



SEAFAR



Who is Seafar



Who we are

- Belgian (Antwerp based) technology & operations company
- Pioneer in **remote-controlled and remote-assisted inland navigation**
- Operating a **Remote Operations Centre (ROC)** with real vessels under commercial pressure
- **Ghazaleh Kia** (PhD): R&D project manager
- **Nancy Scheijven** : Strategic business Director

What we do

- Enable vessels to be operated **remotely and more efficiently**
- Combine **technology, trained operators, and operational procedures**
- Support shipowners in addressing **crew shortages and cost pressure**

Proof points

- **25,000+ operational hours** in real conditions
- **55+ vessels equipped**, representing ~500 ships in owner fleets
- Active across **multiple European waterways (incl. Rhine corridor)**

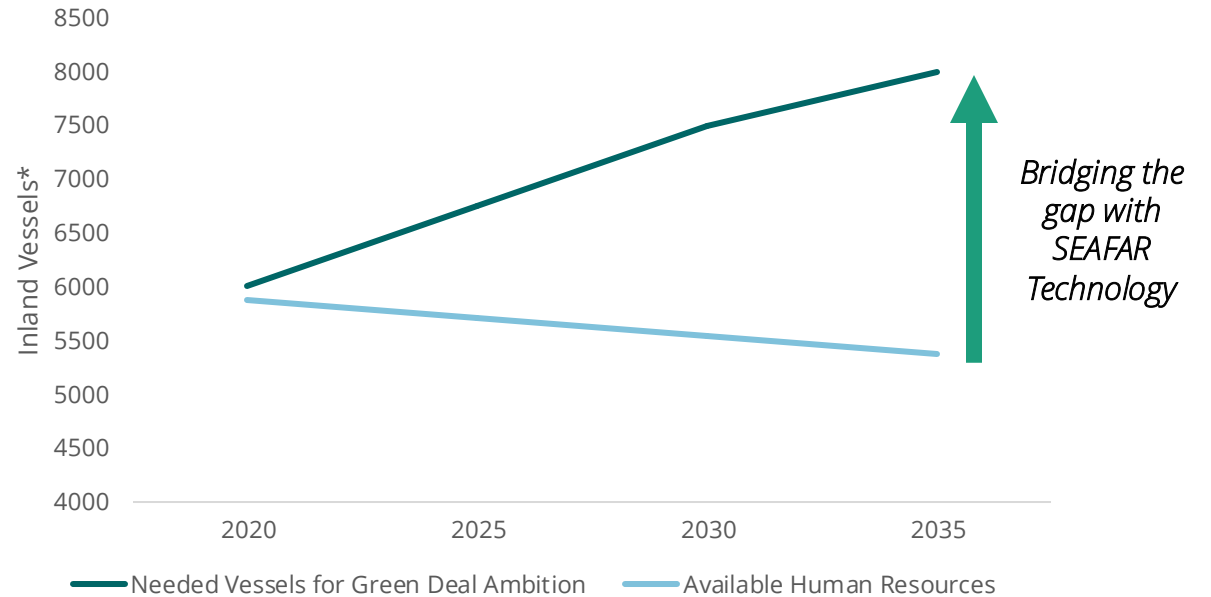
Vision



Our vision is to centralise and optimise workforce via remote operations.

The ambition of the EU Green deals states a 25% increase of waterborne logistics by 2030 and 50% by 2050. However, each year the number of available workforce is decreasing. Technology can bring a solutions to bridge the gap between ambition and reality:

- ▶ Enhancing **competitiveness** of waterborne transport
- ▶ Reducing **operational costs** via onboard crew reduction
- ▶ Strengthen the **business case** to increase **green** investments
- ▶ Centralise operators and increase efficiency and safety

