



Remote Shipmanagement. A practical approach.

www.seafar.eu





SEAFAR Automated Shipping

SEAFAR develops technology to remotely operate automated barges and vessel for inland shipping.

Seafar offers services as a shipmanagement company, with a focus on crew management. Vessels are managed from a shore control center.

7 Vessels under management,
ranging from 38 to 110m

FOCUS

Inland Shipping

VESSELS

Unmanned: Vessels and barges of maximum 55m and 650 Ton

Reduced-crew vessels: Vessels up to 135m

PROBLEM

Personnel
OPEX

Shortage of personnel and high opex for small tonnage vessels call for a new approach



Seafar Control Center

From the shore control center, the captain navigate via direct control or automated control under supervision.

- Licensed captains trained by Seafar
- Cooperation with local personnel
- Captains working in shifts
- Cooperation with inland navigation schools



Navigation from SCC

Vessel control via Shore Control Station, all onboard functions available remotely.



Onboard technical crew

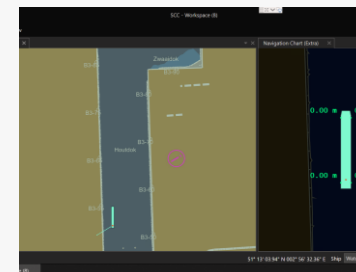
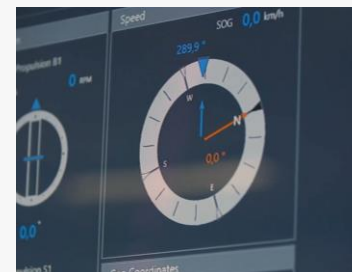
Onboard crew supports the remote captain for technical and safety purposes



Seafar Technology

Transform your navigational operation with command & control software reinforced by the latest A.I. Enhance scalability by allowing one operator to handle a fully automated haulage system.

Full automation is the final step in the upgrade path. Operators monitor vessels where Seafar's server-based command & control software handles tasking, path tracking, and critical vehicle functions.





SEAFAR



Technology as toolbox for the remote captain and supporting personnel.

Environmental sensors such as LiDAR, radar, and cameras produce data used in obstacle identification and classification. Teaching a vessel to learn from objects and its environment is just the beginning of machine learning.



Unmanned Navigation

Automated vessels on fixed trajectories, with the goal to solve crew issues.



Crew Supported Navigation

Expand vessel capabilities by integration of the Seafar control system and services,

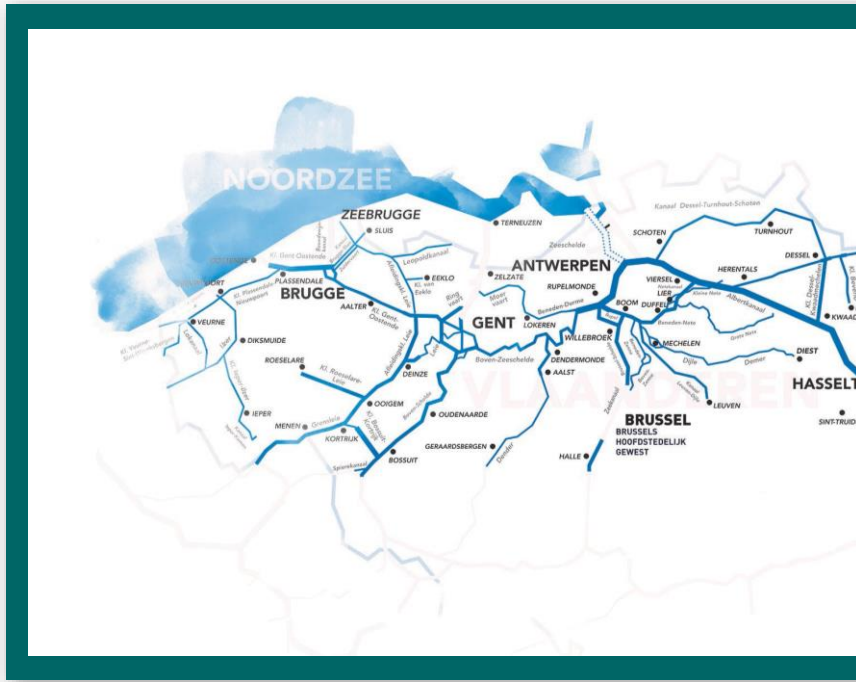


Crew Reduced Navigation

Operation of highly automated ships manned by reduced crews and the support of the Seafar Shore Control Center.

