



Baltic Marine Environment Protection Commission

Project for the development of the second holistic assessment of the Baltic Sea

HOLAS II 1-2014

Helsinki, Finland, 16-17 December 2014

Document title	Project description for the development of the second holistic assessment of the Baltic Sea
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Reference	

Background

This document contains the description for the HELCOM project for the development of the second holistic assessment of the Baltic Sea (HOLAS II) as agreed in principle by HOD 46-2014.

Nominated participants in the HOLAS Core Team as of November 2014 are contained in Annex 1. Comments on the project description that have been received from Germany are contained in Annex 2.

Action required

The Meeting is invited:

- to take note of the information and use it as appropriate.

PROJECT DESCRIPTION (PROJECT NO. 11.52)**HELCOM project for the development of the second holistic assessment of the Baltic Sea**

1. Title of Project: Second holistic assessment of Ecosystem Health of the Baltic Sea (HELCOM HOLAS II)

2. Project Chair:

Project coordinator: Lena Bergström

3. Proposing Party:

Contracting Party: _____

Commission: _____

Subsidiary body: _____

Heads of Delegation: _____

Executive Secretary: X _____

4. The body supervising the Project: HELCOM GEAR and HELCOM STATE

5. Background, targets and activities

a) Background

The Initial Holistic Assessment

In 2010 HELCOM published the first holistic assessment: Ecosystem Health of the Baltic Sea - HELCOM Initial Holistic Assessment (BSEP 122). The assessment included 1) thematic assessments of eutrophication, hazardous substances, and biodiversity, and maritime activities, 2) an integrated assessment of ecosystem health, 3) a map-based display of pressures, or proxies of pressures, and impacts on the Baltic Sea ecosystem, presented individually and aggregated in two indices: the Baltic Sea Pressures Index (BSPI) and the Baltic Sea Impact Index (BSII) 4) Solutions (actions) and 5) Costs of environmental degradation and benefits of mitigation.

The thematic assessments were based on the HELCOM assessment tools HEAT (eutrophication), CHASE (hazardous substances) and BEAT (biodiversity). Since production the Initial Holistic Assessment the HEAT tool has been further developed in CORE-EUTRO (2012-2013) and will be yet further developed in EUTRO-OPER (2014-2015). CHASE has been further developed in the HARMONY project¹ and BEAT is being further developed through the DEVOTES project².

The integrated assessment of the three thematic areas was based on the interim assessment tool HOLAS and the Initial Holistic Assessment pointed out that it “should be regarded as a demonstration of one means for the classification of ‘ecosystem health status’”. The tool was based on three categories of indicators: biological indicators, hazardous substances indicators and supporting indicators. There has been no development of the HOLAS tool since the last holistic assessment and thus there is need for further development.

The BSPI and BSII indices, which are based on georeferenced data of human activities, pressures and ecosystem components, were developed and applied for the first time in the HELCOM Initial Holistic Assessment. The results of BSPI and BSII were presented as “preliminary and represent the first step towards addressing the anthropogenic pressures in the Baltic Sea” and furthermore it was recognized that “there is a need for further development and validation of these tools”. The tool underlying the indices has been further developed, tested and validated in the HARMONY project.

¹ Development and demonstration of Marine Strategy Framework Directive tools for harmonization of the initial assessment in the eastern parts of the Greater North Sea sub-region, finalized 2013

² EU-funded FP7 project, ongoing until 2016

The section on solutions outlined the link between pressures and human activities and proposed actions directed towards the pressure considered of biggest concern for the Baltic Sea and where the actions could have multiple positive effects.

Finally, costs of environmental degradation and the benefits of a healthy Baltic Sea were summarized based on existing valuation studies and the ecosystem goods and services concept.

The basis for HELCOM Holistic Assessments

According to the HELCOM Monitoring and Assessment Strategy adopted in 2013, holistic and thematic assessments should build on the HELCOM core indicators. At present 30 HELCOM core indicators have been agreed, most of them being indicators of the state of the environment. CORESET II is currently finalizing the first set of agreed core indicators towards operationalization, e.g. by defining GES boundaries for state indicators and environmental targets for pressures indicators. The project is also considering additional indicators (pre-core and candidates), including pressures indicators, with the aim of closing gaps in terms of components that should be covered according to the Monitoring and Assessment Strategy. The list of core indicators to be used in the holistic assessment is thus still subject to changes and will be finalized at a later stage. CORESET II will end in June 2015 and thereby provide a timely input to HOLAS II. Gaps in indicators are however likely to exist also by the end of the CORESET II project.

