

marinom

Assistance systems: Which technologies are suitable
for reducing the burden on people
and making shipping greener?



marinom GmbH

Address:

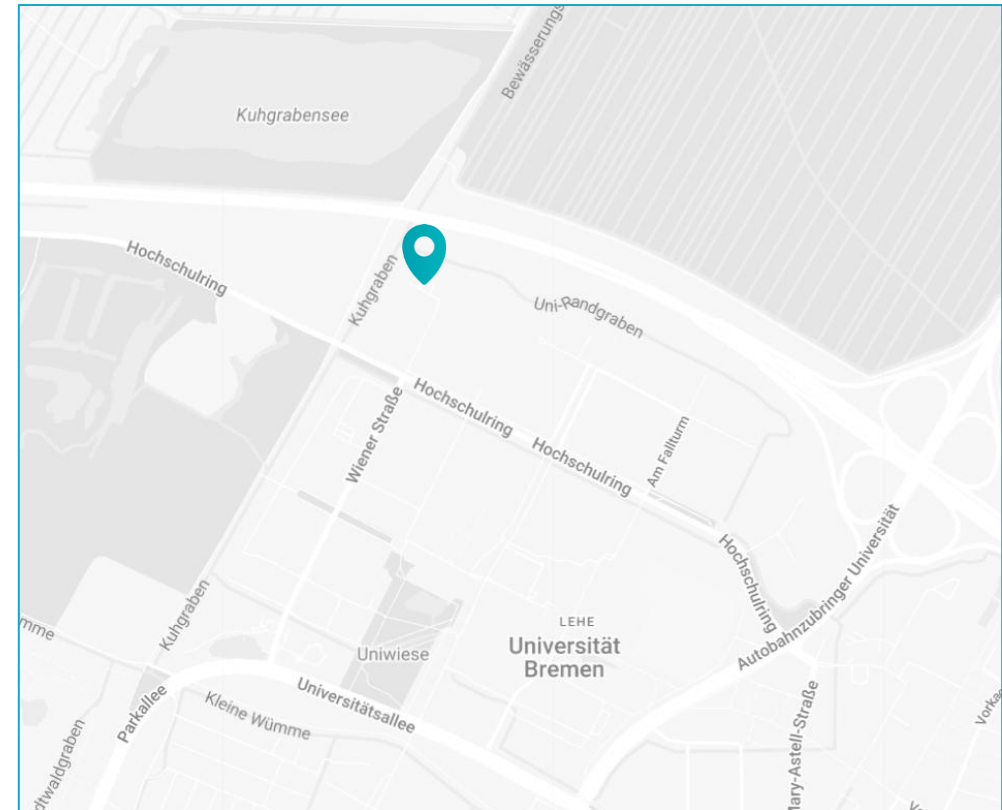
Wilhelm-Herbst-Straße 5
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Founded:
2020

