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HELCOM 40-2019

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Background

This document summarizes the status of the ongoing HELCOM projects and external projects with HELCOM involvement, with a focus on their main achievements and outcomes during 2018.

Action requested

The Meeting is invited to take note of the information.

Information on on-going HELCOM projects and external projects with HELCOM involvement

1. [Quality assurance of phytoplankton monitoring in the Baltic Sea \(HELCOM PEG QA\), 2017-2019](#)

Chair: Ms. Iveta Jurgensone, Latvia

At HELCOM Secretariat: Ms. Jannica Haldin, Professional Secretary

The project is a continuation of '[Quality assurance of phytoplankton in the Baltic Sea \(HELCOM PEG\)](#)' that was implemented in 2014-2016.

The main focus of the project is to ensure and maintain high quality standard of the international Baltic Sea regional phytoplankton monitoring within the HELCOM. This is achieved e.g. by organizing annual training courses (workshop), maintaining the PEG phytoplankton biovolume list, and organizing intercalibrations. The project leads the revision of the HELCOM monitoring guidelines for phytoplankton currently undertaken by the State and Conservation Working Group.

The project also serves as a platform for the review of phytoplankton indicators developed by Lead Countries and dedicates part of annual meetings to this topic. The project furthermore supports the definition of data requirements for phytoplankton indicators and appropriate data reporting format to ensure that the COMBINE database hosted by ICES provides the data needs for HELCOM phytoplankton indicators.

The project has contributed to the second holistic assessment of the Baltic Sea (HOLAS II) project, i.e. updated core indicators and provided information for the assessment tool and contributed to a survey of HELCOM knowledge and research needs for achieving good environmental status.

The annual meeting in 2018 was held in Gothenburg, Sweden on the 9-13 April 2018.

2. [Future work on HELCOM indicators \(HELCOM CORE INDICATORS\), 2018-2021](#)

Project Coordinator: Mr. Owen Rowe, HELCOM Secretariat

The HELCOM core indicators (as well as pre-core or those tested) form a vital part of the holistic assessment of the Baltic Sea. These indicators are included in the 2018 State of the Baltic Sea report, produced within the HOLAS II project. The indicators provide vital information for the report text and overall holistic assessment. Core indicators are used in the integrated assessments of biodiversity, eutrophication and hazardous substances, with other less developed indicators (e.g. pre-core or tested) included with a descriptive approach to support the overall report.

The indicators are based on regionally agreed threshold values, proposed by experts and [endorsed](#) at the higher levels of the HELCOM structure (e.g. via State and Conservation and at the Heads of Delegation). Currently there are 37 [indicators](#) that were used within the State of the Baltic Sea report, 15 of which address biodiversity, 9 of which address eutrophication, 2 of which address maritime issues, and 11 of which address hazardous substances. A number of these, for example the HELCOM indicator for metals, separately address multiple related compounds within a single indicator. Furthermore, there are several other indicator related topics (i.e. pressure or status evaluation) that were addressed within the State of the Baltic Sea report, though data or agreed threshold values may not have been available to produce a defined and agreed operational indicator at that time.

The catalogue of HELCOM indicators (core, pre-core, candidate and tested) is currently being reviewed both by a pre-filling exercise against policy requirements, and from a technical perspective via hosting expert groups – the first stages of which are collated in documents presented at GEAR 19-2018, [document 4-2](#)). The main focus of this review step are those indicators used in the 2018 State of the Baltic Sea report and any major gaps or pressures identified for which indicators are not operational and required. This initial review

process builds towards the HELCOM indicator workshop that will be held on 13-15 May, 2019, and follows the process approved by HOD 54-2018 (Outcomes, [paragraph 4.25](#), and [document 4-5](#)). Planning for the indicator workshop is due to commence and from this stage of the process an overview of the indicator catalogue and the areas of priority, with relevant development milestones, will be developed for directed work to take place via the auspices of established lead country nominations and hosting expert groups.

3. [Project for the development of a workspace for the evaluation of HELCOM hazardous substances indicators and integrated assessment](#)

Project Coordinator: Mr. Owen Rowe, HELCOM Secretariat

HELCOM currently has 11 operational hazardous substances core indicators. The underlying evaluation of the indicators is carried out (with the exception of the white-tailed eagle) using a script called MIME, developed within OSPAR. The MIME script itself utilises the data submitted to the HELCOM COMBINE database (hosted by ICES) to calculate the HELCOM indicator evaluations. In the first stage of this process raw data are collated at single stations, calculation of results is carried out (calculation and statistical analyses), and time series trends are defined at each station. These data and results are visualised (i.e. trend graphs) and can be displayed on the ICES server (i.e. for checking and use by experts). In the second stage of the process the initial output (i.e. the per station trends) is set against HELCOM-defined threshold values for each indicator to define the status value. These results are aggregated into an indicator result and status per assessment unit (in the case of the hazardous substances at HELCOM level 4 assessment units). This second result is also visualised and can be displayed on the ICES server. A final step using the CHASE tool calculates the integrated assessment for hazardous substances.

The development of the system is underway at ICES (also in cooperation with the OSPAR MIME developer) with initial tools and visualisation options having been developed. The project will preview the system at the next HELCOM EN-HZ meeting, provisionally set for early April 2019. The overall system should then be finalised after it has been tested by the EN-HZ group, with a final operational product expected by the end of June 2019.

4. [Second holistic assessment of Ecosystem Health of the Baltic Sea \(HELCOM HOLAS II\), 2014-2018](#)

Chair of the HOLAS II Core Group: Ms. Maria Laamanen, Finland

At HELCOM Secretariat:

Project Coordinator: Ms. Lena Bergström

Project Manager: Ms. Ulla-Li Zweifel (guiding update of the integrated assessments)

Ms. Jannica Haldin, Professional Secretary

The HOLAS II project ran from December 2014 to June 2018, with the main product of the HOLAS II project being the [State of the Baltic Sea report](#), an update of the overall environmental status of the Baltic Sea and evaluate progress in relation to the goals of the Baltic Sea Action Plan (BSAP). The outcome of the project was developed so that it can also be used by the Contracting Parties being EU member states in reporting under the EU Marine Strategy Framework Directive (MSFD). Final results are accessible at the [State of the Baltic Sea web page](#), which also contains a dedicated page for [downloading all reports as pdfs](#).

