KYSTVERKET
NORWEGIAN COASTAL ADMINISTRATION

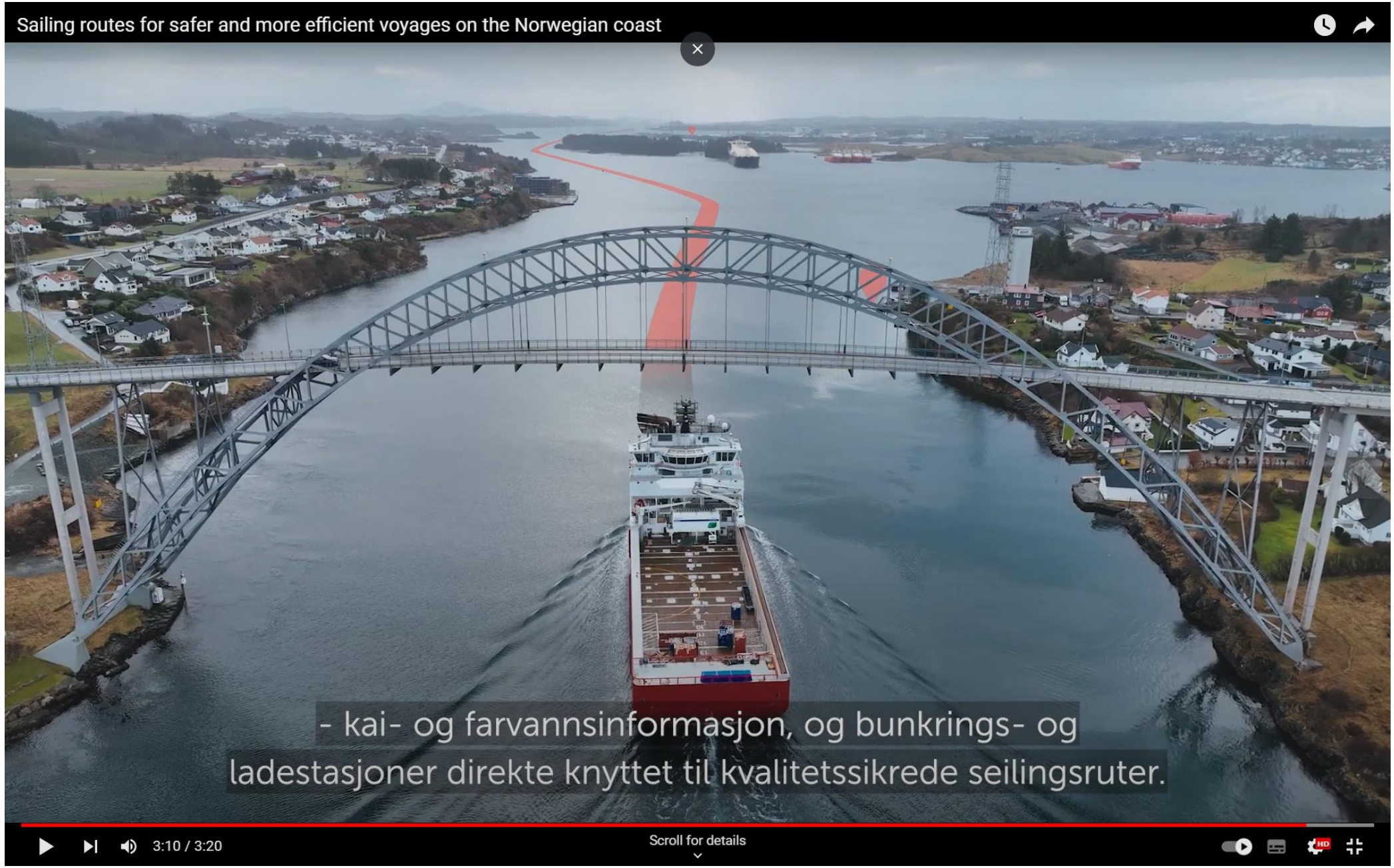
routeinfo.no

Digital Routes to Norwegian Ports support Digitalisation both on the ship and the shore side

(Quality Assured Routes for the Norwegian Coast)

John Morten Klingsheim, senioringeniør
avdeling for losforvaltning og navigasjonsteknoloogi, Kystverket 28.10.2022

– Clean, safe and efficient seaways



https://youtu.be/eCVOKJwAQwE / https://routeinfo.no

GIS

Information technology

Information management in Geographical information System (ex. maritime regulations)