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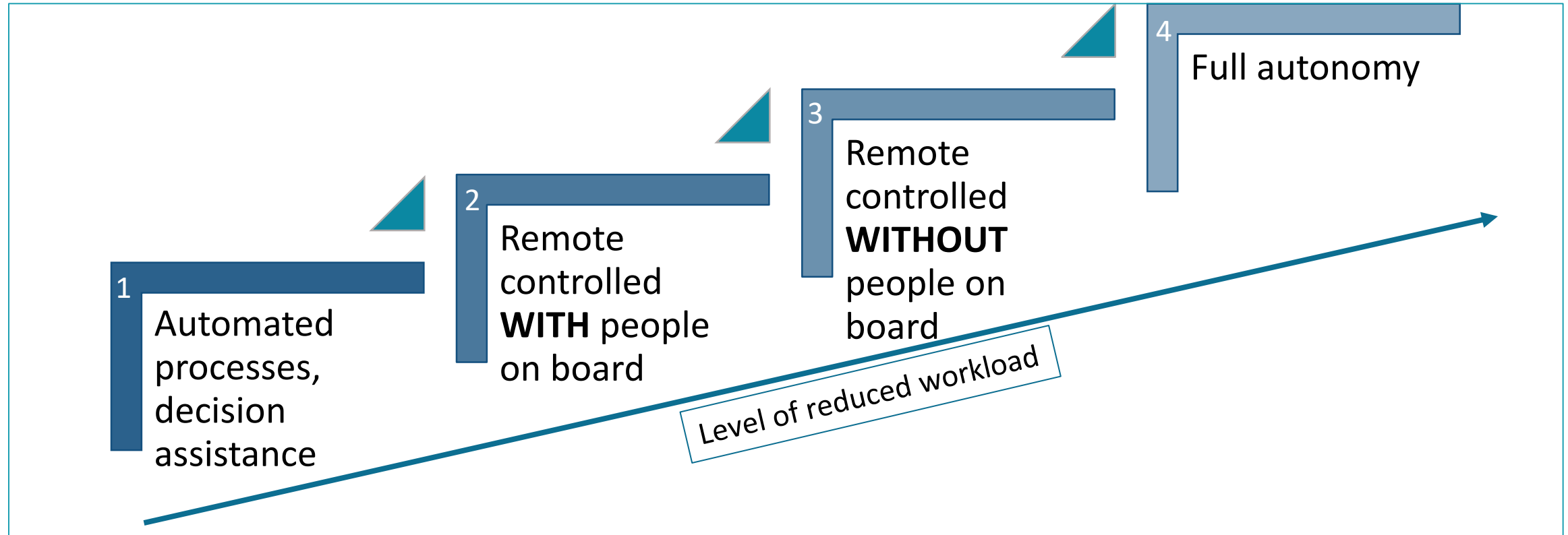
marinom is located directly at the University of Bremen

The marinom team

A dynamic team of over **40 specialists** with expertise in **physics, engineering** and **software development**.