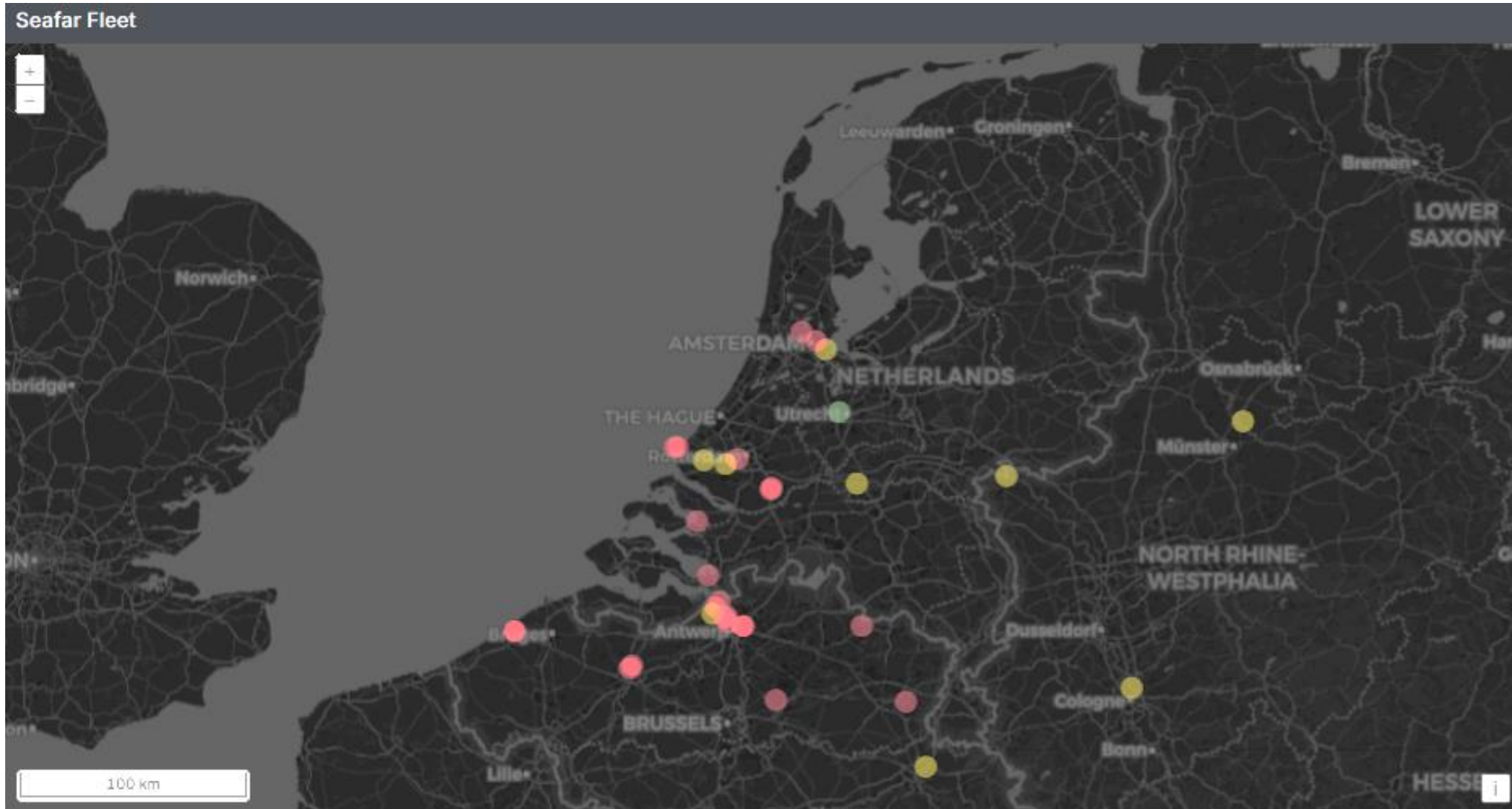


Remote Operations is More Than Technology



We are not scaling technology — we are scaling an operating model

Remote Operations and Logistics



Regulatory



Regulatory Tension / variety (per authority)

