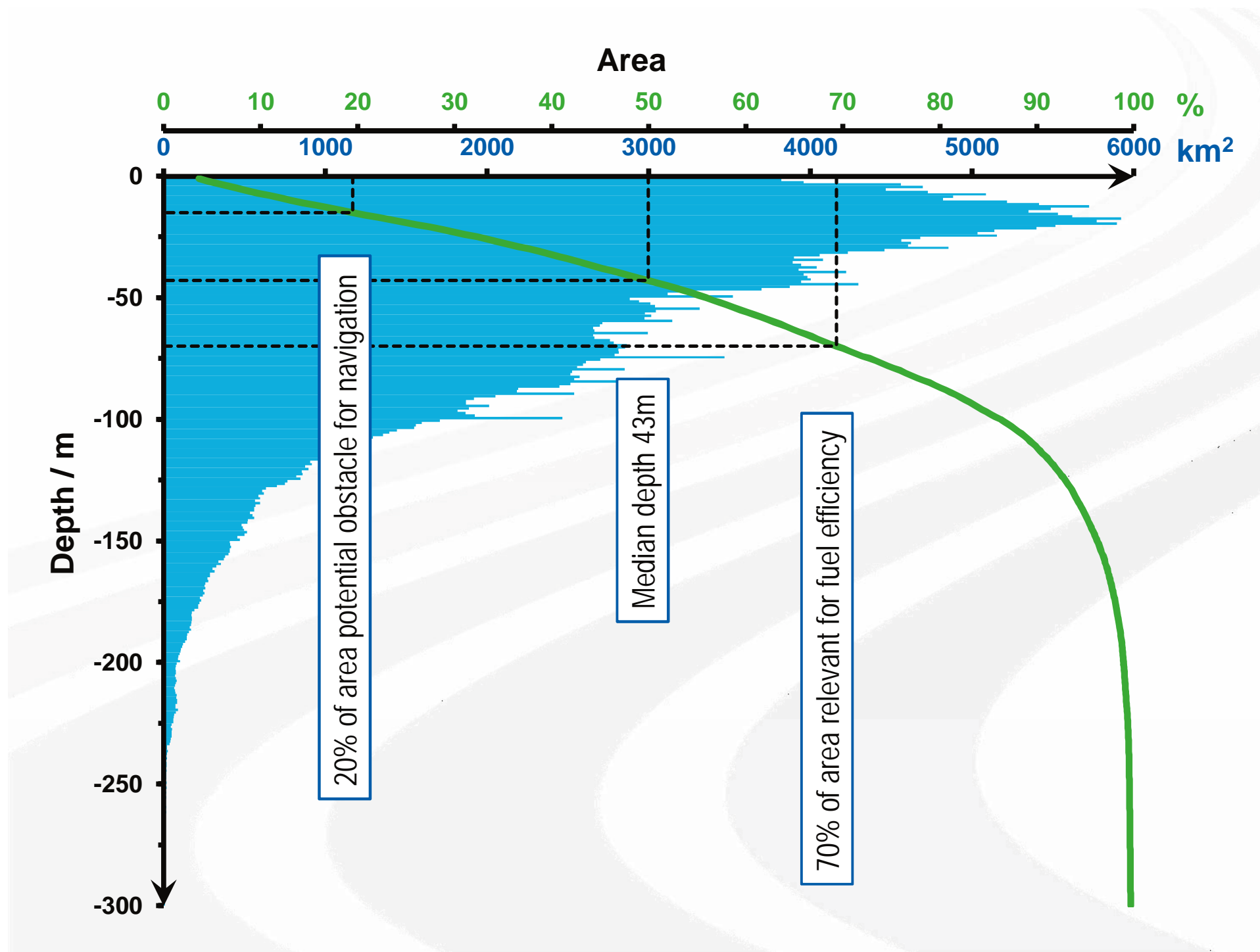


Finalising Surveys for the Baltic Motorways of the Sea

Project Leader: Benjamin Hell

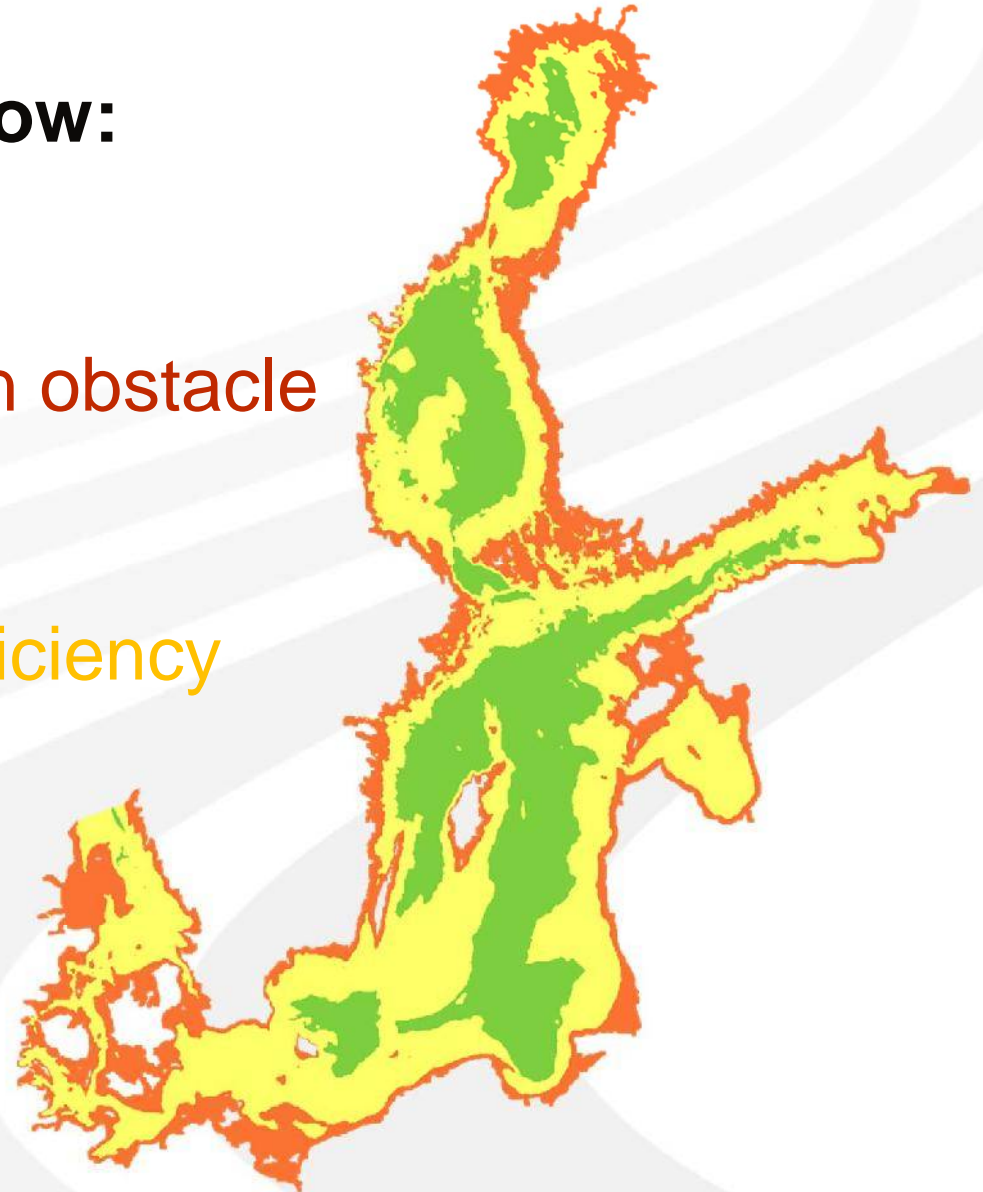
Hydrographic Office, Swedish Maritime Administration



