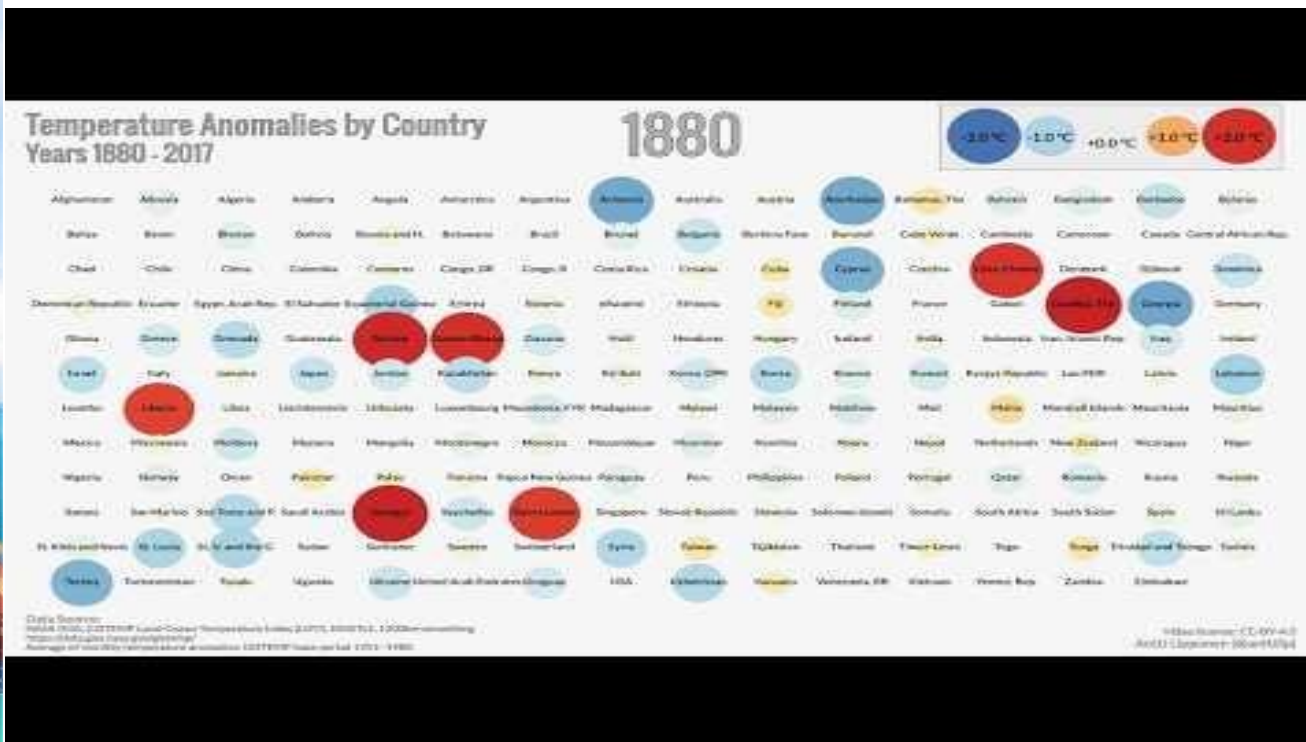




# HOW THE SHIPPING INDUSTRY BENEFITS FROM STM

## CAJSA JERSLER FRANSSON, SWEDISH MARITIME ADMINISTRATION

# CLIMATE CHANGE



- 2016 warmest year on record since 1880
- 2017 fastest Arctic sea ice melt down
- Sea level increases at a rate of 3.4 mm/year, the highest in 2,000 years
- 21.5 million people displaced since 2008 due to climate change
- Earth's yearly resources are progressively consumed early (October in 2001, August in 2017).