The 2018 focus of the HOLAS II project was to finalize the updated assessments and present the results in the final version of the report, which was published in July 2018. This included efforts to make the material as accessible as possible, through layout and graphic design as well as additional tools of dissemination, e.g. a [freely available video](#) presenting the main results and a communications package provided to all contributors.

The main components of the assessment are:

- Distribution of human activities and pressures in the Baltic Sea. Cumulative impacts are assessed using the Baltic Sea Pressure and Impact Index;
- Assessment of good environmental status using core indicators, and integrated assessments of Biodiversity, Eutrophication, Hazardous substances;
- Economic and social analyses to support regional assessments of the use of marine waters and cost of degradation.

Methods and tools for the status assessment for use in HOLAS II have been developed through the EU co-financed projects BalticBOOST, TAPAS and SPICE. The HELCOM core indicators form the basis for the assessment of environmental status as well as the basis of the integrated assessments and the final reports for each indicator can be found online on the HELCOM indicator site. It is foreseen that one of the key tasks of the HELCOM expert groups will in the future include carrying out the regular updates of indicator reports and to provide timely indicators evaluations for HELCOM assessments.

The project was guided through a Core team with nominated participants from the Contracting Parties. The project held one core team meeting and eight workshops in 2018 to support the developments of assessment tools and methods, as well as the Economic and social analyses. The work in spring 2018 focused on implementing the integrated assessment tools, updating the summary and supplementary reports, as well as updating indicator and metadata information. The output of the project was presented for technical review by State and Conservation 8-2017 (14-18 May 2018) and for adoption at HOD 54-2017 (14-15 June 2018).

5. The Sixth Baltic Sea Pollution Load Compilation (PLC-6), 2012-2018

Project Manager: Mr. Lars Svendsen, Denmark

At HELCOM Secretariat: Mr. Dmitry Frank-Kamenetsky, Professional Secretary

The project is an implementation of HELCOM Recommendation 26/2 to periodically carry out a pollution load assessment (PLC) including a quantification of waterborne point, diffuse and natural sources.

The overall task of the project is to prepare a comprehensive assessment of the water- and airborne inputs and their sources to the Baltic Sea during the period 1994-2014 with more detailed assessment for 2012 (Germany and Poland) and 2014 (the remaining countries).

All major project tasks have been accomplished:

- Laboratory intercalibration/intercomparison with the participation of all nine HELCOM countries and published the results in a [report](#);
- Update and extend [PLC-water guidelines](#) including revised annexes describing the revised;
- Update HELCOM [Core pressure indicator](#) on nutrient inputs (MAI follow up).
- The Assessment of the progress towards nutrient reduction targets was adopted by HELCOM 39-2018..
- The assessment of nutrients input by 7 big rivers has been published ([BSEP163](#))
- The assessment of input of selected hazardous substances into the Baltic Sea has been published ([BSEP162](#))
- The assessment of sources and pathways of nutrients to the Baltic Sea ([BSEP153](#))
- PLC-6 Executive summary was agreed for publication by HOD 55-2018.

Some supplementary information – background data, overview of used methodologies, etc - is still being published

Maps and data available through HELCOM map and data service.

HOD 55-2018 agreed that PLC-6 project tasks were accomplished.

6. [The Seventh Baltic Sea Pollution Load Compilation \(PLC-7\), 2017-2020](#)

Project Manager: Mr. Lars Svendsen, Denmark

At HELCOM Secretariat: Mr. Dmitry Frank-Kamenetsky, Professional Secretary

Pollution load data (PLC) is an integral part of HELCOM assessment system, focusing on annual and periodic assessments of inputs of nutrients and selected hazardous substances. The overall objective of the assessment is to follow up implementation of HELCOM nutrient reduction scheme through regular update of pressure indicator report on progress towards fulfilment of Maximum Allowable Inputs of nutrients (MAI) and an assessment of progress towards implementation of Country Allocated Reduction Targets (CART). Nonetheless, PLC-7 assessment has also a specific focus on source apportionment and effectiveness of measures to reduce input of nutrients and selected hazardous substances. PLC-7 assessment will be made in 2019 based on the monitoring data from 2017, which will also serve those Contracting Parties that are EU Member States for their next generation river basin management plans under WFD in 2019/2020.

The expected results are:

- The PLC assessment data set based on annual and periodic reports of water- and airborne inputs of nutrients and selected hazardous substances from 1995 to 2017 (periodic for 2017);
- The updated HELCOM Core Pressure Indicator on nutrient inputs (update of MAI fulfilment follow-up) covering data from 1995 to 2017;
- Updated scientific report on follow up progress toward national reduction targets for nutrients, CART follow-up assessment, covering data from 1995 to 2017;
- A thematic report on sources of nutrients;
- A thematic report on effectiveness of measures to reduce nutrients inputs to the Baltic Sea;
- A thematic report on input of hazardous substances;
- Executive summary of Seventh Baltic Sea Pollution Load Compilation (PLC-7) including policy messages (also on CART);
- A report on intercalibration on heavy metals and nutrients between at least 1-2 laboratories from each Contracting Party conducting chemical analysis;
- Updated PLC guidelines on nutrients and selected heavy metals, including updated statistical methodologies used for PLC and MAI/CART assessments.

PLC-7 project has been launched in June 2017. Six project meetings have been organized since launching of the project.

The following project tasks have been recently accomplished:

- A report on intercalibration on heavy metals and nutrients between at least 1-2 laboratories from each Contracting Party conducting chemical analysis;
- Updated PLC guidelines on nutrients and selected heavy metals, including updated statistical methodologies used for PLC and MAI/CART assessments has been endorsed by HOD 55-2018 and submitted to HELCOM 40-2019 for adoption.

In addition, a scientific paper "[Statistical aspects in relation to Baltic Sea pollution load compilation](#)" has been recently published by DCE – Danish Centre for Environment and Energy.

Currently, the major project activity is compilation, verification and approval of the data on nutrient loads in 2017, which is the reference data for the most of the project's assessment products.

