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Agenda Item	5– Input from HELCOM projects, groups, and processes relevant to eutrophication assessment
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Background

The HELCOM Secretariat was informed in fall 2019 about a potential project call by INEA (CEF-TC-2019-2: Public Open Data) which could be utilized to strengthen current HELCOM data collation and creation of public regional data products such as indicator and assessment datasets. The Secretariat requested State & Conservation contacts to explore the possibility of relevant national institutes/organizations that are responsible of collecting and making available environmental monitoring data to HELCOM to signal their interest in drafting a project proposal for this call.

The project proposal, coordinated by HELCOM Secretariat, gathered 6 partners from 4 HELCOM CPs (Finland, Latvia, Sweden, Denmark (ICES)) was approved for applying by HELCOM HODs and was successfully reviewed and Grant Agreement was signed in August 2020. The project period is 1.10.2020-30.9.2023. The project kick-off meeting was held on 12 October and [project website](#) established in April 2021.

The project provides concrete support for the HOLAS III process e.g., through the addition of new datatypes to existing data flows for eutrophication, through the implementation of DCAT-AP/INSPIRE in regional metadata catalogues, the further development of HELCOM Map and Data services and upgrade ICES Oceanographic data portal. It also works to review and develop methodology for hazardous substances indicator calculation and the further development of the CHASE tool. With regards to biodiversity the project reviews and updates indicator data requirements for harmonized indicator data product, methodology for indicator calculation, specifically for each biodiversity indicator and further develops the methodology for integrated biodiversity assessment and assessment tool (BEAT)

Action requested

The meeting is invited to:

- take note of the progress under Activity 4 of the Baltic Data Flow project.
- provide technical and/or scientific guidance as needed.

Baltic Data Flows 2020-2023

The Baltic Data Flows project, co-financed by the Connecting Europe Facility of the European Union, seeks to enhance the sharing and harmonisation of data on marine environment originating from existing sea monitoring programmes, and to move towards service-based data sharing.



In particular, open datasets will be made available by HELCOM to a wider community, such as European open data ecosystem, researchers, NGOs and private sector, in order to benefit from the availability of harmonised environmental data. Wider dissemination is achieved by sharing HELCOM metadata records to European Data Portal.

Baltic Data Flows will improve the capacity building of the national environmental data hosting organisations and providers of the consortium, in terms of quality control and solutions to make harmonised environmental data available. Members of the consortium will build and enhance their ICT infrastructure to support better the data sharing process. Furthermore, data harvesting systems based on Application Programming Interfaces (APIs) will be developed with the aim to automatically integrate national datasets into a combined and harmonised regional dataset for partner institutes SMHI and SYKE for the environmental monitoring data that is reported to ICES.

Furthermore, Baltic Data Flows will further develop tools and indicator data flows for eutrophication, hazardous substances, and biodiversity assessment. This will be carried out by further developing existing data flows, data view and aggregation tools at data host ICES and by further defining the indicator data needs. The focus of the work is indicators related to eutrophication, hazardous substances and biological community data reported to ICES (Seasonal succession of dominating phytoplankton groups, Zooplankton mean size and total stock (MSTS), State of the soft-bottom macrofauna community).

The work will include also further development of assessment tools and tool outputs in close cooperation with relevant expert groups / indicator leads and ultimately State & Conservation. For the biodiversity related parts, synergy with HELCOM BLUES project outputs on Biodiversity assessment Tool (BEAT) will be explored.

The project will run from October 2020 to October 2023. Project partners include HELCOM, ICES, LHEI, SMHI, Spatineo inc., Stockholm University, and SYKE.

Summary and timeline of project activities

The project activity summary table can be read alongside the GANTT Timeline, available [here](#). This document provides further updates under [Activity 4](#) relevant to the IN-EUTROPHICATION.

Activity #	Activity title
1	Increase of capacity at national data host institutes
2	Further development of existing data sharing platforms
3	Development and implementation of data harvesting
4	Addition of new datatypes to existing data flows
5	Further development of data processing and software used in hazardous substances assessment
6	Development of data processing and software to be used for biodiversity assessment
7	Dissemination and impact assessment
8	Project management

Activity 4: Addition of new datatypes to existing data flows

This activity is led by SYKE with the participation of SMHI, ICES and HELCOM.

Activity 4 will further enhance the data flow of new data types such as earth observation and ferrybox data to the eutrophication assessment, develop

There have been three Activity 4 meetings held between partners to date. The minutes of the previous meeting held on 5 February 2021 can be found [here](#).

Activity 4 includes the following tasks:

- Task 4.1. Definition of ferrybox data products for assessment
- Task 4.2. Definition of earth observation data products for assessment
- Task 4.3. Implementing tools for creating indicator data products
- Task 4.3. Making assessment data products FAIR

Task 4.1 has started with a review of available national and international ferrybox data by each activity partner. SYKE have provided information on their internal database 'Algabase' and status of ferrybox and bottle data. SMHI have mapped where ferrybox data is submitted and available. ICES have presented the plan to receive ferrybox data to assessment data flow. A data flow model has been developed, available [here](#). Task 4.2 has started with a review of available national earth observation data by each activity partner. SYKE have presented [Tarkka](#) as a resource for open satellite data, based on a 20x20km grid from Sentinel II data. SMHI have presented the availability of Cyanobacterial data products based on Sentinel III and MERIS data. A data flow model has been developed, available [here](#). Tasks 4.3 and 4.4 are scheduled to start in quarter 3 2021.