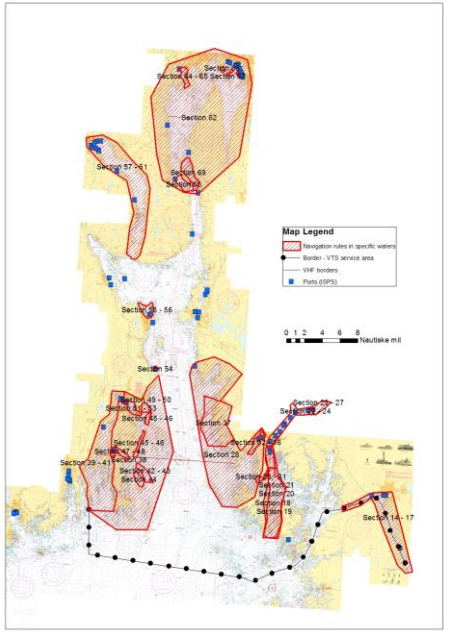
Maritime ITS

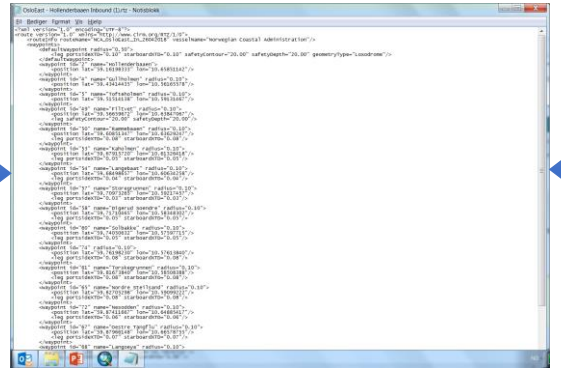
Operational technology

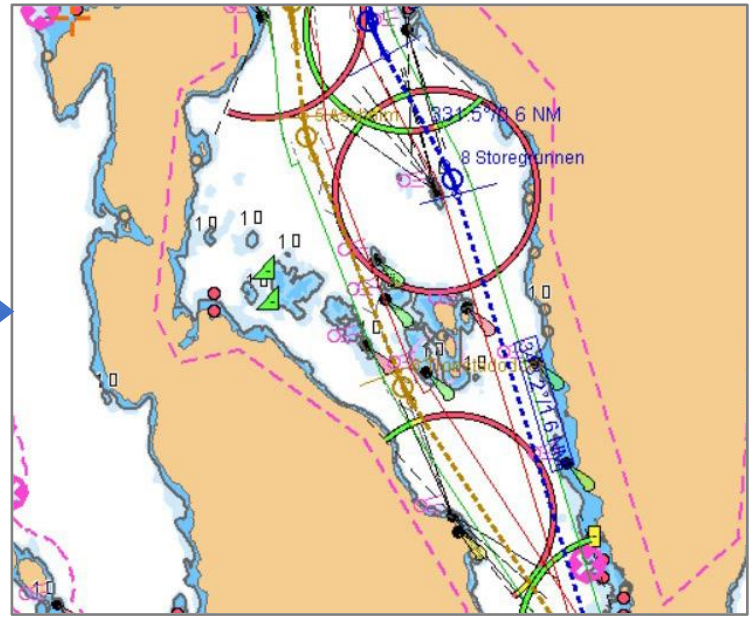
Nautical information in Electronic Chart Display and Information System (ECDIS)