The Baltic Sea is shallow:

20% potential navigation obstacle

70% relevant for fuel efficiency

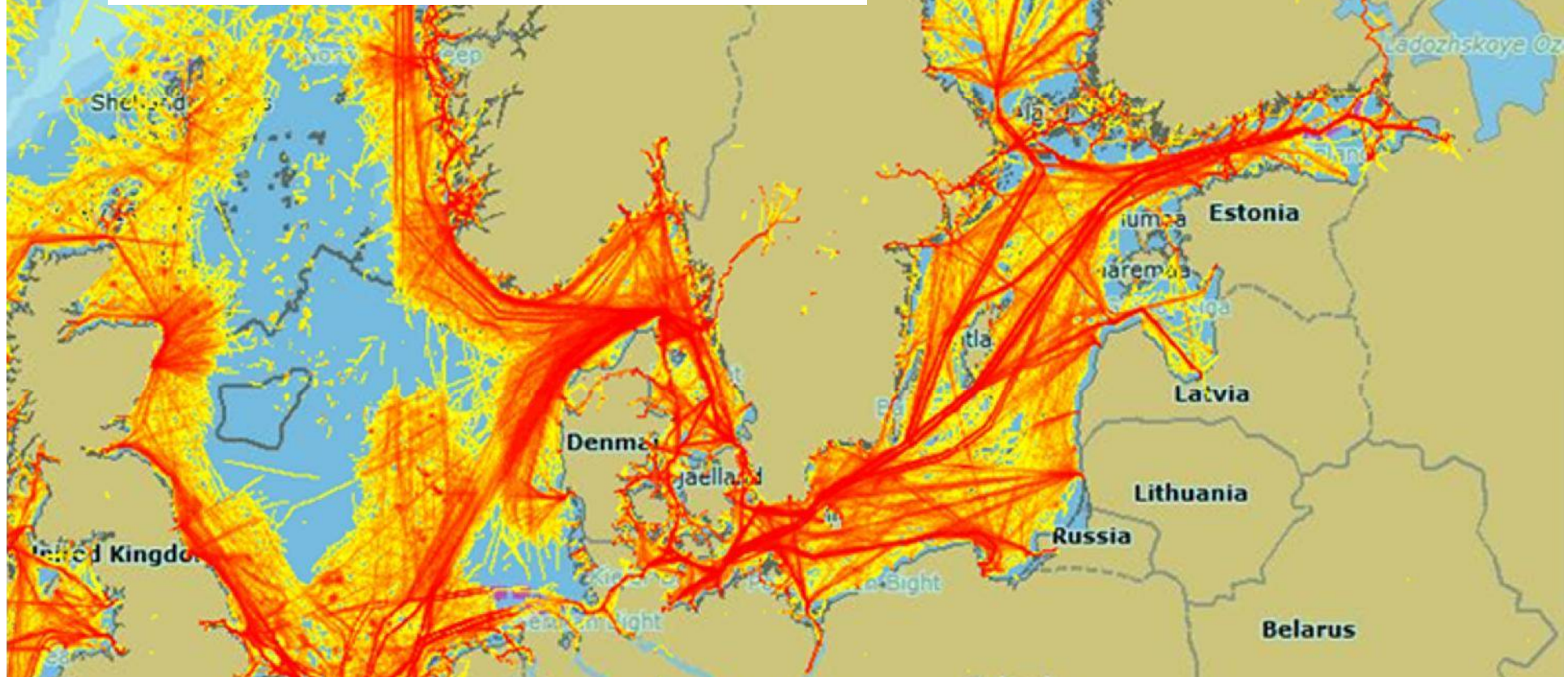


Traffic everywhere:

15% of the world maritime transports

2000 ships > 50m at any given time

Partly ice-covered in winter





HELCOM Copenhagen Ministerial Declaration

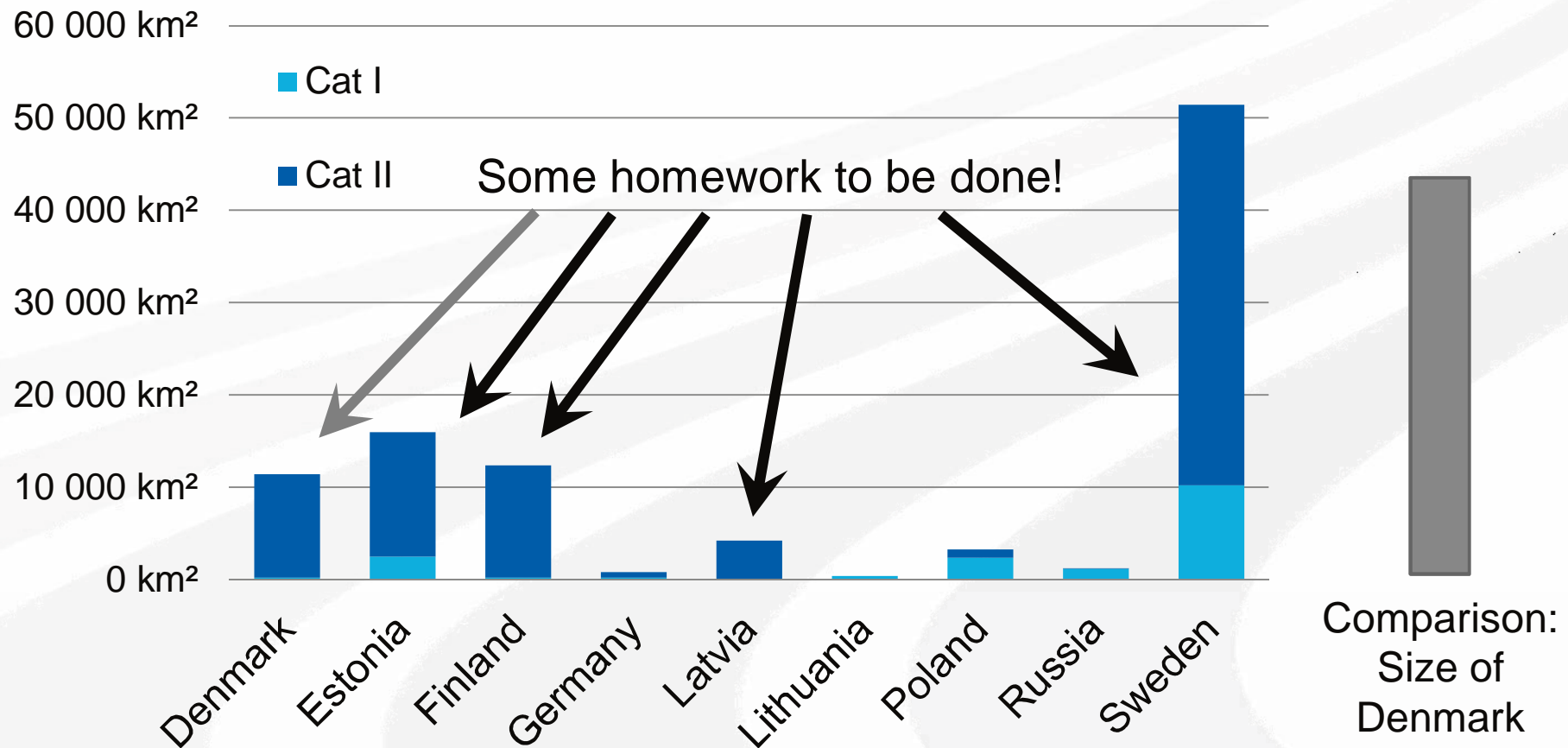
Taking Further Action to Implement the Baltic Sea Action Plan
- Reaching Good Environmental Status
for a healthy Baltic Sea