7. [Estimation of reductions of atmospheric nitrogen deposition achievable by implementing the Gothenburg Protocol/EU-NEC Directive, 2017-2018](#)

Project implemented by EMEP

Airborne deposition of nitrogen is a substantial contribution to the total input of this nutrient into the Baltic Sea environment. It originates from nitrogen emissions from HELCOM countries as well as beyond the Baltic

Sea catchment area. The reduction of the air emissions of oxidized and reduced nitrogen is the subject for Gothenburg Protocol (revised in 2012) and EU NEC Directive 2016/2284.

The data on air emission and subsequent deposition of nitrogen on the Baltic Sea water area is the task fulfilled by the Meteorological Synthesizing Centre of the Co-operative Programme for Monitoring and Evaluation of the Long Range Transmission of Air Pollutants in Europe (EMEP). The EMEP compiles various data on nitrogen air emission from all countries and other sources and model transmission of the compounds and their deposition. The EMEP database is unique compilation of the emission data which allows not only trace changes in emissions and deposition of nitrogen during the past decades but also estimate future reductions in case of implementation of requirements of Gothenburg protocol and EU NEC Directive.

The estimation of reductions of atmospheric nitrogen deposition achievable by implementing the Gothenburg protocol and the EU NEC directive with project to 2020 and 2030 years has been carried out within the project, as relevant information for the assessment of total potential of the nitrogen input reduction into the Baltic Sea and effectiveness of measures to be undertaken.

The final product of the project is calculation of nitrogen deposition to Baltic Sea basin and its sub-basins in 2020 and 2030. The data will be utilized to assess input of nutrients by HELCOM PLC-7 project.

HOD 54-2018 approved the draft Report on Reduction of Atmospheric Nitrogen Deposition.

8. Project for Baltic-wide assessment of coastal fish communities in support of an ecosystem-based management (HELCOM FISH-PRO II), 2013-2018

Project Manager: Mr. Jens Olsson, Sweden

At HELCOM Secretariat: Ms. Jannica Haldin, Professional Secretary

This project continued the work of the HELCOM projects 'Expert network on monitoring and protecting of coastal fish and lamprey species (HELCOM FISH Project), 2008-2010,' and 'Project for Baltic-wide assessment of coastal fish communities in support of an ecosystem-based management (HELCOM FISH-PRO) 2011-2013'.

The objectives of the project were as follows:

- Knowledge: to update and improve knowledge about occurrence, distribution, population and threat and/or decline of coastal fish based on all relevant data;
- Assessment and monitoring: to further develop different assessment and monitoring methodologies for coastal fish, including indicators with targets and reference values;
- Recommendations: provide advice to national authorities and ongoing HELCOM work on implementation of coastal fish related actions in the BSAP and MSFD.

During 2018, the project held its annual meeting on 14-16 February in Gothenburg, Sweden ([Outcome of FISH-PRO II 5-2018](#)) and has focused on the following activities/deliverables:

- Submission of updated status assessment for coastal fish CORE indicators (data until 2016) to the HOLAS II project (November-December 2017)
- Publication of CORE Indicator fact sheets for coastal fish CORE Indicator reports (16th of July 2018)
 - HELCOM (2018) Abundance of coastal fish key functional groups. HELCOM core indicator report. <http://www.helcom.fi/baltic-sea-trends/indicators/abundance-of-coastal-fish-key-functional-groups/>. ISSN 2343-2543
 - HELCOM (2018) Abundance of coastal fish key species. HELCOM core indicator report. <http://www.helcom.fi/baltic-sea-trends/indicators/abundance-of-key-coastal-fish-species>. ISSN 2343-2543
- Publication of the third thematic assessment for status of coastal fish communities in the Baltic Sea, HELCOM (2018). Status of coastal fish in the Baltic Sea during 2011-2016. Balt. Sea Env. Proc. 2018,

160. <http://www.helcom.fi/Lists/Publications/Status-of-coastal-fish-2018-HELCOM-report.pdf> (23rd of November 2018)

- Work on updating the guideline for coastal fish monitoring in the Baltic Sea (to be published during spring 2019)
- Outlining plans for the focus of the work within the HELCOM FISH PRO III project (project period 2018-2023)
- Applying for funding for evaluation of restoration measures in coastal areas in the Baltic Sea within the project HELCOM ACTION (June 2018).

9. Project for Baltic-wide assessment of coastal fish communities in support of an ecosystem-based management (HELCOM FISH-PRO III), 2018-2023

Project Manager: Mr. Jens Olsson, Sweden

At HELCOM Secretariat: Ms. Jannica Haldin, Professional Secretary and Mr. Markus Helavuori, Professional Secretary

This project continues the work of the latest HELCOM FISH-PRO II project, which was completed in 2018. FISH-PRO III aims to support ecosystem-based management of coastal fish communities in the Baltic Sea coastal countries through further developing regionally harmonized monitoring and assessment methodologies, conducting assessments of coastal fish and by proposing ecosystem-based management measures.

The objectives of the project are as follows:

- Knowledge: to update and improve knowledge about occurrence, distribution, population and threat and/or decline of coastal fish based on all relevant data;
- Assessment and monitoring: to further develop different assessment and monitoring methodologies for coastal fish, including indicators with threshold and reference values;
- Recommendations: proposing ecosystem-based measures on management of coastal fish communities in the Baltic Sea for the consideration of HELCOM Fish and State and Conservation groups, as appropriate, and provide advice to national authorities and ongoing HELCOM work on implementation of coastal fish related actions in the BSAP.

During 2019-2020 the work in the HELCOM FISH PRO III project will focus on the following activities:

- First meeting of the project, 12-14 February 2019, Helsinki, Finland. The second meeting of the project is tentatively planned for mid-February 2020;
- Publishing an update of the guideline for coastal fish monitoring in the Baltic Sea (spring 2019);
- Annual updating (data) of coastal fish CORE indicators for HELCOM coastal fish monitoring areas in the COOL database (<http://bio.helcom.fi/apex/f?p=108:5>). Data for 2018 will updated by 30th of June 2019, and data for 2019 30th of June 2020;
- Continuing the work on developing additional indicators for coastal fish (i.e. size-related indicators).
- Intermediate status assessment of coastal fish (data until 2019) during 2020;
- Detailing additional activities of work of the HELCOM FISH PRO III project including potentially recreational fisheries impact evaluation, developing indicators for the status and extent of suitable habitats for coastal fish, develop the concept for assessing the status of coastal fish communities, and potential use of alternative data sources for coastal fish assessments besides fisheries independent coastal fish monitoring;
- Dissemination of the work within HELCOM ACTION to the HELCOM FISH PRO III project.