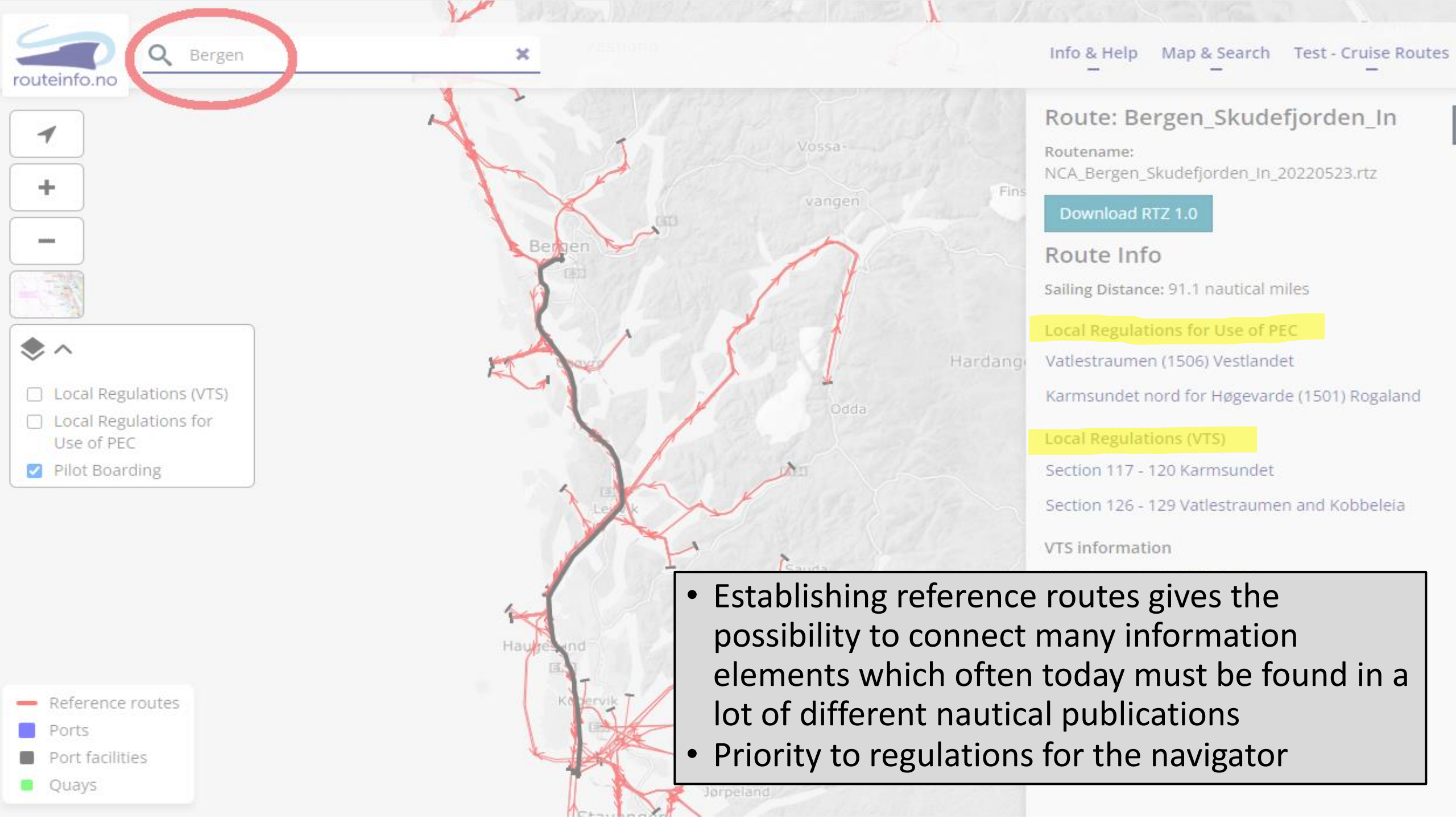
route plan

(rtz and other international standards)







