EFFICIENSEA 2.0 GETTING CONNECTED

EfficienSea2 – half way there

Highlights from the Efficiensea2 project

01/02/2017

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EFFICIENSEA
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Today

EFFICIENSEA 2.0 GETTING CONNECTED

The connected future

Four stepping stones

PRESENT

Standardised end user serices

Platforms for services

Communication channels

The Maritime Cloud

FUTURE

EFFICIENSEA 2.0 GETTING CONNECTED

Front runners, experts and money

EfficienSea
Efficient, Safe and Sustainable Traffic at Sea

MONA LISA 2.0 SECURING THE CHAIN BY INTELLIGENCE AT SEA

ACCSEAS

MONA LISA MOTORWAYS & ELECTRONIC NAVIGATION BY INTELLIGENCE AT SEA

Danish Maritime Authority

Danish Geodata Agency

DMI Danish Meteorological Institute

Instytut Łączności Państwowy Instytut Badawczy

Swedish Maritime Administration

CHALMERS

University of Copenhagen Department of Computer Science

OFFIS

BIMCO

CIRM

IALA

FORCE TECHNOLOGY

CLS Collecte Localisation Satellites

danelec marine

FREQUENTIS

LITEHAUZ Maritime Environmental Consultancy

WÄRTSILÄ

MARSEC

rocket brothers

VISSIM

United Kingdom Hydrographic Office

GateHouse

TRANSAS

LJA

COBHAM

DTU Technical University of Denmark

FURUNO

Urząd Morski w Gdyni

SSPA

The Transport Innovation Network

Liikennevirasto Finnish Transport Agency

3 years

€11,5 M

32 partners

Baltic/Arctic

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Navigational Warnings
- inefficient information exchange