10. Horizontal Action "Spatial Planning" Support 2 (HASPS 2), 2016-2018

Project Coordinator: Mr. Ville Karvinen, HELCOM Secretariat

Project Researcher: Mr. Juuso Haapaniemi, HELCOM Secretariat

HASPS 2 aims to support objectives assigned in the Horizontal Action "Spatial Planning" of the EUSBSR and is co-funded by the EU Interreg Baltic Sea Region Programme. It is co-led by HELCOM and VASAB and it builds on the coordination activities started within the previous HASPS project in 2015–2016.

The main focus of the project is to improve coordination, stakeholder involvement and achievement of the strategic targets of the HA Spatial Planning by enhancing the links between the HA and implementation of the Regional Baltic MSP Roadmap and the EU MSP Directive (for EU countries), strengthening an outreach and integration of the HA to other regional and European activities, and promoting and enabling future flagship projects.

The project has contributed to the work of the Joint HELCOM-VASAB MSP Working Group and their sub group, the MSP Data Expert Group, by facilitating meetings and producing information documents on Ecosystem Approach in MSP, focusing on the concepts of Green Infrastructure and Blue Corridors. The project has also supported linking of the HELCOM HOLASII process into MSP, especially focusing on the Baltic Sea Impact and Pressure Indices, and HELCOM has published a [report](#) on this aspect. HASPS 2 is also following up on the CBD Baltic Sea Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas as the results of the workshop are expected to have use in the future MSP work in the region.

The project also supports sharing and improvement of MSP related data. HELCOM Map and Data service was further improved. Project supported the development of recommendations for the transboundary MSP data and concept of Maritime Spatial Data Infrastructure (MSDI).

Project staff attended "Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas (EBSAs)" and 9th Annual Forum of the EU Strategy for the Baltic Sea Region (EUSBSR).

Brochures on the HA Spatial planning and on Ecologically or Biologically Significant Marine Areas (EBSAs) have been published to increase visibility of HA Spatial Planning.

11. Horizontal Action "Spatial Planning" Support 3 (HASPS 3), 2018-2020

At HELCOM Secretariat: Mr. Florent Nicolas, Project Coordinator – Data Expert and Mr. Riku Varjopuro, MSP adviser

HASPS 3 aims to support objectives assigned in the Horizontal Action "Spatial Planning" of the EUSBSR and is co-funded by the EU Interreg Baltic Sea Region Programme. It is co-led by HELCOM and VASAB and it builds on the coordination activities started within the previous HASPS projects: HASPS (2015/2016) and HASPS 2 (2016/2018).

The main focus of the project is to improve coordination, stakeholder involvement and achievements of the strategic targets of the HA Spatial Planning by enhancing the links between the HA and implementation of the Regional Baltic MSP Roadmap and the EU MSP Directive (for EU Member States), strengthening an outreach and integration of the HA to other regional and European activities, and promoting and enabling future flagship projects.

HELCOM is involved in the tasks of facilitating coordination and communication related to the work of the HELCOM-VASAB MSP WG and potential links with other HELCOM Groups and sub-Groups. HELCOM will also coordinate the work to describe possible approaches for understanding coherence of Maritime Spatial Plans and to identify the minimum requirements for preparing and implementing MSP across the borders. These are tasks described in the work plan of the HELCOM-VASAB MSP WG for 2017-2019.

[12. Coherent Linear Infrastructures in Baltic Maritime Spatial Plans \(BalticLINes\), 2016-2019](#)

Project Coordinator: Mr. Manuel Frias, HELCOM Secretariat

Project Researcher - Data Expert: Mr. Florent Nicolas, HELCOM Secretariat

GIS Application Developer: Mr. Andžej Miloš, HELCOM Secretariat

The overall objective of this Interreg funded project (March 2016 – February 2019) is to increase transnational coherence of shipping routes and energy corridors in Maritime Spatial Plans (MSP) in the Baltic Sea Region. This prevents cross-border mismatches and secures transnational connectivity as well as efficient use of Baltic Sea space. Thereby Baltic LINes helps to develop the most appropriate framework conditions for Blue Growth activities (e.g. maritime transportation, offshore energy exploitation, coastal tourism etc.) for the coming 10-15 years increasing investors' security.

HELCOM is leading the development of the [first tool to access Baltic Sea MSP data based on a Marine Spatial Data Infrastructure \(MSDI\)—BASEMAPS](#). BASEMAPS is the first step towards a more efficient way to access MSP data from the original sources via compliant online standard services and formats. Ultimately, BASEMAPS will contribute to a better management of the sea space and therefore to a better marine environment.

After the project identified and evaluated the data needs of MSP planners, the development of BASEMAPS started in 2017 and continued throughout 2018. The collection of data published by providers through standard services continued likewise with the help of project partners.

Significant improvements were implemented in BASEMAPS during 2018: a user-friendly administration panel which lets data providers add and edit data themselves. Also, the possibility to add and download data in standard GML vector format through WFS services was implemented

During 2018 three partner meeting were held in Tallinn (February), Gdansk (June) and Riga (November). The project was presented during a training course dedicated to MSP and sustainable blue economy in Panama in October organized by IOC/UNESCO.

[13. Environmental impact of low sulphur ship fuel: measurements and modelling strategies \(EnviSuM\), 2016-2018](#)

Project Researcher: Mr. Alexey Bakhtov, HELCOM Secretariat

The EnviSuM project, co-funded by the EU Interreg, has worked on studying technical efficiency and socio-economic impacts of clean shipping solutions. The project has addressed measurement and modelling strategies to assess present and future cost and the health and environmental effects of ship emissions in view of international emission regulations from the IMO. Project specific objectives were to provide policy makers and authorities with tools and recommendations for the development of future regulations benefiting the environment and public health in the Baltic Sea Region; to provide tested and analysed results on efficiency of the different clean shipping solutions; to assess present and future compliance costs, health and environmental effects of ship emissions in view of the IMO fuel sulphur limits that entered into force in January 2015 and to enhance sustainable development in the form of cost effective means for clean shipping.