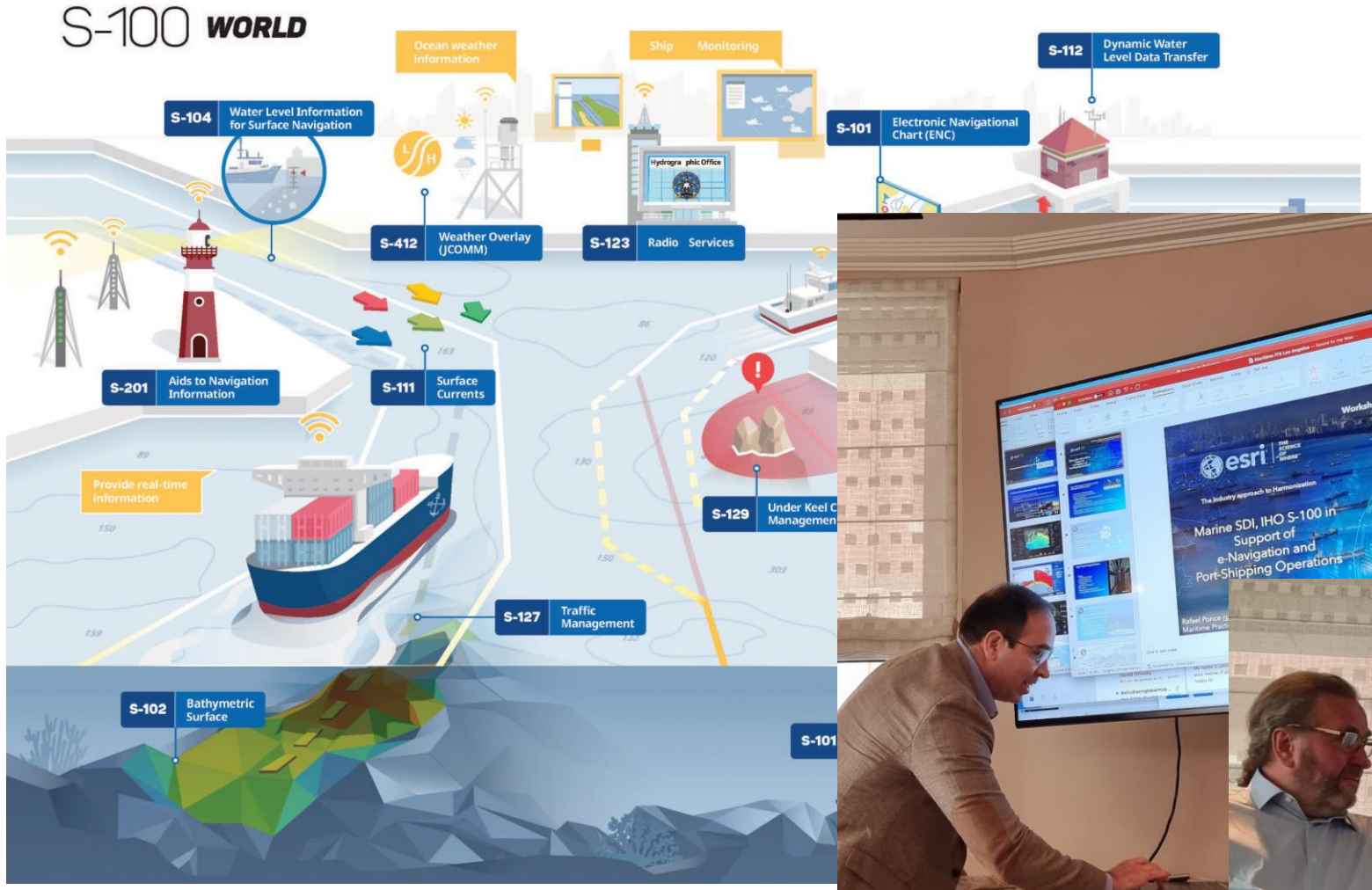

routeinfo.no
Bergen
Info & Help
Map & Search
Test - Cruise Routes
Route: Bergen_Skudefjorden_In
Routename:
NCA_Bergen_Skudefjorden_In_20220523.rtz
Download RTZ 1.0
Route Info
Sailing Distance: 91.1 nautical miles
Local Regulations for Use of PEC
Vatlestraumen (1506) Vestlandet
Karmsundet nord for Høgevarde (1501) Rogaland
Local Regulations (VTS)
Section 117 - 120 Karmsundet
Section 126 - 129 Vatlestraumen and Kobbeleia
VTS information
Local Regulations (VTS)
Local Regulations for Use of PEC
Pilot Boarding
Reference routes
Ports
Port facilities
Quays
Vossa
Bergen
Odda
Haugesund
Jørpeland
• Establishing reference routes gives the possibility to connect many information elements which often today must be found in a lot of different nautical publications
• Priority to regulations for the navigator