DMA
SMA

DMA

DMA
NW
SMA

SMA

DMA
NW
NW
NW
NW
MF frequency
band 518Hz
SMA

DMA
NW
MF frequency
band 518Hz
NW
SMA
NW

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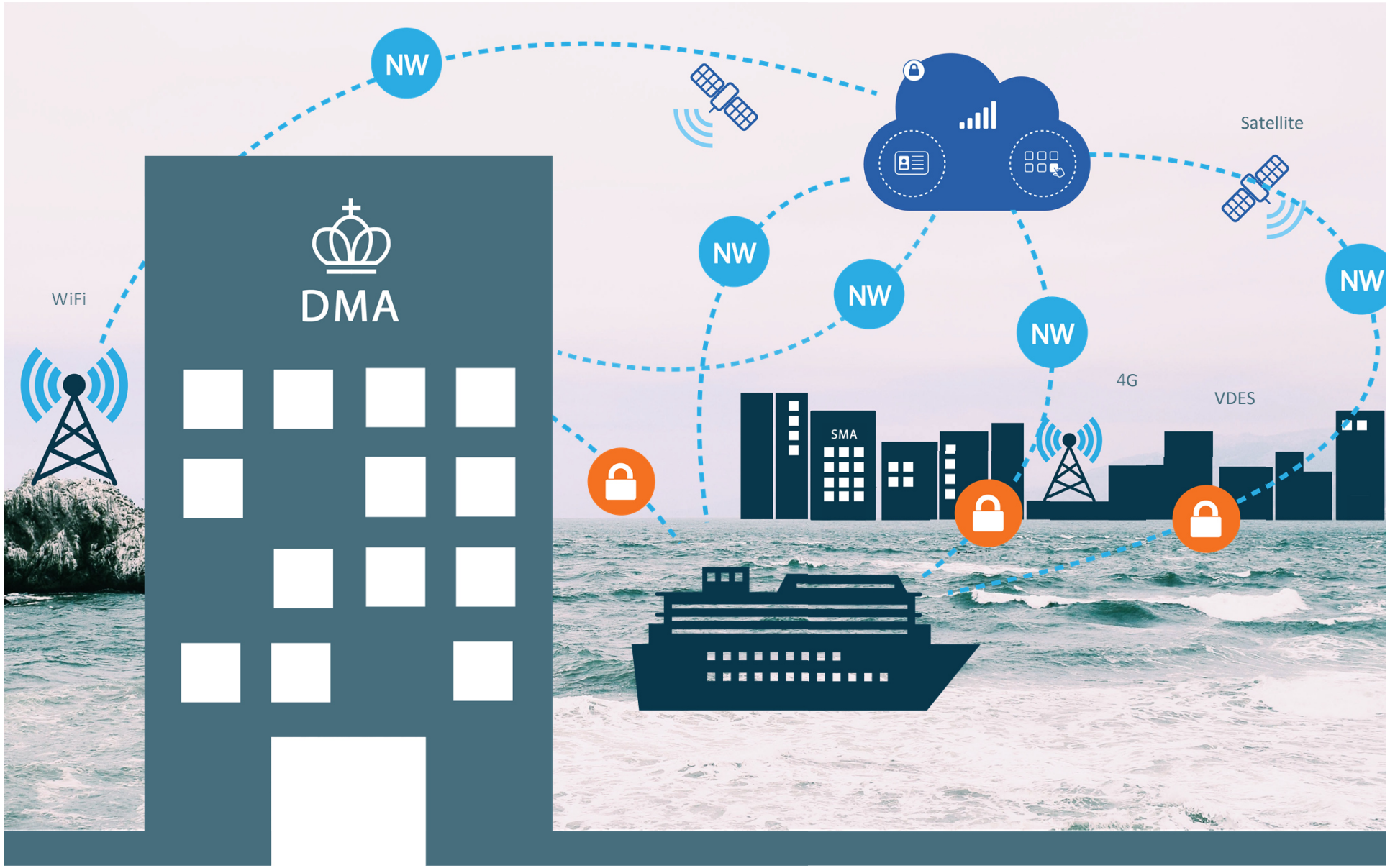
