

Baltic Sea International Charting Coordination Working Group (BSICCWG)

BSICCWG Report to the 30th BSHC Conference

Status of the work of BSICCWG since BSHC 29th Conference

The 11th meeting of the Baltic Sea International Chart Coordinating Working Group (BSICCWG11) was held in Klaipėda, Lithuania, on 21–22 May 2025. The meeting gathered representatives from all Baltic Sea Hydrographic Offices (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, and Sweden). The Chair was Mr. Jarmo Mäkinen (Finland), with Mr. Jukka Helminen serving as Secretary. The meeting was kindly hosted by the Lithuanian Transport Safety Administration, who ensured excellent local arrangements.

The main focus of the meeting was the coordination of S-100 implementation in the Baltic Sea region, particularly S-101 ENC's and S-102 bathymetric surface products, as well as harmonisation activities, paper chart status, ENC overlap issues, and future leadership of the Working Group.

1. S-100 Implementation and Coordination

This report provides an overview of the current status of S-101 (ENC's) and S-102 (bathymetric surface) production and planning within BSHC member states, based on national inputs and discussions within BSICCWG. All member states presented updates on their preparations.

Denmark

Denmark has successfully completed gridding and is developing a new chart production system, S-100 Horizon, built on ArcGIS Pro. This system is designed to support all S-100 products, not just S-101. A functional production system is expected in 2025, with official S-101 products possibly released by late 2026. For S-102, operational data is planned by Q4 2026. Scheming priorities are not yet fixed, but major harbours and fairways will likely be addressed first.

Estonia

Estonia links its S-101 production to the ongoing BSCD2000 project. Harbour and berthing areas are complete; approach data is in progress. S-101 datasets will be released in phases:

- 2026: Gulf of Finland
- 2026–27: Western coast
- 2027–28: Southwest coast

Dual-fuel production is challenging, as Estonia will initially produce S-57 and later convert to S-101. For S-102, 38 areas covering major ports and fairways are ready, with production expected to finish in 2025.

Finland

Finland plans a full database conversion to S-101 later this year, producing S-101, S-57 ENCs, and paper charts from the same database. First S-101 ENCs are expected in early 2026, starting from the Archipelago Sea northwards, followed by the Gulf of Finland later in 2026. Full sea area coverage is targeted for 2026, with Saimaa expected by 2026–27. Finland is ready to release S-102 datasets. Commercial routes where suitable survey data exists are expected to be covered in 2026.

Germany

Germany will start S-101 and S-102 production in 2025, prioritizing the North Sea first, with the Baltic Sea following in 2026. Full database conversion to S-101+ is planned. Germany is preparing S-122 and S-125 datasets and has adjusted grid size for S-102 due to security concerns.

Latvia

Latvia has acquired new software and licenses. In 2025, existing data will be converted to populate the S-101 database, with first datasets released in early 2026. Two databases (S-57 and S-101) will be maintained for 1–3 years to support paper chart production. No reverse mapping is currently planned. Latvia has already tested S-102 data in the Baltic Sea e-Nav project. First S-101 releases will be harbour charts, with full coverage by 2027.

Lithuania

Lithuania will convert products individually and start S-101 production this year. A dual-fuel cloud-hosted database is being developed, but no readiness date is confirmed. Test conversions revealed some feature compatibility issues between S-57 and S-101. Official S-101 production is expected to start by the end of 2026, with all datasets released simultaneously. S-101 cells will match existing S-57 coverage.

Poland

Poland is planning a phased implementation to avoid disrupting current production. S-57 ENCs and paper charts will continue in parallel. New S-101 products will initially be created through XML-based conversions, with full S-101 database production targeted for 2027. First S-101 datasets will prioritize Gulf of Gdańsk and Pomorska Bay harbours, then the central coast, followed by full EEZ coverage. Poland can produce S-102 data, but currently have no way to verify if it meets PRIMAR's requirements. Focus for S-102 will be the ports of Świnoujście–Szczecin and Gdynia–Gdańsk.

Sweden

Sweden will migrate its full database to S-101 in 2025, although validation issues have caused delays. Full S-101 coverage is targeted by the end of 2026. For S-102, production will start in late 2026,

focusing on main harbours and fairways. After discussions in the Baltic e-Nav meeting in Rauma, Sweden is considering resolutions of 4m and 8m instead of 2m and 10m.

Overall, the region is progressing according to the S-100 Roadmap, though challenges remain regarding dual-fuel production, validation processes, and resource constraints.

The BSICCWG11 also set a questionnaire of the S-100 status across the Baltic Sea (Updated S-100 Readiness Status). The results are presented in the presentation related to this report.

2. Harmonisation of S-101 and S-102

Harmonisation remains a key task to ensure regional consistency. The harmonisation recommendations are considered a living document, subject to continuous review and future updates. It was agreed that clear guidelines should be established in advance, to ensure consistency before the commencement of S-101 ENC production in the Baltic Sea region.