Nordic ITS stand

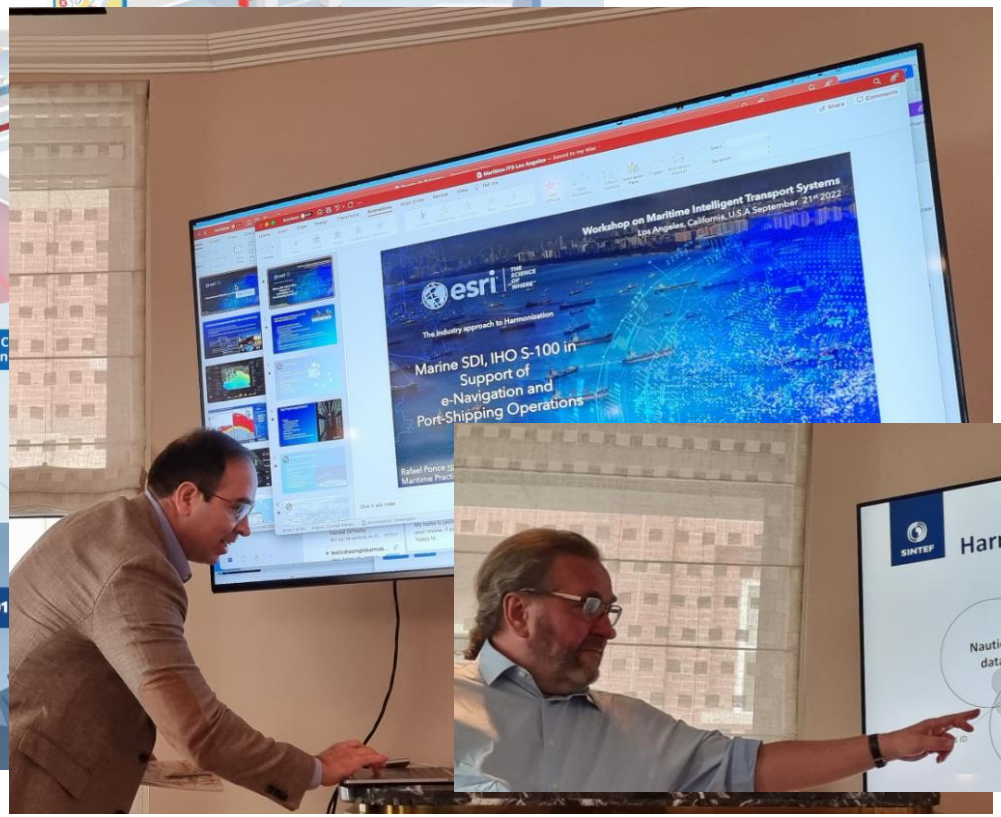
Maritime ITS workshop

Maritim ITS – E-Navigasjon - Martime Single Window (IMO/EU)

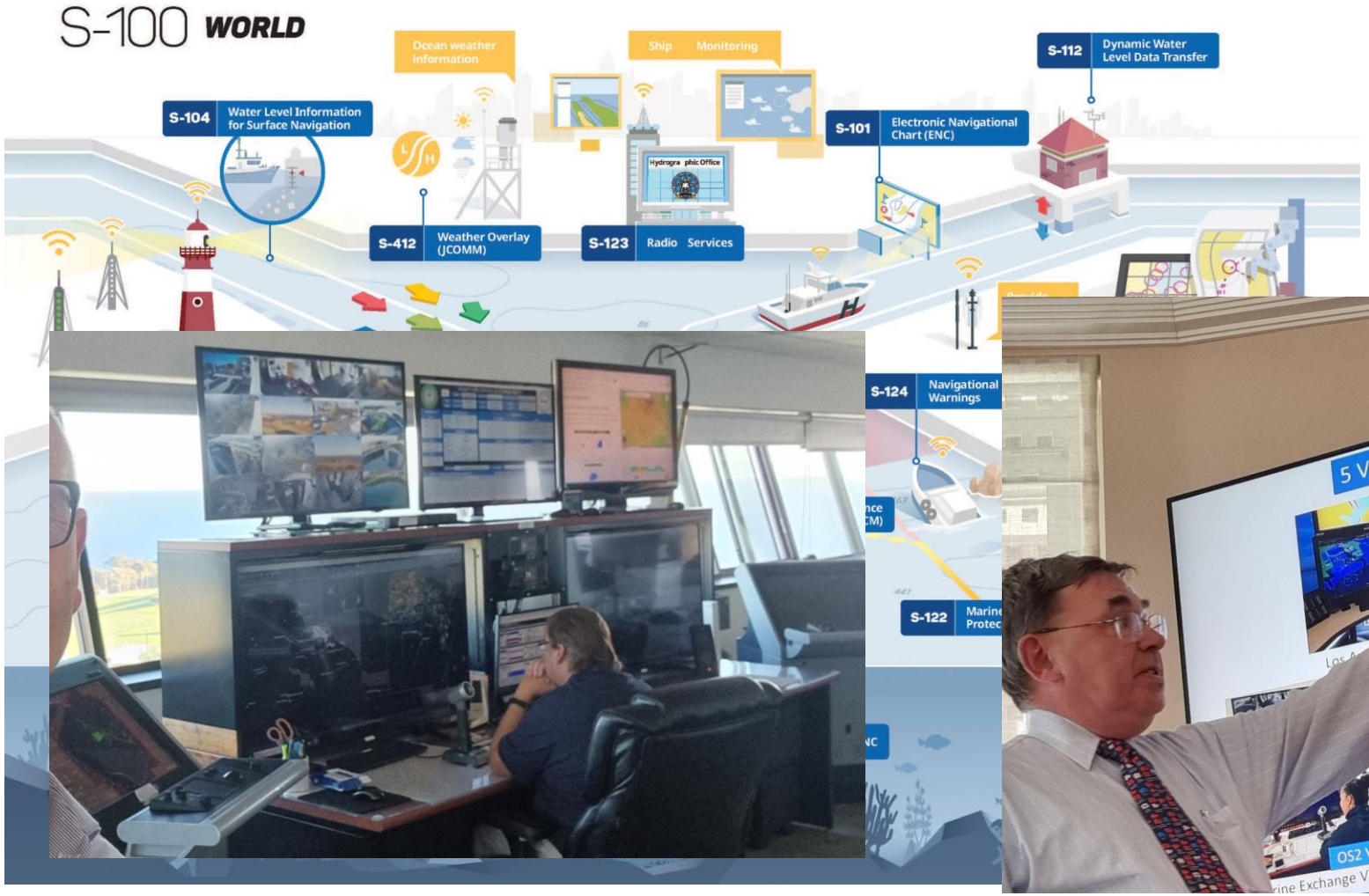
(og smarte havner)