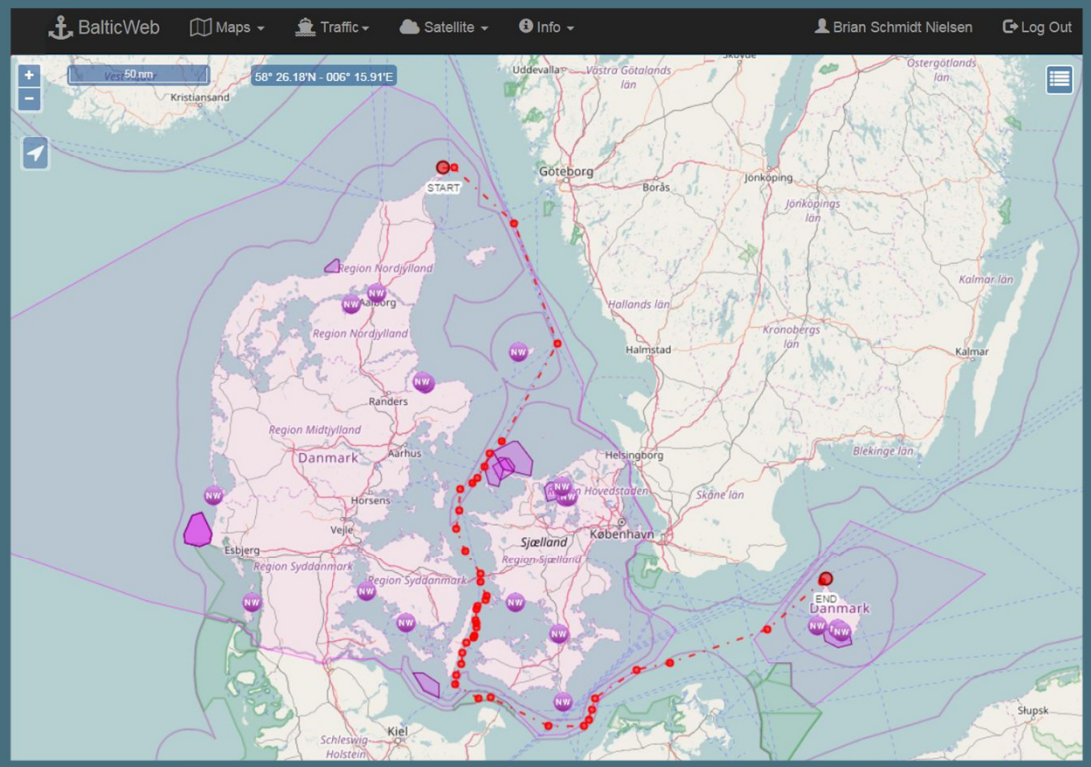
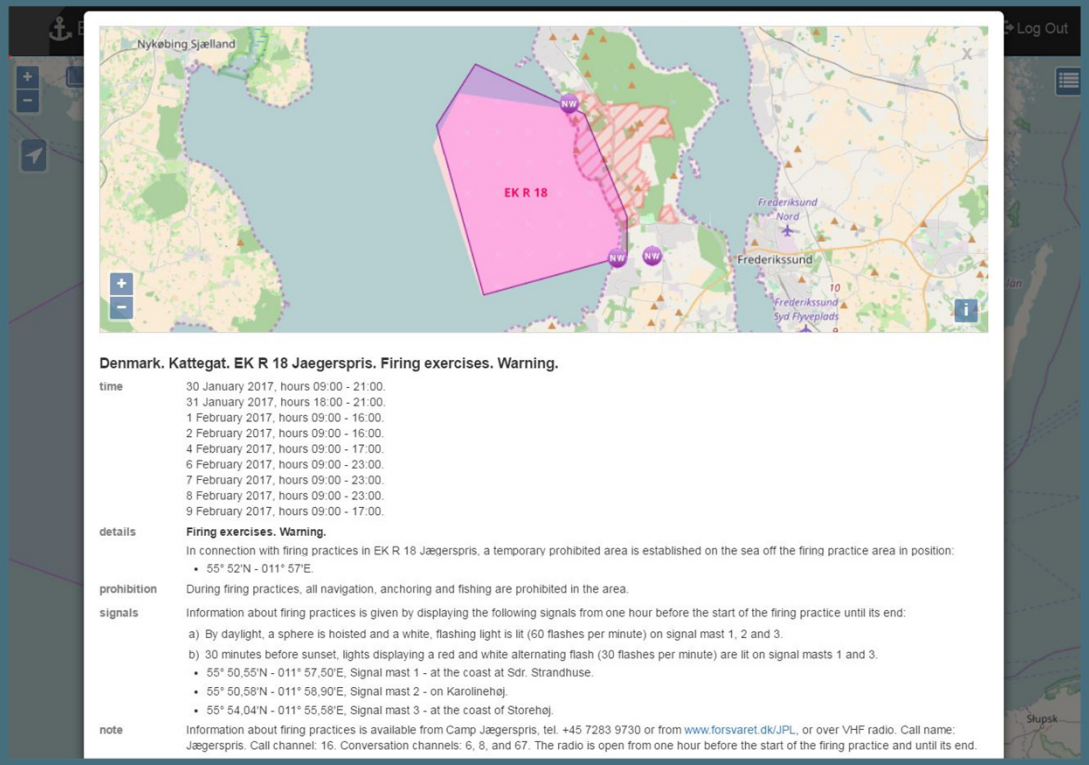
Navigational Warnings in the near future with Niord, S-124, BalticWeb, and the Maritime Cloud

