Making HELCOM Eutrophication Assessments Operational

Hjalte Parner, ICES (Denmark), hjalte.parner@ices.dk

In 2014-2015 the project on making HELCOM Eutrophication Assessments operational (EUTRO-OPER) was carried out.

The project aimed toward a regularly updated high-quality thematic assessment of eutrophication status, produced through an operational and streamlined process. It was a continuation to the CORE EUTRO process, stemming from the EUTRO-, EUTRO PRO- and TARGREV projects, which have since 2005 developed the HELCOM core set of eutrophication indicators, with boundaries of good environmental status and assessment methodology, ending up in the latest update of eutrophication status in the Baltic Sea in 2007-2011.

The EUTRO-OPER project piloted the production of assessment products through efficient data flow processes. During the project, the entire assessment process, from monitoring and data aggregation to assessment calculation, was defined and documented, together with the protocols as well as responsibilities of QA/QC guidance and review. The project continued to improve the quality of the existing eutrophication status core indicators through enabling use of remote sensing and ship-of-opportunity data. Gaps in the present set of core indicator were investigated and new indicators were proposed. In addition, steps toward coordination of harmonizing the coastal and open sea eutrophication assessment were taken.
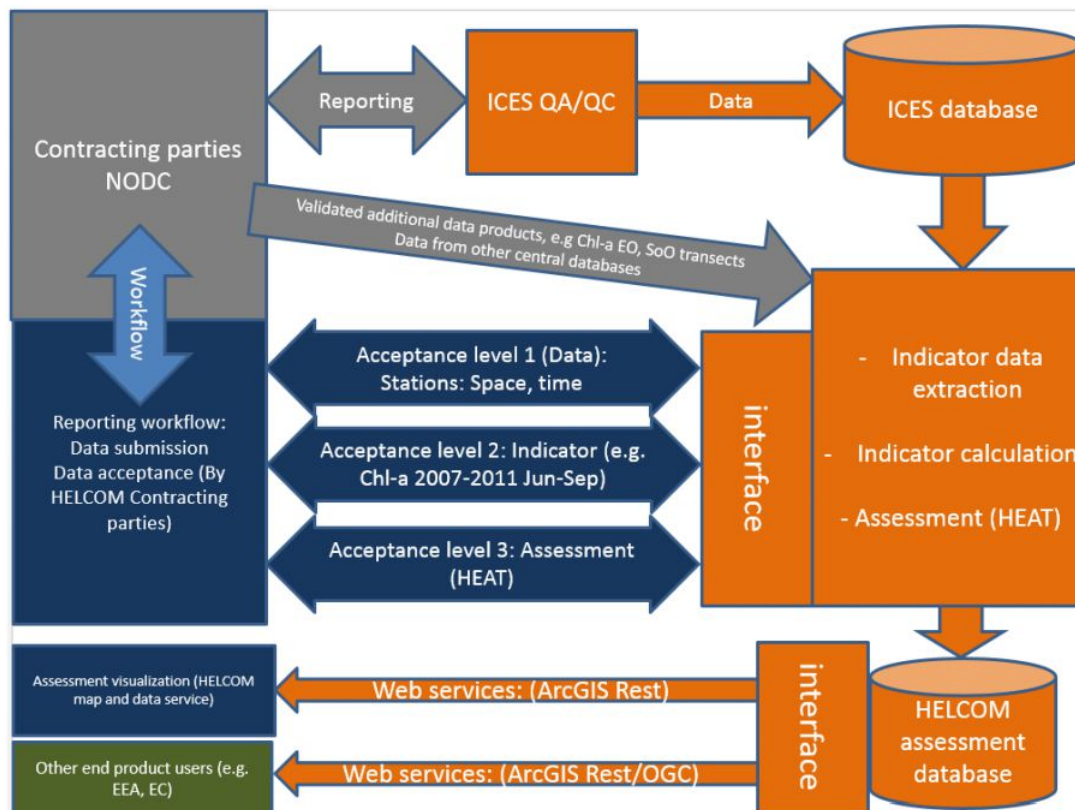

Figure 1: Data and information flow.

The colour of the items indicate the actor/host: Gray = Contracting Parties, Blue = HELCOM portal (hosted at the Secretariat), Orange = ICES, Green = Other end-users.

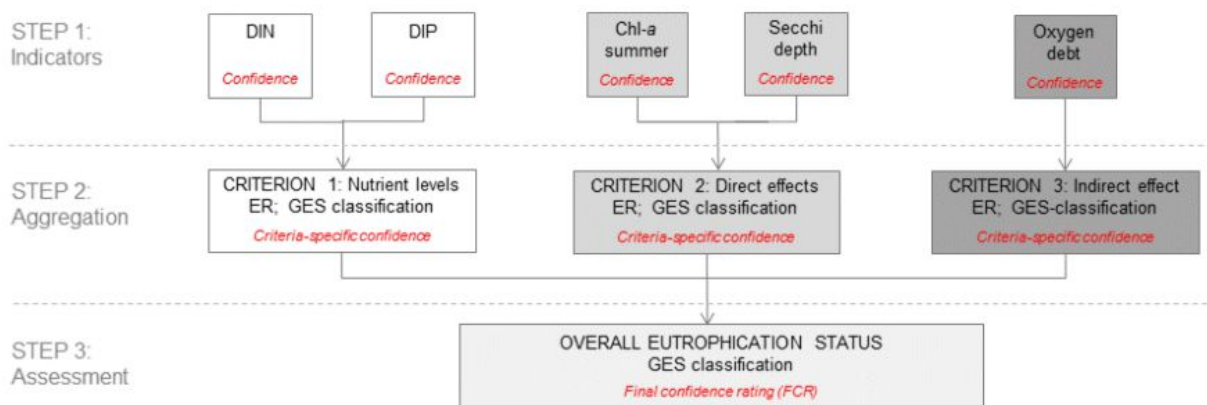**HELCOM Eutrophication Assessment Tool (HEAT).**

