   Knowledge base for policy implementation and development
- Member States' administrations
    - o   Effective management of water resources

2nd cluster

- Research community
    - o   State-of-the-art information on data and assessments
- Public or private organisations with activities related to water management
    - o   State-of-the-art information on data and assessments
- General public
    - o   Access to environmental information

3rd cluster

- European Commission
    - o   Compliance checks/assessments
    - o   Knowledge base for policy developments (notably evaluations/REFIT and impact assessments)
- EEA
    - o   State of the environment assessment
    - o   Knowledge base for support to policy implementation and development

Input side of WISE

The input of WISE is based on a number of reporting streams that are legislation-based and voluntary, usually channelled through EEA's Reportnet system (https://www.eionet.europa.eu/reportnet). Reporting streams are described in the Reporting calendar (Annex III), and specifically includes the following reporting flows:

- EEA's State of Environment data calls (WISE 1 to WISE 6; voluntary reporting by EEA member countries)
- Water Framework Directive
    - o   Reporting of River Basin Management Plans (every 6 years, next one in March 2022)
    - o   Intermediate reporting on implementation of Programmes of Measures (every 6 years, next one in December 2018)
- Floods Directive
    - o   Preliminary Flood Risk Analysis (every 6 years, next one in March 2019)
    - o   Flood Hazard and Risk Maps (every 6 years, next one in March 2020)
    - o   Flood Risk Management Plans (every 6 years, next one in March 2022)
- Environmental Quality Standards Directive
    - o   Watch list monitoring (every year, next one in December 2017)
    - o   Supplementary monitoring programme and preliminary programme of measures for the new substances included in the 2013 EQS Directive (once, in December 2018)
- Urban Wastewater Treatment Directive

- o Reporting on the status of implementation of the Directive (every two years[3], next one in June 2018)
  - o Reporting of implementation plans (every two years[4], next one foreseen in June 2018)
- Drinking Water Directive
  - o Finalise the ongoing cycle of reporting before the review of the Directive
  - o In the future, reporting through the traditional reporting flow would be limited to incidents only, irregular frequency.
  - o Uploading of data on status of implementation of the Directive on ad-hoc basis.
- Bathing Water Directive
  - o Reporting on results of monitoring of Bathing Water Quality (yearly cycle)
- Nitrates Directive
- Marine Strategy Framework Directive (covered by the specific roadmap on WISE marine)
- Water statistics (managed by Eurostat through the joint questionnaire with the OECD)

Additional sources of information include the following:

- ICES (http://www.ices.dk/Pages/default.aspx)
- EMODNET (http://www.emodnet.eu/)
- Copernicus Marine Environment Monitoring Service (CMEMS; http://marine.copernicus.eu/)

The following generic workflow apply to most of the reporting flows:

- Production/update of guidance documents
- Production/update of reporting schemas
- Production/update of reporting tools
- Production/update of visualisation tools
- Testing of reporting schemas and reporting tools
- Reporting
- Quality control and quality assurance (QA/QC)
- Import of reported data into database
- Reporting services, map viewers and visualisation
- Commission/EEA report-products

The Reporting calendar, as included in Annex III, will be constantly kept up-to-date so that the EC and the EEA have a clear common understanding of the timing of the upcoming reporting exercises, the roles and responsibilities of each organisation, and what needs to be done as preparation to reporting and follow-up work.

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[3] Potentially changed to three years in the future, based on proposal in Reporting Fitness check; not sure if that change will happen.
[4] Same as footnote 1.

Output side of WISE

The following web site constitute the output side of WISE:

- WISE Landing Page: https://water.europa.eu/
- WISE-Freshwater: https://water.europa.eu/freshwater
- WISE-Marine: https://water.europa.eu/marine
- EEA water and marine web site: https://www.eea.europa.eu/themes/water ; https://www.eea.europa.eu/data-and-maps; https://www.eea.europa.eu/data-and-maps/indicators

The list of generic products and services made available is as follows[5]:

- Implementation and Assessments reports
- Indicators assessments
- Access to Databases, through direct download or search engines
- Access to spatial data or map services
- Data viewers and Map viewers, including story maps
- Other web services, such as catalogues