– safe and efficient business

Niord
Done


NW
NW
NW
NW
NW
Satellite
WiFi
DMA
SMA
4G
VDES


BalticWeb
Maps
Traffic
Satellite
Info
Brian Schmidt Nielsen
Log Out
50 nm
58° 26.18'N - 006° 15.91'E
Kristiansand
START
Göteborg
Borås
Jönköping
Region Nordjylland
Aalborg
Hallands län
Halmstad
Kronobergs län
Kalmar
Randers
Region Midtjylland
Danmark
Aarhus
Helsingborg
Blekinge län
Skåne län
Horsens
Vejle
Esbjerg
Sjælland
København
Region Syddanmark
Region Sjælland
END
Danmark
Kiel
Schleswig-Holstein
Słupsk



Denmark. Kattegat. EK R 18 Jaegerspris. Firing exercises. Warning.

time

30 January 2017, hours 09:00 - 21:00.
31 January 2017, hours 18:00 - 21:00.
1 February 2017, hours 09:00 - 16:00.
2 February 2017, hours 09:00 - 16:00.
4 February 2017, hours 09:00 - 17:00.
6 February 2017, hours 09:00 - 23:00.
7 February 2017, hours 09:00 - 23:00.
8 February 2017, hours 09:00 - 23:00.
9 February 2017, hours 09:00 - 17:00.

details

Firing exercises. Warning.