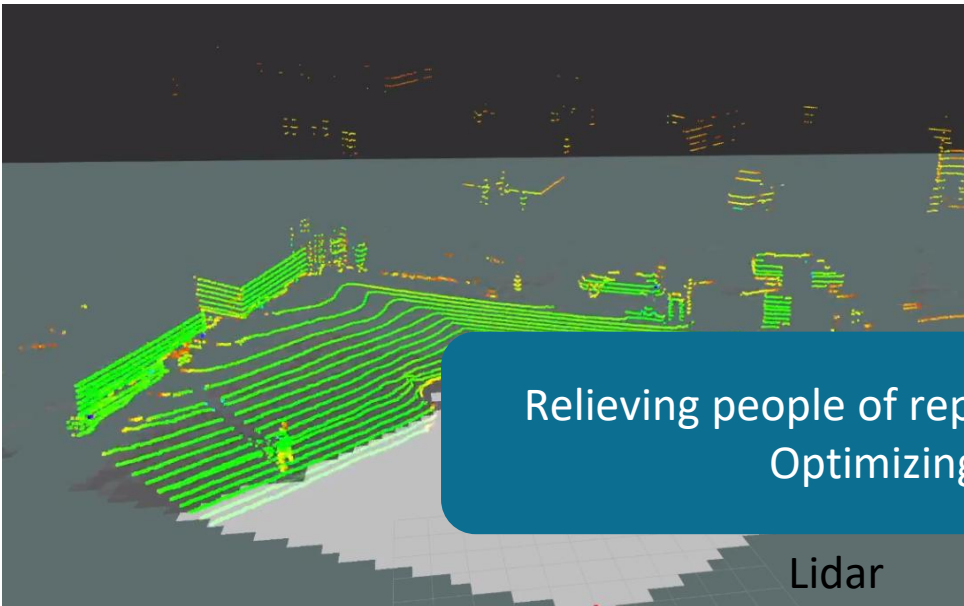


Levels of Autonomy according to IMO

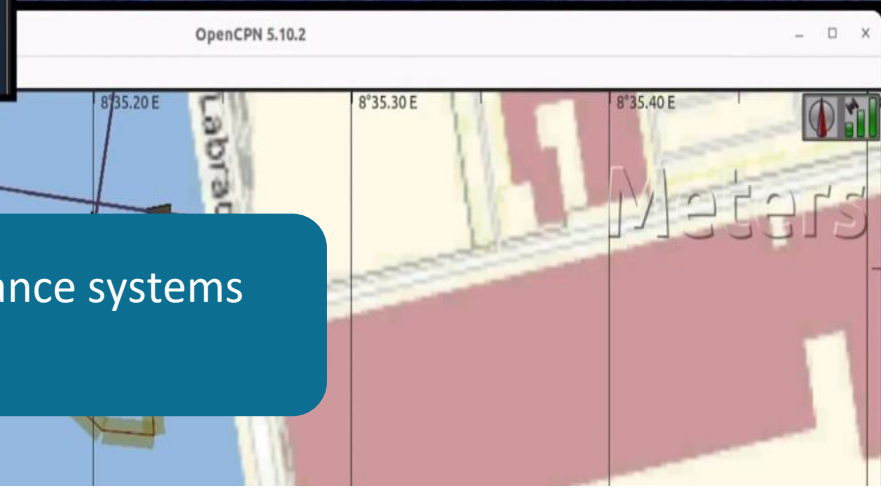


#MOIN-AIShip

- Retrofit of assistance systems for an existing tugboat with sensors and control software



