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Document title	Outcome
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## Background

In accordance with the outcome of the 16th Meeting of HELCOM Intersessional Network on Eutrophication (IN Eutrophication 16-2020), the 17th Meeting of the HELCOM Intersessional Network on Eutrophication (IN Eutrophication 17-2020) was held online on 20 May 2020 10:00-13:00 EET.

The Meeting was held on 20 May 2020.

The Meeting was chaired by Ms. Vivi Fleming

Mr. Joni Kaitaranta acted as secretary of the Meeting.

The list of participants is contained in **Annex 1** to this Outcome.

## Provisional Annotated Agenda

### A1. Opening of the meeting and adoption of the agenda

1. The Meeting adopted the agenda.
2. The Meeting discussed overall topics from the previous State & Conservation meeting and took note of the view by Germany that while it would be helpful if the DataFlow project goes through in order to improve data flows in HELCOM, the bottleneck are also often delays and gaps in national data reporting and that Germany is one of the countries that will have such an issue. As stated in State & Conservation 12-2020, Germany has considered the possibility to deliver eutrophication data earlier than the current ICES deadline of 1<sup>st</sup> of September, but that this will not be possible. This means that 2021 data for the eutrophication indicators will not be available from Germany for the HOLAS III assessment.
3. The Meeting took note that a document on the outcome of the previous IN-Eutro meeting was not submitted to State & Conservation for consideration, and that this will be done in preparation for the next State & Conservation.
4. The meeting briefly recalled relevant issues from State & Conservation 12-2020 meeting:
  - HELCOM data flows project ([State & Conservation 12-2020 Outcome](#), para 4J.45)
  - Public open data project application "Baltic Data Flows" (CEF Telecom) ([State & Conservation 12-2020 Outcome](#), para 4J.47)
5. The meeting also noted that HEAT developments carried out by the group were not presented to State & Conservation 12-2020 and should be taken to State & Conservation 13-2020 together with the feedback on MetDev and other relevant projects supporting Eutrophication assessment in HOLAS III.

### A12. Eutrophication confidence assessment

6. The Meeting recalled that IN Eutrophication 16-2020 took note of the proposal to improve the confidence assessment methodology of the HELCOM Eutrophication Assessment Tool (HEAT 3.0), as presented by Germany, and discussed the proposal for general and specific spatial confidence. The meeting agreed that the spatial confidence should be based on the specific confidence and that the general spatial confidence should not be included. The meeting further in principle agreed that both

- general and temporal confidence parts should be included in the confidence assessment. The meeting took note that Latvia will confirm its position on the issue.
7. The Meeting recalled that IN Eutrophication 16-2020 agreed that as a next step, ICES will implement the test confidence assessment in cooperation with Germany and that Germany would work further on the aggregation of the individual indicator confidence to an overall confidence assessment.
  8. The Meeting took note of the presentation by Germany on the first results of the confidence test assessment in HEAT 3.0 ([Presentation 1](#)).
  9. The Meeting took note that the further developed confidence assessment scripts are available from GitHub (<https://github.com/ices-tools-prod/HEAT>)
  10. The meeting took note of the following points related to the suggested confidence assessment approach:
    - Presented aggregation procedure from confidence aspects to overall confidence
    - Confidence aspects are first assessed annually and are only later aggregated to an assessment over the whole assessment period
    - 30K grid was used for spatial confidence for all basins
  11. The meeting took note of the recommendation and further steps for confidence assessment:
    - Finalizing test assessment with all indicators included
    - Subsequent refinements as necessary
  12. The meeting welcomed the further development of the confidence assessment.
  13. The meeting took note of the need for an update of the HELCOM Eutrophication Assessment Manual (<https://helcom.fi/media/publications/Eutrophication-assessment-manual.pdf>) to keep it topical, requiring the inclusion of the updated confidence assessment methodology.
  14. The meeting commented that graphical visualization of confidence would be beneficial for different confidence types and for overall confidence and could be included in the Eutrophication dataview as well as in the HEAT manual.
  15. The meeting commented that averaging of confidence assessment should be done over the years and took note of the OSPAR approach which first analyses annual confidence and aggregates up.
  16. The meeting agreed that there is a need to consider how to aggregate the five years of data, so that the lack of data from one year does not unduly compromise the confidence assessment.
  17. The meeting recalled that the current HEAT tool confidence is based on minimum number of samples per year per assessment unit.
  18. The meeting discussed the temporal confidence procedure and whether the poorest annual confidence value of the assessment period should define the overall temporal confidence or whether it should be averaged of all years for the assessment period.
  19. The meeting discussed the aggregation of confidence for assessment on the categories (nutrient concentrations, direct effects, indirect effects) and overall level.
  20. The meeting recalled that currently in HEAT indicator aggregation to category level is carried out by using weighted averaging and penalty is used at the level of the category.
  21. The meeting discussed open issues in the further proceedings with the confidence assessment and agreed on the next steps of the development as follows:
    - Total Temporal Confidence (TTC) should be defined by averaging separately all years of the assessment period so that differences between the number of stations are better reflected. Subsequently confidence from the five years will be averaged. This will allow for an analysis of the confidence between the years.
    - Spatial confidence (SSC) can be carried out as suggested in document 2-1. Expert input should be used to establish area-specific confidence class boundaries in different assessment units if necessary.
    - Aggregation of confidence: For aggregation, averaging of confidence should be carried out similarly as averaging of status assessment.

