

BSCD 2000 Status of implementation

BSHC CDWG 7 Sept 2021, VTC



BSCD 2000 Status

- In Finland an implementation and application of the Baltic Sea Chart Datum 2000 is called N2000.
- Project named ***N2000 fairway and nautical chart reform.***
- Traficom is responsible for leading the reform, and the process also includes the
- Finnish Transport Infrastructure Agency, the Finnish Meteorological Institute and the Finnish Environment Institute.

TRAFICOM

Liikenne- ja viestintävirasto
Transport- och kommunikationsverket
Finnish Transport and Communications Agency



Väylävirasto
Trafikledsverket
Finnish Transport
Infrastructure Agency



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE



S Y K E



N2000 fairway and nautical chart reform - Improved safety and efficiency



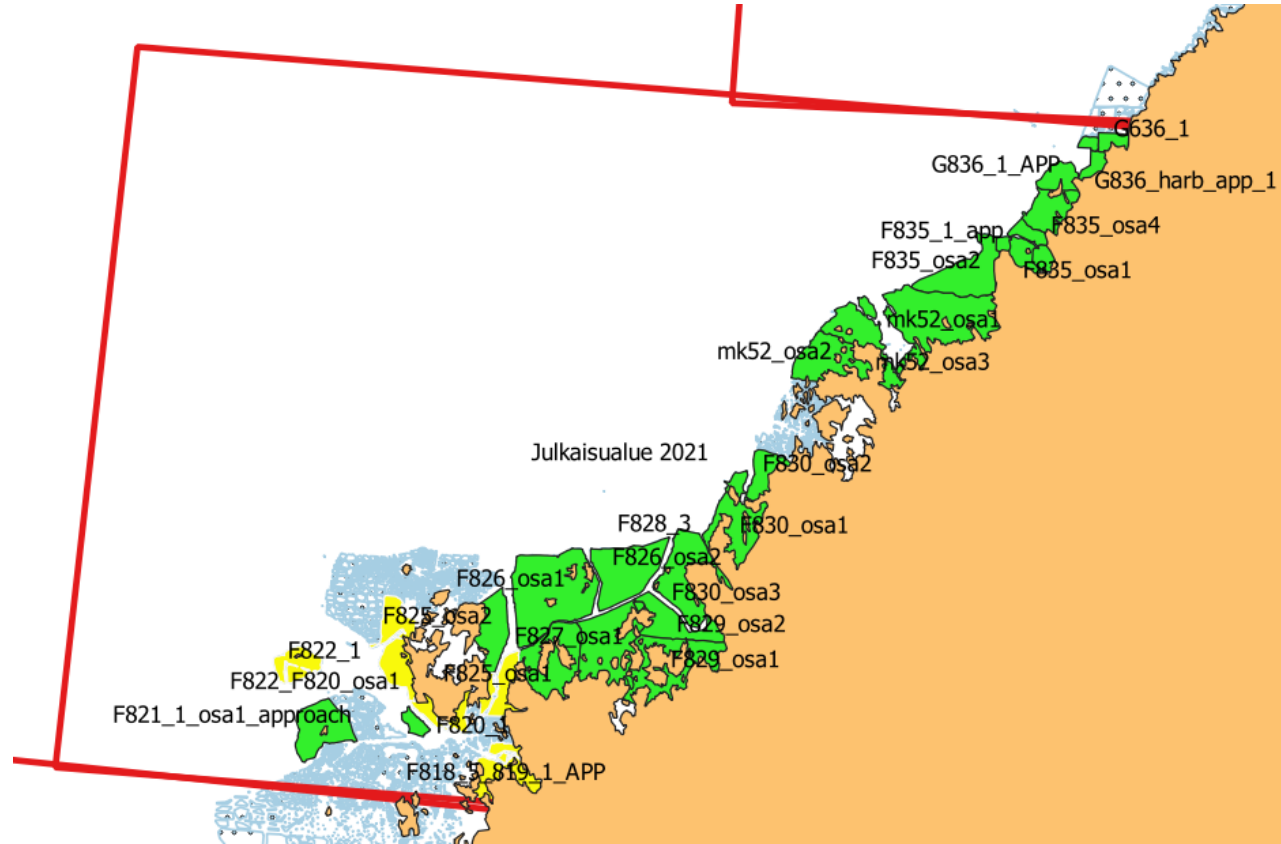
➤ [Link to the project website](#)