In connection with firing practices in EK R 18 Jægerspris, a temporary prohibited area is established on the sea off the firing practice area in position:

- 55° 52'N - 011° 57'E.

prohibition

During firing practices, all navigation, anchoring and fishing are prohibited in the area.

signals

Information about firing practices is given by displaying the following signals from one hour before the start of the firing practice until its end:

a) By daylight, a sphere is hoisted and a white, flashing light is lit (60 flashes per minute) on signal mast 1, 2 and 3.

b) 30 minutes before sunset, lights displaying a red and white alternating flash (30 flashes per minute) are lit on signal masts 1 and 3.

- 55° 50,55'N - 011° 57,50'E, Signal mast 1 - at the coast at Sdr. Strandhuse.
- 55° 50,58'N - 011° 58,90'E, Signal mast 2 - on Karolinehøj.
- 55° 54,04'N - 011° 55,58'E, Signal mast 3 - at the coast of Storehøj.

note

Information about firing practices is available from Camp Jægerspris, tel. +45 7283 9730 or from www.forsvaret.dk/JPL, or over VHF radio. Call name: Jægerspris. Call channel: 16. Conversation channels: 6, 8, and 67. The radio is open from one hour before the start of the firing practice and until its end.

Going for global impact

The global standard S-124

- IHO
- Test this year

Registered in Maritime Cloud

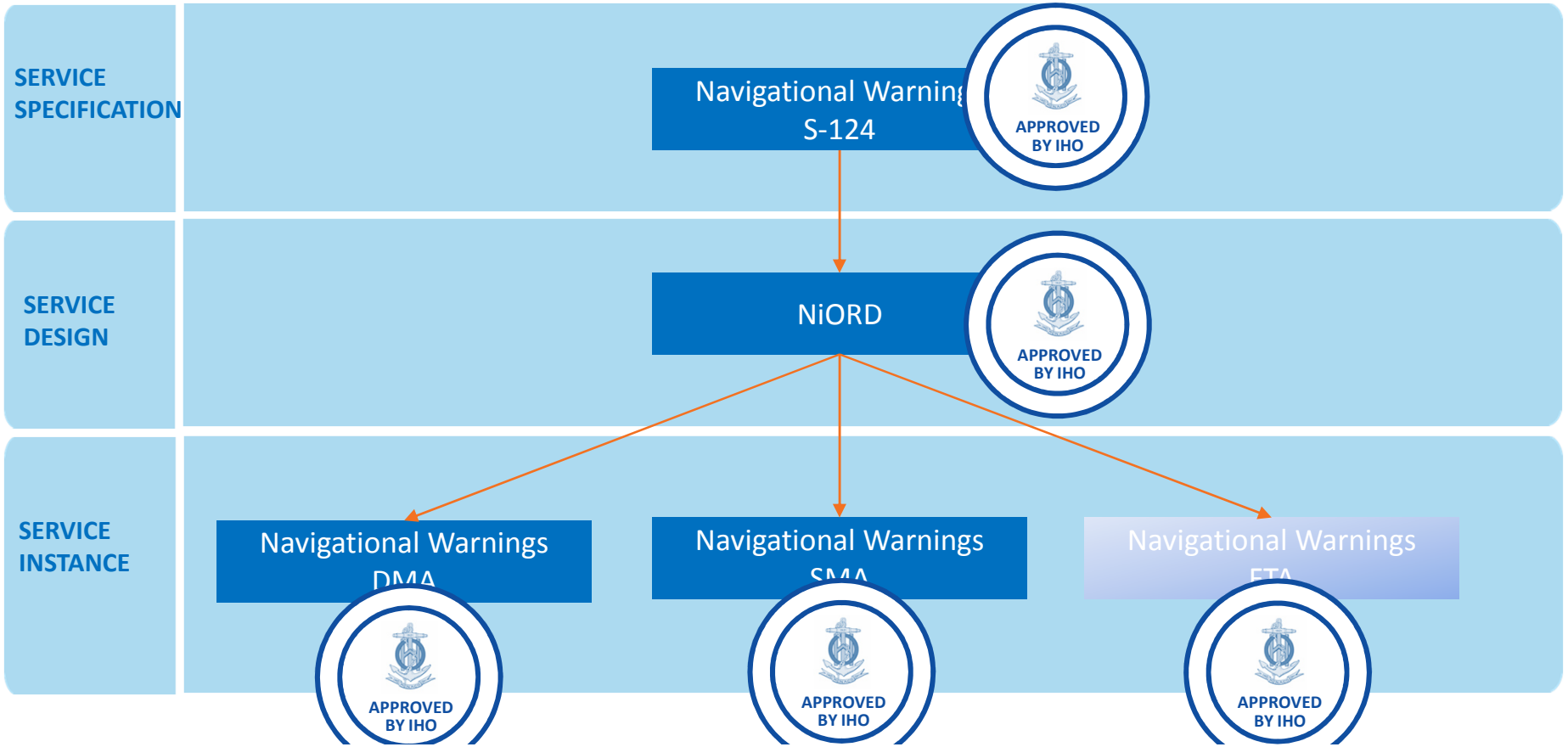
- Described on three levels

Endorsements in Maritime Cloud

Niord – navigational warnings editor

- Open source
- User friendly
- Free of charge

Maritime Cloud Service Registry



User benefits

Mariners

- Better service quality
- Less manual work

> Increased safety and less accidents

Ship owners

- Increased safety – lower insurance fee
- Lowering administrative burden on board
- Less equipment – (in time)

> Safety, Save time and money

User benefits

Authority/ Service providers

- More efficient distribution of navigational warnings
- More efficient internal workflow
- Niord - Easy and cheap to update to new standard

> Save resources and increased safety at sea

Equipment manufacturers

- Better product quality, - 100% coverage
- Lower integration costs – everyone follow same standard
- One access point for all global providers

> Better product, lower cost

Project scope

End user services – smart navigation and administration

Platforms for services – web and onboard equipment

Communication framework – The Maritime Cloud

Communication channels – smart roaming and VDES

15 end user services

Navigation

- Navigational Warnings and Notices to Mariners
- Weather on Route
- Nautical Charts based on S100 Standards
- Smart Buoy Interaction
- Route Optimisation
- Ice Charts
- Crowd Sourcing of Ice Information
- Route Exchange
- No-go Areas and Comfort Zones

