



Resilience-centric Smart, Green,  
Networked EU Inland Waterways



Funded by  
the European Union

ReNEW will play a key role in **promoting economic growth** and minimising the negative impact on the **environment** and, significant and lasting degradation of **ecosystems**.

Combining the technological advantages of **digitalisation** and **automation, autonomous barges**, including infrastructure interaction, will revolutionise the future IWT system whilst delivering **climate-neutral and climate-resilient IWT services**.



24

Partners



11

Countries



4

Living Labs

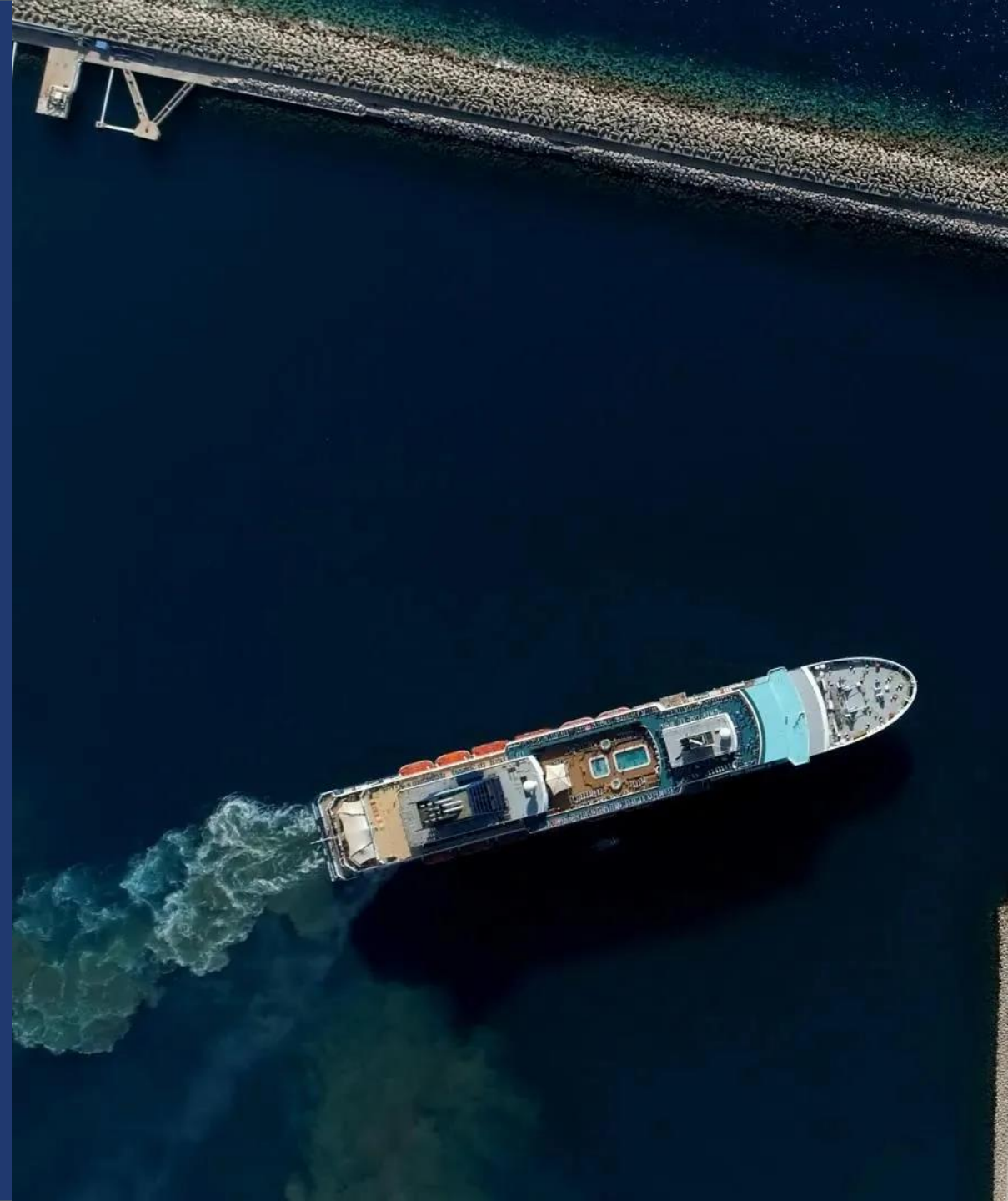


36

Months

# Key priorities

- Sustainable infrastructure adjustments
- Environmental friendliness and competitiveness of vessel fleet
- Digitalisation
- Integration of IWT in multimodal transport chains
- Securing the availability of skilled workers



# ReNEW aims at delivering:

01

A decision-support framework including Resilience and Sustainability Quantification supporting the strategic planning and operational optimisation of Green Resilient IWT (GRIWT)

02

Innovative infrastructure resilience and sustainability solutions targeting rapid deployment after disruptive events