Figure 2: Schematic visualization of how the eutrophication status assessment is produced in open-sea assessment units using HEAT 3.0 and the core indicators.

The HELCOM Eutrophication Assessment Tool (HEAT) has now been made available online for the contracting parties which enable them in a transparent and streamlined way to evaluate the data behind the each of the indicators, view the result of the indicator calculations and finally see the full assessment result taken all indicators into account.

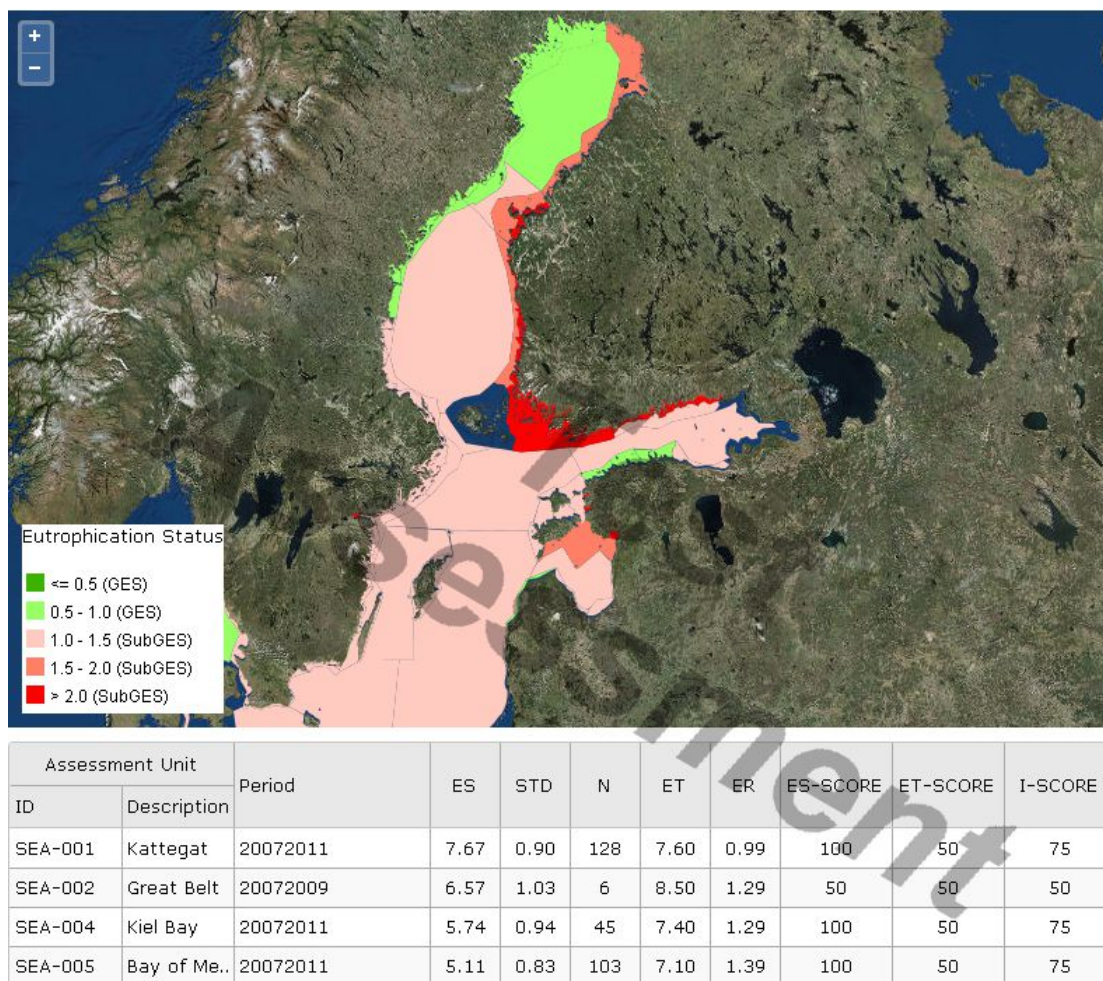| Assessment Unit		Period	ES	STD	N	ET	ER	ES-SCORE	ET-SCORE	I-SCORE
ID	Description									
SEA-001	Kattegat	20072011	7.67	0.90	128	7.60	0.99	100	50	75
SEA-002	Great Belt	20072009	6.57	1.03	6	8.50	1.29	50	50	50
SEA-004	Kiel Bay	20072011	5.74	0.94	45	7.40	1.29	100	50	75
SEA-005	Bay of Me..	20072011	5.11	0.83	103	7.10	1.39	100	50	75

Figure 3 : The indicator view, showing core indicator Secchi depth as an example.