

## CSB and GEBCO/Seabed 2030 Report to the BSHC 29<sup>th</sup> Conference

As CSB and GEBCO/SEABED 2030 Coordinator Sweden hereby report the following.

### 1. Status of CSB in the BSHC region

Presently several plotter manufacturer offer the service that data is collected and sent to them for inclusion in their often called “Fishing Charts”. However, for countries that do not allow such data to be collected or disclosed without a permit the manufacturer seems only to store the data for future use.

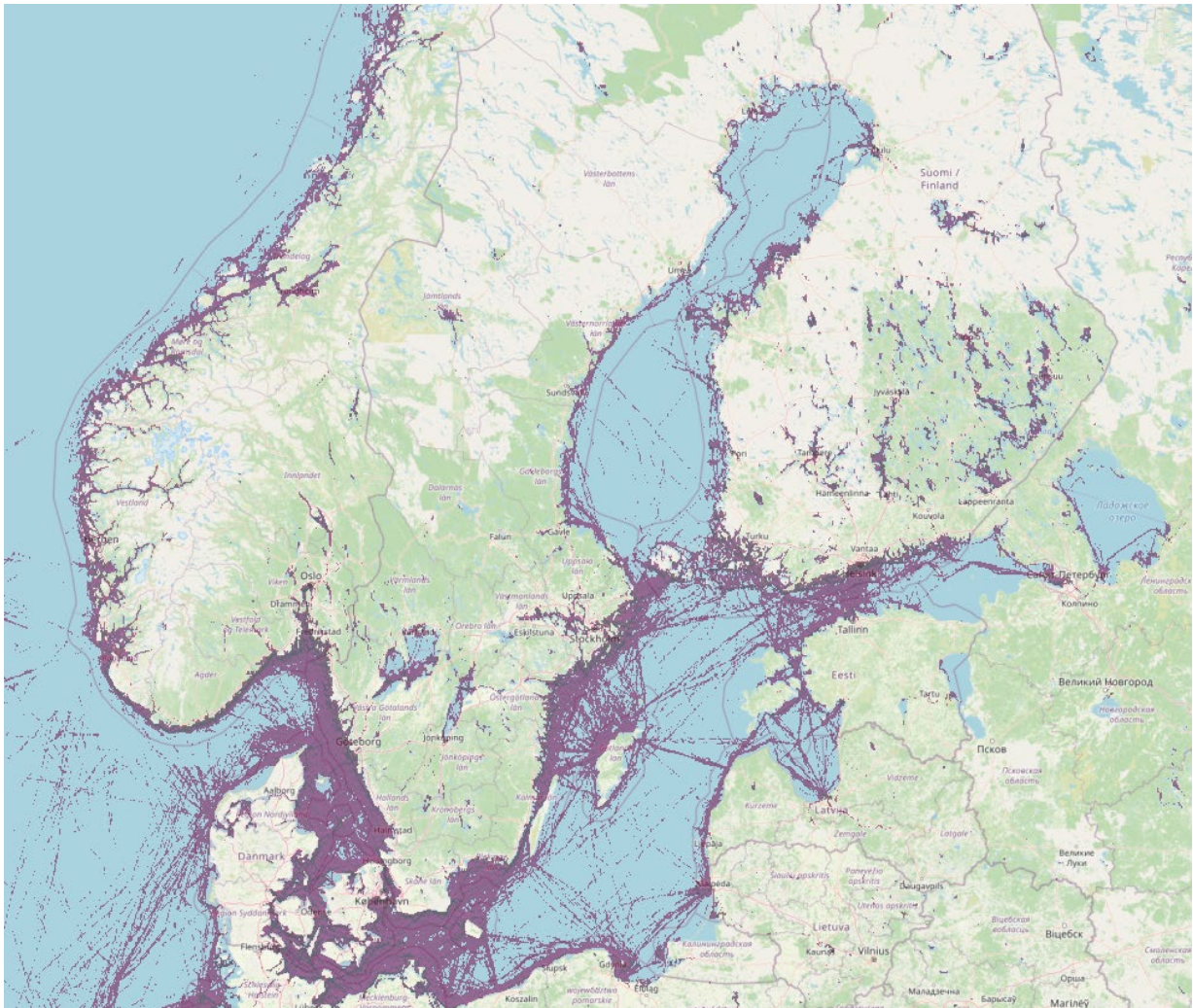


Figure 1; CSB data collected from one plotter manufacturer up to 2020



Given that figure 1 shows the status in 2020 and that there are many more plotter manufacturers offering the same service, the reality is that there exists a lot more data than showed above.

The system manufacturer OLEX, originally developed for fishing vessels, have expanded into other market segments and has collected data during many years. The image below is from 2016 and shows track lines collected to that date. The density has most likely increased a lot in eight years' time.