Built for onboard presence

No ROC / RCC framework

Unclear liability models



This is not one regulator –
this is a system of regulators

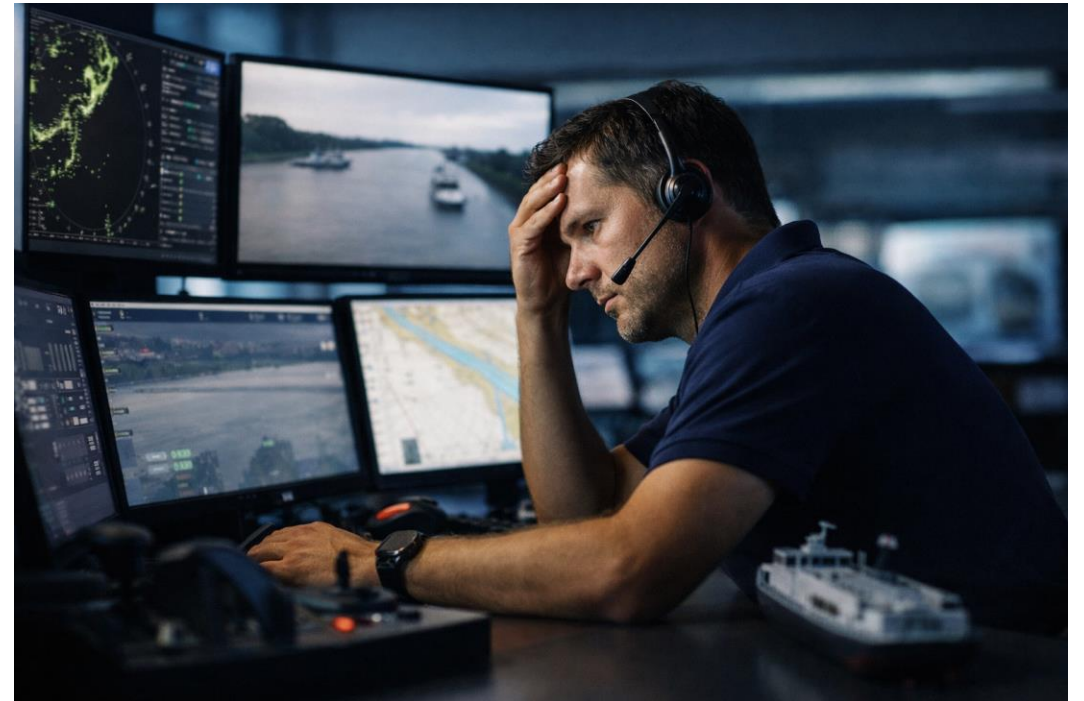
Human

Human Shift

From captain → remote operator

Single vessel → multi-vessel

New skills: awareness, decision-making



The technology behind Seafar



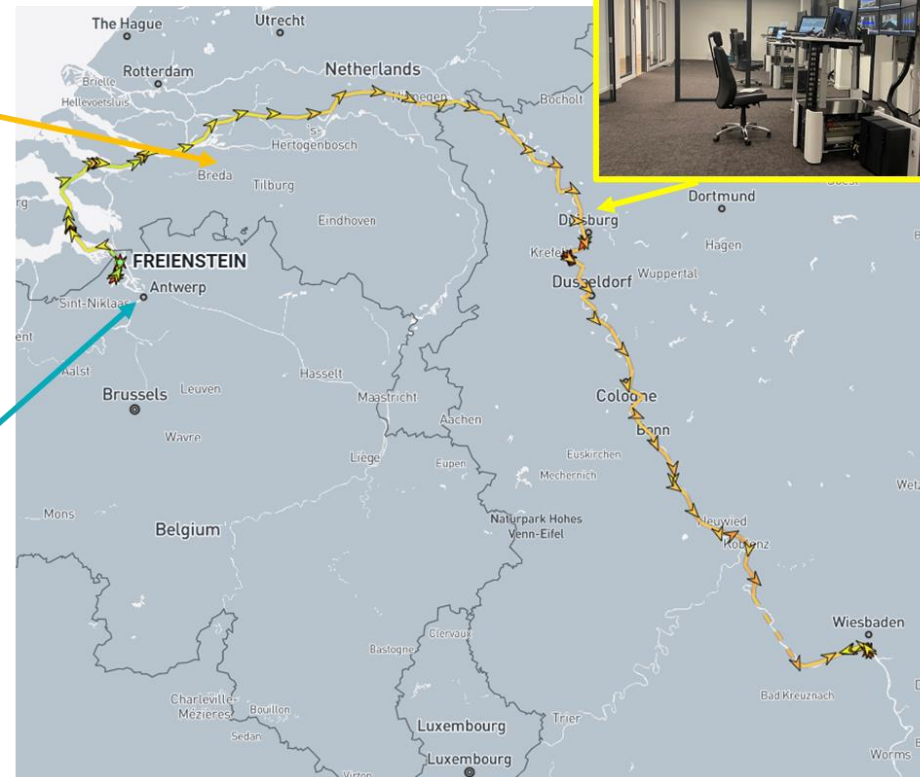
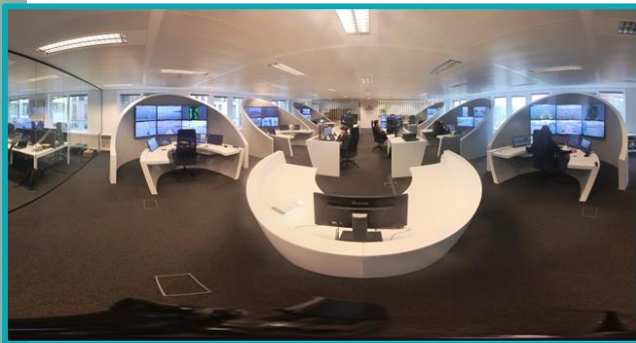
Seafar enables automated, sustainable waterborne logistics by combining the skills of remote operators with autonomous technologies