Operating vessels from a Shore Control Center

A major advantage of using remote support is that vessels can expand their operational time per year. In theory, having remote access to the vessels may also mean that operations could be controlled from anywhere in the world. Using remote support on demand creates a significant increase in operational efficiency.



Flanders as a pioneer in innovative legislation.

De Vlaamse Waterweg nv wants to support organizations as much as possible to test their new technologies in relation to Smart Shipping in the existing legislative framework.

That is why on 18 May 2018 de Vlaamse Waterweg nv opened its test area for autonomous vessels. This Flemish test area covers our entire network. Tests can only be carried out with the permission of de Vlaamse Waterweg nv.

How is the market evolving?

Main reasons for vessel owners to implement smart shipping services.

CAPEX & OPEX

SAFETY

SUSTAINABILITY



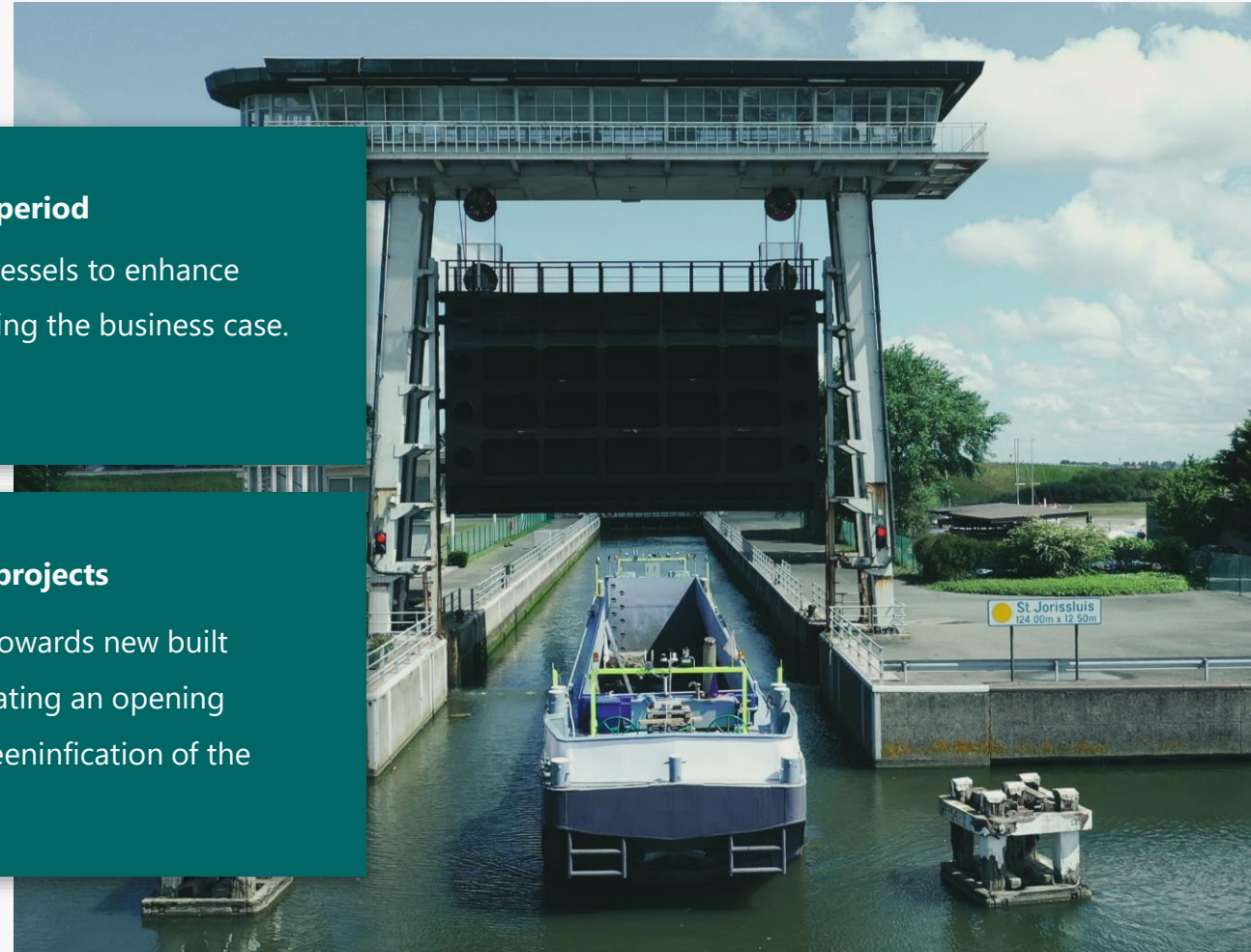
Transition period

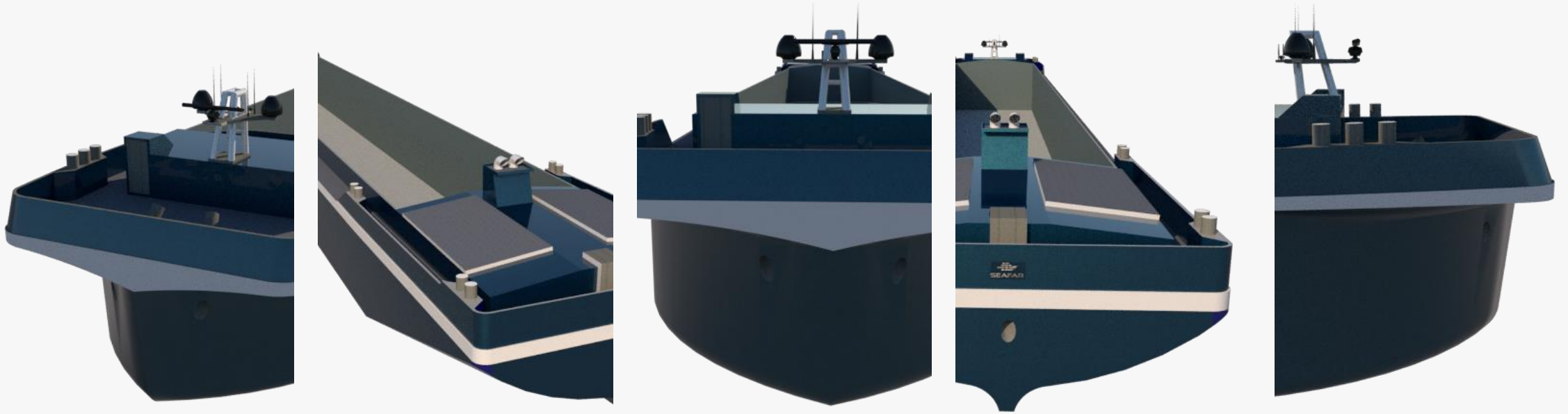
Retrofitting vessels to enhance OPEX, proving the business case.



New built projects

