

## A new approach to waterway transport

The continuous growth in delivery traffic is increasingly causing congestion and emissions in city centres. In order to achieve the EU's climate goals, part of the transport of goods should be shifted to environmentally friendly modes such as waterways.

The Berlin metropolitan region has an existing infrastructure of main and secondary waterways as well as the necessary ports. To make waterway transport more efficient, it needs to be reconceived and better integrated into multimodal chains.

The aim of the DigitalSOW project is to investigate the possibilities for the supply and disposal of metropolitan regions via waterways. It will consider new transport and logistic concepts, highly automated transport carriers with ecological engines, small container boxes and new forms of transshipment.

In the DigitalSOW project, a new test vehicle platform is being developed for the practical testing of automated and connected shipping, it will be equipped with electric drive technology and modern sensor technology, while a digital test field will be set up and operated on the Spree-Oder Waterway (SOW).

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## Future project

## Digital test field for automated and autonomous inland shipping on the Spree-Oder Waterway (SOW)



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# Main topics of the DigitalSOW project



## Model for the transport process

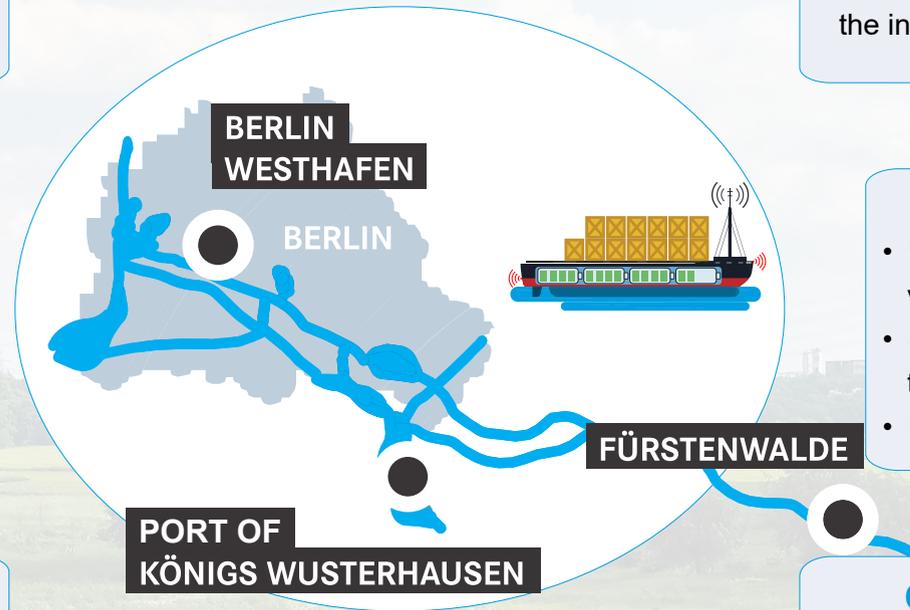
- Identification and integration of user requirements
- Defining a model of transport processes for city logistics

## Control centre

- Traffic monitoring (cameras, AIS)
- Remote control of the test vessel
- Communication with the vessels and the information platform (connectivity)

## Transshipment & Cargo Infrastructure

- Infrastructure for automated docking and transshipment (microhubs)
- Infrastructure for charging battery-powered vessels



## Test field infrastructure

- Shore-based sensors for determining vessel positions and clearance height
- Communication infrastructure from vessel to control centre and vessel to vessel
- Up-to-date information of the waterway

## Automated shipping

- Identification of movement behaviour
- Automated track guidance
- Lock and bridge approach
- Automated berthing

## Test vessel

- Development and production of a test vessel equipped with electric drives and adapted to the test field

## Onboard technology

- Modern sensor technology for vessel position determination and detection of the vessel's surroundings
- Redundant position determination (sensor fusion, R-Mode)
- Control of the test vessel