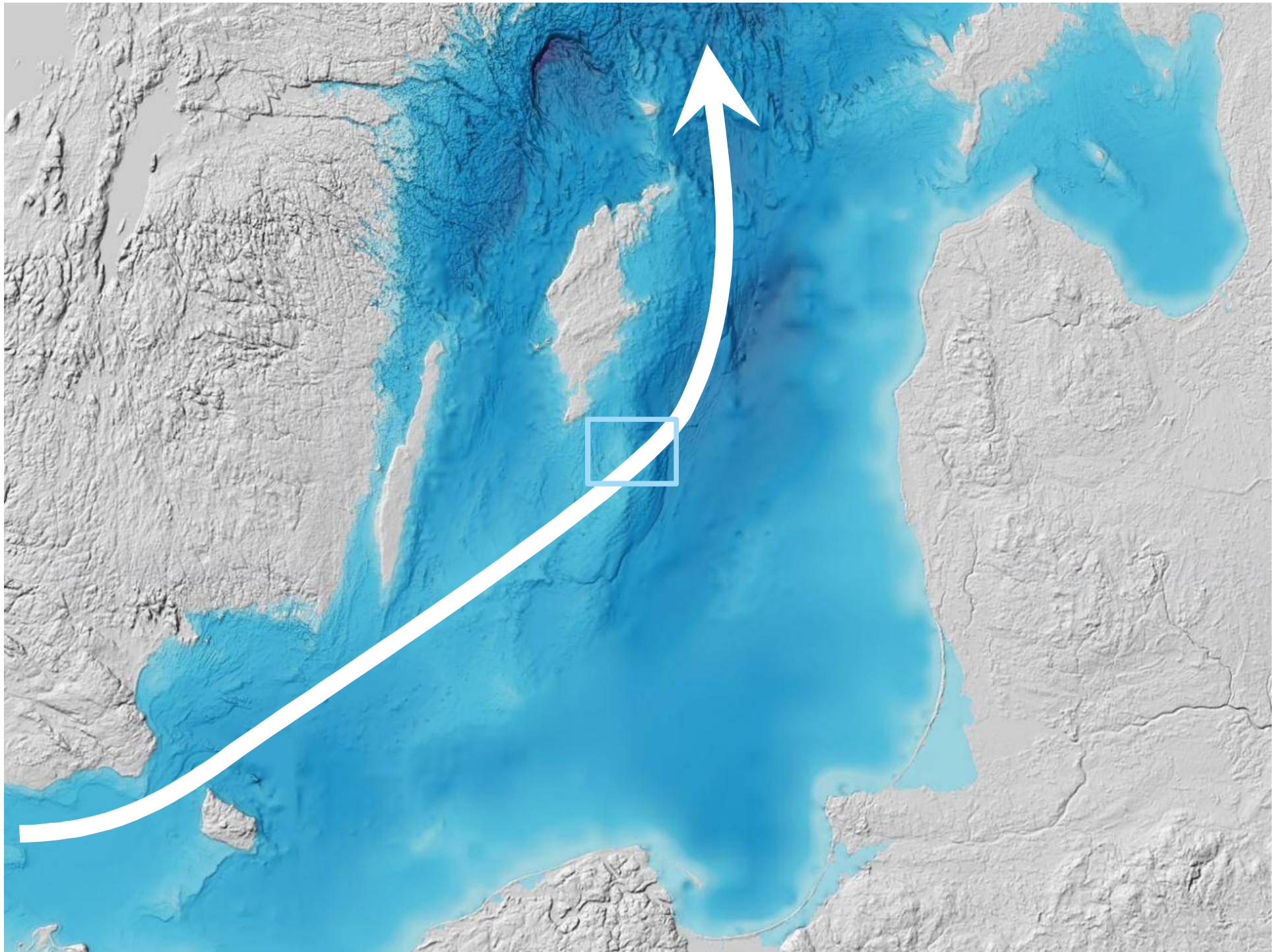
14 (M).RECALLING the HELCOM Copenhagen 2001, Krakow 2007 and Moscow 2010 commitments on hydrographic re-survey and COMMENDING WITH APPRECIATION the subsequent substantial progress made in systematic re-surveying of major shipping routes and ports in the region according to the HELCOM-BSHC Re-survey Scheme aimed at ensuring that safety of navigation in the Baltic Sea region is not endangered by inadequate source information;

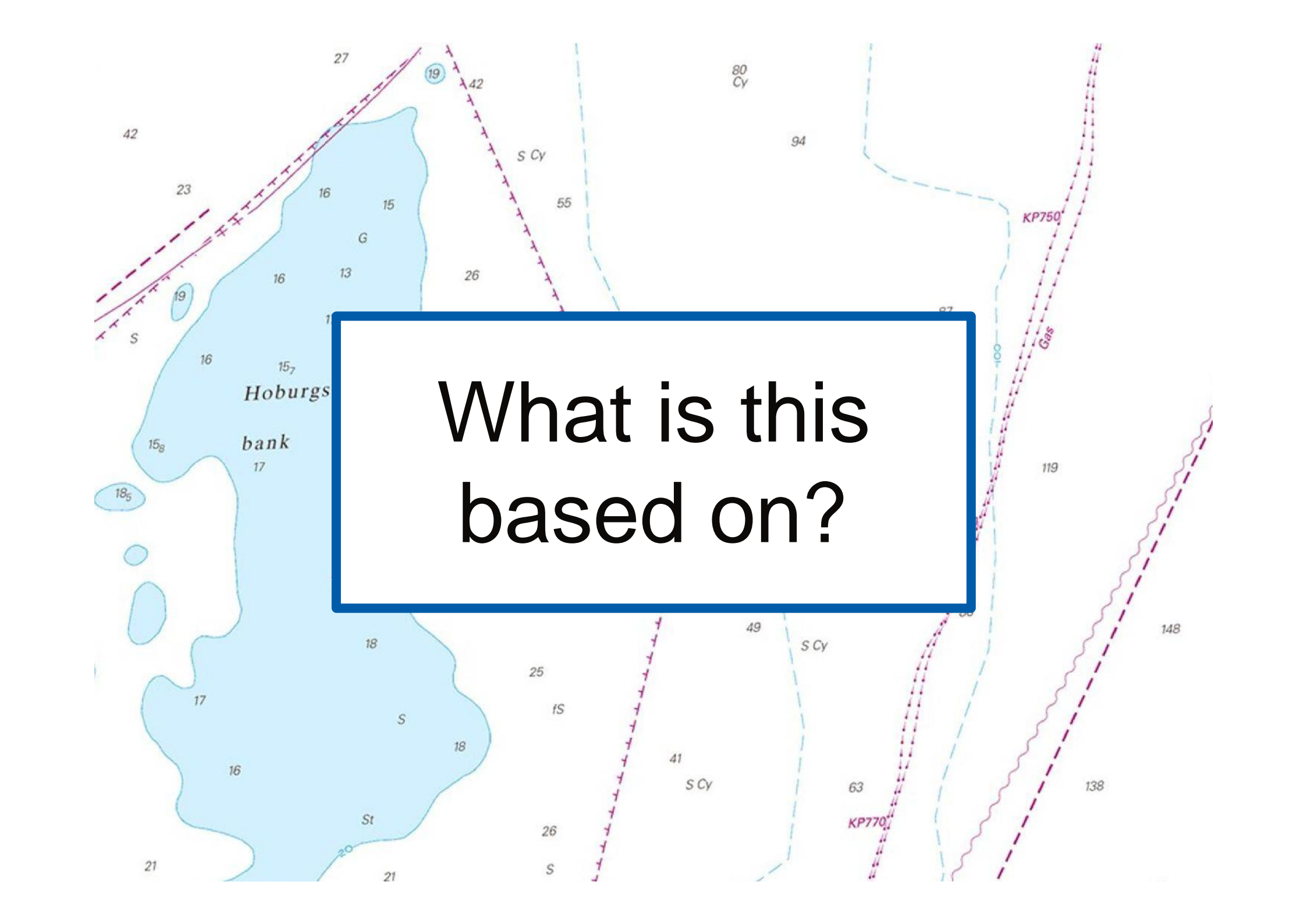
15 (M).WE AGREE to take actions to ensure the completion of the re-surveys for areas used by navigation (CAT I and II) within the time schedules estimated in the 2013 Re-survey Scheme, to promote wider use of accurate and reliable depth information by e.g. developing existing and/or new products including an enhanced and freely accessible Baltic Sea Depth Model, and to foster CAT III re-surveys of other areas not primarily for safety of navigation purposes, e.g. for environmental protection;