Transform towards new built vessels, creating an opening towards greenification of the fleet





New generation inland vessels

As a pioneer in the shipping industry, Seafar wants to be a driver to innovate and implement new technologies to accelerate the path to zero carbon shipping.

By using new technologies shipping companies can continually improve their efficiency of operations.

40Y

Average age of small inland cargo capacity, need for green, new built vessels is growing.

30%

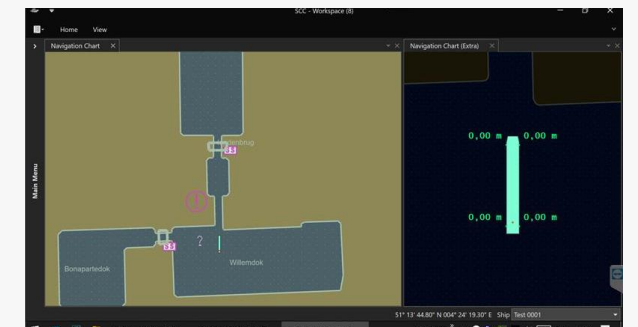
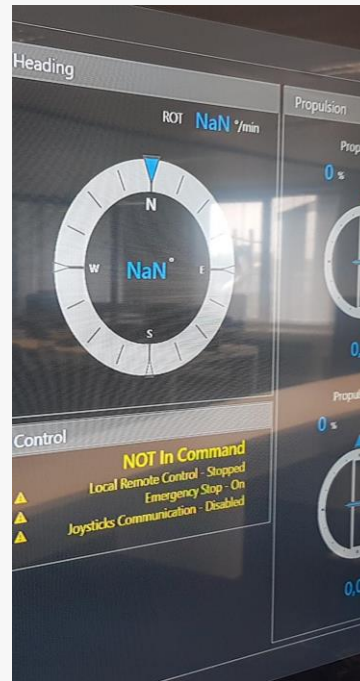
Decrease in operational cost can strengthen the business case for the further investments in green and zero carbon propulsion technologies or shift to clean fuel.

Future proof shipping

The combination of shore supported navigation and onboard technical staff shall accelerate the transition towards new generation fleet of vessel, operated at the highest efficiency rate.

5Y

The human in the loop will remain key, but a shuffle of job functions will occur, increasing attractiveness of the industry.





The best helmsman stand on shore.

Please contact us for more information or cooperations:

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