Credits: Antti Lipponen. Temperature Anomalies by Country 1880-2017 based on NASA GISTEMP data

CARBON DIOXIDE	GLOBAL TEMPERATURE	ARCTIC ICE MINIMUM	ICE SHEETS
↑ 409 parts per million	↑ 1.8 °F since 1880	↓ 12.8 percent per decade	↓ 413 Gigatonnes per year



# WHAT ARE WE GOING TO DO?

**IMO: Reduce the total annual GHG emissions by at least **50%** by 2050 compared to 2008**

# Ships and Ports Need to be Connected!

Enabling connectivity to hinterland for sustainable transport systems



Enabling connectivity to hinterland for sustainable transport systems

## **Connected ports** (origin)



Port call optimization

## **Connected ships**



Port call synchronization

## **Connected ports** (destination)



Port call optimization

Port-to-port collaboration (optimization and synchronization)

# What is STM? –The enabler

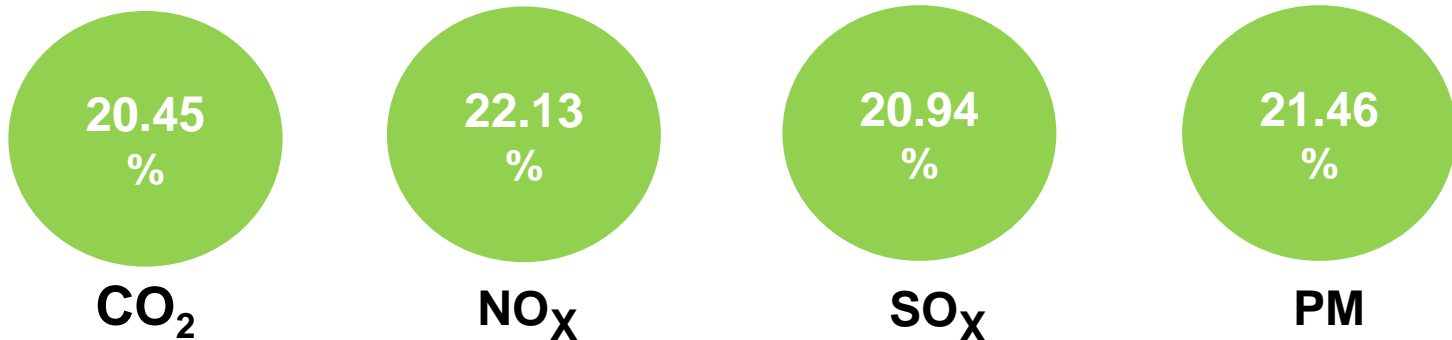
Enable efficient **exchange of information** between maritime stakeholders through **common standards**.

A **decentralized** service ecosystem for ships, ports and authorities.

**Enabling** third-parties providing service **innovations**

**Secure** and **authenticated** access to **authorized** parties.

## SCENARIO 3 Port Call Synchronization (fully) + Port Call Optimisation (fully)



\*% Reduction compared to 2018 values



# STM – just-in-time

## Ternsund

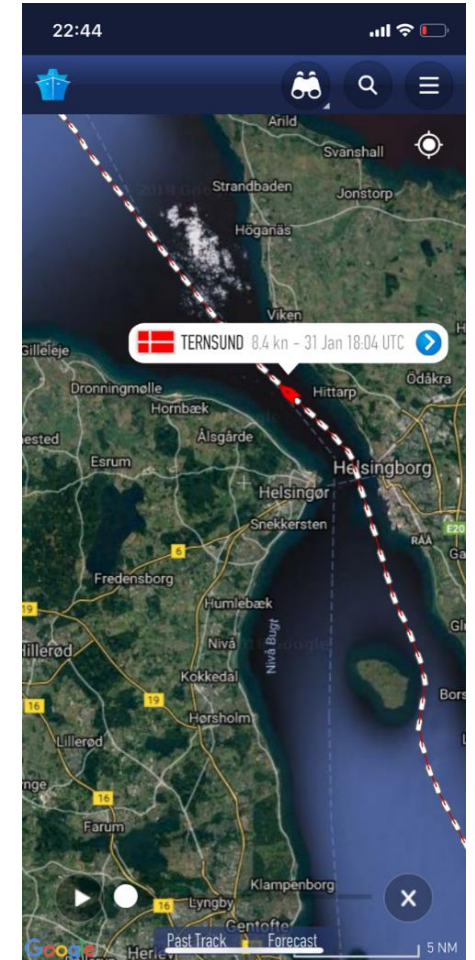
- To Gothenburg oil products
- 12 knots
- ETA 03.00