– Baltic Sea environmental ministers, Oct 2013

HELCOM Cat I & II area remaining to be surveyed







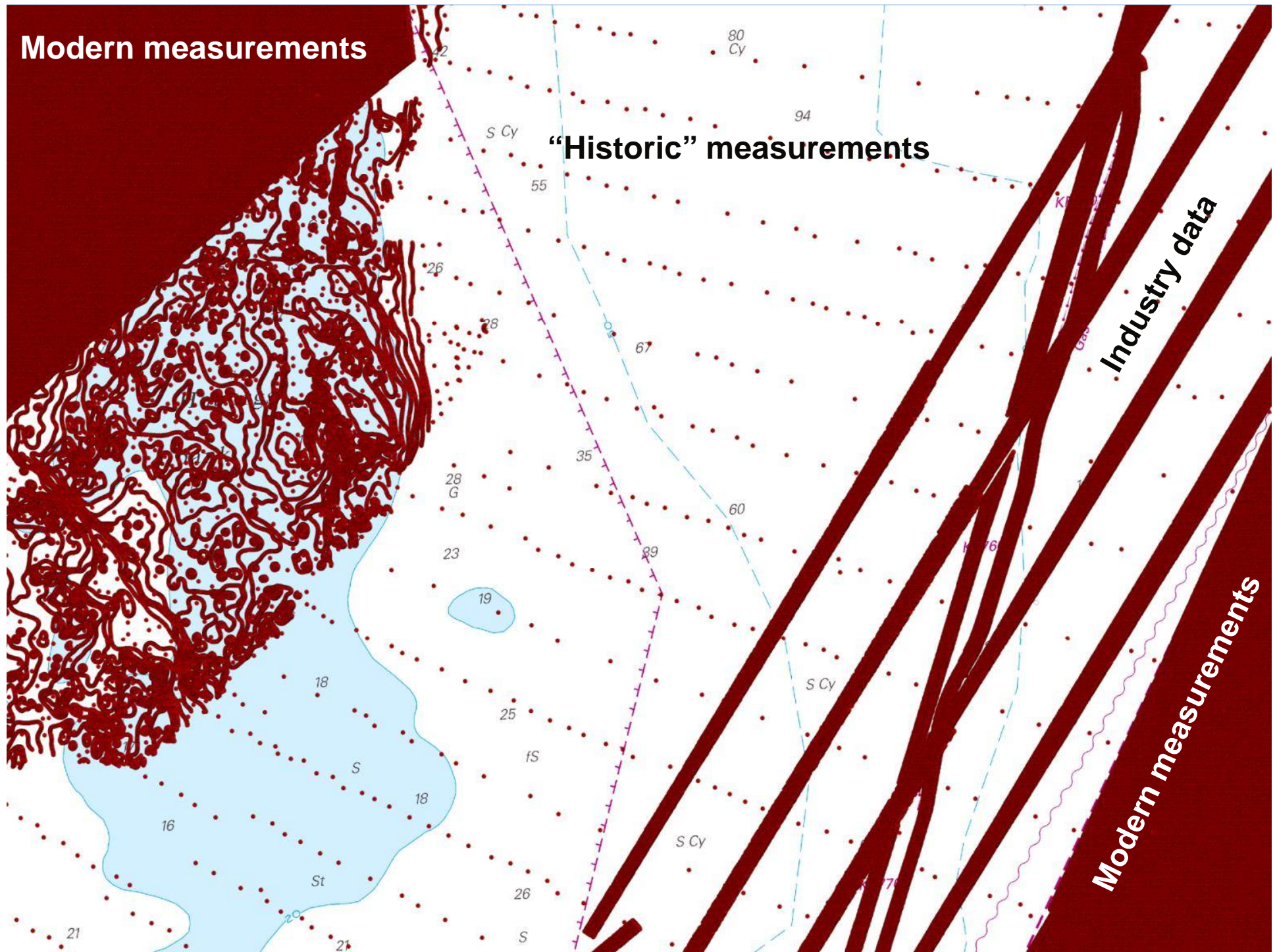
What is this
based on?