Agreement on a Second Holistic Assessment

The 2013 HELCOM Ministerial meeting agreed to develop a second holistic assessment by 2016³ including to:

- develop regional assessments jointly and in such a way that they can be used by the Contracting Parties in assessments of their marine and coastal waters, as well as for their reporting purposes under EU MSFD and other international frameworks.
- further develop, test and apply HELCOM assessment tools starting already in 2014.
- develop and deliver operational assessments of pressures, including nutrient and hazardous substances inputs (PLC), impacts of fisheries on other species and on the seabed, pressures from shipping and other relevant pressures on the Baltic Sea and use these to update the Baltic Sea Impact Index
- cooperate with institutions having leading expertise on economic and social analysis of the use of the Baltic Sea and of the cost of degradation of the marine environment in order to contribute to the holistic assessment.

To support the production of a new holistic assessment MONAS 19/2013 presented initial ideas for a project, tentatively named HOLAS II (Annex I). The Secretariat drafted a project description that was presented to GEAR 6-2014. This project description reflects the comments and discussion at GEAR 6-2014, MONAS 20-2014 and GEAR 7-2014.

b) Targets for the HOLAS II project

Updated assessment tools:

- The project will evaluate and if needed adapt the existing HELCOM assessment tools for the thematic components biodiversity (BEAT) and hazardous substance (CHASE), as well as develop an assessment tool that integrates thematic components. The project should strive for developing a tool for status assessment of the Baltic Sea that cater for following-up progress towards the goals of Baltic Sea Action Plan as well as the MSFD descriptors for those Contracting Parties that are also EU member states.
- The project will also review and further develop, on a scientific basis, the BSPI and BSII, i.e. by updating and supplementing the pressure layers and the ecosystem component layers, and furthermore link the pressures to the assessment of state and impacts on the Baltic Sea environment.

³ Note new time table proposal in the section Thematic components and a roof report for EU reporting 2018.

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- The HEAT 3.0 tool for assessing eutrophication will be updated by HELCOM EUTRO-OPER. A close cooperation with EUTRO-OPER will ensure that experience gained in this project is transferred to HOLAS II.

Analysis according to the Drivers-Pressure-State-Impact-Response framework

- The second holistic assessment will be based on the elements of the DPSIR framework, establishing a clear link between the human activities that are resulting in Pressures, having an impact on the State of the environment, and causing an Impact on society in terms of costs of degradation and loss of ecosystem goods and services. Response in terms of measures taken by the Contracting Parties to progress towards good environmental status and an analysis of the Drivers behind the human activities and major pressures will be used as a basis for synthesis and proposed solutions.
- Available information on economic analyses will be an integral part of the project by providing e.g. analyses of cost of degradation and cost-benefit of measures.

Thematic components and a roof report for EU reporting 2018:

- The project will deliver, based on the HELCOM core indicators and updated assessment tools, thematic components on assessment of biodiversity, eutrophication and hazardous substances.
- The holistic assessment should be developed in such a way that it can also serve as a regional “roof report” that can be used by all Baltic Sea EU Member States and as part of the reporting obligations under MSFD Articles 8, 9 and 10 in 2018.
- To support the intended EU reporting purposes it was proposed by GEAR 6-2014 and underlined by GEAR 7-2014 that a draft report should be prepared by mid-2017, to be included as component in national public consultations (noting that this issue needs specific consideration), and to be finalized and adopted by mid-2018 taking the comments from national consultations into account. Furthermore the project should be compatible with MSFD reporting demands, including e.g. consideration of:
 - the 11 MSFD descriptors and potential rules of integration developed in the MSFD CIS process
 - the possible revision of the Commission Decision on criteria and methodological standards on good environmental status of marine waters (2010/477/EU)
 - the possible revision of MSFD Annex III.
- The holistic assessment will be based on the agreed HELCOM assessment units and thereby also provide a possibility to disaggregate and use the results for national reporting purposes.