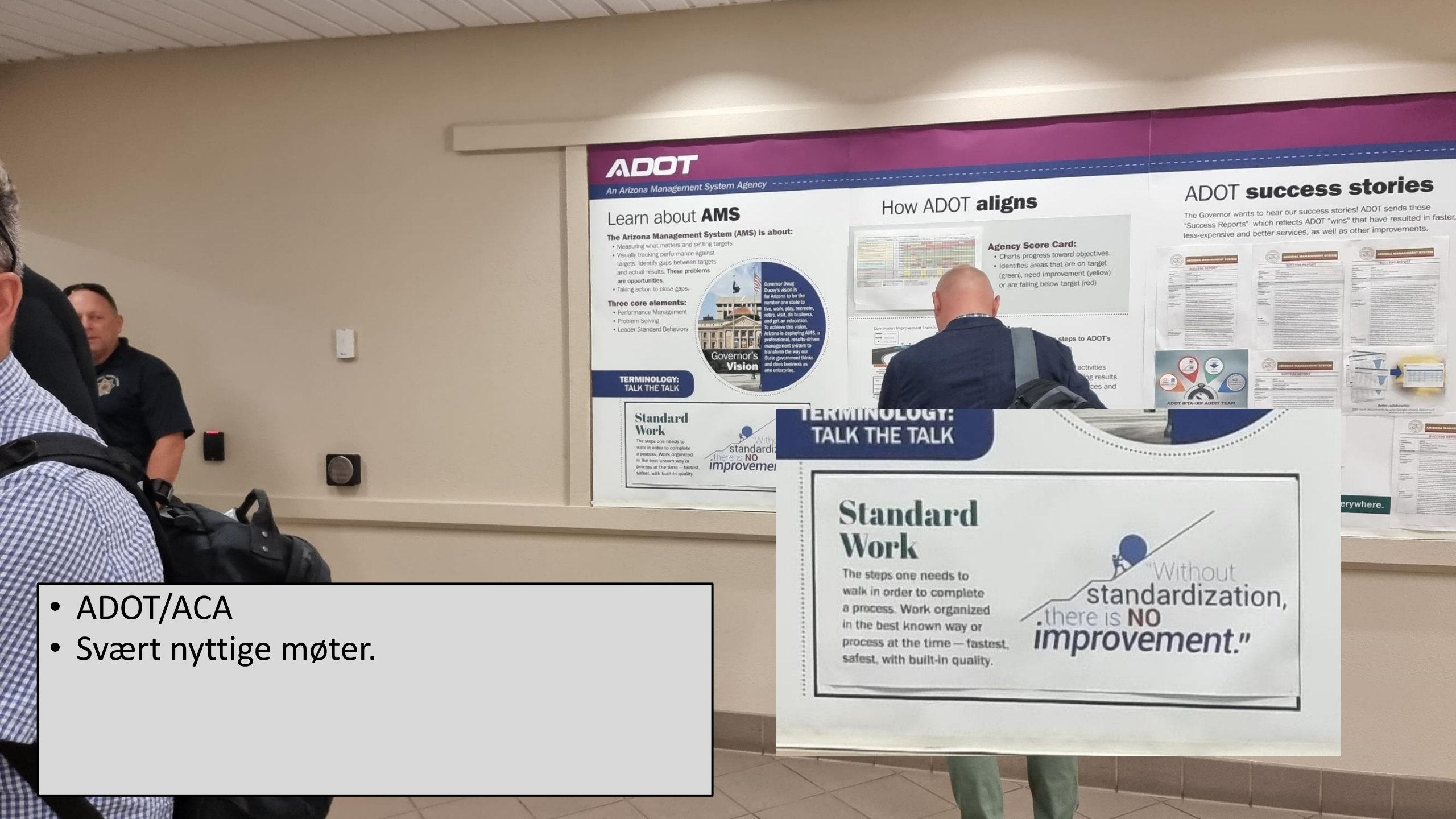
- Nyttig dialog med ESRI's strategier og rolle