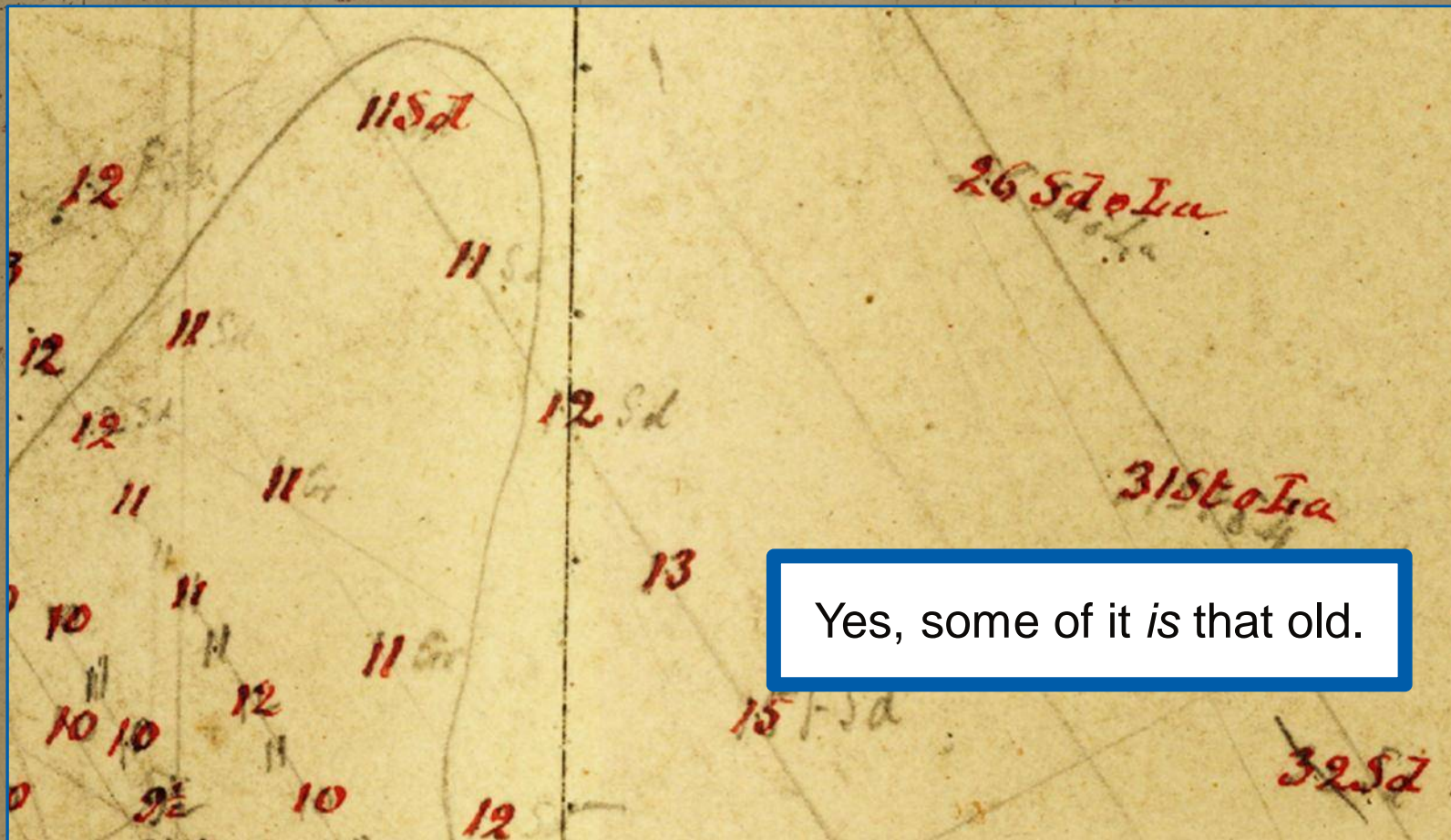
Modern measurements

“Historic” measurements

Industry data

Modern measurements





Yes, some of it *is* that old.

Modern measurements

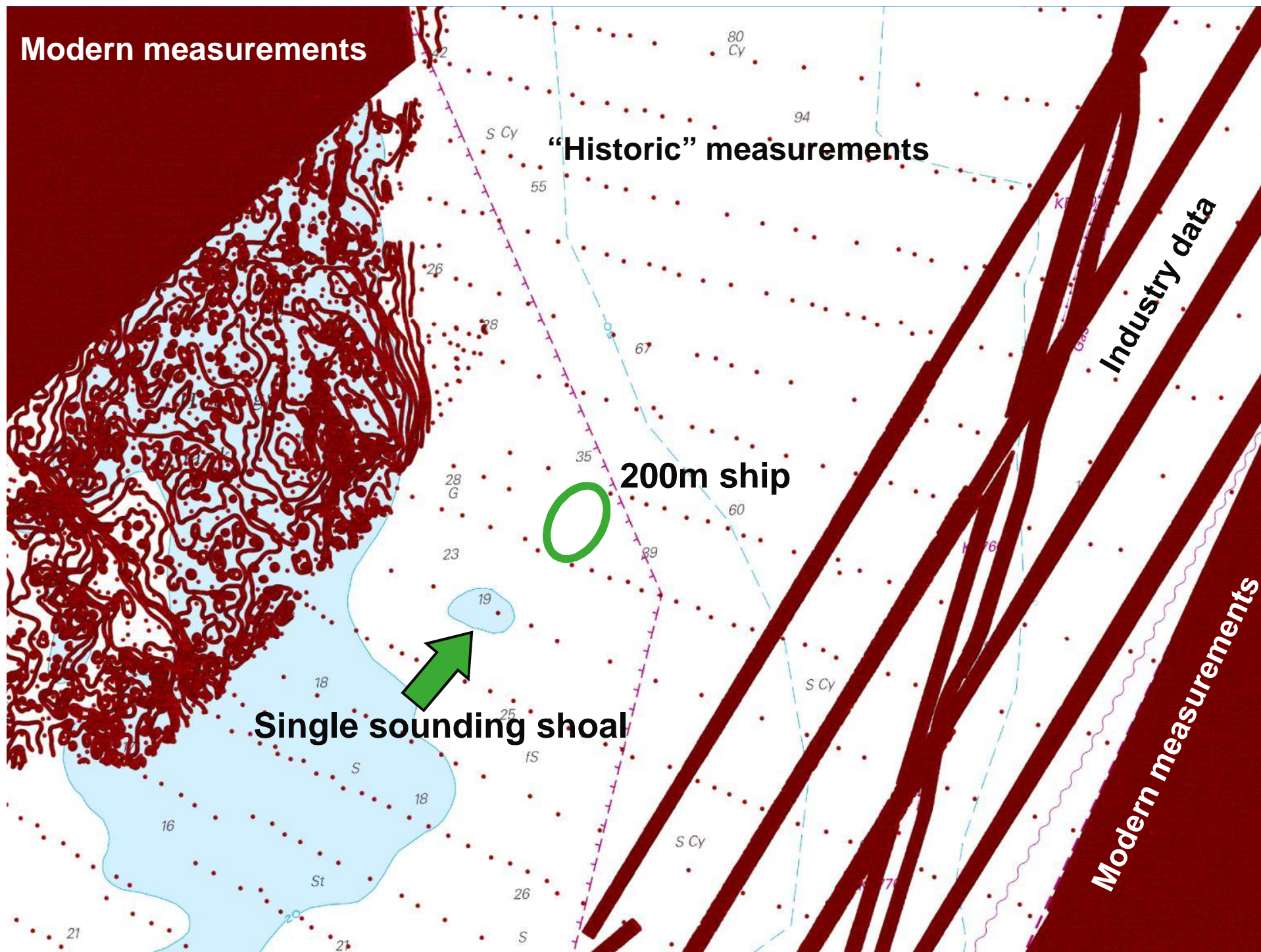
“Historic” measurements

Industry data

200m ship

Single sounding shoal

Modern measurements



The background of the slide is a blue-toned bathymetric map of a seafloor, showing various depths and features. A white rectangular box is centered on the slide, containing a bulleted list. The text 'How it often looks today' is in the top right, and 'Modern survey' is in the bottom left.

How it often looks today

- Safety of navigation: < ca. 15m
- Fuel efficiency of marine transports: < ca. 70m
- Marine spatial planning
- Environmental concerns
- Science
- ...

Modern survey

Partners:

- SMA (Swedish HO, lead partner)
- FTA (Finnish HO)
- VTA (Estonian HO)
- MAL (Latvian HO)
- GST (Danish HO)
- BSH (German HO, activity 2)
- Swedish Land Survey
- German Federal Agency for Cartography and Geodesy
- Finnish Geodetic Institute
- Geoforschungszentrum Potsdam
- Danish Technical University?

