



Waterborne

Digital Twins, AI
and predictive
technologies

Inland Waterway Navigability and Condition Monitoring

Developed by :



Project by :



Funded by the
European Union

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Operational fields

Technologies

Solutions



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Solution description

Digital Twin platform for intelligent buoys that aggregates real-time environmental and operational data (e.g., water depth, ice thickness, wind speed, GPS position) and visualizes it on digital maps for navigation and planning.



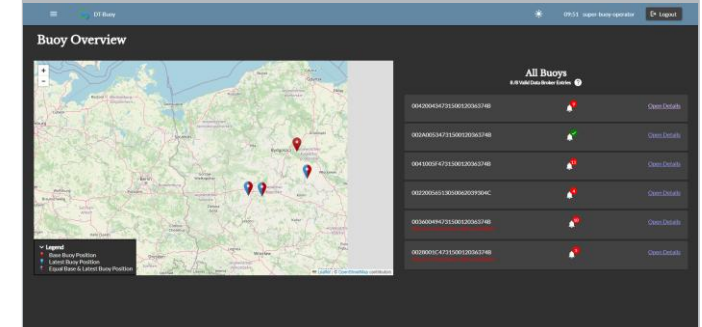
Benefits

- Reduces delays and disruptions due to environmental factors
- Increases transparency and situational awareness for all stakeholders
- Enables proactive responses to changing waterway conditions

Main beneficiary:

IWT Logistics stakeholders

Buoy overview in Digital Twin



Technology readiness level : **6**
Implementation stage : **Pilot**

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Key performance indicators

RIVER'S CONDITIONS

- river depth in the selected location - under the buoy
- clearance under the bridge
- water temperature, speed, direction

WEATHER CONDITIONS

- air temperature; air pressure wind speed, wind direction

TRAFFIC CONDITIONS

- counting passing ships

DIRECT COMMUNICATION WITH VESSELS

Let's get in
contact!



Would you like to know more?
Take contact :



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