### Streamlining environmental reporting

To promote and modernise eReporting with the latest IT solutions, EEA is working since 2018 to develop Reportnet 3.0. This modern reporting infrastructure will stepwise replace the current reporting system, integrate data flows under the EU environmental legislation, take into account national capabilities and provide a platform that supports new types of data (e.g. Copernicus, citizen science) and data from an extended group of stakeholders. Reportnet 3.0 is designed to deliver the ambition and the strategic goals as set out by the Commission's Digital Strategy. It is the EEA's contribution to deliver on this long-term objective.

This project is a collaboration involving the EEA, Commission Services (DG ENV, DG CLIMA, DG ENER, JRC), European Topic Centres and EEA Member and Cooperating Countries.



# Role of DG ENV and EEA-Eionet in the reporting process



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# European Environment Agency

## The path to future e-Reporting – Reportnet 3.0

Our approach to develop the modernised e-Reporting system for streamlining environmental reporting



**Enhanced quality** 

control



#### Modernising e-Reporting

Reportnet 3.0 is envisioned as an e-Reporting platform with its main purpose being to simplify and streamline the data flow steps across all environmental domains. Reportnet 3.0 will act as a central hub through which all e-Reporting activities handled by the EEA with Eionet and other partners will be performed.

The system stepwise replaces the current Reportnet system and is foreseen as a one-stop-shop for all involved stakeholders. It will effectively address the issues faced by the reporters so far and employ modern approaches in software development (i.e. with regards to security, scalability, architecture, interoperability, etc.). Reportnet 3.0 will be designed to work seamlessly across organisations and supports existing legal obligations (e.g. INSPIRE) and standards to assure the reuse and interoperability of data.

It will have a modular architecture using microservices and provide a solution to cover the entire data management life cycle.

The Reportnet 3.0 project is initiated in 2018 to be finalised at the end of 2020. The migration of the reported data will start during this time and continue together with further system development beyond the duration of this project.

# Towards a high performant, scalable and agile system

The architecture of Reportnet 3.0 uses the microservices architectural pattern in which the application is structured as a set of loosely coupled, collaborating services. There is a microservice for each domain entity. The development of Reportnet 3.0 will extend the whole Reportnet 2.0 knowledge base by adding the following functionalities:

Unified User Interface: Reporters will use a single frontend application (rather than switching to different applications like in Reportnet 2.0) that will interact with all of the inner components invisible to the reporters. Reporters will therefore not be bothered with the many components behind the system.

**Configurable Reporting Process:** Requesters with the proper permissions will be allowed to configure dataset and dataflow services within the system, no external system will be needed to complete the reporting process. One application will be able to deal with the entire workflow.

**United Repository of Information:** All the reported data will be stored in a highly performant and scalable relational database. Different users can work on the same dataset without interrupting each other.









Optimized data delivery

Web services integrated







Cost effective

**Reusable validations** 





Workflow driven



Snapshots

Collaborative

Dashboards & visualisations

#### Improved User Experience







Modernised helpdesk

User-friendly

**Advanced search** 







Better performance Intuitive design

Notifications



**Availability** 