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[5] For example for urban waste water treatment:
https://www.eea.europa.eu/data-and-maps/indicators/urban-waste-water-treatment/urban-waste-water-treatment-assessment-4
https://www.eea.europa.eu/themes/water/water-pollution/uwwtd/interactive-maps/urban-waste-water-treatment-maps
https://www.eea.europa.eu/themes/water/water-pollution/uwwtd/data-viewer-urban-wastewater-treatment-directive-1/urban-waste-water-agglomerations-and
https://www.eea.europa.eu/themes/water/water-pollution/uwwtd/data-viewer-urban-wastewater-treatment-directive-1/urban-waste-water-directive-treatment
https://www.eea.europa.eu/data-and-maps/data/waterbase-uwwtd-urban-waste-water-treatment-directive-5
http://ec.europa.eu/environment/water/water-urbanwaste/implementation/implementationreports_en.htm

Workplan 2018-2020

The activities for the 2018-2020 period will focus on the following[6]:
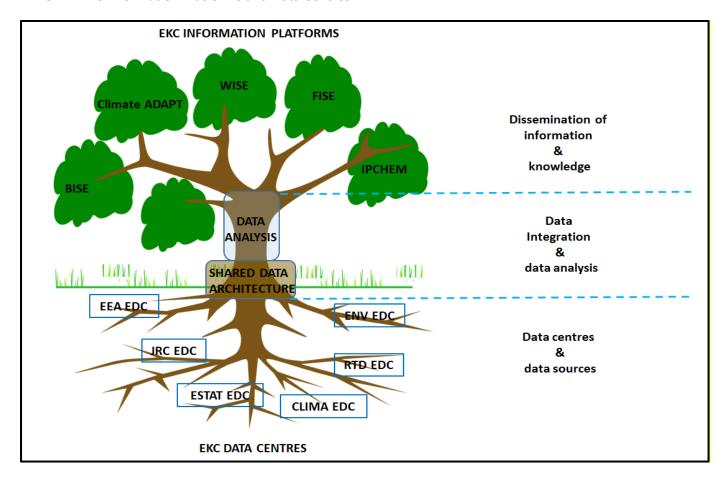
	Input	Output	IT developments

WISE-Freshwater	• Upcoming 2018/2019 reporting:
	    ○ UWWTD
	    ○ BWD
	    ○ WFD
	    ○ FD
	    ○ DWD
	    ○ Watch list
	    ○ WISE - State of Environment data call
	• Water quantity and quality accounts
		• WFD 2nd RBMPs:
		    ○ EC Implementation Report and EEA's 'European waters – Status and Pressures 2018' will be made available on WISE + dedicated Communication/Dissemination activities to different audiences
		    ○ Status and Pressures visualisation tool available online
		• BWD and UWWTD tableau dataviewer and mapviewer products
		• Publication of EEA WaterBase
		• EEA assessments/reports/indicators made available on WISE-Freshwater (e.g. chemicals in water) + dedicated Communication/Dissemination activities to different audiences
			• Development of mapping/visualisation tools across freshwater and marine directives[7]

WISE-Marine	• WISE-Marine Phase II:
	    ○ Upcoming reporting:
	        • MSFD (2018/2019/2020)
	        • WISE - State of Environment data call
	    ○ EMODnet, RSCs, ICES and CMEMS data/data products
		• WISE-Marine Phase II:
		    ○ Search engine to access MSFD reporting information
		    ○ Visualisation tools of MSFD reporting information (dashboards)
		    ○ Marine indicators catalogue (EEA, RSCs and national indicators reported under the MSFD 2018 reporting exercise)
		    ○ Spatial metadata catalogue of datasets reported	

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[6] The Reporting Calendar (Annex III) includes the planned level of support by EEA to the upcoming reporting exercises. See also See Annex IV and the WISE-Marine Business Plan for further details. Coordination will also be needed with the activities at JRC on the Water and Agriculture Knowledge Hub and the Marine Competence Centre (MCC).