Status of the production systems

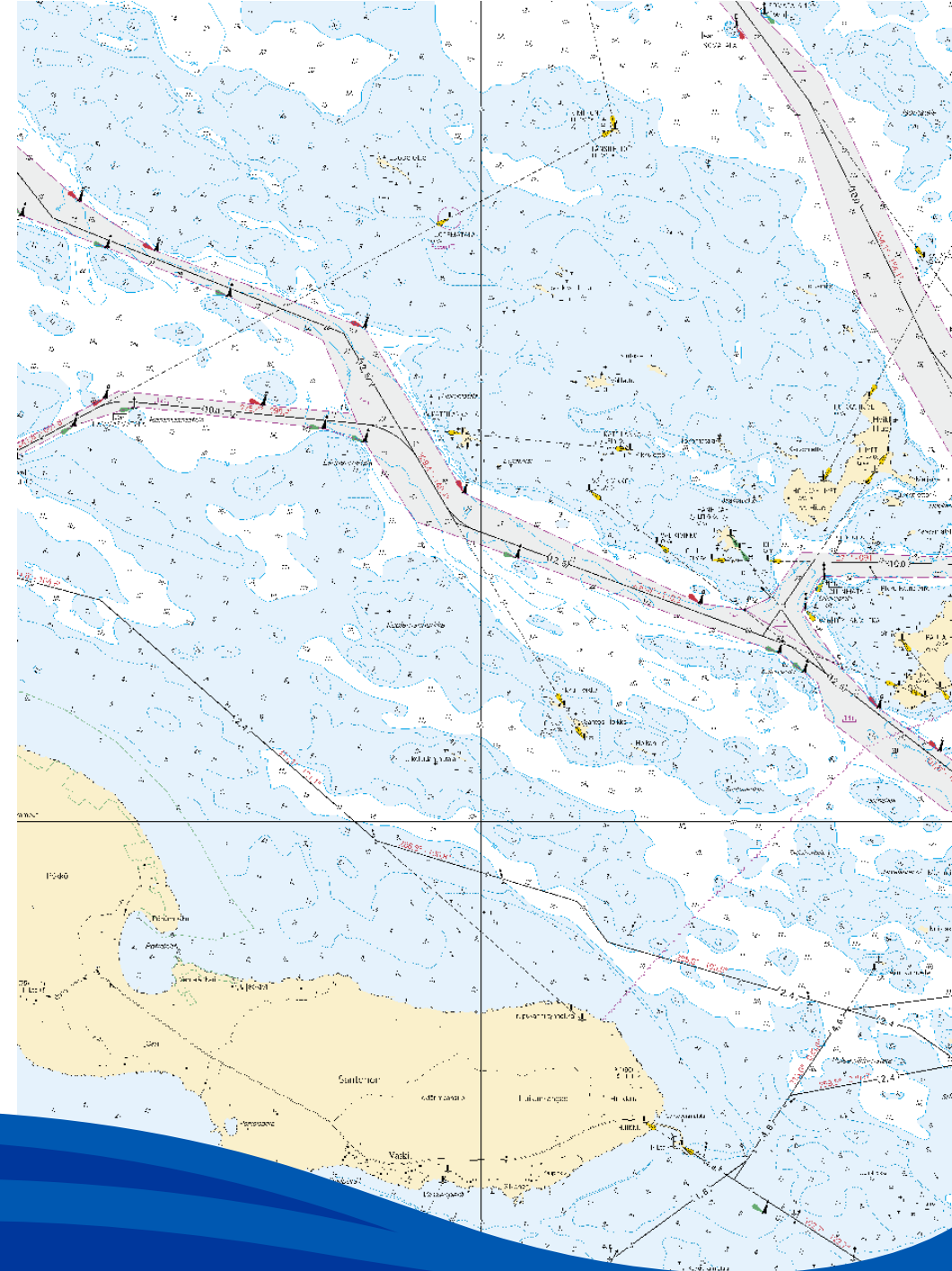
- The N2000/BSCD2000 has been implemented in the data models of bathymetric data and fairway management system and chart production system.
- New bathymetric data management system MERTA (Traficom)
- New chart production system AHTI (Traficom)
- Fairway database system VATU (Finnish Transport Infrastructure Agency)
- Some challenges with the new systems and processes.