- Penalties at the level of the three categories should be used as recommended in document 2-1.
- Accuracy confidence (ACC) should be included in the confidence assessment

### AI3. HELCOM Holistic Assessment Methodology Development Project

22. The Meeting took note of the draft project plan for HELCOM Holistic Assessment Methodology Development Project regarding the HEAT tool in work package 3 (document 3-1).
23. The Meeting welcomed the draft project plan bearing in mind the need of funding resources.
24. The Meeting was informed by the Secretariat that the Baltic Data Flow project, if it receives funding from CEF Telecom, would provide additional resources for the development of automated assessment tools especially for hazardous substances and biological community data, but also to some extent for the eutrophication assessment.
25. The meeting agreed that further developments of the HEAT tool, as suggested in MetDev WP3, should be steered by IN-Eutrophication by including all issues for improving the tool that have already been discussed in the group.
26. The meeting recalled the existing contract between ICES on the current developments and that any overlaps or parallel structures should be avoided.
27. The Meeting took note of the following views in relation to the draft project plan as follows:
  - the work on the HEAT tool to be steered by the network;
  - if different aggregations are tested in the HEAT tool, these should be specifically mentioned in the draft project;
  - to bear in mind the current activities under development by ICES which are already funded;
  - consider overarching issues and the interlinkages between the different different indicators and thematic assessments as part of the project plan;

### AI4. Update of HELCOM monitoring programmes

28. The meeting recalled State and Conservation 12-2020 considered the draft update of HELCOM monitoring programmes (documents 3MA-5, 3MA-5-Rev.1 to that meeting). The meeting took note of the comments by several Contracting Parties that they would need more time to comment on the draft monitoring programmes.
29. The Meeting recalled that invitation to comment on the revised sub-programmes was originally sent to the network 27 March but was not discussed in IN Eutrophication meetings.
30. The Meeting took note that State & Conservation 12-2020 agreed that countries as well as expert groups are invited to provide comments to the monitoring programmes by **15 June 2020** (document 4-1).

### AI5. Any other business

31. The Meeting took note that Germany has not yet made further progress concerning the development of the shallow water oxygen indicator and the separation of the area influenced by the Odra plume in the Bornholm Basin but will do so as soon as possible.
32. The Meeting took note of the information by Finland of the recruitment of Laura Hoikkala to be part of SYKE and that she will be involved in the work of the network as a Finnish representative.
33. The Meeting considered the need to discuss further development of the oxygen indicator test results between countries interested in the indicator development (Estonia, Finland, Germany, Latvia and Sweden), and agreed to further discuss the topic in the upcoming meeting of the network to be held in early September.

34. The meeting agreed that the next meeting of the group should discuss the following topics:
  - Oxygen indicator development
  - Confidence assessment further development
35. The Meeting decided that the next meeting is planned for late August or early September and the Secretariat will circulate a doodle poll in June to find a suitable date.

## Annex 1 List of participants

Representing	Name	Organisation	Email address
<b>Countries</b>			
<b>Denmark</b>	Stiig Markager	Aarhus University	markager@bios.au.dk
<b>Estonia</b>	Greta Reialu	Estonian Marine Institute, University of Tartu	reialu@ut.ee
<b>Estonia</b>	Jekaterina Jefimova	Estonian Marine Institute	jekaterina.jefimova@ut.ee
<b>Finland</b>	Vivi Fleming*	Finnish Environment Institute (SYKE)	vivi.fleming-lehtinen@ymparisto.fi
<b>Germany</b>	Birgit Heyden	Aqua Ecology	heyden@aquaecology.de
<b>Germany</b>	Wera Leujak	German Environment Agency	wera.leujak@uba.de
<b>Latvia</b>	Juris Aigars	Latvian Institute of Aquatic Ecology	juris.aigars@lhei.lv
<b>Poland</b>	Kamil Wawryniuk	Institute of Meteorology and Water Management, National Research Institute	kamil.wawryniuk@imgw.pl
<b>Poland</b>	Wojciech Kraśniewski	Institute of Meteorology and Water Management, National Research Institute	wojciech.krasniewski@imgw.pl
<b>Observers</b>			
<b>ICES</b>	Hjalte Parner	ICES	hjalte@ices.dk
<b>HELCOM Secretariat</b>			
<b>HELCOM</b>	Joni Kaitaranta	HELCOM Secretariat	joni.kaitaranta@helcom.fi
<b>HELCOM</b>	Marta Ruiz	HELCOM Secretariat	marta.ruiz@helcom.fi

\* Chair