Towards operational assessments

HOLAS II will contribute to the aim of HELCOM assessments to be fully operational and increasingly automated. This includes the production of manuals for the assessment tools and development of improved data flows to contribute to future assessments that will require less work. This will facilitate that the information and data used through the production of the assessments can also be utilized for national assessments and made accessible.

Implementation of the HELCOM Monitoring and Assessment Strategy:

This project will serve to implement the HELCOM Monitoring and Assessment Strategy adopted by the HELCOM 2013 Ministerial Meeting, specifically the HELCOM Assessment System (Attachment 3 of the Strategy) where thematic and holistic assessments are outlined as key elements of the Strategy.

c) Activities and outline of work

The project will build on six activities (see figure 1). These activities, working in close cooperation, should lead to concluding on the Ecosystem Health of the Baltic Sea and proposing solutions to reach good status. GEAR 6-2014 proposed that activities 1 and 3 will be the core activities of the project while activities 4 and 5 will be assessed with less level of detail and included e.g. in discussion chapters. Activity six represents the final section of the report, synthesizing the outcome and proposing solutions to the problems.

Specifically, the different activities address:

1. Pressures , or human activities as proxies for pressures, acting on the environment (P)
 - Spatial distribution and trends of individual pressures based on pressure core indicators.
 - Spatial distribution of human activities.
 - Updating the pressure and ecosystem component layers BSPI/BSII to cater for an assessment of cumulative pressures on the marine environment.
 - The setting of weight scores, which combines pressure and ecosystem component layers.
 - Address climate change through information from the latest HELCOM thematic assessment and new info, e.g. EMEP.
2. State of the environment and distance to GES (S, and Impact-environment)
 - The assessments will be based on core indicators that are ready by late 2015, leading up to thematic assessments of the state of biodiversity, eutrophication and hazardous substances. The thematic assessments should be structured to reflect, as far as possible, both the objectives of the Baltic Sea Action Plan and the descriptors of MSFD. In its interpretation the assessment should take into account supplementary information e.g. Baltic Sea Environmental Fact Sheets, Biotope Information Sheets, and new scientific findings.
 - The BSII (from A1) will provide a view on the impact on the environment.
 - The thematic assessments will lead up to an integrated assessment of the Ecosystem health of the Baltic Sea.

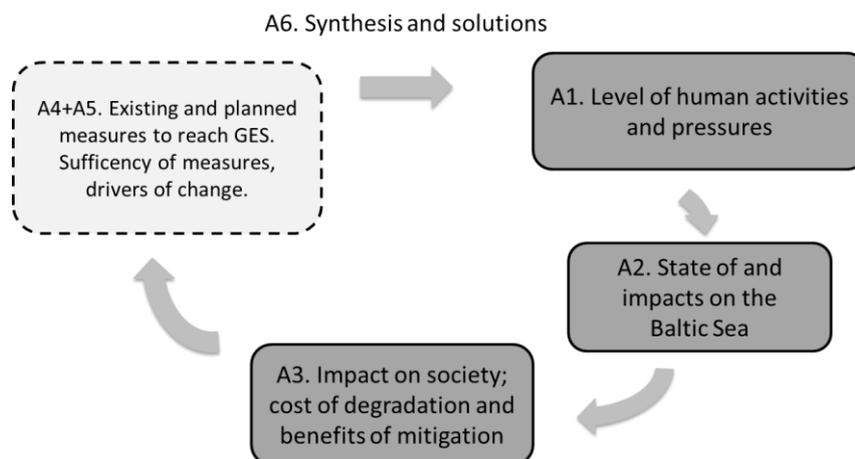


Figure 1. Outline of the link between proposed project activities according to the DPSIR framework.