Activity 2

Countries:

- Sweden
- Finland
- Estonia
- Latvia
- Denmark
- Germany

~80% of
Baltic Sea
water area



- 
- The background of the slide is a solid blue field with several yellow five-pointed stars scattered across it, reminiscent of the European Union flag. There are seven stars visible: one in the top right, one in the middle right, one in the bottom right, one in the bottom center, one in the bottom left, one in the middle left, and one in the top left.
- Ambitious goal: Co-financing needed
 - Source: EU transport infrastructure
 - Program: Connecting Europe Facility (former TEN-T)
 - Total volume 2014-2020: €26.25 billion (for transport, including Cohesion Fund)
 - 2014 call for multiannual Motorways of the Sea projects



2014 call for multiannual Motorways of the Sea projects

- Call expected to open 1 September 2014
- Expected co-financing rate depends on character of action
 - Surveying: **30%**
 - “Studies”: **50%**
- Volume: 250 M€ of co-financing for MoS projects
- FAMOS will ask for roughly 20 M€ of co-financing
- Eligible funding period: From 2014 (retroactively!) to 2020

Eligible
funding
period starts

2014-01-01

Call opens

2014-09-01

Proposal
submission to
Swedish CEF
coordination

2015-02-01

Proposal
submission
deadline
EC/INEA

2015-02-28

Evaluation

2015-03
–
2015-06

Decisions

2015-10
–
2015-12

Preliminary
pre-payment

Q1 2016?

First regular
payment

2017?



Why a collaborative project and not just national efforts?

Collaboration fundamental for BSHC and HELCOM

EU co-financing is impossible without collaboration

Share overhead for EU administration

Collaboration within BSHC allows for synergies

We have a lot to learn from each other



**What are we
going to do**

**four
activities**

Hydrographic surveys

- Over 70 000 km²
- Ca 59 M€, 88% of budget
- Approaching HELCOM Cat I/II goal in Sweden, Finland, Latvia and Estonia
- Both own resources and tendered work (ca 27% of area)

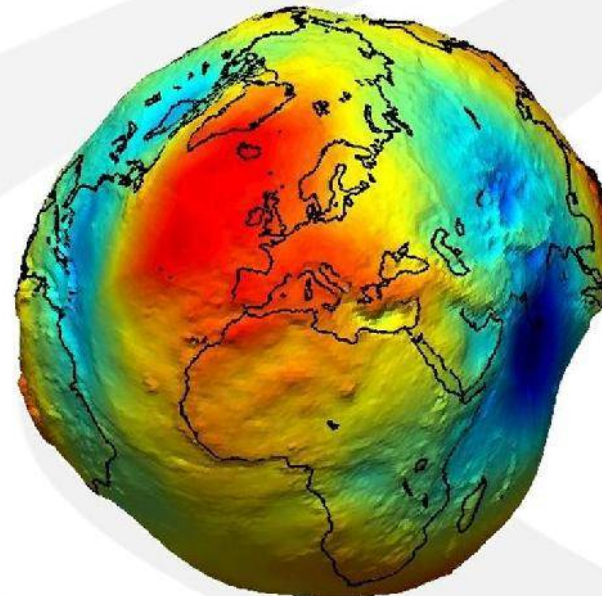


Survey areas



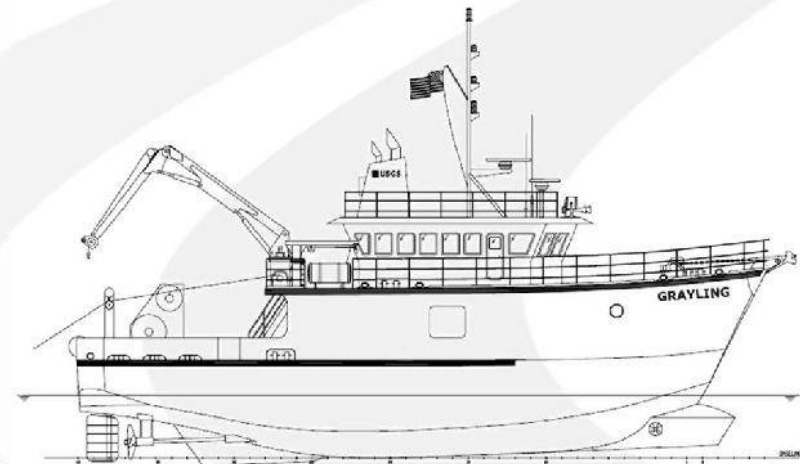
Harmonising vertical datum

- Improving the Geoid in the region
- Idea: Use survey vessels for marine gravity measurements, which would be much more expensive on their own
- Contribute to future satellite navigation in full 3D
- Aligned with BSHC CDWG