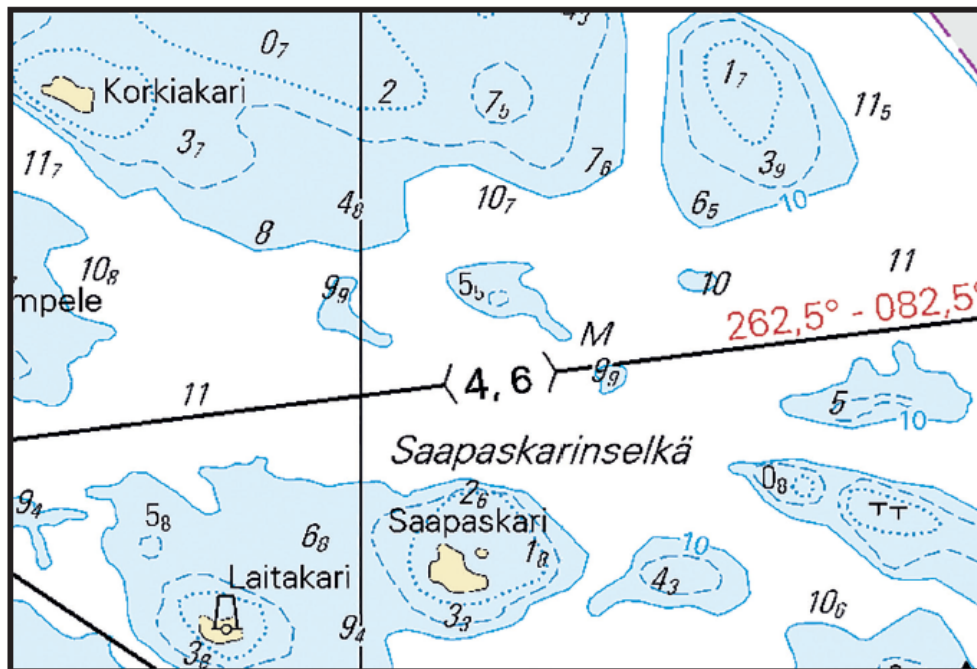
Renewing depth information requires a heavy workload. Work is going on in the Kvarken.



Conversion of the fairway data is ongoing.



Example of impacts on nautical charts



Mean sea level chart




N2000/ BSCD chart

- Depth figures will decrease and the shapes of depth contours will change in places.
- N2000 charts will be updated with depth data based on new hydrographic surveys and expanded 15-metre depth contours.
- The impact on fairways will be reviewed as part of the reform. As a rule, draughts of the fairways will change by 0–20 cm.
- N2000 nautical charts must be used with the water level correction of the N2000 system.

The publication plan of BSCD charts

- First charts with new vertical system (BSCD) will be published in December 2021 (From Tornio to Raahe)
- The chart index service will provide information of vertical reference in each chart product (ENCs and paper charts)
[Link to chart index](#)

Area	Name	Int.Num	Description	Scale	Vert.ref.	Edition
Gulf of Finland	FI29GOF E		 Gulf of Finland, eastern part	1:180000	MW	5
Gulf of Finland	FI29GOF M		 Gulf of Finland middle part	1:180000	MW	7