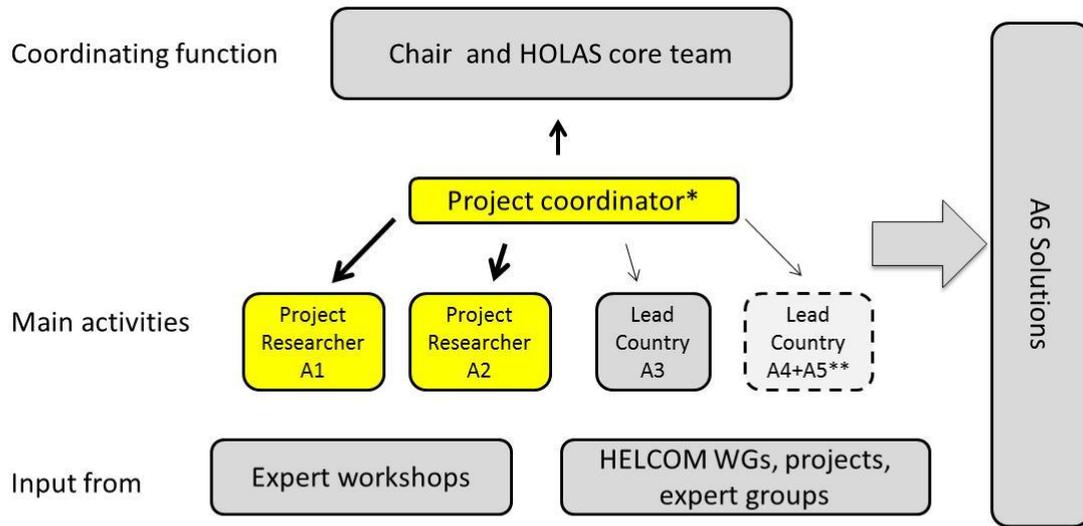
3. Impact on society (Impact- society)

- Economic analysis of cost of degradation and benefits of mitigation and achieving GES. This activity could be based on existing studies.
 - Other potential topics for impact on society e.g. health, freedom of choice could also be considered.
4. Measures already taken and planned (Response)
- A region-wide analysis of the how the pressures that are having a major negative impact on the Baltic Sea ecosystem are linked to existing and planned measures. This activity would focus on measures applied to meet commitments and agreements made in HELCOM, e.g. related to MPAs, and according to GEAR 6-2014 be conducted in less detail than other activities 1-3 and be presented e.g. in a discussion chapter.
It could build on the Contracting Parties reporting on implementation of the BSAP (both overall progress and country-wise progress as in the BSAP Index of Actions) and relevant components of the reporting of Article 13 by Contracting Parties also being EU Member States.
5. Appropriateness of measures (as linked to Drivers)
- An analysis to identify the driving forces behind the major pressures and human activities acting on the Baltic Sea ecosystem. Such analysis could focus on issues where regional coordination of measures is seen as particularly needed e.g. those that has a transboundary impact.
 - An analysis of sufficiency of measures based on the outcomes of A4 (existing and planned measures) and the analysis of driving forces to identify if the measures taken in the Baltic Sea marine region are appropriate for reaching good environmental status. This could include e.g. an evaluation of how MPAs can contribute to reach GES. The activity and analysis should according to GEAR 6-2014 be conducted in less level of detail than activities 1-3 and presented e.g. in a discussion chapter.
6. Synthesis/Solutions
- Conclusions on the current status of the Baltic Sea, sufficiency of efforts to reach good status, identification of possible outstanding issues, and proposals for improvement. Written as collaborative effort of HOLAS II participants based on outcome of A1-A5.

d) Project management structure

GEAR 6-2014 proposed a management structure building on:

- a HOLAS II Chair
- HOLAS II Core Team of national representatives
- a Project coordinator to support the Chair and Core Team
- a Project researcher/Consultant responsible for update and development of pressures indices
- a Project researcher/Consultant on the development of assessment tools
- Lead countries that take on the task of delivering certain activities
- Expert workshops to discuss and test assessment tools
- Input from HELCOM Working Groups and expert network



* Project coordinator to take on the role as project researcher of A1 or A2
 ** A4 and A5 will be based on a limited level of detail.

Figure 2. Working arrangements of HOLAS II.

Chair and HOLAS II Core Team (3.6 years, late 2014 to mid-2018)

Tasks for the Chair include chairing meeting of the HOLAS II Core Team and guiding the work the Project Coordinator and other activities of the project.

The HOLAS II Core Team consists of national representatives that will support the Chair in guiding the Project Coordinator and additionally:

- coordinate the timely delivery of national data or expertise needed to execute the project according to the time plan
- secure communication and endorsement of project deliveries at the national level
- participate in the development and writing of the final report.