Arctic

- Arctic Live Position Sharing
- Arctic SAR Tool
- Space Weather Forecast

Administration

- Automated VTS/SRS reporting
- Automated exchange of port information

Emissions

- Sulphur emission monitoring

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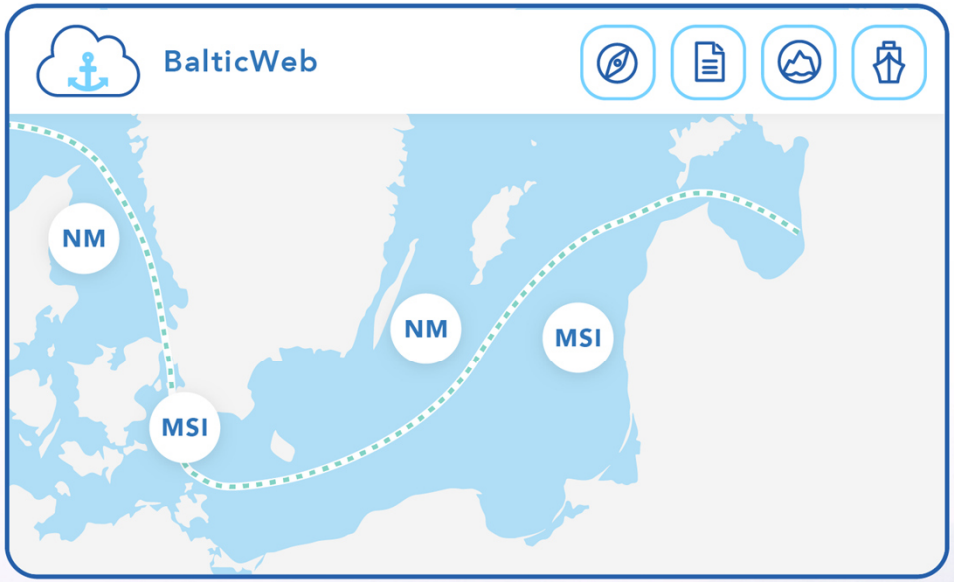
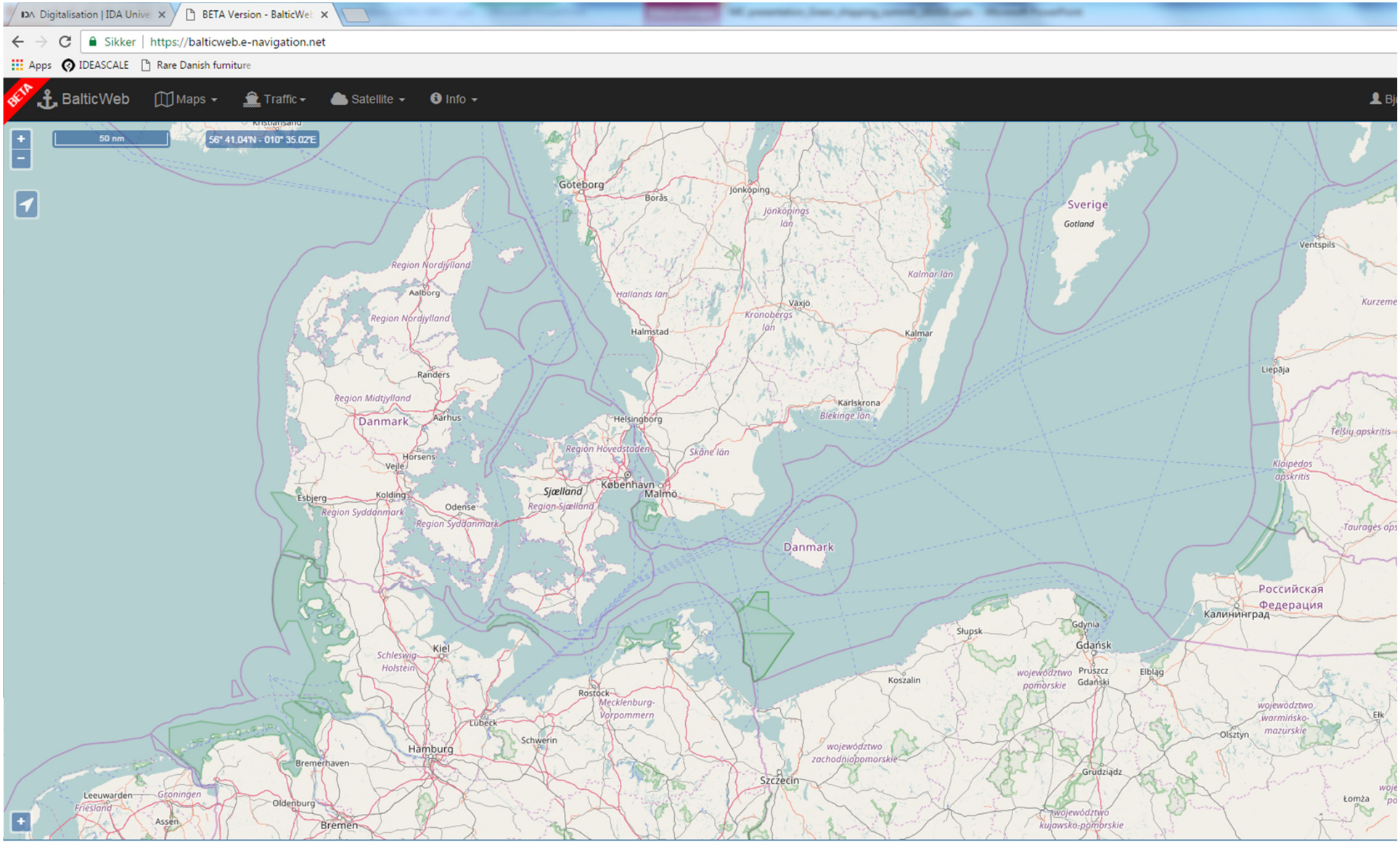
Enabled by THE MARITIME CLOUD