## Gothenburg

- Terminal ready earliest 12.00

## Ternsund (just south of Sweden)

- Reduces speed to 8 knots
- Arriving at 08.00
- 1,5 tonnes saved fuel = \$1 000



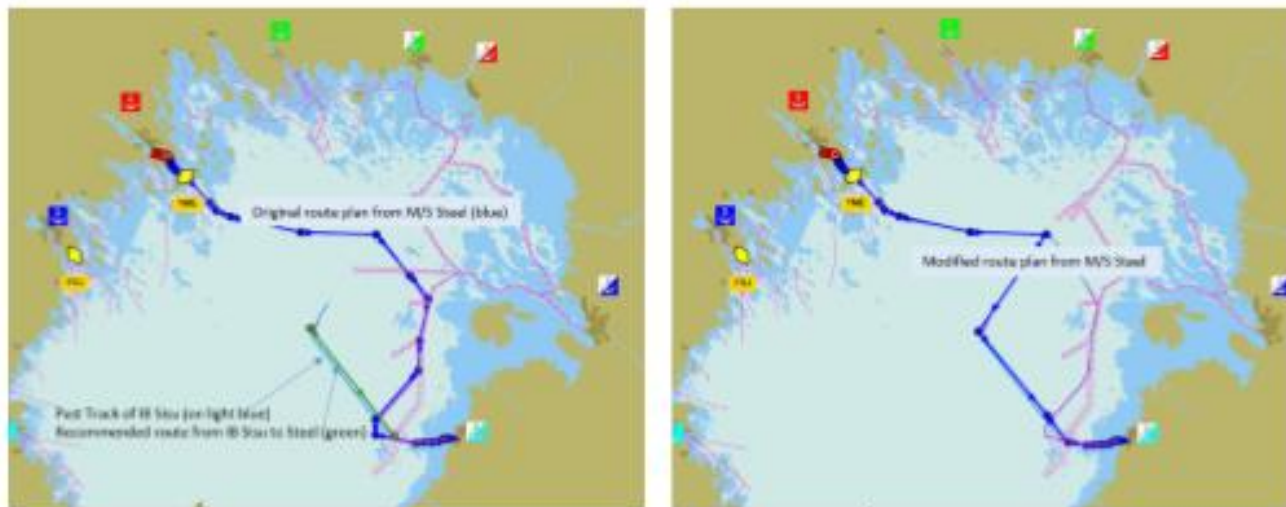


Figure 15. Example of route exchange between M/S Steel and Winter Navigation Service. The routes are displayed in the icebreaker coordination system IBNET

