

FACT SHEET

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Sustainable urban freight transport with autonomous zero-emission vessels

Interreg
North Sea Region
AVATAR

European Regional Development Fund



EUROPEAN UNION

SEAFAR and the highly automated AVATAR-vessel

The remote operation of vessels has several sustainability impacts. One significant benefit is the ability to switch between remote captains, allowing them to work a maximum of eight hours per day before another captain takes control from the remote control center. This approach promotes a healthier work-life balance for captains, which can be especially important for female captains with children who are more likely to work remotely in order to return home every day. This may help increase gender diversity in the industry. By opening the possibility to perform the job of a captain on shore, SEAFAR attracts new workforce into the sector and offers these captains a strong work-life balance value. This will result in growth in employment.

Remote captains have access to advanced tools, such as object detection, and support from traffic controllers who manage multiple vessels remotely. This assistance improves the performance of remote captains and enhances safety during navigation. Additionally, when a vessel is being loaded or unloaded, the remote captain can navigate another vessel until the loading is complete. This approach increases the productivity of remote captains.

Remote navigation also reduces the fuel consumption and results in less carbon footprint and it also results in growth in waterborne transport by providing additional green cargo capacity created by adding remote control technology.

More info: please contact
ghazaleh.kia@seafar.eu

AVATAR vessel

The AVATAR project aims to tackle challenges of city freight distribution by developing, testing and assessing adequate technologies and business models for urban (highly) autonomous and automated zero-emission inland waterway transport (IWT) solutions. An important output of the AVATAR project was the completion of the AVATAR vessel. Project partners Opleidingscentrum Hout en Bouw, E. Van Wingen NV and SEAFAR cooperated in the development of a new urban test vessel with a capacity of 25 ton, zero-emission and highly automated.