Platforms for services




Digitalisation | IDA Unive
BETA Version - BalticWe
Sikker
https://balticweb.e-navigation.net
Apps
IDEASCALE
Rare Danish furniture
BETA
BalticWeb
Maps
Traffic
Satellite
Info
50 nm
56° 41.041'N - 010° 35.021'E
Göteborg
Borås
Jönköping
Jönköpings län
Sverige
Gotland
Ventspils
Region Nordjylland
Aalborg
Hallands län
Växjö
Kronobergs län
Kalmar län
Halmstad
Kalmar
Randers
Liepāja
Region Midtjylland
Danmark
Aarhus
Karlskrona
Blekinge län
Helsingborg
Region Hovedstaden
Skåne län
Horsens
Vejle
København
Malmö
Sjælland
Region Sjælland
Esbjerg
Kolding
Odense
Region Syddanmark
Danmark
Российская Федерация
Калининград
Słupsk
Gdynia
Gdańsk
województwo pomorskie
Pruszcz Gdański
Elbląg
Koszalin
Kiel
Schleswig-Holstein
Rostock
Mecklenburg-Vorpommern
Lübeck
Schwerin
Hamburg
Bremerhaven
województwo zachodniopomorskie
Olsztyn
Ełk
województwo warmińsko-mazurskie
Grudziądz
Szczecin
Leeuwarden
Friesland
Groningen
Oldenburg
Assen
Bremen
województwo kujawsko-pomorskie
Łomża

10 services operational on BalticWeb

2016	2017	2018
Navigational Warnings and Notices to Mariners	Optimised route demonstrated on BalticWeb	Sulphur emission monitoring
	Meteorological Information on Route	Route sharing ship to shore
	Nautical Charts based on S100 Standards	Information sharing between VTS/SRS
	Smart Buoy Interaction	Service for efficient SAR operations
	Ice Charts	

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The Maritime Cloud

Midterm feedback on Maritime Cloud

- Speed up
- Lower entry barriers
- Clear up business models incl governance
- --> Task force
- Business models for the whole ecosystem

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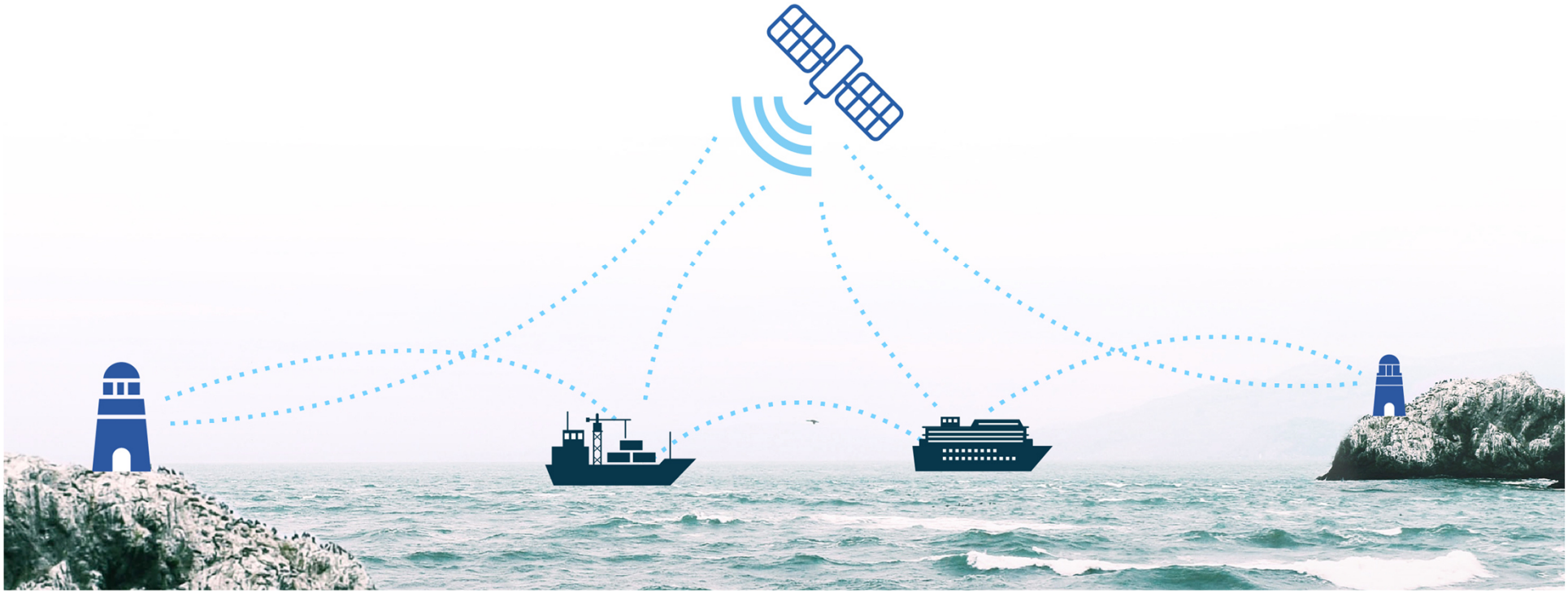
Communication channels