# STM and winter navigation





# Enhanced monitoring at it's best

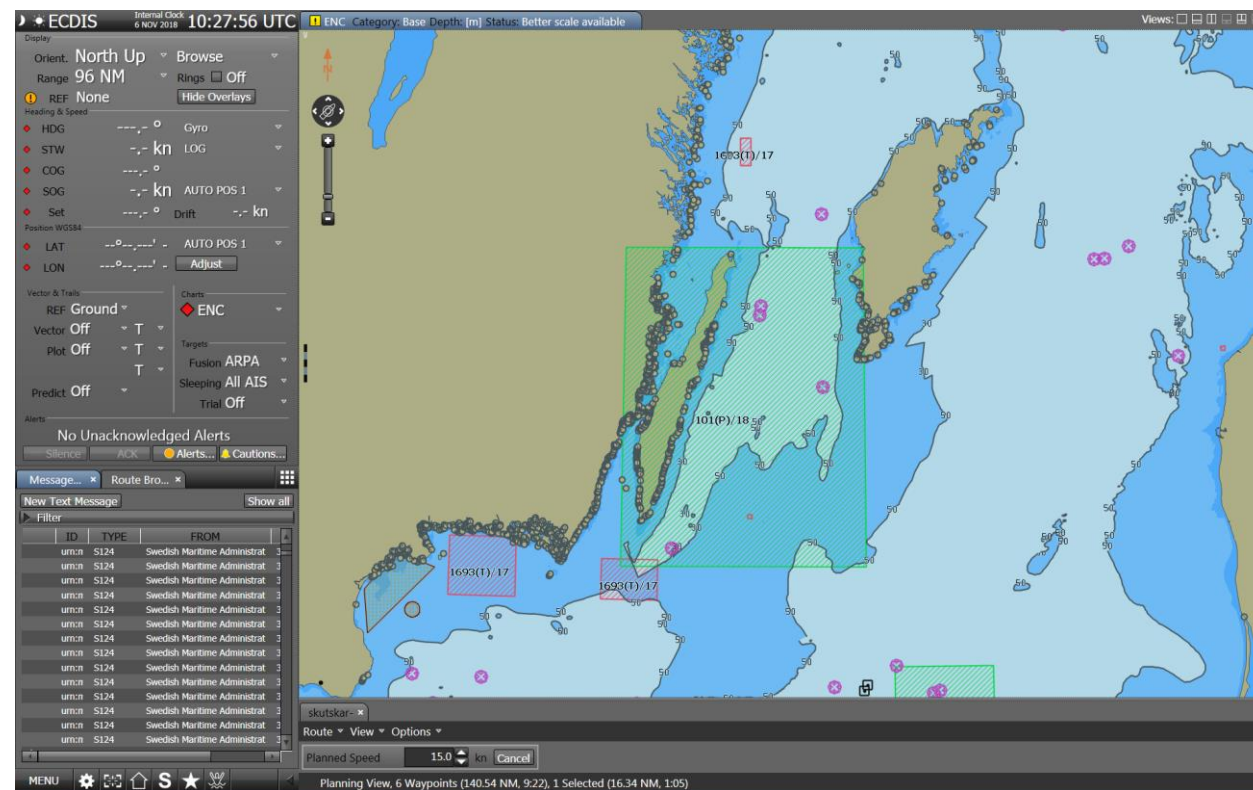
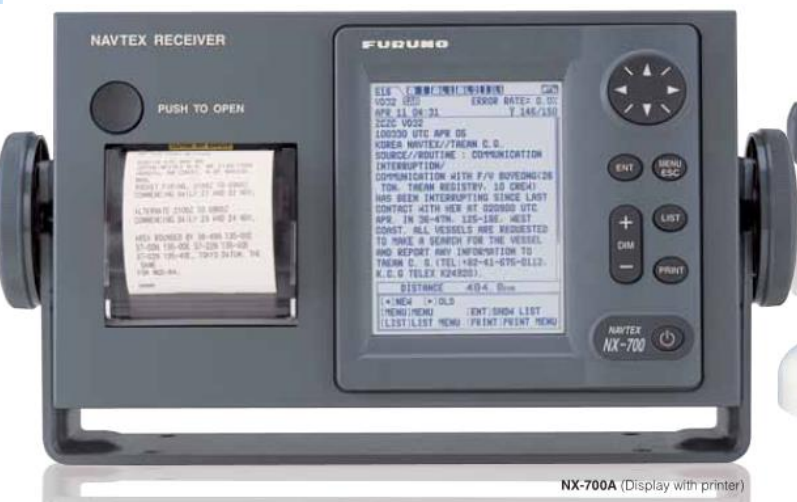


# STM in SAR





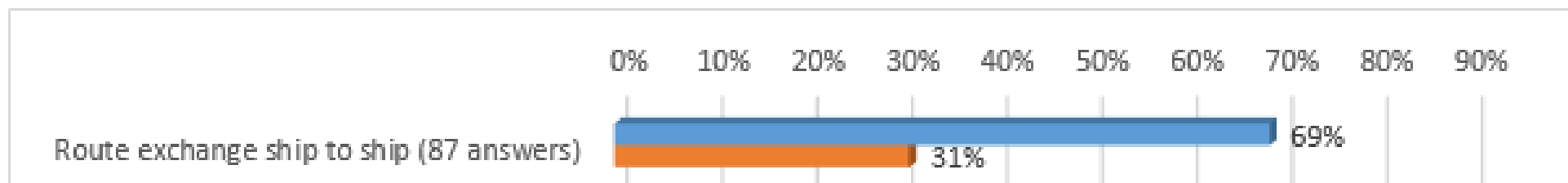
# Navtex verses STM





# STM avoiding close quater situations

Did this service make you feel more safe?









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**Thanks!**