In 2018 EnviSuM conducted a number of meetings, including the workshop on the margins of the XIX International Environmental Forum Baltic Sea Day in St.Peterburg, Russia, "Impacts from ship emissions and possibilities of collaboration in the BSR" (23 March 2018) co-organized by HELCOM.

HELCOM participated in the study visit and seminar organized by the EnviSuM "Towards the Fossil Free Society 2050 – Liquefied Bio Gas (LBG) and the 360° vision by the Municipality of Samsø, Denmark" (2-3 October 2018).

A HELCOM/EnviSuM overview on the present status and prospects of the use of alternative fuels by ships operating in the Baltic Sea was finalized and approved by HOD 55-2018. Currently the overview is being prepared for publication on the HELCOM website.

[14. Open-source tools for regional risk assessments for improved European preparedness and response at Sea \(OpenRisk\), 2017-2019](#)

Project Manager: Mr. Valtteri Laine, HELCOM Secretariat

OpenRisk is a two-year project focused on developing risk assessment (RA) tools for accidental maritime spills. The project is co-financed by the European Commission DG ECHO (Civil Protection Financial Instrument, project ECHO/SUB/2016/740178/PREV26), running for two years (2017-2018).

The lead partner of the OpenRisk project is HELCOM. The other partners of the project are the World Maritime University (WMU), MARIN (non-profit maritime research institution based in the Netherlands) and the Finnish Environment Institute (SYKE). The project is also supported by the BONN Agreement (North Sea), the Copenhagen Agreement (Nordic seas), REMPEC (Mediterranean Sea) and the Lisbon Agreement as well as the Norwegian Coastal Administration – Kystverket.

The objective of the OpenRisk project was to take the first steps in developing a toolbox of joint and open methods that enable frequent assessments of spill risks from maritime accidents and adequacy of response capacity. The expected end-users of the project outcomes are Pollution Prevention and Response (PPR) authorities of Europe.

The main deliverables of the OpenRisk project are as follows:

- Guideline for Pollution Prevention and Response on risk assessment and management based on the ISO 31000 Standard (published on the HELCOM website in October 2018);
- Baltic Sea Case Study (published on the HELCOM website in February 2019);
- Four Inter-regional workshops, including reports.

[15. Development, promotion and sustainable management of the Baltic Sea Region as a coastal fishing tourism destination \(RETROUT\), 2017-2020](#)

Project Manager: Mr. Henri Jokinen, HELCOM Secretariat

RETROUT is a 3-year project focusing on sea trout rivers, sustainable trout fishing tourism and trout river restoration in the Baltic Sea area. The project started its work in October 2017 and will finish by October 2020. The project has four Work Packages (WPs) addressing different aspects of the project scope, including the biological basis for trout fishing through stock and river habitat status assessment and management and river restoration practices, policy reform studies and dialogue, and actual development and promotion of coastal fishing tourism destinations. HELCOM is the lead of WP 4 on status and management of sea trout rivers and stocks.

The project comprises 14 partners from the Baltic Sea countries (Sweden, Estonia, Latvia, Lithuania and Poland) including HELCOM as an intergovernmental organization. Stockholm County Administrative Board is the lead partner responsible for the overall project coordination. RETROUT is a flagship project of the EU Strategy for the Baltic Sea Region Policy Area Bioeconomy. The 3.2 Meur project is co-financed by Interreg Baltic Sea Region Programme under the Natural resources priority field.

The aim of WP4 “Assessment of status and management of seatrout rivers and stocks”, led by HELCOM, is to compile information on the status of sea trout rivers and stocks in the Baltic Sea region, evaluate different river restoration methods and technological solutions, and to recommend best practices for restoration and management options. The gained experience will be synthesized in a dedicated Baltic Toolbox with a set of river restoration measures to be published as a HELCOM report with pan-Baltic recommendations, including a section with case studies.

Activities and progress within WP4 during 2018:

- Henri Jokinen joined HELCOM in August 2018 as the new RETROUT Project Manager;

- HELCOM contributed to a “Monitoring and assessment method workshop in Lithuania”, organized jointly with the sixth meeting of ‘HELCOM Task Force on migratory fish species’ ([FISH-M 6-2018](#))
- HELCOM was centrally involved in the planning phase of the task on “Assessment of sea trout river and stock status”, to take the work forward during 2019
- HELCOM was involved in the activity on “Joint evaluation of completed restoration projects” by supporting the development of a case study template on past river restorations, and by coordinating the data request that was distributed to project partners and non-partner HELCOM Countries.
- The second annual RETROUT partnership meetings was held in in October 2018 in Stockholm, Sweden.

[16. Communication support for BALEX DELTA 2018, 2017-2019](#)

Project Manager: Ms. Therese Larsson, Sweden

Communications Expert: Ms. Sanna Saari, HELCOM Secretariat

The HELCOM BALEX DELTA exercise has been conducted annually for nearly 30 years. The exercise is organized as a practical exercise of the response capability and alarm procedures of the Baltic Sea countries. The exercises are hosted by the Baltic Sea coastal countries in alphabetical order.

BALEX DELTA 2018 is a two-year EU funded (DG ECHO’s Civil Protection Mechanism Exercise Programme) project, led by the Swedish Coast Guard, running from 1 May 2017 to 30 April 2019. HELCOM was responsible for the publicity part of the project.

The BALEX DELTA exercise was held in Karlskrona, Sweden from 28 to 30 August, dealing with both oil and chemical spills, and with response exercises held at sea and also on shore. The exercise mobilized about 500 personnel from eight countries and the EU. 18 maritime vessels, one aircraft, one helicopter and various clean-up tools were also deployed in the exercise which was deemed to be very useful.

The initial planning conference was organized on 23-24 January 2018 in Malmö, Sweden and a number of Core Planning Team meetings were also held in 2018. The BALEX DELTA 2018 After Action Review was organized on 13 November in Rostock Warnemünde, Germany. As the final event of the project, the BALEX DELTA 2018 Lessons identified and Final Conference will be organized on 9-10 April 2019 in Helsinki, Finland.