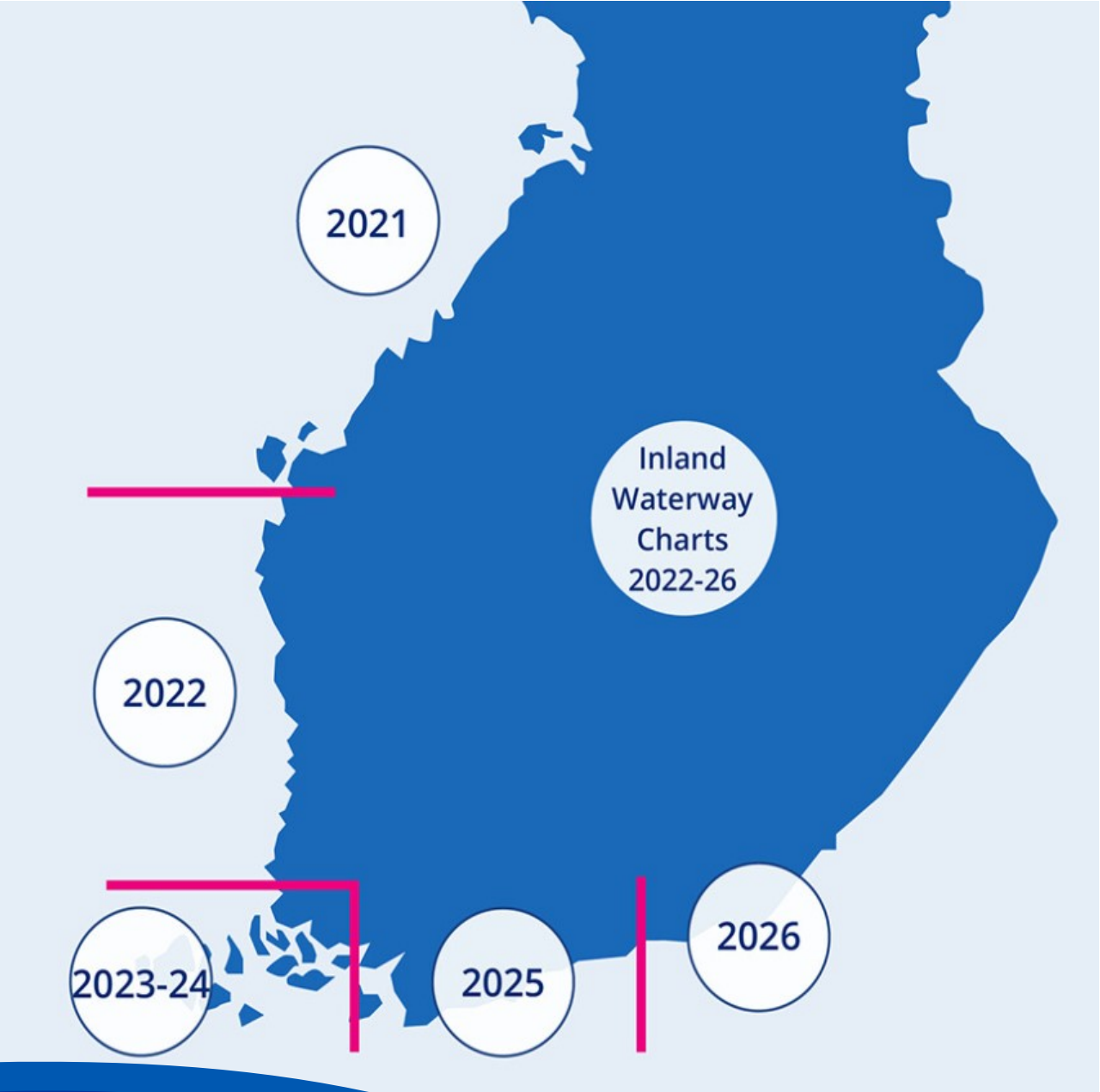


Chart reference level marking – printed charts