Project Coordinator (3.6 years, late 2014 to mid-2018, on a 50% basis)

Tasks of the Project Coordinator include:

- Coordination of the overall project, guaranteeing that the different activities of the project are linked and that the different activities work in close cooperation.
- The Project Coordinator will be responsible for gathering data to update the BSPI and BSII.
- Coordinate the carrying out of the thematic and holistic assessments based on the tools adopted or developed by the project.
- Facilitate project activities by e.g. producing background material, analyses and draft texts.
- Ensure collaboration with ongoing HELCOM projects and as appropriate collaboration with external projects (e.g. DEVOTES, MARMONI).
- Prepare and convene meetings together with the Chair for the HOLAS II Core Team to jointly discuss all project activities and arrange expert workshops as necessary.

Project Researcher/Consultant on the development of state assessment tool (1.5 years 2015-2016)

The development of assessment tools will be taken forward as a specific component, executed by a Project Researcher/Consultant. The aim is to put into practice available tools for each thematic building block as well as developing an integrated assessment tool, relevant for both the BSAP and MSFD, and as a result produce transparent tools with full HELCOM ownership.

Tasks of include:

- Convene an initial workshop to review the principles of the existing HELCOM tools for thematic assessment and discuss how to adapt the HOLAS tool to MSFD while still being harmonized to the objectives of the Baltic Sea Action Plan.
- Develop proposals on how to apply/further develop the assessment tools based on the outcome of the workshop.
- Convene additional workshops, as needed to test the developed versions of the assessment tools with data input from the Contracting Parties (or from databases as appropriate).
- Support the project in carrying out the thematic and holistic assessments.

Project Researcher/Consultant on the development of pressure indices (1.5 year 2015-2016)

The update and development of pressure indices will be taken forward as a specific component, executed by a Project Researcher/Consultant. The aim is improve the indices as outlined in section c1.

Lead countries on specific components (2 years 2015-2016)

At present, HELCOM lacks apparent Working groups or projects that could take forward the element of social and economic analysis (activities 3-5) in the holistic assessment. These activities will be taken forward by a Lead Country with participation of other interested Contracting Parties. Coordination would be ensured by the project management structure.

A Lead Country would:

- Plan for and if needed develop a methodological concept for carrying out the activity in question.
- Participate in and take guidance from the HOLAS Core Team meetings.
- Carry out agreed analyses and participate in the writing of the final report.

Input from HELCOM Working Groups and expert networks

Input of information, data, participation in testing assessment tools, and review of the output of the project is expected from HELCOM Working Groups and expert networks, e.g.

- Input of data on pressures from the expert group LOAD (input of nutrients and hazardous substances), Working Groups REPSONSE (oil spills) and MARITIME (ship traffic, accidents, emissions).
- Input to assessment of environmental state from expert group MORS (radioactive substances), projects FISH-PRO II (coastal fish), EUTRO-OPER (eutrophication) and CORESET II (core indicators), and expert networks ZEN-QAI (zooplankton) and PEG (phytoplankton).

6. Expected results

According to targets.

7. Consistency with HELCOM priorities

X yes ____ no

The project is executed in close coordination with the HELCOM activities dealing with aspects of monitoring and assessment e.g. CORESET II, EUTRO-OPER.

8. Timetable

Tentative time table to carry out activities as outlined in 5c. Planning phase for the project implementation by the Chair and HOLAS II Core team is expected to start as soon as possible after decision.

Activities	2014	2015				2016				2017				2018	
	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q
Planning phase for project implementation															
Develop and test pressure indices (A1)												Consultation draft report			
Develop and test state assessment tools (A2)															
Improving pressure data layers (A1)															
Assessment; pressures (A1)															
Assessment; thematic (A2)															
Assessment; integrated (A2)															
Economic and social impact studies (A3)		Method and concept development													
Map existing and planned measures (A4)		Method and concept development													
Gap analysis of measures (A5)		Method and concept development													
Synthesis and writing draft report (A6)															
Finalization of draft report															

9. Budget

Budget is tentative and depending on employment arrangements i.e. project employment at the HELCOM Secretariat or engagement of consultants.