[17. Advanced manure standards for sustainable nutrient management and reduced emissions \(Manure Standards\), 2017-2019](#)

Project Manager: Ms. Susanna Kaasinen, HELCOM Secretariat

Manure Standards is a two-year (10/2017–09/2019) project aiming to provide farmers, advisors, authorities and policy-makers enhanced capacity to govern and to turn manure use towards improved sustainability and resource-efficiency. The project is financed by Interreg Baltic Sea Region Programme. Manure Standards is coordinated by Natural Resources Institute Finland (Luke) and in addition to HELCOM it includes partners from 9 countries around the Baltic Sea.

The project has five work packages:

- WP1 Project Management and Administration
- WP 2 Guidelines for manure sampling and analysis
- WP 3 Guidelines for manure calculation systems
- WP 4 Impact assessment of implementing the new manure standards
- WP 5 Actions for implementing the new manure data on farms and in policies

HELCOM is leading work package 5. The 2013 HELCOM Ministerial Meeting agreed to establish by 2016 national guidelines or standards for nutrient content in manure and develop by 2018

guidelines/recommendation on the use of such standards. The work package led by HELCOM aims at helping Contacting Parties to implement this commitment. HELCOM Agri group will also provide the link between the scientific results of the project and the authorities and policy makers as agreed in AGRI 3-2016.

In 2018, the project developed draft HELCOM Recommendation on the use of national manure standards. AGRI 6-2018 Meeting supported the draft in general and invited the project to work on it further. Manure Standards policy workshop was held on 6 November 2018 in Poland, Warsaw, to receive feedback from the AGRI group on the tools, including guidelines for manure sampling and manure calculation systems, developed in the project.

18. Completing management options in the Baltic Sea Region to reduce risk of invasive species introduction by shipping (COMPLETE), 2017-2020

At HELCOM Secretariat: Ms. Marta Ruiz, Associate Professional Secretary and Project Researcher: Mr. Manuel Sala Perez

COMPLETE (2017-2020) is an EU INTERREG Baltic Sea Region project aimed at delivering knowledge and tools to implement HELCOM's roadmap for regional implementation of the outstanding issues on the BWMC in the Baltic Sea and also assist relevant authorities in implementing Regulation (EU) No 1143/2014 of the European Parliament and of the Council, aiming to protect native biodiversity and ecosystem services.

The project consists of six working packages:

- WP1 Project Management and Administration
- WP2 Guidelines for surveillance and monitoring program of non-indigenous species
- WP3 Ballast water risk assessment and management systems
- WP4 Evidence-based options for biofouling management in the Baltic Sea Region
- WP5 Databases and user-friendly information support
- WP6 Stakeholder involvement and strategy development processes

HELCOM leads Activity A 3.2: Advanced risk assessment tool under the HELCOM-OSPAR Joint Harmonised Procedure. Additionally, HELCOM is also involved in the following Activities (A):

- A 2.4: Integrated monitoring system of non-indigenous species introductions by shipping and other vectors;
- A 3.1: Target species selection criteria and risk assessments;
- A 5.1: Information system on non-indigenous species and harmful aquatic organisms and pathogens;
- A 6.2: Engaging stakeholders into development and use of project products;
- A 6.3: Roadmap proposal for harmonized biofouling management in the Baltic Sea Region.

Activities in the project are evolving as planned. In 2018 the project informed of its status to MARITIME 18-2019 ([document 3-2](#)) and TG BALLAST 9-2018 ([document 8-2](#)). It is to point out the project outputs already considered by TG Ballast: (i) a proposal for the update the target species selection criteria in the Joint Harmonised Procedure; and (ii) proposals for technical updates and modifications to the online decision support tool.

In 2018, the project consortium met on 25-26 April, in Riga, Latvia and on 11-12 December, in Gothenburg (Sweden). In addition, several on-line meetings were held among involved partners to discuss specific activities within the project. The next meeting of the project consortium is to be held on 16-17 April 2019, in Klaipeda, Lithuania. It is envisaged that the mid-term conference will be held at the end of 2019 in Jurmala, Latvia (November-December, tbc).

19. [Pan Baltic Scope, 2018-2019](#)

At HELCOM Secretariat: Mr. Owen Rowe, Project Manager

PanBaltic SCOPE is a two-year project coordinated by the Swedish Agency for Marine and Water Management, funded by EASME, and involves 12 main partners. The project brings together eight maritime spatial planning (MSP) authorities from seven HELCOM countries with the aim of developing a coherent national maritime spatial planning initiative in the Baltic Sea region, creating a lasting macro-regional mechanism for cross-border MSP cooperation.

Objectives include: building on previous MSP-related initiatives, establishment of a cross-border planning forum, facilitation of cross-border activities, development of approaches and tools to contribute to coherent MSP, careful integration of the ecosystem-based approach into MSP activities, clear examination of land-sea interactions, and opening a forum for sharing best practices and knowledge.

The Project is circa half way through and formed of interlinked work packages, with HELCOM taking a lead role in two activities within work package 1.2: Advancing the implementation of the ecosystem-based approach and data sharing. HELCOM is lead partner for the activities related to Cumulative Impacts (CI) and Economic and Social Analyses (ESA), and is a partner within the Data Sharing activity. HELCOM has furthermore cooperated with the task related to Green Infrastructure, in particular on the topic of [Essential Fish Habitats](#).

The activity for ESA has completed a literature review and questionnaire, soon to be finalized and published within the project, and is currently preparing work on the final deliverable, a recommendation on how to develop a framework for social and economic analysis for the purposes of MSP. The CI activity has further developed the [Baltic Sea Impact Index \(BSII\)](#) with an aim of having the tool operationalised and publicly available at the end of the project, and the current focus is on developing the CI approach for MSP purposes via case studies. At the recent Project Partner Meeting, plans were also made for a cooperative joint meeting of the activities in work package 1.2 (hosted at the HELCOM Secretariat) to facilitate integration of approaches and understandings prior to the finalisation of all deliverables.