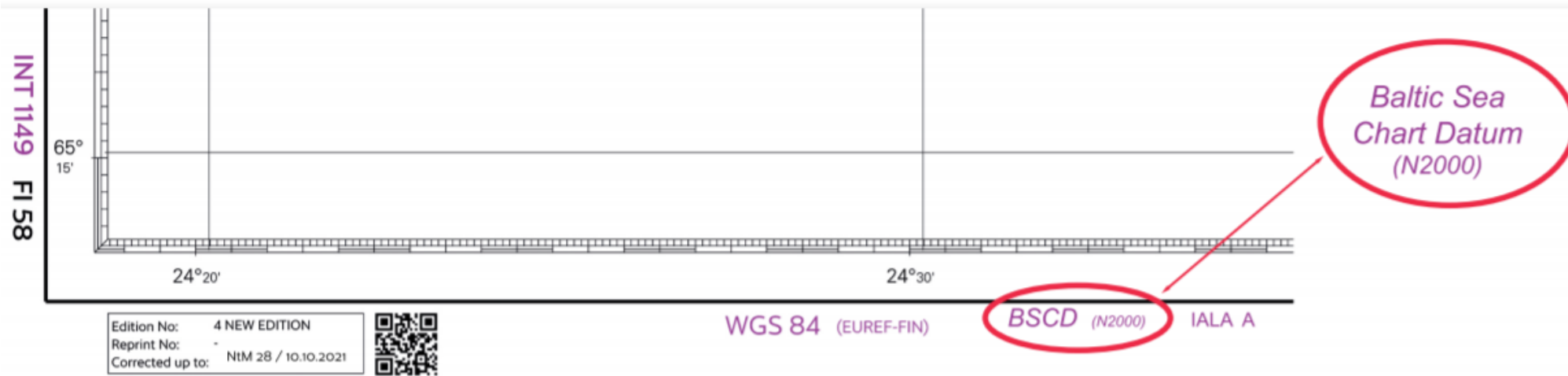
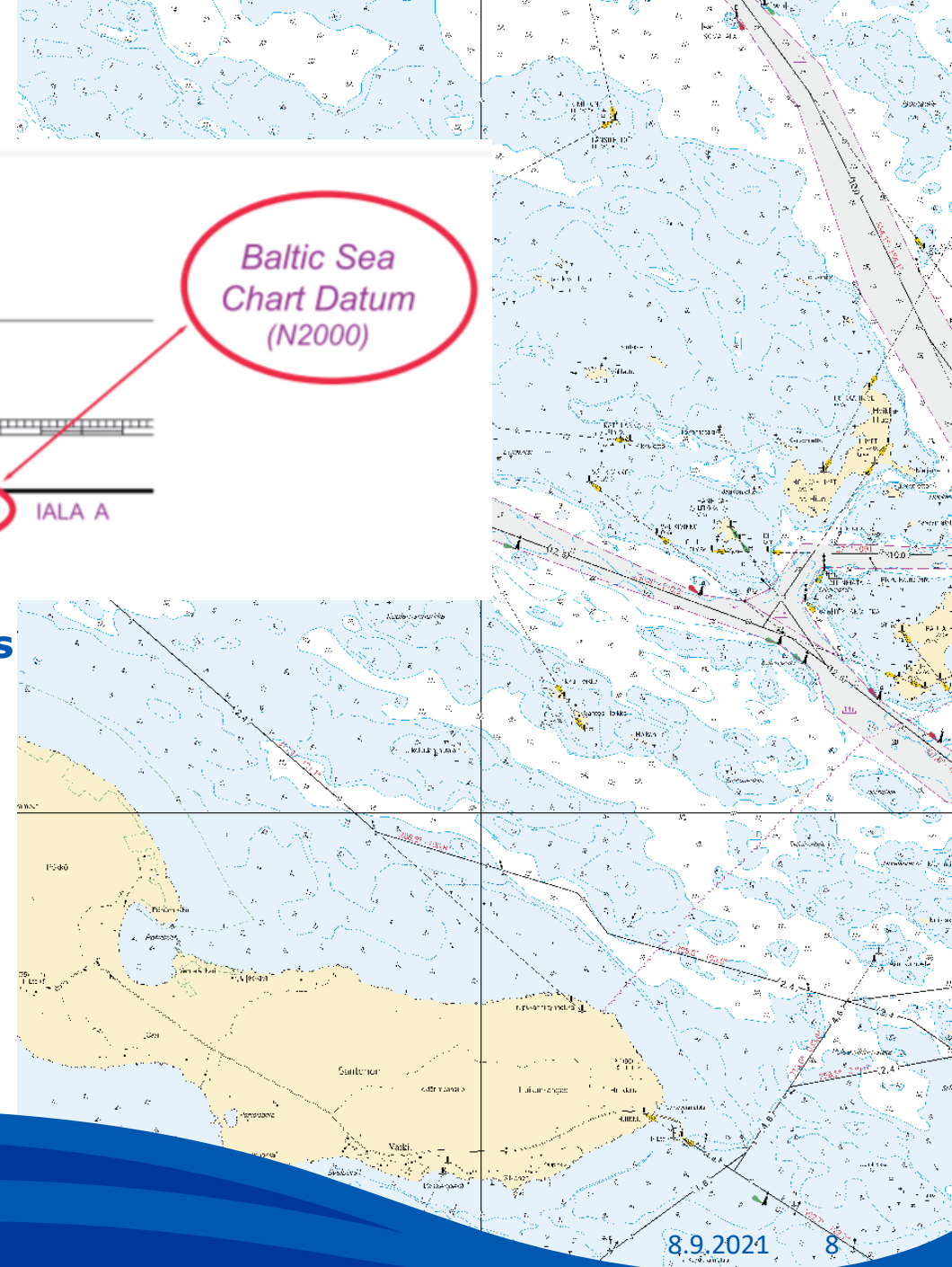