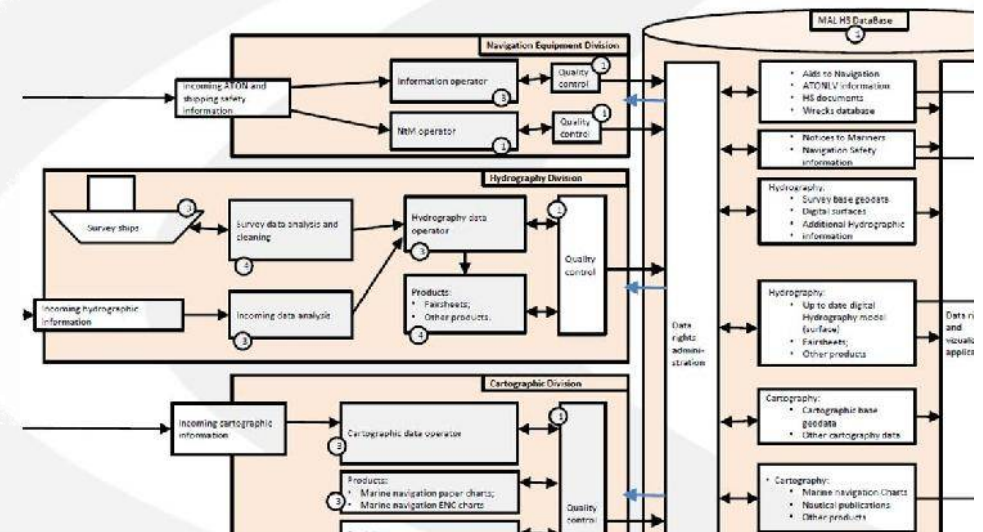
Equipment to increase survey efficiency

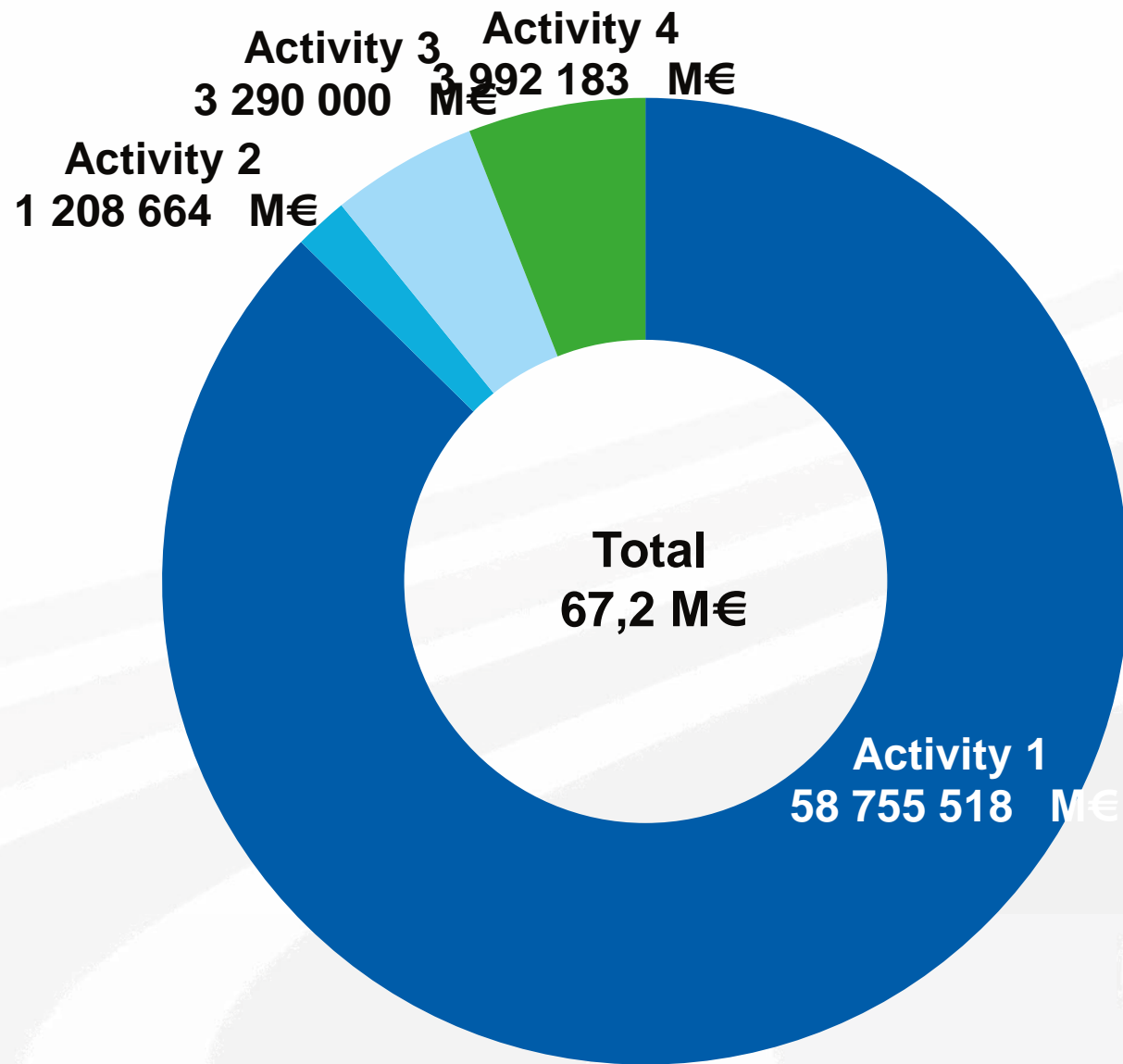
- New survey boats in Latvia and Estonia
- Upgrades for echo sounders and navigation equipment



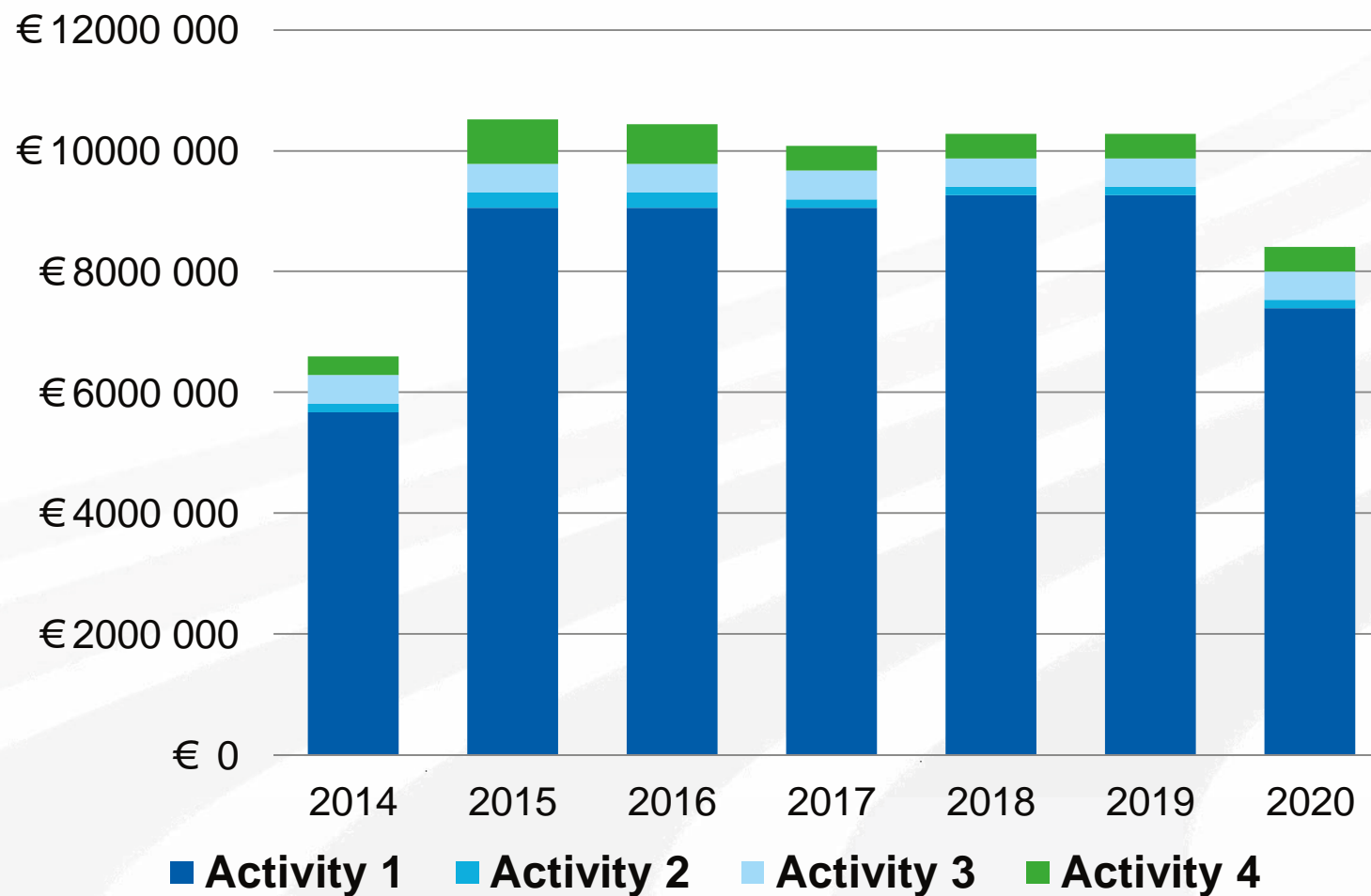
Data workflow improvements from sounding to bridge

- Renewal and improvement of chart production systems
- Improvement of data collection systems
- Data harmonisation and improved data exchange internationally
- Fairway modeling



