HELCOM

Baltic Marine Environment Protection Commission

HELCOM Eutrophication Assessment Tool (HEAT)

MSFD-EMODnet workshop
9 September 2014, Brussels, Finland

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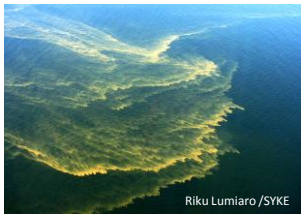
HELCOM Secretariat

HELCOM Baltic Sea Action Plan – Eutrophication

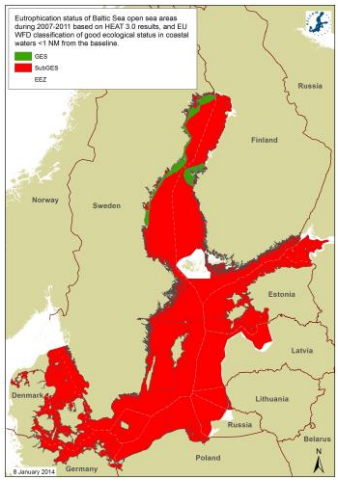
Content

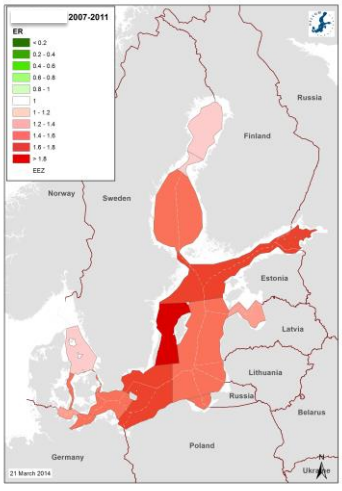


- HELCOM eutrophication assessment
- HEAT 3.0
- The EUTRO-OPER project
- Developing data flow

Eutrophication assessment 2007-2011

EUTROPHICATION 2007-2011





The eutrophication coreset of indicators for open sea

- PO_4-P, winter
- NO_X-N, winter
- Secchi-depth, summer
- Chlorophyll *a*, summer
- Deep-bottom oxygen debt
- (Soft-bottom invertebrates)

Target setting 2006-2013

Tentative targets: Data mining (EUTRO-PRO)

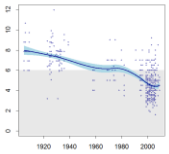
- Data mining, early hind-cast model, expert judgement
- Agreeing on tentative targets

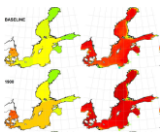
Target revision, 1st stage: Scientific work (TARGREV project)

- Improving quality of data mining: spatial, annual and seasonal components
- Hindcast modeling
- Creating new indicator with target: oxygen debt

Target revision, 2nd stage: Finalizing targets (CORE-EUTRO, HOD)

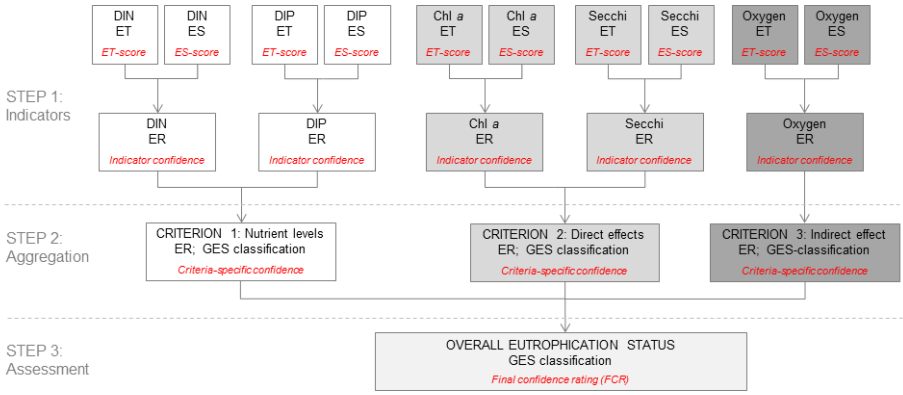
- Eutrophication expert group evaluation
- Agreeing on targets





Source: HELCOM (2013)