SEAFAR SOLUTION

Platform technology connecting captains and vessels into one digital network via Remote Operations Centers (ROCs) to enable captains to operate vessels from shore

Advantages

- Sustainable shore-based jobs
- Attracts younger talent to inland shipping
- Promotes diversity and inclusivity



PERFORMANT CREWING

Seafar technology allowing to reduce crew on board, optimizing crew structures

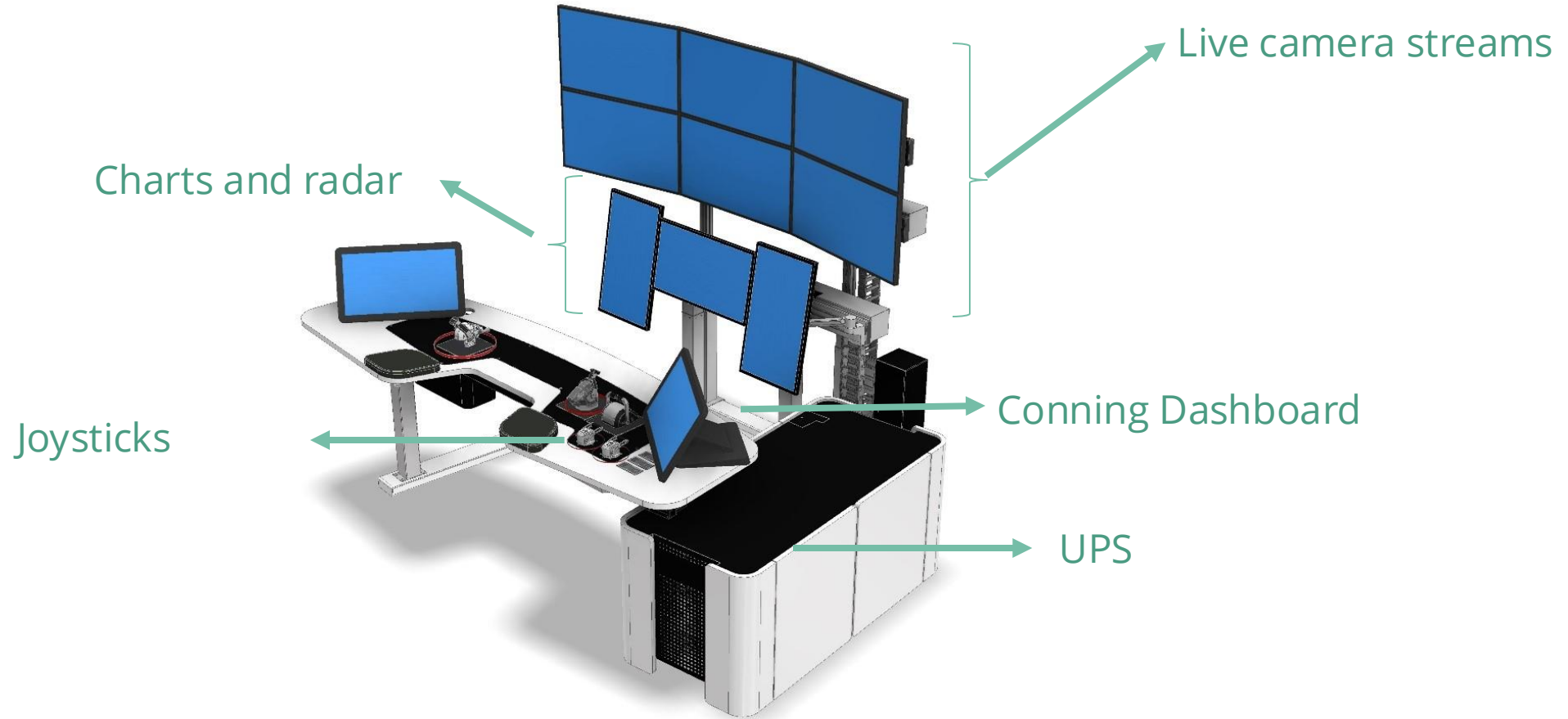
- Solves crew shortage
- Strengthens the business case for inland shipping
- Unlocks investment capacity for green technologies
 - Driving the greenification of the sector in line with the Green Deal goals