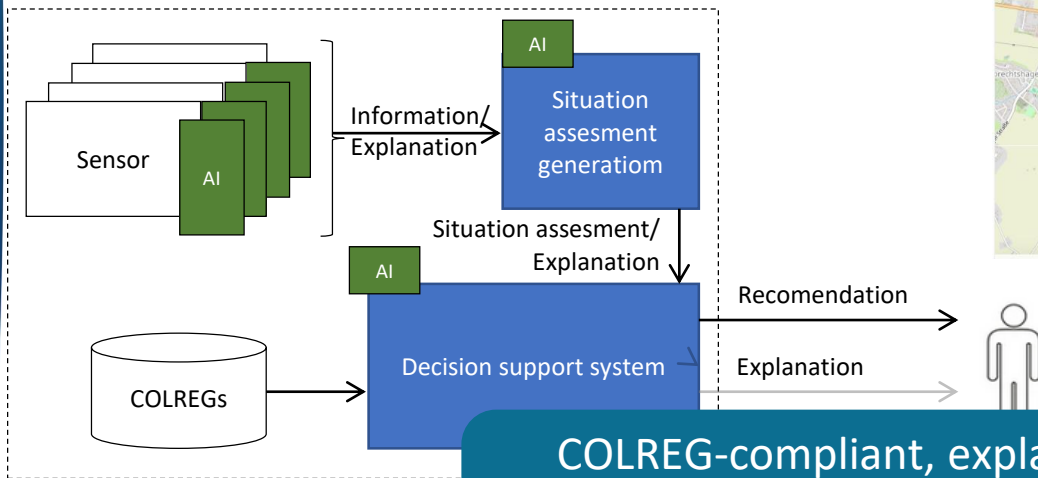
Lidar



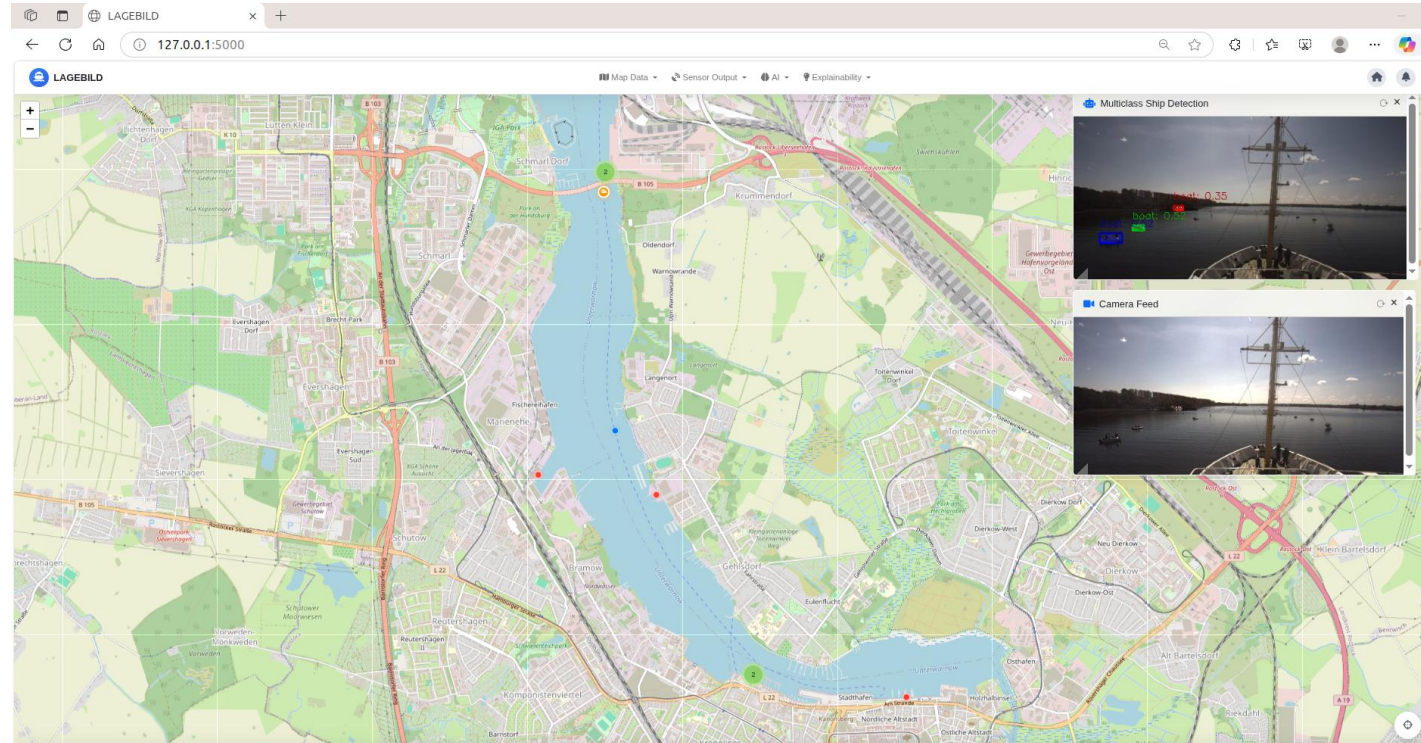
Relieving people of repetitive tasks through assistance systems
Optimizing routes to save fuel or time

XAI4SFAS

- AI model for generating explainable action recommendations
- Based on COLREGs and real time sensor footage