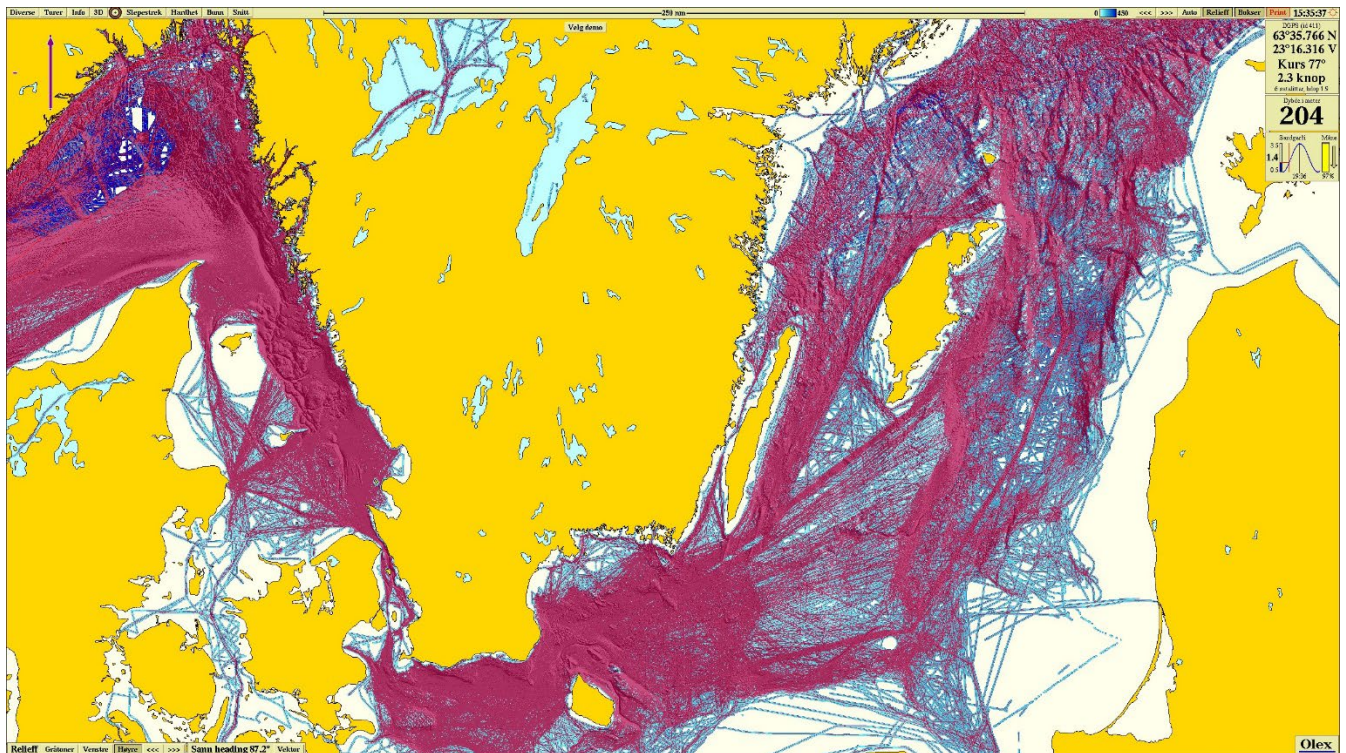


Figure 2; Existing Olex tracklines in 2016

## 2. IHO-DCDB

The IHO Data Centre for Digital Bathymetry wants more HO:s to become “Trusted Nodes”. An IHO Trusted Node is an approved organization or individual who systematically receives CSB data collected by vessels or other platforms and delivers them to the IHO DCDB. As a Trusted Node, you get fast access to the data and the possibility to perform QC and filter out bad data prior to the upload to DCDB.

There has been a number of IHO-CL requesting each Member State to respond on the acceptance of CSB within their different sea regions. Some MS has added the caveat “*Inform Hydrographic Office of new dataset*” (Sweden, Finland, Germany, Estonia). With this specific caveat, MS cannot expect any information apart from that they can see that the data has been published in the map viewer. Any request for a copy of the data is equal to that you have to download it from the portal yourself after publication. If you however write “*All data to be reviewed by Hydrographic Office before ingestion into DCDB*” (Denmark), then nothing gets published prior to such a review. The Geodata Agency (DK) has been working with DCDB to achieve a simplified workflow for how such a review can be performed. The countries that has replied to the CL are listed on the CSBWG homepage

and the present list can be found here: [https://iho.int/uploads/user/Inter-Regional%20Coordination/CSBWG/MISC/B-12\\_2024\\_EN\\_Acceptance\\_of\\_CSB\\_Data\\_in\\_NWJ\\_v8.0.pdf](https://iho.int/uploads/user/Inter-Regional%20Coordination/CSBWG/MISC/B-12_2024_EN_Acceptance_of_CSB_Data_in_NWJ_v8.0.pdf)

If you still have not replied to IHO-CL 21/2020 it is still possible to do so and the table will be updated.

If you reply “No” to one of the areas, or have not replied at all, and data reaches the DCDB they will still be stored but not used or published for use/download until such permission is granted. This also makes it impossible for the HO to get knowledge of the existence of such datasets.