03

A Green Resilient IWT Dataspace and Digital Twin providing primarily data sharing between infrastructure monitoring, RIS and traffic management and emergency systems and climate solutions

04

Four Living Labs focusing on integrated IW and hinterland infrastructure and a LL addressing specifically inland waterway resilience

05

Outreach and Upscale programme designed to maximise impact pathways



# Living Lab 1

## Ghent Hub

Create a **flexible** and **resilient logistic system** for multi-user and multifunctional purposes

Focus on the impact of events caused by climate changes on the operations of the City Logistics Hub

### Location

**City Logistics Hubs** in the city of Ghent - sea canal (between Ghent, Belgium, and Terneuzen, Netherlands), canals, rivers, canals with tidal action with a wide range of infrastructure

### Corridor

Belgium to Netherlands







## Living Lab 2

# Smart Douro

**Development of a digital twin** for modelling the river behaviour, especially for drought and flood analysis and real time prediction

### **Location**

The **Douro Portuguese inland waterway** included in the **TEN-T** feeding point of the Atlantic Corridor connecting with the inner side of the North and Centre regions in Portugal

### **Corridor**

Atlantic Corridor

# Living Lab 3

## Netherlands / App

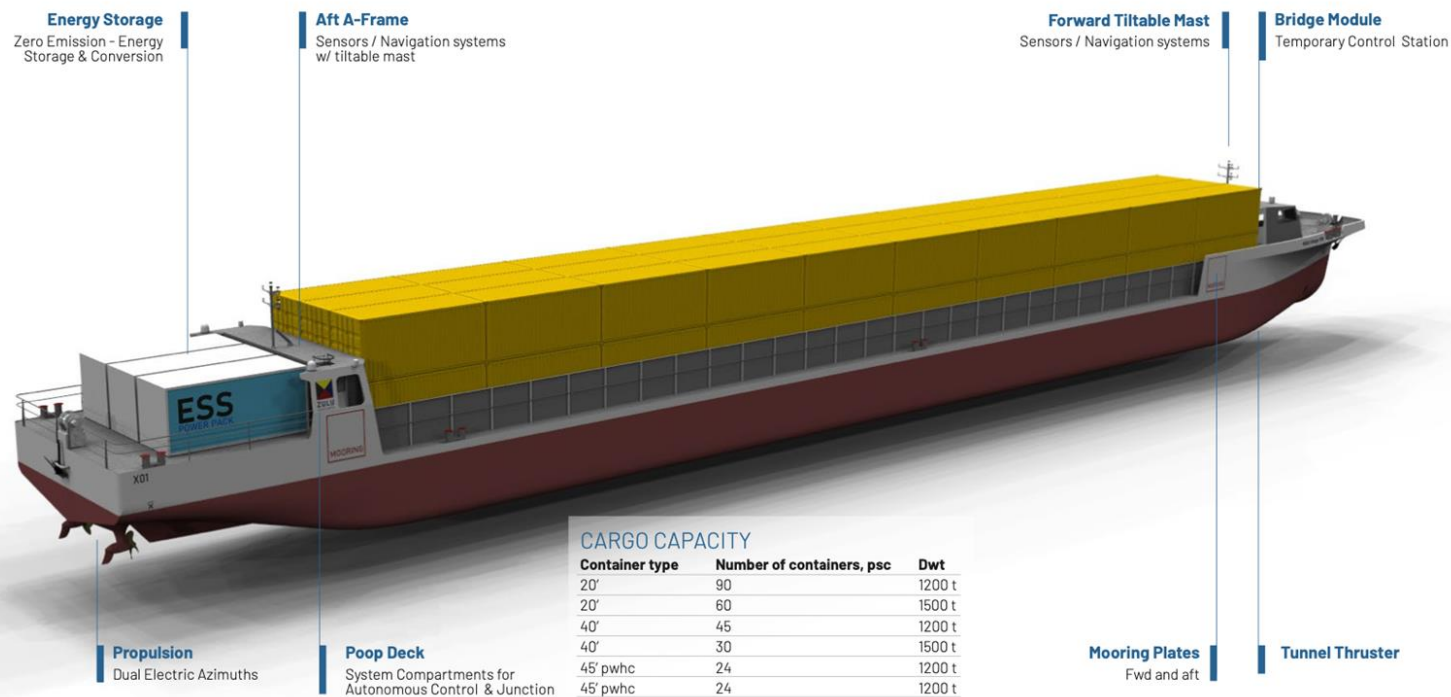
Develop and demonstrate a **planning mitigation demonstrator app** to boost modal shift

### Location / Corridor

Netherlands, Belgium, France,  
Germany and Austria







## Living Lab 4

# Autonomous Barge

Use an autonomous CEMT class 4 barge (the X-barge) to demonstrate and test improved resilience of the IWT infrastructure

In combination with LL1, this Living Lab will complement the use of automation to longer international routes and a different, larger-size, logistics

## Location / Corridor

Belgium, Germany, France, The Netherlands, Rhine region



# Consortium





## Name

Organisation

e-mail address



ReNEW



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