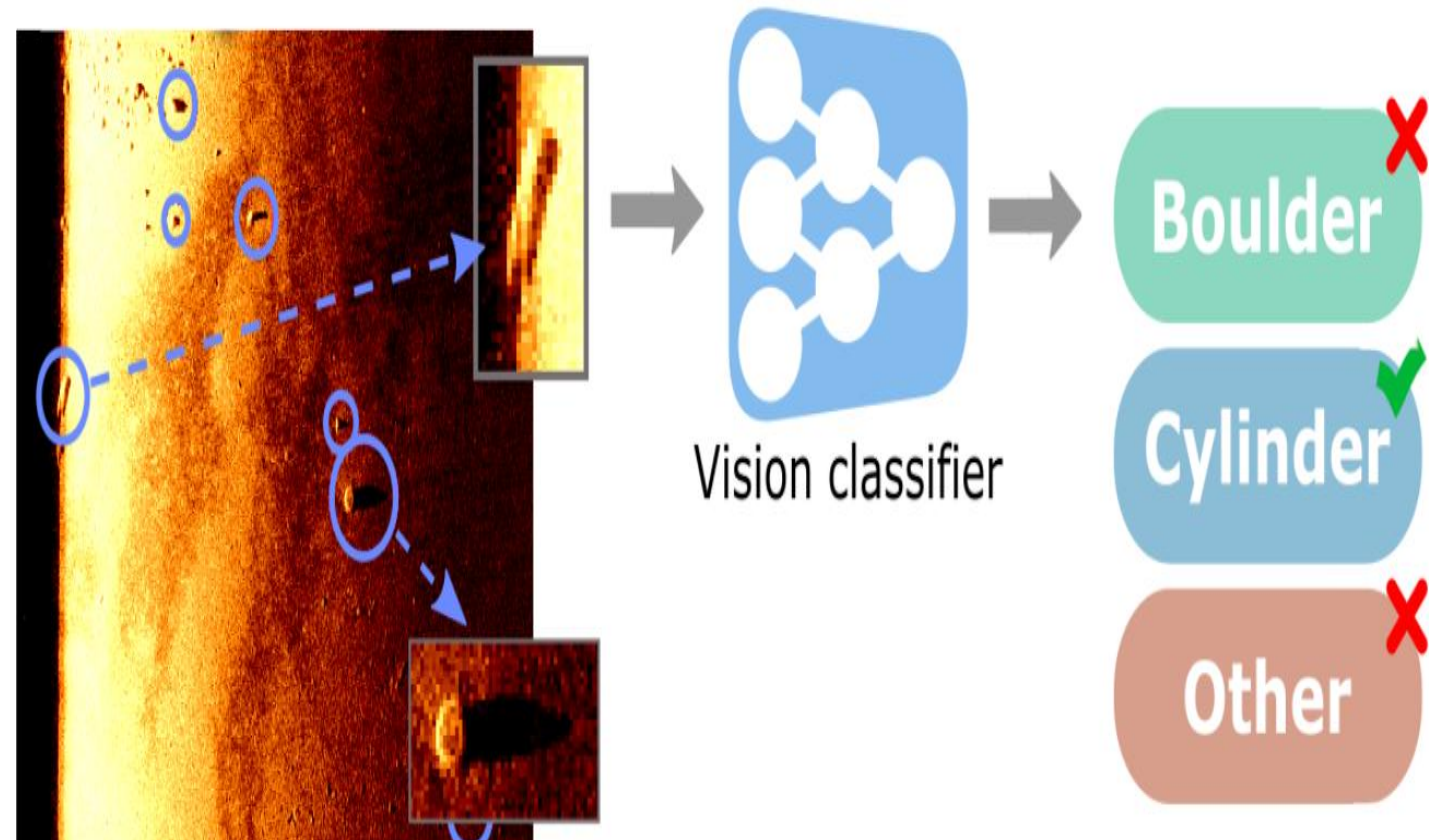


COLREG-compliant, explainable assistance system with object recognition and driving recommendations → support for decision-making



VamAI

- Validation of maritime AI
- Joint project with BMWF funding
- marinom: Sensor-level AI -> Object detection in sensor data
- Validation of AI object detection with several metrics
- Improvement of AI trustworthiness



Support of decision-making through validated object detection AI

Ferry Go!