The DCDB is accessible at: <https://www.ncei.noaa.gov/iho-data-centre-digital-bathymetry>

Some data downloaded from DCDB has been included into the regional EMODNET compilation.

### **3. CSBWG**

The IHO Crowd Source Bathymetry Workgroup is a body under IRCC. They normally have one hybrid meeting and one intersessional meeting via VTC per year. Last IRL meeting was 23-25 April 2024. Next intersessional VTC-meeting is planned to be held 15 Oct. 2024.

They also arranged a hybrid IRCC CSB Workshop on the 26<sup>th</sup> of April this year to get information out to interested HO:s that doesn't take part in the CSBWG.

They have amongst other tasks produced the IHO-B12 “Guidance to Crowdsourced Bathymetry” that contains a lot of information for potential providers, as well as for HO:s. The WG is closely connected to the IHO-DCDB and representatives of GEBCO/SEABED2030 as well as industry is always attending the meetings.

### **4. CSB from merchant vessels**

IHO, SEABED 2030 and CSBWG all want that the respective HO:s reaches out to the shipping industry and yachting societies and inform them about the need for CSB datasets and how they can contribute. It is even possible to get data loggers to plug into the vessel's existing system free of charge via the SEABED 2030 program, in exchange for data deliveries to DCDB.

This is not specifically a need for improving the bathymetric coverage in the BSHC region, but many commercial vessels go as well on long distance routes far from the Baltic Sea region and could bring valuable contributions to the mapping of the oceans.

### **5. GEBCO**

GEBCO gets its main contributions for European waters from EMODNET but in areas where the EMODNET DTM is based on sparse soundings they sometimes are combined with CSB data. They have a close connection to the IHO-DCDB and uses most of its content for their compilations.

The GEBCO DTM is produced in a resolution of 15 arc-seconds (1/4 arc-min) and the last DTM is dated 2024.

## 6. Seabed 2030

During the Nordic Hydrographic Commission meeting in April a memorandum of understanding was signed with the SEABED 2030 initiative. Is there an interest from the BSHC members also to sign such a MOU?

The project has been presenting its result in the form of webinars under the name “Map the Gaps Symposium” as well as regional hybrid meetings or webinars.

The last “Map the Gaps Symposium” was held 7-8 November in Monaco (also live-streamed) as part of GEBCO Week 2023 see the link: <https://www.mapthegaps.org/symposium> and the recorded sessions are still available on the site. A similar symposium will be held in Fiji 4 – 8 November 2024.

In addition to the symposiums/webinars, Seabed 2030 also issue a newsletter several times a year. Seabed 2030 has their own homepage at <https://seabed2030.org/>

For the Baltic Sea region, we already participate in the work for Seabed 2030 as we make bathymetry available via BSBD and EMODnet Bathymetry for inclusion in the GEBCO grid. However, in several places higher resolution data would improve the bathymetric models as shown in the image below. It shows the point density in the 2022 EMODNET DTM for our region + contents from CSB.

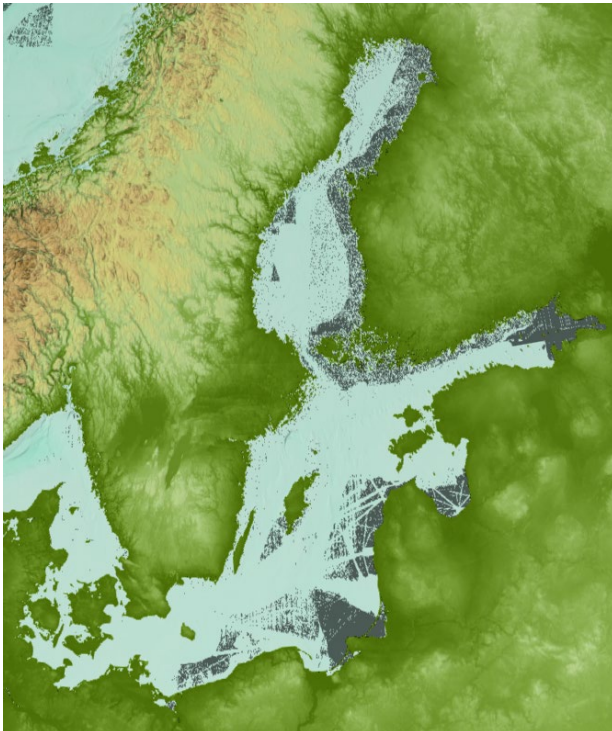


Figure 3; Sounding Density in GEBCO 2024 (Emodnet + DCDB data)

SDB is also an important source to Seabed 2030, especially in remote areas with clear waters. On <https://sdbday.org/> there is an opportunity to get to know the technology and its capability from the recorded presentations and possible future events.

## **7. Actions for the BSHC 29th Conference**

The Commission is requested to:

1. Note this report
2. Consider signing an MOU with SEABED 2030
3. MS are encouraged to state the legal status for CSB as requested in the IHO-CL 21/2020
4. MS are encouraged to encourage the shipping industry in respective MS to contribute with CSB data to IHO-DCDB, especially for those going to remote places.
5. Take any further actions as appropriate