High Level Solution Overview

The Technology Behind Seafar



Our Control Station

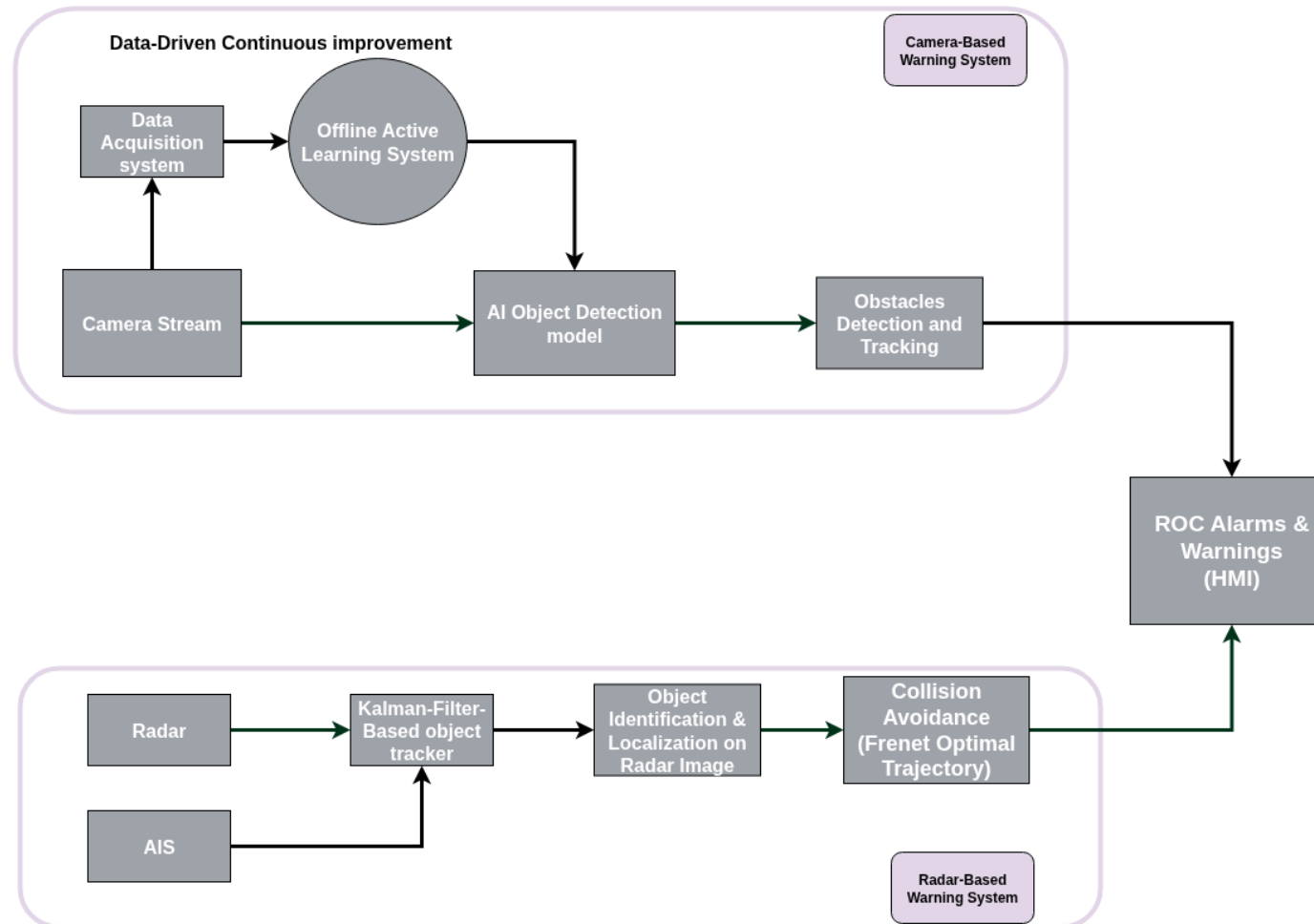


Importance of Situational Awareness



Our remote operator sailing remotely from Duisburg, Germany

Enhanced Situational Awareness



Seafar situational awareness system architecture design

Enhanced Situational Awareness



Detected vessels in front of the ego-vessel

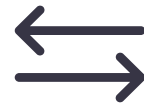
Applying the Technology to other Vehicles