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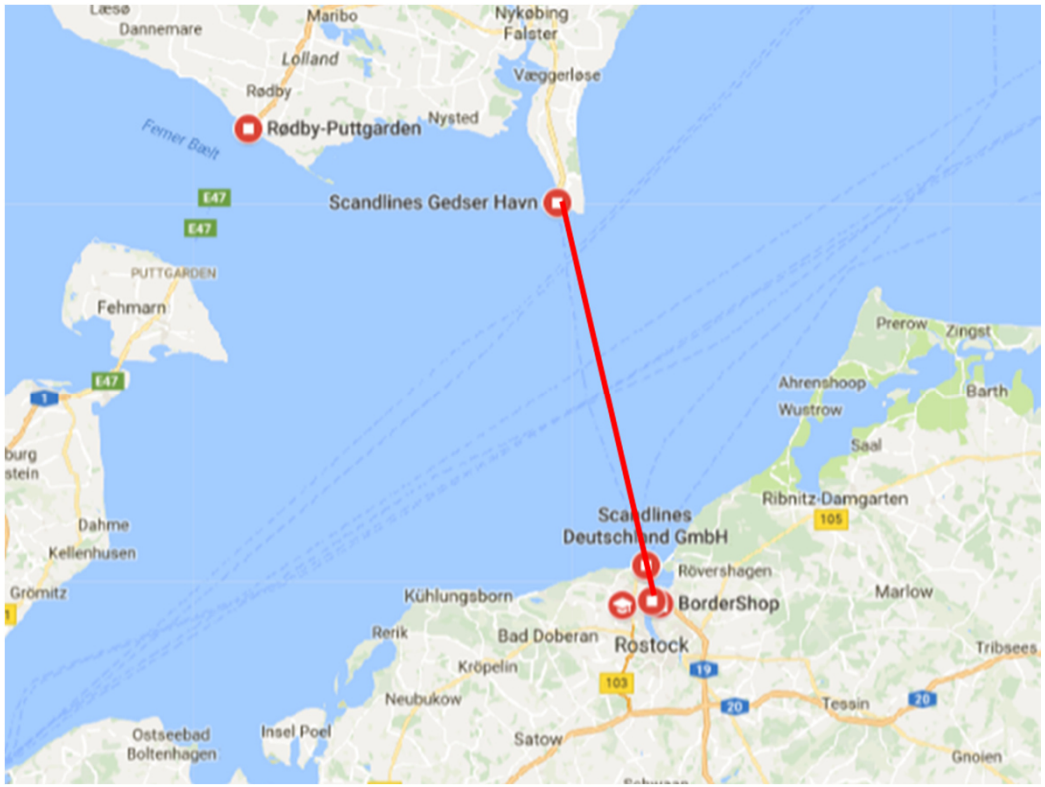
VDES Sea trials



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GETTING CONNECTED FOR EFFICIENT, SAFE AND SUSTAINABLE TRAFFIC AT SEA

Thank you!

- Visit our exhibition for more info or go to:
- http://efficiensea2.org/
- http://balticweb.e-navigation.net/
- http://maritimecloud.net/