- Roadmap for autonomous ferries
- Joint project with Interreg funding
- marinom: Sensor selection & integration, data evaluation
- Assistance system for captains
- Retrofit of two existing ferries in operation



Reduced workload thanks to AI-controlled object recognition and warnings

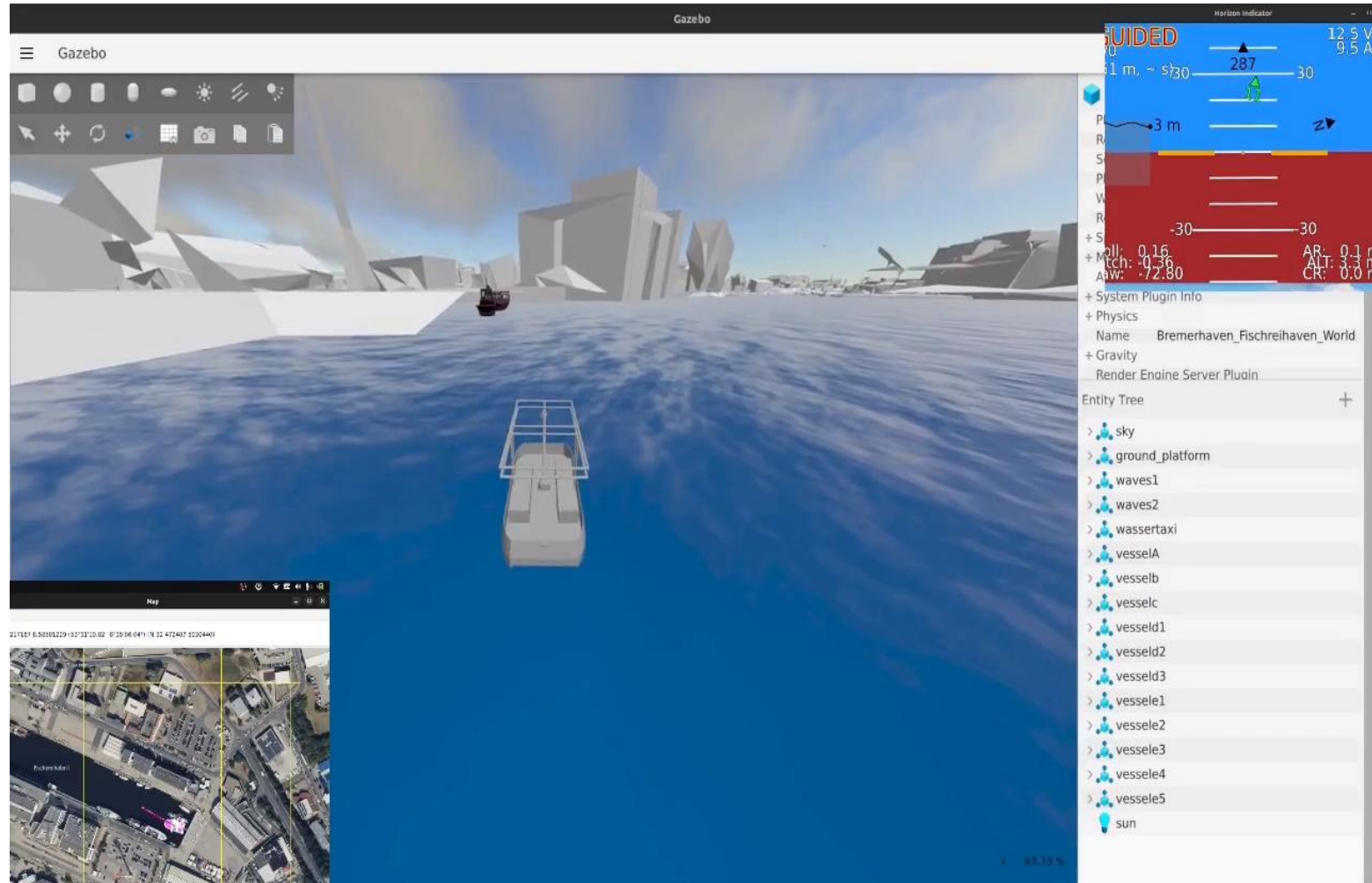
Autonomous Ferry Demonstrator “Schuppi”



