



Document title	Strategic overview of future PLC assessment products and the processes and timetables for their operationalization
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Agenda Item	5 – Preliminary outline for the PLC-6 assessment
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Reference	

Background

PLC-6 7-2014 agreed that it would be useful to develop a strategy for the next generation of PLC data products and was of the opinion that such a strategy should be drafted by RedCore DG and circulated to Pressure WG and HODs for commenting and endorsement.

In an effort to identify the PLC assessment products needed for following up implementation of the Helsinki Convention, the HELCOM Baltic Sea Action Plan, the HELCOM Nutrient Reduction Scheme and relevant Recommendations, the Secretariat, together with input from the Reduction Scheme Core Drafting Group (RedCore DG), has prepared the attached strategic overview document.

The document summarizes the assessment product needs of HELCOM, the processes that need to be in place to smoothen and operationalize the regular updating of the assessment products as well as the responsibilities of different actors in ensuring the timely implementation of the work.

The document was considered by PRESSURE 2-2015 and the Meeting:

- supported the proposed strategic approach to PLC work, and more specifically that future PLC deliverables should be developed into four main flagship products as listed in Table 1 of document 3-2, with unique and complementary content that meets policy needs. The Meeting agreed that the issue of updating of the MAI and CART follow-up assessments on an annual basis is to be further considered and is pending clarification of resources needed to do the updating.
- agreed that the content of the upcoming PLC-6 report should mostly focus on source apportionment and assessing the effectiveness of measures, to be complementary to other three PLC flagship products. The Meeting also supported that a new, attractive user-friendly format (e.g. an e-book) for the report should be explored.
- considered and endorsed the presented overview of the processes to elaborate PLC data and assessment products (Annex 1 of document 3-2), noting that some additional or different steps might need to be taken (in the transition period) until the new PLC database and MAI and CART assessments have been made fully operational.
- requested RedCore DG to work out further details of the processes to elaborate PLC products, especially timelines, with the aim to better synchronize and time future PLC work.
- decided that there is a need to establish procedures for releasing the reported PLC-water data and accepting the filled in and consolidated dataset as part of the steps to elaborate PLC products and requested RedCore DG to develop a proposal for such a procedure, with the view that the proposal should be presented for consideration by Pressure 3-2015 in autumn 2015.

- discussed the timing of the PLC-7 assessment, with the view to streamline availability of PLC-7 data for use by those Contracting Parties that are EU Member States for their next generation river basin management plans under WFD in 2019/2020 (which should undergo public hearing in December 2020 and be released in 2021). The Meeting noted that countries have their national procedures and schedules, but that it should be sufficient to have the main PLC-7 results ready in the end of 2019.

The PLC strategic document has been submitted to HOD 48-2015 for endorsement.

Actions

The Meeting is invited to take note of and take into account the draft strategy document when elaborating a first draft outline and list of main contents for the PLC-6 assessment.

HELCOM PLC Strategy

The HELCOM [Monitoring and Assessment Strategy](#) sets out the basis for how the HELCOM Contracting States commit themselves to design and carry out their national monitoring programmes and work together to produce and update joint assessments.

The assessment system of HELCOM is hierarchical, consisting of Baltic Sea Environment Fact Sheets and core indicator reports, thematic assessments and holistic assessments of the ecosystem health. The purpose of the joint assessments is to support policy formulation and decision making by evaluating the status of, and pressures to, the marine environment, and hence also allowing for assessing the effectiveness of measures.

The HELCOM assessment system operates in six-year cycles that are synchronized with other international requirements.

Pollution Load Compilations have been an integral part of HELCOM's assessment system since 1987, focusing on annual and periodic assessments of inputs of nutrients and selected hazardous substances.

The data on inputs are of high public interest and are a hallmark of HELCOM data to assess pressures from human activities. While gaps in data do exist, these comparable data sets and assessments of pollution loads covering the nine HELCOM countries, as well as more distant transboundary sources, are unique from a worldwide perspective.

At the same time, PLC products have been in general perceived as representing old data, and there has been limited understanding of the unique content of each of the different assessment products and purposes they serve. This confusion arises partly from the different, and somewhat complex processes for reporting and compiling data as well as presentation and communication of results in assessments.