20. [Finalizing of the project - Operationalization of the nutrient reduction scheme follow-up system \(MAI-CART OPER\), 2018-2019](#)

Project implemented by: Mr. Bo Gustafsson, Baltic Nest Institute Sweden, in cooperation with Mr. Lars Moeslund Svendsen, Danish Centre for Environment and Energy Denmark

The project has been implemented in accordance with the ToR and allocated resources. As far as only two thirds of the estimated project budget have been available only basic modules for operationalization of the work to follow up implementation of the HELCOM nutrient reduction scheme were developed. PRESSURE 8-2018 agreed that remaining tasks of the HELCOM MAI-CART-OPER project have to be accomplished. Funds required for accomplishment of the project tasks have been received.

Specification of the implementation of the remaining tasks of MAI CART OPER project

The project will be accomplished in accordance with the initial terms of reference with minor modifications. The following remaining project tasks will be accomplished:

1. Finalizing of the module for statistical evaluations of trends and fulfilment and fulfilment.

Due to the complexity of the statistical methodology and involvement of manual operation e.g. data inspection and selection of parameter, full automation of the statistical evaluation of PLC data is not technically feasible. The following operations will be fully automated:

- Streamlined production of inputs to the statistical tool from the data handling tools (2.1, 2.2 and 2.3) excluding any manual operations;

- Production of assessment graphics and tables combining time-series from the data handling tools and the results from the semi-manual statistical operations.

2. Integration of the modules into a software tool to enable their use in a single context.

The task is partly performed. The remaining modules will be integrated into the software tool except the Module for statistical evaluations of trends and fulfilment. As long as, statistical evaluation procedures imply manual operations the module will be integrated to the extent which is technically feasible.

3. Technical documentation.

The documentation will include description of elaborated procedures and produced codes as well as descriptions of user interfaces and tools. Publication of useful routines as open source resources, e.g. GitHub.com or other relevant homepages, is also possible.

Contract on implementation of the above listed tasks was signed in November 2018.

21. HELCOM Checklist of Baltic Sea Species 2.0 (BaltiCheck), 2018-2019

At HELCOM Secretariat: Ms. Jana Wolf, Project Coordinator

The aim of the BaltiCheck project is to consolidate and make the data within HELCOM about species and their distribution publically available, link this information to the HELCOM Checklist information and develop an accessible database to store the consolidated data. Collating the data in a joined database will ensure access to region wide information with open access to the public.

The main steps for upgrading the HELCOM Checklist of Baltic Sea Species are:

- 1) a) Collate available temporal and spatial data on Baltic Sea species already available within HELCOM.
b) Develop a simple open access database, populate the database with the available data and;
c) A possible data call to complement the data in the database, which in turn feeds into the checklist.
- 2) Update the checklist. All the available information will be crosschecked with the data from the 2011 checklist.

The database itself will function as a backbone for information about species and their spatial as well as temporal occurrence in the Baltic Sea. Collating already available data will increase the usability of already provided data by regional and national institutions. Furthermore, the process can help identifying data-gaps and facilitate the aggregation of any missing information.

Overall the BaltiCheck project provides the necessary information to analyse individual species, entire species groups as well as biodiversity on a regional scale. Consequently, the database will be a valuable resource for modelling, analyses, assessment and evaluation work, including for biodiversity, biogeography, and future prospects under a changing climate and can be used for current as well as future projects at HELCOM and on a national level.

In 2018 the main activities for the project included the implementation of a scoping workshop, collating all available data currently stored at HELCOM and identifying existing data gaps (1a). Based on those identified gaps a data call (1c) has been initiated to request missing species data. All existing and new available data will be used for updating the previous Checklist (2) of species occurring in the Baltic Sea. Furthermore, the all available species data will be stored in a simple, accessible database (1b), which is currently being developed and tested.

[22. Updating of the Baltic Sea Action Plan \(BSAP UP\), 2018-2021](#)

At the HELCONM Secretariat: Project Manager, Ms. Ulla Li Zweifel

The overall goal of the project is to support and facilitate the work of the Contracting Parties to update the BSAP in line with the Ministerial mandate and the guidance agreed by HELCOM 39-2018. The work within the project will be mainly carried out by the Secretariat and a dedicated project manager as well as Contracting Parties taking lead roles for specific topics or themes.

In 2018, the main activities of the project included drafting a work plan for the BSAP update, planning the sufficiency of measures analysis and facilitating the discussion in the WGs on accomplishment of national and joint BSAP commitments and on reporting of HELCOM Recommendations.

[23. Sustainable manure and nutrient management for reduction of nutrient loss in the Baltic Sea Region \(SuMaNu\), 2018-2021](#)

At HELCOM Secretariat: Ms. Susanna Kaasinen, Project Manager

The SuMaNu project platform will gather and synthesize the best practices and recommendations on sustainable nutrient management from the following projects: Manure Standards (MS), Baltic Slurry Acidification (BSA), GreenAgri (GA) and PROMISE (PR). Also the results of previous manure-related projects will be used.

Based on the project outcomes, joint policy recommendations will be created. The recommendations can be used nationally and they will feed into Baltic Sea region wide cooperation in HELCOM to promote sustainable nutrient management and enhance nutrient recycling. The joint policy recommendations will be made in cooperation with the target groups to make sure that they are useful for policy making and on the farm level. The SuMaNu project platform is co-financed by Interreg Baltic Sea Region Programme.

HELCOM is leading the work package 3 "Policy recommendations for sustainable nutrient management and recycling". The outcomes of the work package will support the elaboration of the Baltic Sea Regional Nutrient Recycling Strategy by 2020 and the update of the HELCOM Baltic Sea Action Plan beyond 2021.

[24. Platform on Integrated Water Cooperation \(BSR Water\), 2018-2021](#)

At HELCOM Secretariat: Mr. Dmitry Frank-Kamenetsky, Professional Secretary

BSR Water aims to enhance continuous cross-sectoral cooperation in water management field that lasts beyond the time frame of a single project, providing a possibility for transnational experience exchange, sharing of good practices and solutions, as well as a comprehensive overview of the current and future policy contexts and how they influence situation in the BSR countries.

One of the goals of the BSR Water project is to create an interactive online water management platform called Baltic Smart Water Hub for international knowledge and expertise exchange. The other goal is to utilize the outcomes and practical findings of the contributing projects to facilitate the long-term development of regional environmental policy and recommendations which will further serve to strengthen policy practice link in implementation of advanced water protection measures.