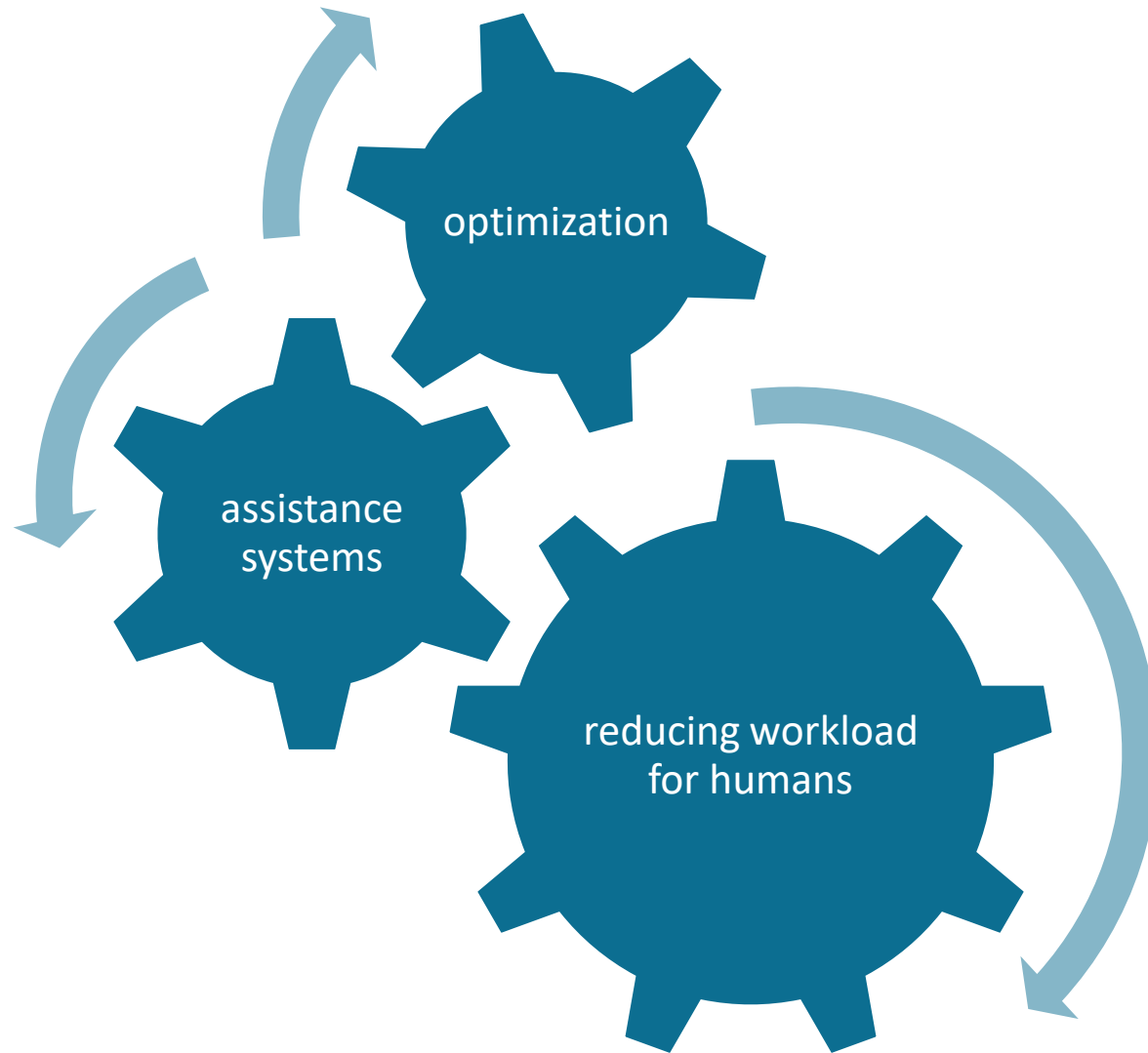
Greener Shipping through use of batteries / hydrogen

Schuppi: Digital Twin

- Gazebo/Ignition Simulation
- Real environmental and sensor data
- Risk-free tests



Conclusion



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