Moreover, access to PLC data in a suitable format has been limited as no operational open access database has existed. Establishment of the new PLC-water database will be a major milestone in improving access and increasing usability of PLC data and data products.

The 2013 Monitoring and Assessment Strategy and adoption of the nutrient reduction scheme by the 2013 HELCOM Copenhagen Ministerial Meeting have created new demands for PLC products: a core pressure indicator report on progress towards fulfillment of Maximum Allowable Inputs of nutrients (MAI) and the assessment of progress towards fulfillment of Country Allocated Reduction Targets (CART).

In light of these new MAI and CART assessments, the "traditional" annual and periodic assessments need to be revisited so that the content and frequency of the PLC data products are complementary and designed to serve their specific purposes.

In general, HELCOM should strive at releasing PLC data and assessment products that are as fresh as possible. A key to achieving up to date assessments is the timely and complete reporting by the Contracting Parties, synchronizing the timetables of PLC-Air and PLC-Water as well as a functional quality assurance procedure. While some of the assessment products require more complex calculations (normalization, statistical analysis and calculations) and involve labour intensive assessment processes, some products or data (on actual inputs) could be released sooner for general public use. At the same time, the timing of the next, PLC-7, assessment needs to be discussed and decided. PLC-6 covers data collected in 2012/2014, and some essential data are to be made available in 2016 and the assessment product delivered in the first half of 2017. PLC-6 will feed into the Second HELCOM holistic assessment of the Baltic Sea (HOLAS II), which will be released for public consultation in mid-2017 and finalized in mid-2018. Originally, a six-year assessment cycle has been foreseen for periodic assessments. However, consideration needs to be given how to time PLC-7 assessment and which additional – to HELCOM - policy needs it could serve. For instance, HELCOM Contracting Parties being EU Member States will be preparing their next generation river basin

management plans under WFD in 2019/2020 for public hearing in 2020 and release in 2021, while an update on the implementation of the Programmes of Measures under MSFD and of the PoM itself need to be done by mid-2019 and end of 2021, respectively.

Overall, timely assessments will require that procedures are established for releasing the reported data for further processing (even though some data might still be missing) by clearly indicating data quality, as well as for accepting the filled in and consolidated data sets. A stricter regime for following the deadlines would be necessary.

The future work will benefit from a more structured and longer term planning of the unique PLC products with underlying data, including timetables for their delivery. Processes to produce data and assessment deliverables need to be more clearly structured and described and responsibilities assigned with matching allocation of resources. The new PLC-Water database, once fully implemented and operational, will facilitate the production of PLC deliverables, and needs to be taken into account. Further, it is necessary to fully operationalize the two assessments (MAI and CART), production of which currently involves lot of manual and laborious calculations. The main steps to be operationalized are establishment of the PLC assessment data set, carrying out normalization and statistical tests, calculation procedures and the production of several standard tables and graphs.

Once the MAI and CART assessments are fully operationalized, it will be possible to determine the efforts and resources needed for updating the reports and make a final conclusion of the frequency of the updating, especially with regards to CART.

The aim is timely production of unique data and assessment products, in an attractive and user friendly way, which meet user needs. Access to underlying data needs to be ensured as well.

Table 1. An overview of needed PLC assessment products, their unique features, their publication format and their updating frequency.

Assessment product	Main unique feature	Released as	Frequency
1. Annual reports on (actual) airborne and waterborne inputs of: - nutrients - selected heavy metals (only airborne) - selected POPs (only airborne)	Fresh data, including presentation of trends to be released every year	Baltic Sea Environment Fact Sheets and annual report by EMEP on atmospheric inputs to the Sea (website)	Annually
2. Progress towards fulfillment of Maximum Allowable Inputs of nutrients	Evaluation of average annual input during latest three year period against the agreed maximum allowable inputs to Baltic Sea sub-basins	Core pressure indicator report (website)	Annually
3. Progress towards fulfillment of Country Allocated Reduction Targets	Assessment if the nutrient reduction targets set for the countries and other sources are met	Core indicator report (website)	Possibly annually
4. Periodic PLC assessment	Evaluation of inputs from different sources in the catchment area for a chosen single year and more comprehensive	Possibly an interactive, digital report (ebook)	Periodically (PLC-6 in 2016/17)

	assessment related to effectiveness of measures. Inputs on metals, potential reduction in nutrient inputs, nutrient emissions related to background information as e.g. land use, fertilizer application, climate, soil type, livestock, population etc.		
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Annex 1: Processes behind elaboration of different PLC assessment products