Chart reference level marking – Electronic Navigational Charts

VERDAT in S-57= 3 (Mean Sea level). Additionally, the object M_NPUB with the attribute INFORM will be used to indicate the reference level used;

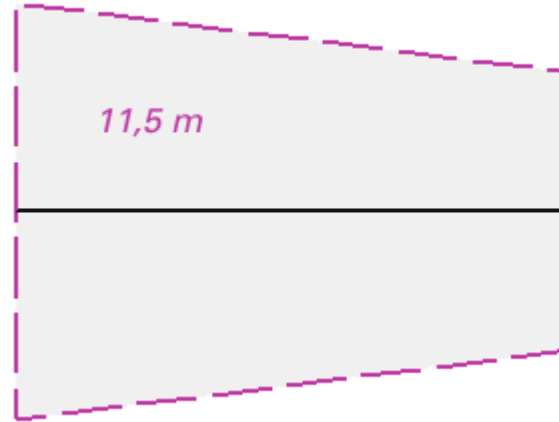
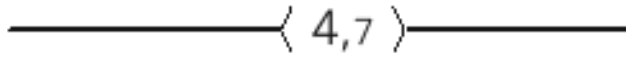
Soundings and heights in meters and reduced to Mean Sea Level (Baltic Sea Chart Datum 2000), (N2000) For more information see <http://fiho.fi/lnk/n2000/en>)



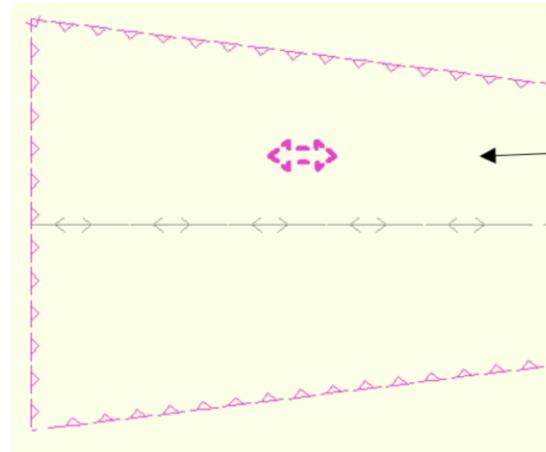
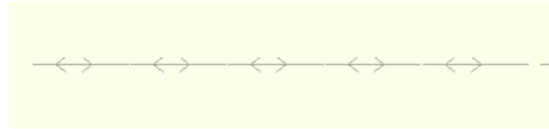
Merchant shipping routes – use and chart symbols

The Finnish Transport and Communications Agency's and the Finnish Transport Infrastructure Agency's have reviewed the future use of merchant shipping routes. The merchant shipping will be marked by a different way on coming N2000 charts. Cooperation with shipping companies, VTS, Pilots etc continues.