VTS/Sjøtrafikksentral – Særlig vedrørende ankringsområder



- Nyttig kontakt og nyttig erfaringsutveksling
- Kongsberg systemer som Kystverket også benytter



- ADOT/ACA
- Svært nyttige møter.

Offentlige kartdata vs Private kartdata

Utfordrende når det blir mye tilgjengelig fra andre kilder enn det offentlige!

Relevante problemstillinger også for sjøveien, lostjenesten, sjøtrafikksentraltjenesten

'Cruise'

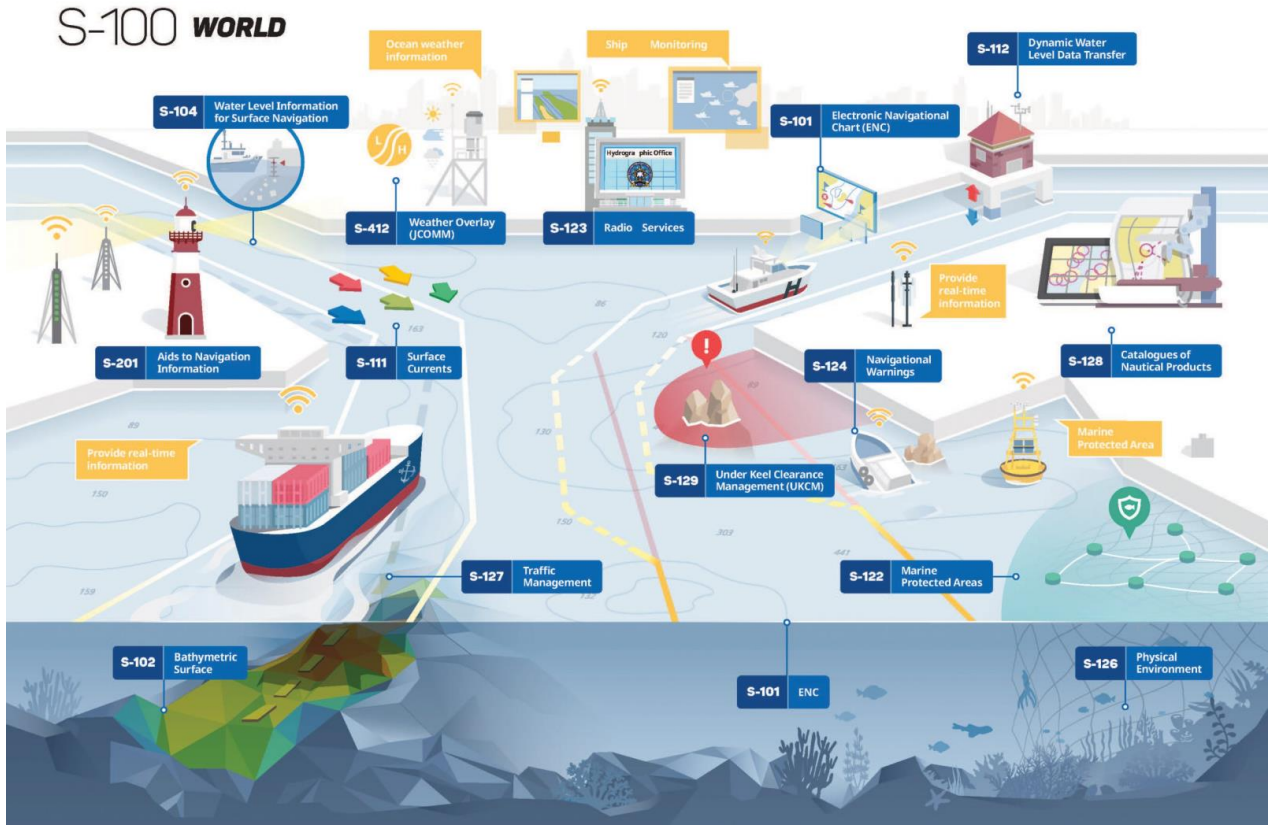
ITS / autonomi teknologi

Stor forskjell i teknologi, selv om mange av teknologiene er parallelle. Autonomi. ReachSubsea. Asko (ROC – Remote Operation Center?).

- Cruise-

Reach Subsea / Kongsberg Maritime

The way forward



- Norway is therefore joining initiatives on the establishment of standards on maritime ITS which are based both in IMO, IHO, IALA, IEC and others.