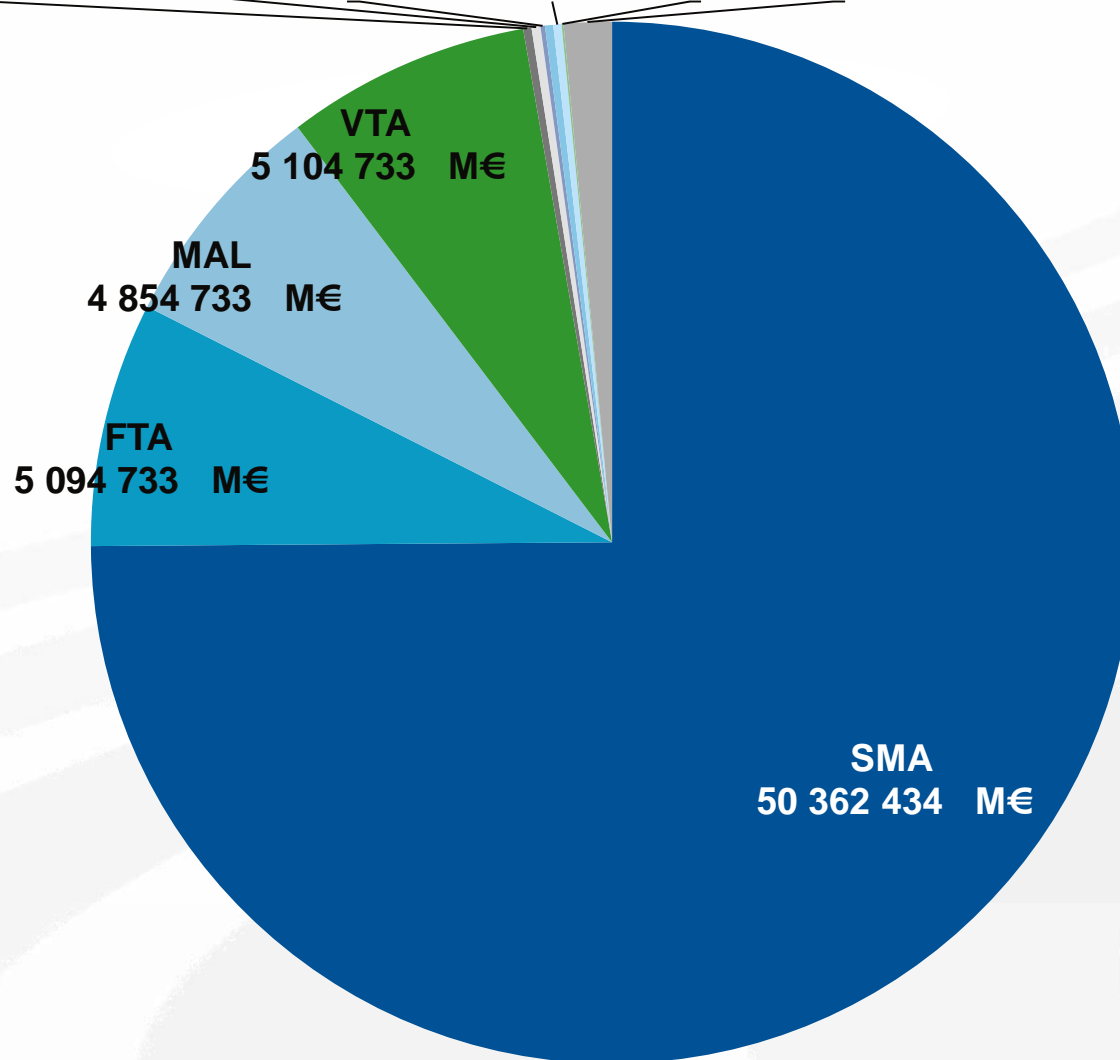


Expected budget per activity

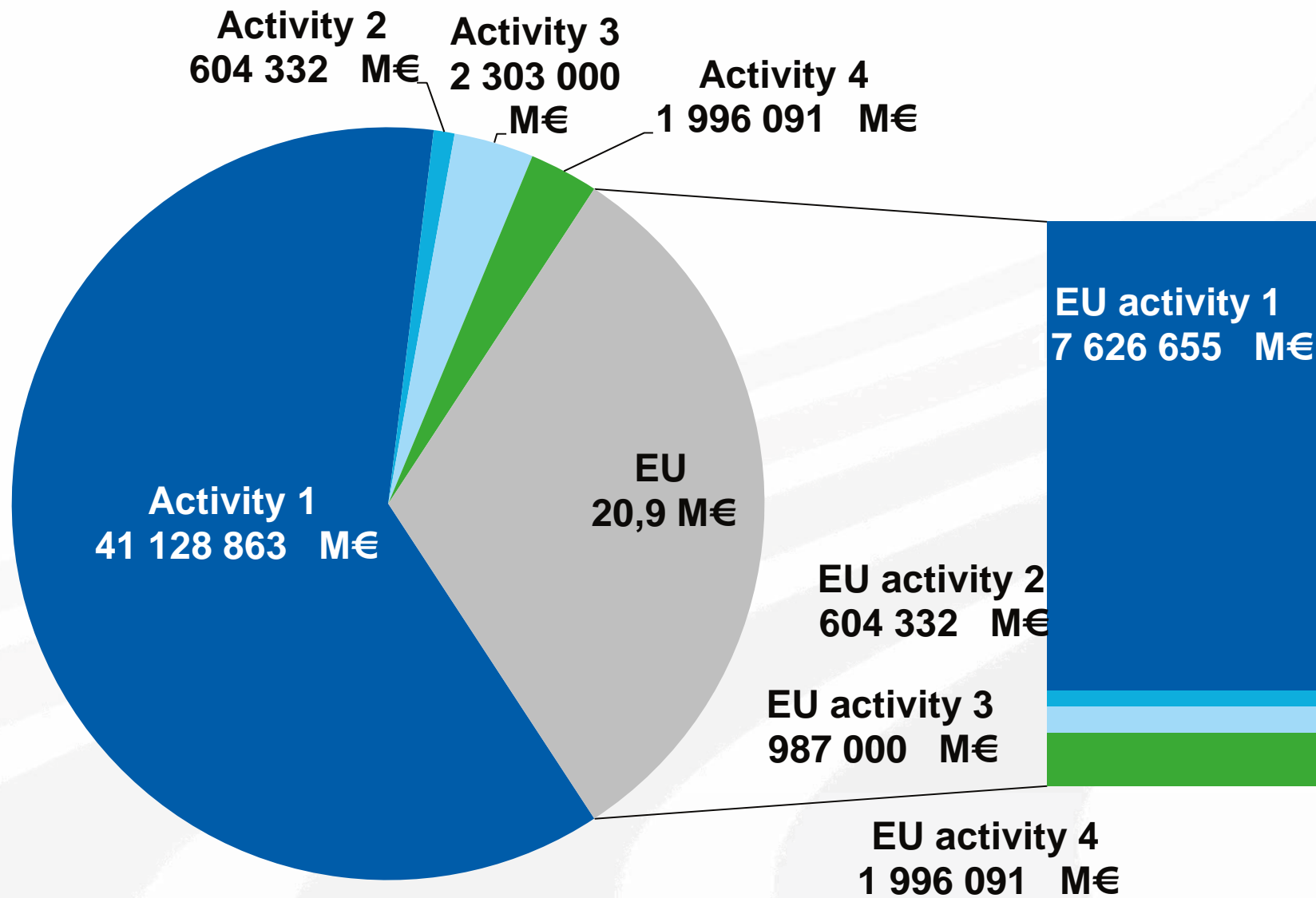


Expected budget per year and activity

LM	BSH	GFZ	BKG	DTU	GST	Activity 2
175 000 M€	75 000 M€	54 733 M€	75 000 M€	35 000 M€	100 000 M€	



Expected budget per partner



Expected co-financing per activity



SWEDISH MARITIME
ADMINISTRATION



Bundesamt für
Kartographie und Geodäsie



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

LANTMÄTERIET



FINNISH GEODETIC
INSTITUTE

GFZ

Helmholtz Centre
POTSDAM

DTU



Miljøministeriet
Geodatastyrelsen



FINALISING SURVEYS FOR THE BALTIC MOTORWAYS OF THE SEA

Contact:

benjamin.hell@sjofartsverket.se (project leader)



EUSBSR
EU STRATEGY
FOR THE BALTIC
SEA REGION

PRIORITY AREA 'SAFE'