[7] In the context of developing geospatial map viewers for the freshwater and marine domains, it will be important to consider Ecrins (European catchments and Rivers network system, https://www.eea.europa.eu/data-and-maps/data/european-catchments-and-rivers-network) as well as EU Hydro (Copernicus Land Monitoring Service, https://land.copernicus.eu/pan-european/satellite-derived-products/eu-hydro).

		under MSFD Article 19(3)
		  o Development and publication of reference layers (e.g. Marine Reporting Units)
		  o Development and publication of map services
		  o Update and development of map viewers
		  o EEA assessments/reports/indicators made available on WISE-Marine + dedicated Communication/Dissemination activities to different audiences
		• Publication of EEA WaterBase	

Annex I – EKC Information Platforms and Data Centres

EKC INFORMATION PLATFORMS

WISE

Climate ADAPT

FISE

IPCHEM

BISE

DATA ANALYSIS

SHARED DATA ARCHITECTURE

EEA EDC

ENV EDC

JRC EDC

RTD EDC

ESTAT EDC

CLIMA EDC

EKC DATA CENTRES

Dissemination of information & knowledge

Data Integration & data analysis

Data centres & data sources

Annex II - Future policy developments (To be completed)

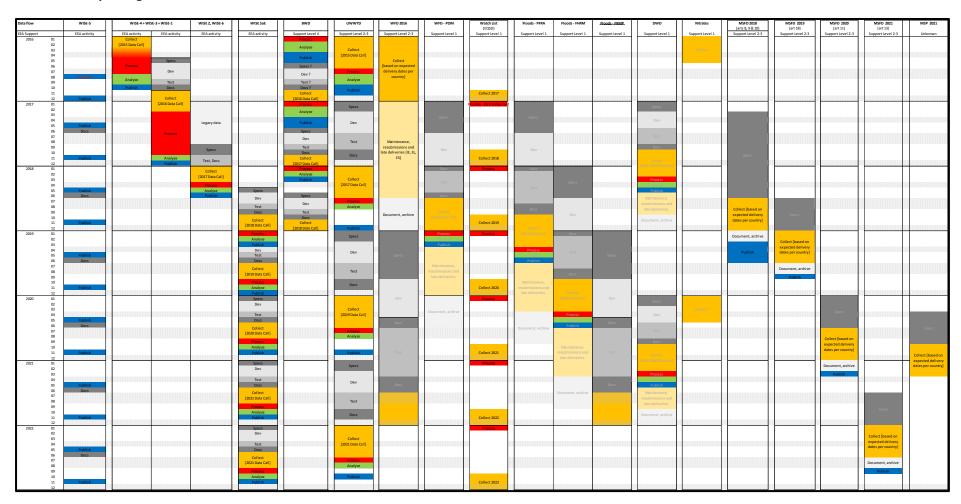*Water Framework Directive (and daughter Directives) reporting*

Floods Directive reporting

Urban Waste Water Treatment reporting

Drinking water reporting

Bathing water reporting

Annex III – Reporting calendar

The Reporting calendar also indicates the level of support planned by the EEA. The level of support is based on the categories used within the 'Streamlining the environmental reporting' initiative / MRR fitness:

Support level	Share of monitoring burden	Main support	Description
5	100%	Full cycle	Once reporting content is agreed (e.g. through comitology), EEA takes care of every step until publication of EEA report. The Commission does not write a report.
4	70-90%	Some reporting products (such as maps)	The assessment results are being translated into reporting products such as indicators, scoreboards or maps. The Commission still writes the final/official report.
3	50-70%	Assessment of data	The (raw) data are being assessed and results prepared per MS (which results in an assessment database)
2	30-50%	QA/QC and production database	Submitted data are quality assured and compiled to an EU production database
1	10-30%	CDR	MS submit their reports to Reportnet (CDR)

Annex IV – Extract of the WISE-Marine Business Plan (the full version is available here (web link to EEA Forum to be included))

WISE-Marine was launched in October 2017 at the Our Ocean Conference held in Malta. The planning, development and implementation of WISE-Marine is governed and described in the WISE-Marine Business Plan. WISE-Marine is a portal and infrastructure for sharing information with the marine community on the marine environment at European level. Focusing on the state of the marine environment at the European scale, WISE Marine shows the information and knowledge gathered or derived through the MSFD process and other key marine policy drivers. WISE-Marine fits in the landscape of existing Directive reporting and associated portals, European Data infrastructures and Regional Sea Convention's – all of which are heavily dependent on data and information coming from EU member states.

Developed in a partnership between Commission services and the European Environment Agency (EEA), WISE-Marine key partners consist of DG-ENV, JRC, EEA and Eurostat. Other important European contributors are anticipated to be Member States, DG MARE, DG RTD, Regional Sea Conventions (OSPAR, HELCOM, The Barcelona Convention and The Bucharest Convention), ICES, EMODnet, JPI-Oceans, European MSP Platform and Copernicus.