Paper charts



ENCs



Recommended track

- Depth range value 1: 4.7

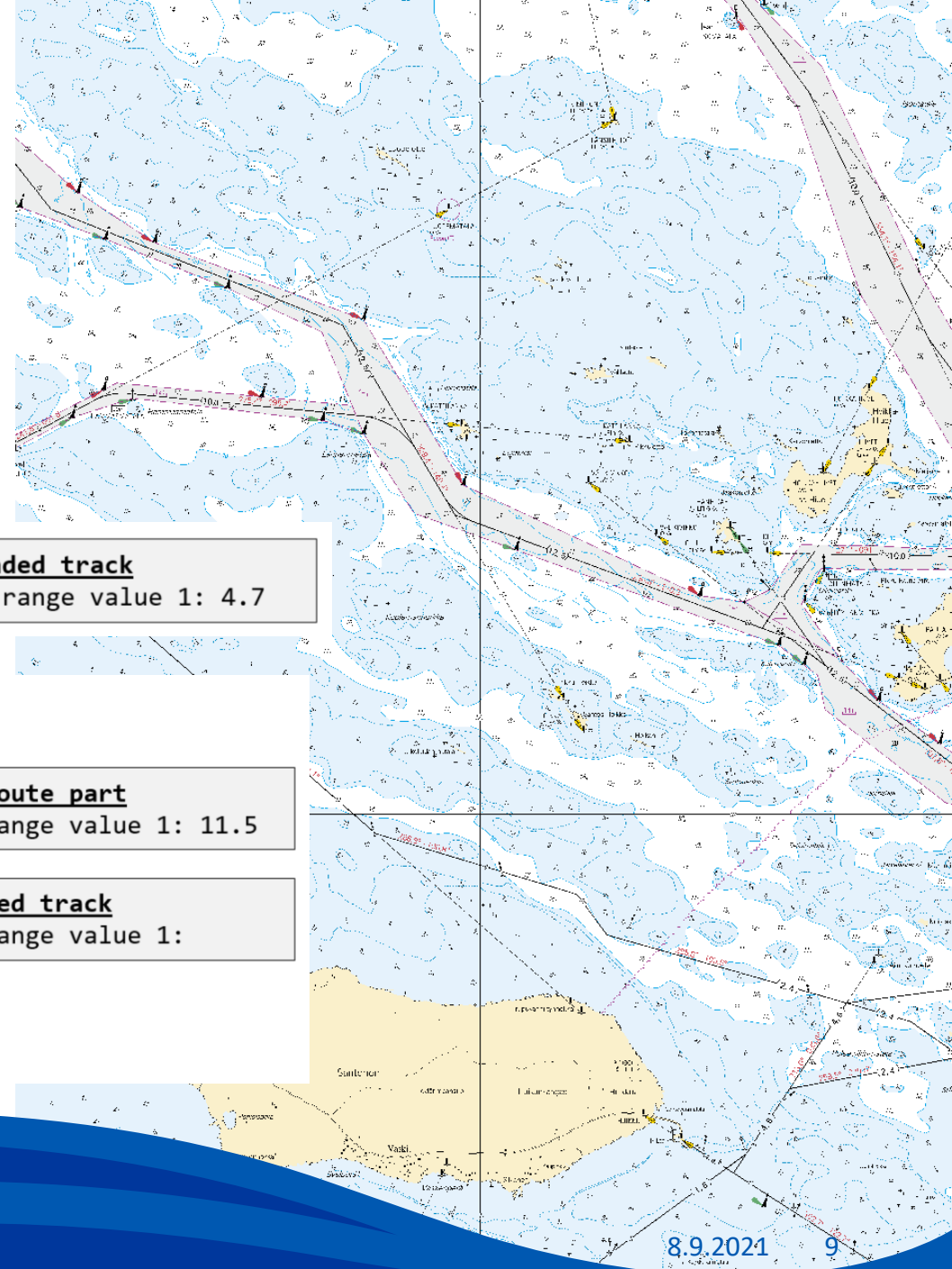
Two-way route part

- Depth range value 1: 11.5

Recommended track

- Depth range value 1:

(Presentation not confirmed yet)