The work-flow for PLC waterborne input products listed in the table below **assumes that the PLUS project has been fully implemented and the PLC-water database and its web application are up and running.**

Annual basic report				Elaborate assessments				Other reports and tasks	
Annual report on (actual) airborne inputs		Annual report on (actual) waterborne inputs		Progress towards fulfillment MAI & CART		Periodic PLC assessments			
Steps	Who is involved	Steps	Who is involved	Steps	Who is involved	Steps	Who is involved	Steps	Who is involved
Collection and reporting of air emission data to CLRTAP	Contracting Parties	Collection and reporting of PLC data to the new PLC-water database	Contracting Parties According to the established procedure	Collection and reporting of data (in accordance with steps listed for annual basic reports)	Contracting Parties	Intercalibration activities	Contracting Parties – coordinated by DK	Updating of PLC guidelines	RedCore DG
Data compilation, quality assurance, and filling in of data gaps	HELCOM Data Centre on PLC-Air	Data verification, quality assurance and compilation of data in the database Releasing the reported data for further processing	HELCOM Data Centre for PLC-Water	Data verification, quality assurance and compilation of data (in accordance with steps listed for annual basic reports)	HELCOM Data Centres for PLC-Air and PLC-Water	Collection and reporting of data to new PLC database	Contracting Parties	Documentation describing method for assessing fulfilment of MAI and CART (end result of development methodologies for improving assessments)	RedCore DG
Data processing and preparation of data products	HELCOM Data Centre on PLC-Air	Extract of complete PLC water dataset, filling in possible data gaps and approval of the completed data set	HELCOM Data Centre for PLC-Water and RedCore DG / Approval of the completed dataset by the CP according to the	Extract of complete PLC water dataset, filling in possible data gaps and approval of the completed data set, and combining also	HELCOM Data Centre for PLC-Water and RedCore DG / Approval of the completed dataset by the CPs according to the established	Data verification, quality assurance and compilation of data into the PLC-Water database	HELCOM Data Centre for PLC-Water		

			established procedure	atmospheric input data provided by HELCOM Data Centre on PLC-Air	procedure				
Updating of annual report (BSEFS included as Annexes)	HELCOM Data Centre on PLC-Air	Updating of annual report	RedCore DG	Normalization of compiled PLC dataset (water and airborne inputs)	HELCOM Data Centre for PLC-Water	Blame-matrix and more details atmospheric input assessment	HELCOM Data Centre on PLC-Air		
Endorsement and publication of BSEFSs on HELCOM website	Pressure WG (via correspondence or at annual meeting)	Publication on the report (BSEFS) on the HELCOM website and of the dataset in the new PLC database web application and Map and Data Service	Secretariat and HELCOM Data Centre for PLC-Water	Statistical analysis including trend analysis	DCE (on contractual basis)	Extract of complete PLC water dataset, filling in possible data gaps and approval of the completed data set, and combining also atmospheric input data provided by EMEP	HELCOM Data Centre for PLC-Water, RedCore DG/approval by the CPs according to the established procedure		
				Preparation of data products	RedCore DG and HELCOM Data Centre for PLC-Water	Normalization of compiled PLC dataset (water and airborne inputs)	HELCOM Data Centre for PLC-Water		
				Updating of assessments for evaluating Progress towards fulfilment MAI & CART	RedCore DG	Statistical analysis including trend analysis	HELCOM Data Centre for PLC-Water		
				Endorsement of	Pressure WG	Preparation of	PLC-6 Project		

				results and publication		data products (graphs, tables and maps) and the periodic assessment report	Manager & Project Team		
						Endorsement and publication	Pressure WG & HODs		