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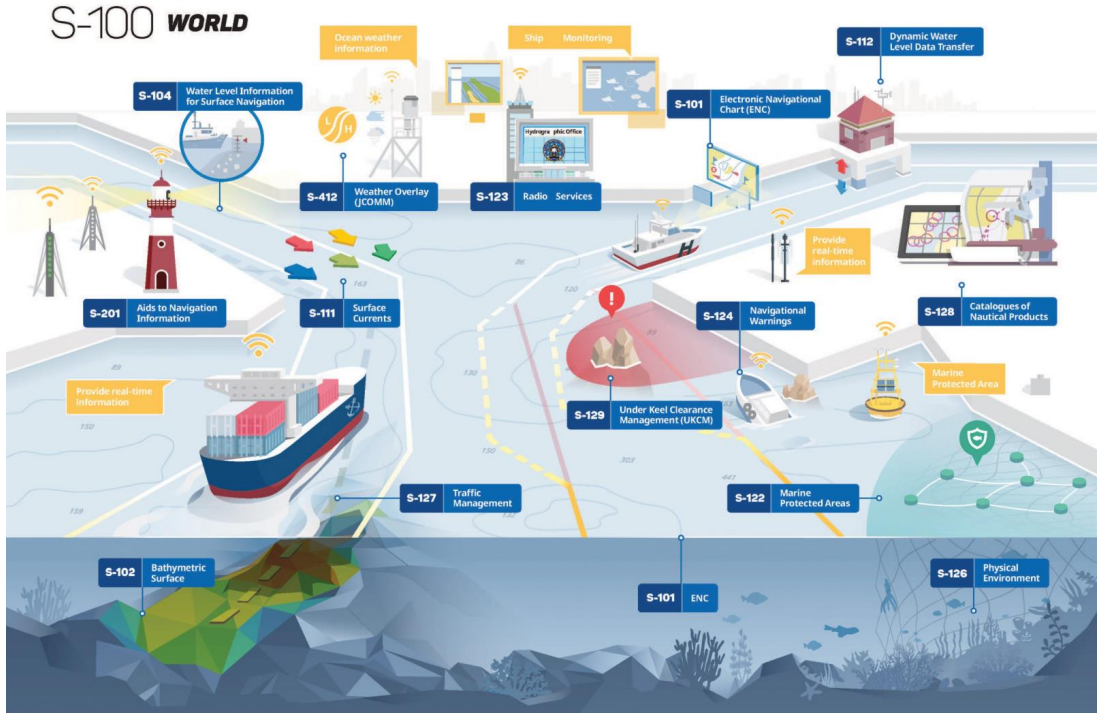
Thank you!

Please take contact if there are any common interests

John Morten Klingsheim
jmk@kystverket.no
Phone +47 911 32 002

Access quality assured routes and important route information



- The service on **reference routes for navigation** which the Norwegian Coastal Administration offers for free is based on the framework for digitalisation from IMO - The International Maritime Organisation (www.imo.org), and particularly the standard for exchange of routes defined in IEC 61174:2015, further developed in IEC 63173-1:2021 '**route plan**'.

length 382 meter, width 124 meter

length 101 meter, width 17 meter

- The routes shall assist the navigator without taking away his need of adjusting his route according to his vessel.