HELCOM responsible for the implementation of the WP4 of the project aimed at developing regional policy recommendations on nutrient recycling and developing recommendation on hazardous substances.

Project consortium consist of 8 partners: Union of the Baltic Cities, Sustainable Cities Commission c/o City of Turku; Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM); Berlin

University of Technology; University of Tartu; Gdansk University of Technology; SYKLI Environmental School of Finland; Riga City Council; City of Helsinki.

25. Clean Shipping Project Platform (CSHIPP), 2018 - 2020

At HELCOM Secretariat: Mr. Florent Nicolas, Project Coordinator

Clean Shipping Project Platform (CSHIPP) project brings together projects and organisations focused on enhancing clean shipping in the Baltic Sea Region. The objective of CSHIPP is to increase the impact of and connect the dots between the six projects working for clean shipping. CSHIPP synthesises the projects' results to provide a more holistic perspective in a concise and easily comprehensible format.

The activities of CSHIPP revolve around two key themes: the environmental effects of shipping and the business potential of clean shipping in the BSR. By discussing these themes both separately and simultaneously, CSHIPP emphasises that environmentally friendly shipping and profitable business support rather than exclude one another.

HELCOM is leading the work related to drafting policy recommendations from the outputs of the different projects involved in the platform. The draft recommendations will be discussed during a dedicated policy workshop held back-to-back to the second international Shipping and Environment Conference in Gothenburg on the 4 and 5 September 2019. The draft recommendations will be submitted to the HELCOM MARITIME WG. HELCOM is also involved in building an online dissemination tool that will provide great amount of information and data to users such as researchers, students or general audience about clean shipping in the Baltic Sea Region.

26. Actions to evaluate and identify effective measures to reach GES in the Baltic Sea marine region (ACTION), 2019-2020

At HELCOM Secretariat: Mr. Owen Rowe, Project Manager

The ACTION project is a HELCOM coordinated project that is co-financed by the EU. The project started in January 2019 and will run for two years. The project is designed to contribute to the update of the HELCOM Baltic Sea Action Plan by 2021 and can also be used by HELCOM Contracting Parties that are also EU Member States in updating and implementing their MSFD Programme of Measures.

The project will evaluate the effectiveness of existing measures, focussing on several pertinent topics, such as: by-catch of mammals and birds, impacts on the seabed, marine protected areas, and eutrophication. These topics have been chosen based on identified priorities in the region, for example some of the main pressures on the Baltic Sea ecosystem identified in the [HELCOM State of the Baltic Sea report](#). In addition, the project will analyse the natural conditions that influence the achievement of Good Environmental Status (GES) in the Baltic Sea region, including impacts of projected changes in climate. Furthermore, the project will develop an approach for regional sufficiency of measures (SOM) analysis to identify potential gaps in achieving GES, and estimate cost-effectiveness of tentative new measures to fill these gaps. The project aims utilize data driven analyses wherever possible, but expert based evaluations will complement existing data where required.

The project will be carried out in seven work packages:

- WP1 By-catch: identifying high-risk areas for by-catch of mammals and birds, evaluating technical measures to reduce by-catch of harbour porpoise, estimating the effect and cost of these mitigation measures.
- WP2 Impacts on the seabed: evaluating restoration measures in coastal areas and impacts of spatial regulation of offshore fisheries, including effects on benthic communities and costs of measures.

- WP3 Marine protected areas (MPAs): developing a method to assess management effectiveness of MPAs, assessing how MPAs contribute to achieving GES in the Baltic Sea
- WP4 Input of nutrients: analysing sources and trends of nutrient input and compatibility of nutrient reduction targets under different policies, evaluating the combined effect of existing measures.
- WP5 Conditions that influence GES: analysing the conditions of the Baltic Sea that influence achievement of GES, including climate change.
- WP6 Sufficiency of measures: developing an approach to assess the sufficiency of existing measures to achieve GES, implementing the approach for selected topics, identifying the need for new measures, estimating cost-effectiveness of tentative new measures.
- WP7: Policy-project interphase: ensuring guidance from and timely contribution to the BSAP update process and the preparation of MSFD PoMs.

The project will utilize existing HELCOM structures (i.e. expert groups and working groups) to seek additional data, discuss development taking place, and to present methodologies and findings. The methodological framework developed in the project is expected to be applicable also in other marine regions and dissemination through MSFD CIS and other Regional Seas Convention, in particular OSPAR, will take place during the course of the project.

The project project partners include: Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM), Finnish Environment Institute (SYKE), Technical University of Denmark (DTU), Aarhus University (AU), Tallinn University of Technology (TTU), The Swedish Agency for Marine and Water Management (SwAM), Swedish University of Agricultural Sciences (SLU), University of Tartu (UT), and Klaipėda University, Marine Research Institute (KU)

27. Initiatives to remove microplastics before they enter the sea (FanPLESStic-sea), 2019-2021

At HELCOM Secretariat: Ms. Marta Ruiz, Associate Professional Secretary

FanPLESStic-sea is an EU INTERREG Baltic Sea Region project aimed at decreasing and removing microplastics in the Baltic Sea.

FanPLESStic-sea envisaged outputs are:

- A model to map, understand and visualize microplastic pathways that will be applied to the partners' cities and/or regions
- Piloting of new technology i) for filtering out microplastics; ii) sustainable drainage solutions as means for removal of microplastics; and iii) to remove microplastics from stormwater
- Defining innovative governance frameworks and engaging a large range of players for the implementation of coordinated and cost-efficient measures resulting in locally adapted investment proposals/plans for each partner's region
- Dissemination of project results, including reports on barriers and ways forward, to increase institutional capacity on up-stream and problem-targeted methods to remove microplastics.

The FanPLESStic-sea project will run for 30 months (January 2019-June 2021).

The project partners are: Sweden Water Research (SE, Project Coordinator), Aalborg University (DK), Natural Resources Institute Finland (FI), Helsinki Commission (HELCOM), Latvian Institute of Aquatic Ecology (LV), Siauliai Chambers of Commerce, Industry and Crafts (LT), Salt Lofoten AS (NO), Gdansk Water Utilities Ltd. (PL), Gdansk Water Ltd. (PL), State Autonomous Institution of the Kaliningrad region "Environmental Center "ECATKaliningrad" (RU), Luleå University of Technology (SE).