Information campaign

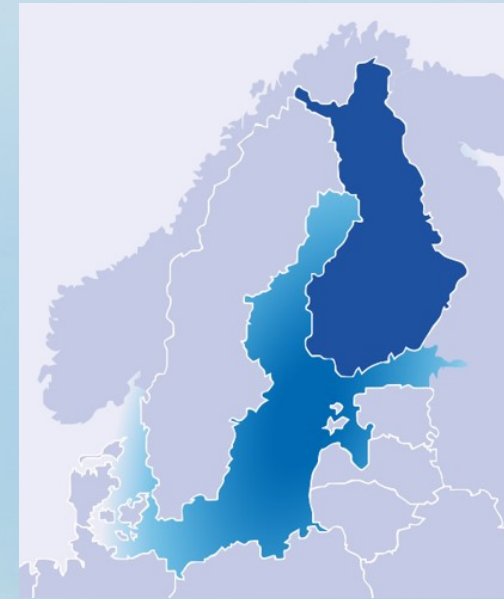
Web sites in 3 languages

FIN: <https://www.traficom.fi/fi/n2000-vayla-ja-merikarttauudistus>

SWE: <https://www.traficom.fi/sv/transport/sjofart/farleds-och-sjokortsreformen-n2000>

ENG: <https://www.traficom.fi/en/transport/maritime/n2000-fairway-and-nautical-chart-reform-improved>

- **Meetings with**
 - **Pilots**
 - **Shipping Companies**
 - **Ports**
 - **Navigation Association**
- **Boat fairs**
- **Video** [Link to video](#)
- **Other info material** [N2000 in brief](#)



Keskivesimerikartta

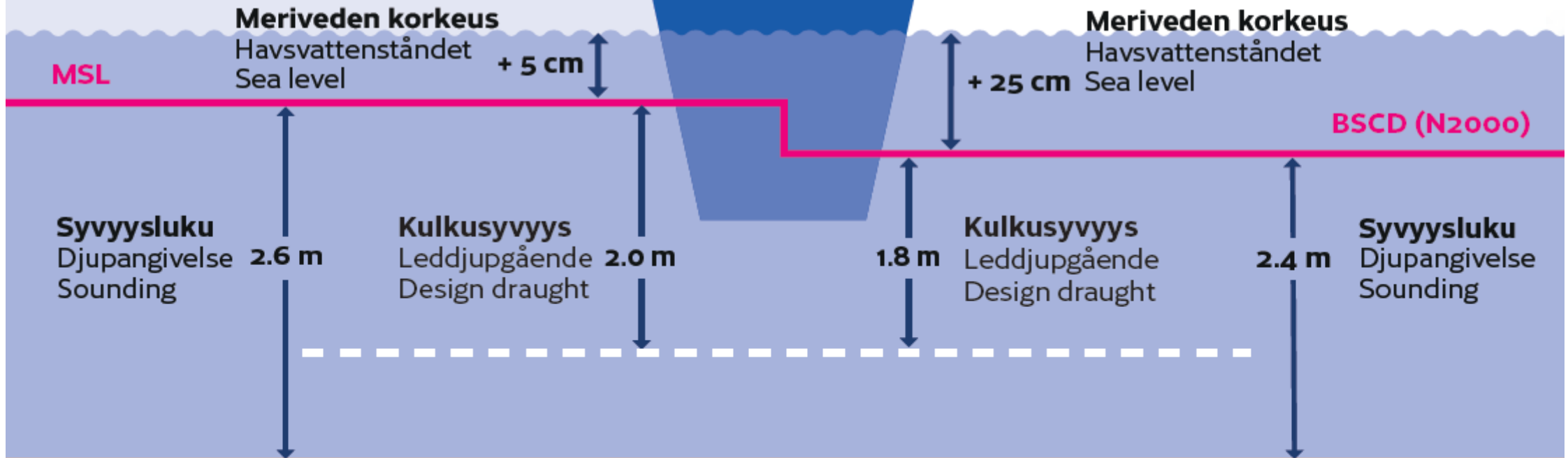
Medelvattenstånd Sjökort

Mean Sea Level Chart

N2000 Merikartta

N2000 Sjökort

N2000 Chart



Laskuesimerkki

Beräkningsexempel
Example calculation

$$2.0 \text{ m} + 0.05 \text{ m} = \mathbf{2.05 \text{ m}}$$

$$1.8 \text{ m} + 0.25 \text{ m} = \mathbf{2.05 \text{ m}}$$



Thank You