Integrated eutrophication assessment



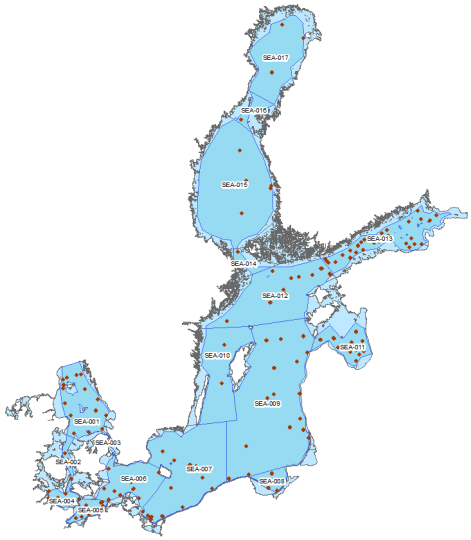
HEAT 3.0

Confidence assessment

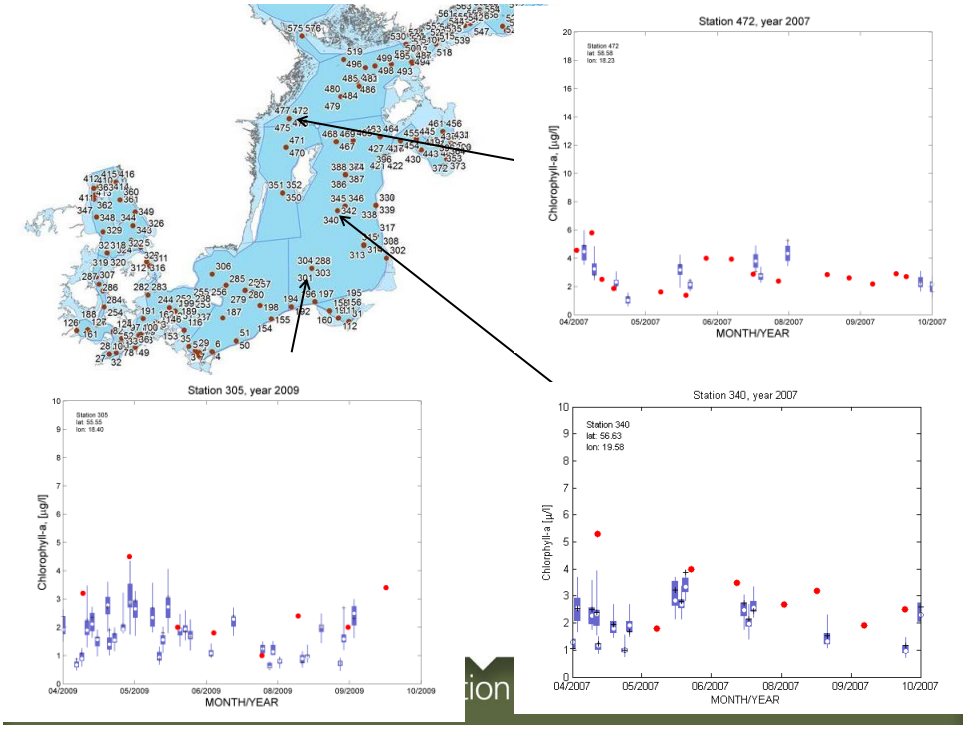
1. Confidence on target estimation
2. Confidence on status data
3. Number of criteria with indicators

➢ Combined to Final Confidence Rating

Assessment data 2007-2011: chla

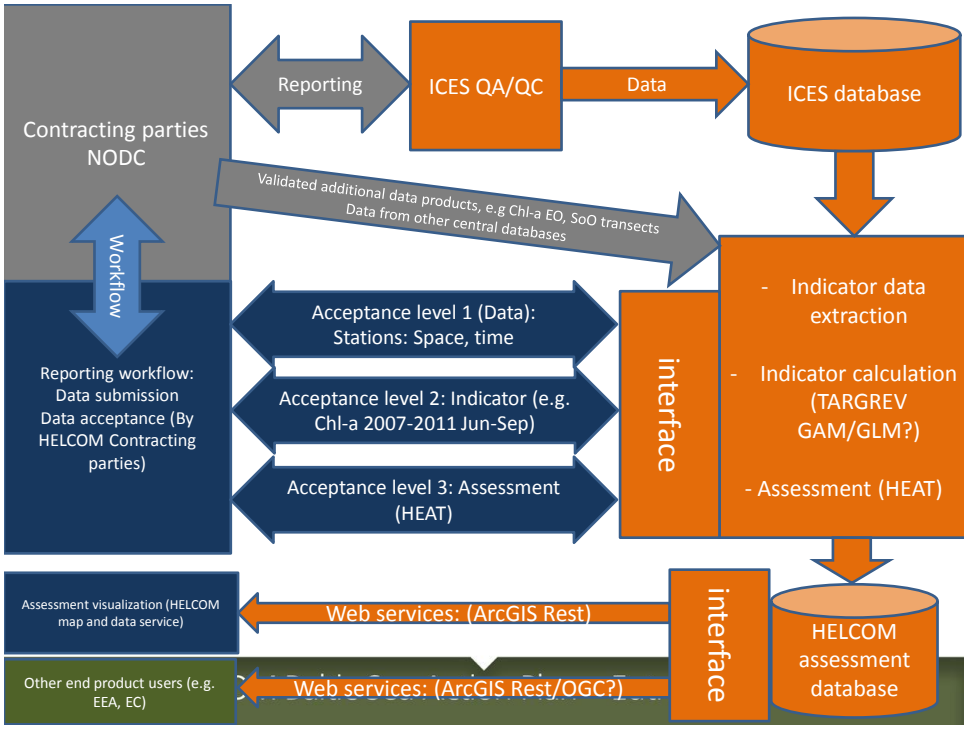


HELCOM Baltic Sea Action Plan – Eutrophication



Why EUTRO-OPER?
- Improvement needs

1. Inefficient data flow, from national datasets to indicator- and assessment products
2. Disharmony of coastal and open sea assesment
3. Present assesment does not register improvement toward target
4. Indicators do not allow use of new data types
5. The indicator coreset is still incomplete


Contracting parties
NODC
Reporting
ICES QA/QC
Data
ICES database
Validated additional data products, e.g Chl-a EO, SoO transects
Data from other central databases
Workflow
Reporting workflow:
Data submission
Data acceptance (By HELCOM Contracting parties)
Acceptance level 1 (Data): Stations: Space, time
Acceptance level 2: Indicator (e.g. Chl-a 2007-2011 Jun-Sep)
Acceptance level 3: Assessment (HEAT)
interface
- Indicator data extraction
- Indicator calculation (TARGREV GAM/GLM?)
- Assessment (HEAT)
Assessment visualization (HELCOM map and data service)
Web services: (ArcGIS Rest)
interface
HELCOM assessment database
Other end product users (e.g. EEA, EC)
Web services: (ArcGIS Rest/OGC?)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14