LUSTA 5G



(A) Remote control station

Seafar Cloud



(B) Secure connectivity



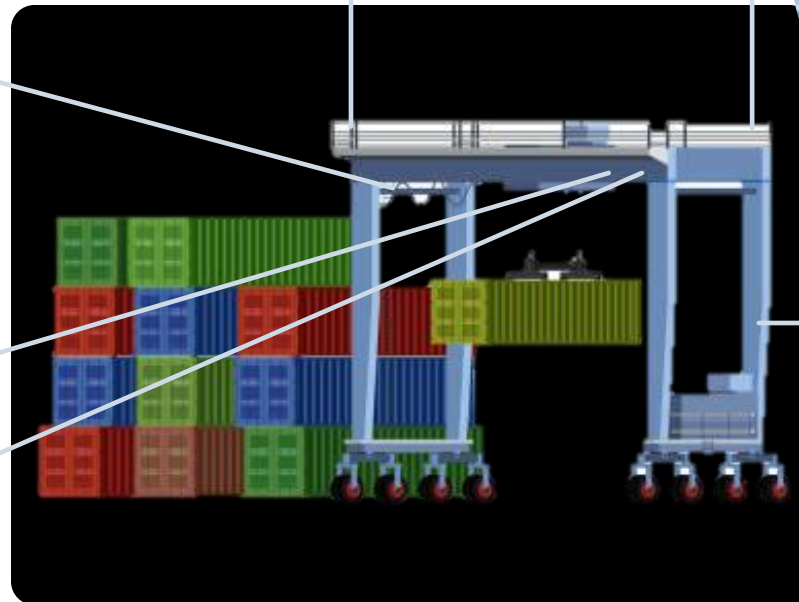
(C) Crane

Applying the Technology to other Vehicles

LUSTA 5G



cameras



5G domes

Vehicle control system



Applying the Technology to other Vehicles

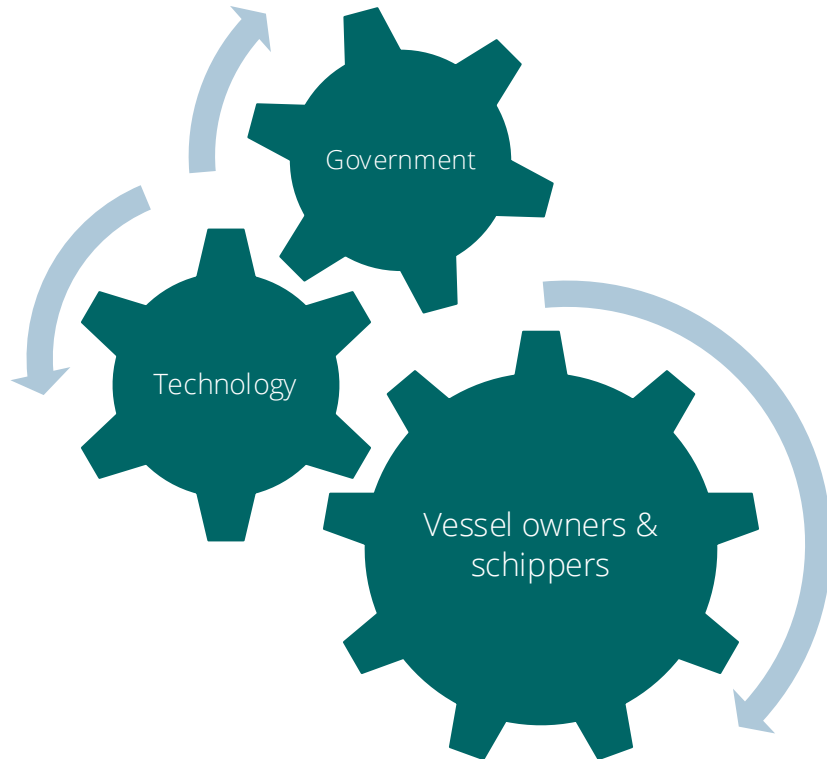
LUSTA 5G



- Vehicle control system
- Interfacing methodology
- Connectivity solution enabling data transfer



PARTNERSHIPS ARE THE KEY TO SUCCESS



PARTNERSHIPS

- Vessel owners and schippers
 - Invest
- Technology
 - Automate
- Government
 - Facilitate

Successful completion of a project requires seamless collaboration between all parties involved.

SEAFAR

The technology is supported by:



European
Innovation
Council



Seafar has a proven track record of collaboration with authorities, regulators, research institutions, and customers, driving progress through trust, compliance, and co-creation.

Any Questions?



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