- **S-101 harmonisation:** Sweden presented draft recommendations, developed under the Baltic Sea e-Nav project. The document was endorsed by BSICCWG ready to be submitted to BSHC30 for approval.

- **S-102 harmonisation:** Finland leads the drafting of recommendations (under Bs-eNav Project). Different grid resolutions are planned by member states (ranging from 2m to 10m). Some open issues remained during BSICCWG, especially display scales, updating cycles, and handling of data holes. The recommendations were not endorsed during the BSICCWG meeting in May, but have then been updated by BS -eNav S-102 harmonisation project team via correspondence during the summer.

Both S-101 and S-102 harmonisation recommendations are now ready for BSHC30 approval process:

Annex 1: Harmonisation of Baltic Sea S-101 ENCs

Annex 2: Regional product harmonization guidelines for S-102

3. Paper Charts and INTOGIS

Paper chart production is undergoing significant changes:

- Denmark has fully transitioned to print-on-demand and chart-by-chart corrections.
- Finland continues with the BCSD2000 project; Chart 935 was withdrawn in 2024.
- Germany is rescheming and has withdrawn several charts.
- Estonia and Sweden are testing new processes for paper chart compilation and ZOC diagram implementation.
- Latvia is developing a new overview chart product; multiple copies of INT 12760 remain in INTOGIS.
- Poland continues to face issues with disappearing Polish characters in INTOGIS exports.

- Lithuania, now a new IHO member, releases only national PDF charts.

The group also discussed the future development of INToGIS III for S-100 products.

4. ENC Scheme, Overlaps, and Related Issues

- The Baltic Sea ENC overview cells were successfully released in January 2025.
- IC-ENC's list of gaps and overlaps still contained outdated Danish cells, prompting follow-up action.
- Germany plans new General ENCs and will consult neighbouring states to address overlaps.
- Sweden and Denmark discussed harmonisation of contour intervals and display of lights in overview ENCs.

Permanent action remains to minimise overlaps, at least in the new editions.

5. Other Technical Issues

- Magnetic Variation: Estonia raised inconsistencies in national practices (step size and update frequency). Members discussed the possibility of adopting either the Swedish or NOAA model; no consensus reached.
- German chart changes: Germany presented plans to adjust DE30 and DE36.
- Rocky areas: User feedback on new symbology was reviewed.
- S-102 interactions: Estonia highlighted a case where S-102 data overwrote S-101 obstruction features in ECDIS, likely result of S-98 specifications.

6. Future Work and Leadership

The future work of the working group will continue in accordance with the Terms of Reference, focusing on the coordination of S-100 product releases and the monitoring of the implementation of the S-101 and S-102 harmonization recommendations.

The current Chair, Mr. Jarmo Mäkinen (Finland), will step down at BSHC30. Member States are asked to nominate candidates for Chair and Vice-Chair.

The next BSICCWG meeting will take place in Helsinki on 20–21 May 2026.

Conclusions

BSICCWG11 demonstrated that the Baltic Sea region remains well aligned with the international S-100 implementation roadmap. Member States are actively developing production capabilities for S-101 and S-102 products, while harmonisation work is progressing, Paper chart practices are evolving, and challenges in INToGIS, ENC overlaps, and technical issues require further coordination.

BSICCWG11 meeting documents are available on the IHO Portal- link below:

[IHO PORTAL](#)

**The membership of the BSICCWG:**

Denmark	Mr Kell Torp Jensen +other representative, depending on the agenda Mr Henrik Justus Stang (<i>only in a mailing list</i>)
Estonia	Ms Gabriela Kotsulim Ms Nele Kaurla Ms Loore Magus
Finland	Mr Jarmo Mäkinen (Chair) Mr Jukka Helminen (Secretary)
Germany	Ms Sylvia Spohn
Latvia	Ms Linda Purina Ms Liva Goba
Lithuania	Mr Mindaugas Zakarauskas Mr Emilis Tertelis Ms Alla Bira
Poland	Mr Marek Miklaszewski Mr Karol Grzelak Mr Jacek Kijakowski (<i>only in a mailing list</i>) Mr Adam Klosinski (<i>only in a mailing list</i>)
Russia	Mr Sergey Egorov
Sweden	Ms Elisabeth Farrington Mr Stefan Cederberg

Mr. Flemming Nørgaard Bech (DK), Asta Lučkienė (LT) and Mr Piotr Kozłowski (PL) also took part to the BSICCWG11 meeting.



30th BSHC Conference
22–24 September 2025
Riga

Agenda Item
D.6
BSICCWG Report
Finland

Actions for the 30th BSHC Conference

- Note this report.
- Approve S-101 ENC harmonisation recommendations (Annex 1)
- Approve S-102 harmonisation recommendations (Annex 2)
- Elect a new Chair and Vice-Chair for the BSICCWG
- Give further guidance on the coordination of S-101 and S-102, and in particular S-100 overall reporting.