Expected time to develop assessment tools:

- Project Coordinator: 50% during the course of the project.
- Project Researcher/Consultant: 18 months to develop assessment tools and support the work to carry out the thematic and integrated assessments.
- Project Researcher/Consultant: 18 months to develop the Baltic Sea pressures indices
- Economic and social impacts studies: budgeted at 18 months.
- Travels budget for Project Coordinator for HOLAS II Core Team meetings, workshops, and meetings with HELCOM expert groups and projects

9.1. Total cost:

[Updated budget under development]

10. Additional requests (manpower, equipment, facilities, etc.)

10.1 From the Contracting Parties

Lead Countries to support the cost of the activity in question. All Contracting Parties are required to participate in the HELCOM Core Team and to submit timely national contributions in terms of data, expertise to workshops.

10.2 From the Secretariat

The Project shall be supported by the Secretariat.

11. Organization of Project

The Chair will be **XX**, Project Coordinator will be **XX**

Every Contracting Party should nominate a national member of the HOLAS II Core Team.

[HELCOM Risk Assessment Procedure](#) is to be observed.

12. Signature of the Project Coordinator

13. Opinion of the Chairs of the relevant body

Chairlady of HELCOM MONAS supports the project

Chairlady of HELCOM GEAR support the project

14. Opinion of the Executive Secretary

Executive Secretary supports the project

15. Decision of the Heads of Delegation

Annex 1. Nominated participants to the HOLAS Core Team, 2014-11-23

Denmark: Tonny Niilonen, Danish Nature Agency

Estonia:

- Agnes Villman, Ministry of the Environment
- Georg Martin, expert, Tartu University, Estonian Marine Institute
- Urmas Lips , expert, Tallinn University of Technology

European Union: Lydia Martin Roumeguas

Finland: Laura Uusitalo, Finnish Environment Institute (SYKE)

Germany:

- Ulrich Claussen, Federal Environment Agency
- Nina Schröder, German Federal Agency for Nature Conservation (replacement; Kai Hoppe IOW)

Latvia: Juris Aigars, Latvian Institute of Aquatic Ecology

Lithuania:

- Jovita Vitkutė, Ministry of Environment of Republic of Lithuania
- Aistė Kubiliūtė, Environmental Protection Agency

Poland:

- Adriana Dembowska, National Water Management Authority
- Magda Chreptowicz-Liszewska, National Water Management Authority
- Małgorzata Marciniewicz-Mykieta, Chief Inspectorate for Environmental Protection
- Ms. Joanna Ignasiak, Ministry of Infrastructure and Development

Sweden: Agnes Ytreberg, Swedish Agency for Marine and Water Management

Annex 2. German comments on the final draft project description for HELCOM HOLAS II

General comments:

The project proposal, as presented to HOD 46, is still too ambitious in our view. We propose that the main focus lies on pressures/human activities and on state of the environment and distance to GES. The impact on society including an economic analysis of the cost of degradation could be dealt with in a short and focused case study. There should not be an extra chapter detailing measures taken and their appropriateness since this clearly duplicates the roof report for article 13 MSFD. If it is the intention to incorporate the whole DPSIR-framework in HOLAS II then a short section on “what has been done” and outlook section on whether additional measures are required should be sufficient. This concern was already highlighted by the German delegation at the GEAR-meeting.

A second overarching issue is that we would welcome if the HOLAS II project could function in the next years as a forum where “WG pressure” and “WG STATE” issues are discussed in connection and the linkage between pressures and state is drawn. We suggest to incorporate this important task in the project description.

Another general aspect are the current inconsistencies in the project proposal concerning the thematic assessments that should be addressed. Eutrophication, hazardous substances and biodiversity are consistently mentioned, but “maritime activities” is missing under point 2) on page 5. Furthermore, litter and noise should be added, since although we might still lack fully developed assessment tools these important topics should be included.

Detailed comments:

On page 5 „setting of weight scores which combines pressure and ecosystem component layers“ should be deleted since this preempts a certain approach that relies on expert judgment and was criticized during the HOLAS I process.

On page 5 it should be added that “The holistic assessment will be based on the agreed HELCOM assessment units **but will attempt to also ensure that the information and data can also be utilized for national assessments**”. This is a very important point for Germany since it is the only way to avoid double work (e.g. a national MSFD assessment and a regional one). There are easy graphic solutions to cater for this need, e.g. showing the regional assessment for a certain HELCOM Baltic Sea assessment unit by colouring the whole assessment unit and overlaying the national assessments as dots as already tried for the eutrophication assessments.