

## STATE AID PROGRAMME FOR PROMOTING SUSTAINABLE MODERNISATION OF INLAND WATERWAY VESSELS IN THE DANUBE REGION

Inland waterway transport (IWT) is the most environmentally friendly mode of transport in terms of transported tonne-kilometres. To keep the leadership and label of being environmentally friendly, there is a high urgency for the IWT sector to develop **measures facilitating the transition towards zero-emission** and thus address urgent climate challenges the world is facing nowadays.

The biggest challenge for greening the fleet is the **development of a business case** for a vessel-owner/operator. This is needed to justify the investment in greening technologies and alternative fuels. A major barrier is that there is no internalisation of external costs of air pollution and greenhouse gas emissions in IWT. In general, **green vessels are more expensive to operate and produce** compared to vessels with conventional engines. In comparison with road haulage for example, the fuel in IWT is cheap as there is no excise duty applicable. **Lack of instruments and incentives** make it more difficult for the IWT sector to apply for alternative (clean) fuels such as GTL, (Bio)LNG and HVO or after-treatment systems such as SCR and DPF. Especially for existing vessels with conventional engines, the situation is difficult with the current framework conditions. The engines have a **lifetime of around 20 years** and retrofitting is expensive.

Currently the vessel operator takes all risks and high investments when deploying greening technologies. It is therefore necessary to **de-risk vessel operators and support them in greening** by offering clearer technology outline for the future, **funding schemes** and **financing products** as well as new business models.

GRENDEL project consortium, [INDanube](#)<sup>1</sup> and representatives of Danube countries work together on the elaboration of the state aid model programme promoting sustainable modernisation of inland waterway vessels in the Danube region.



Figure 1: Countries cooperating on elaboration of State aid programme

The state aids in question shall be **implemented in Danube countries in the upcoming multiannual financial framework 2021-2027**. The State aid schemes are expected to be financed from the cohesion policy funds, under the European Structural and Investment Funds (ESI Funds). In order to achieve this, the programme promoting sustainable modernisation of inland waterway vessels should be also embedded into the national operational programmes for EU structural funds.

<sup>1</sup> INDanube - Centre for Innovation Transfer in the Danube Region

The state aid model programme is in line with European policies<sup>2</sup> and contributes to the new Cohesion Policy 2021-2027. The ambitious **European Green Deal** striving for Europe being the first climate-neutral continent was presented by the new President of the European Commission as part of the Political Guidelines for the next European Commission 2019-2024. Inland waterway transport shall be ambitious enough and play an important role in this European Green Deal.

The new Cohesion Policy 2021-2027 shall focus its resources on 5 policy objectives<sup>3</sup>, whereas the majority of European Regional Development Fund and Cohesion Fund investments will be geared towards the first two objectives: a **Smarter Europe** and a **Greener Europe**. 65% to 85% of ERDF and Cohesion Fund resources will be allocated to these priorities, depending on Member States' relative wealth.

Currently, the **definition of the investment priorities** for future Partnerships Agreements (2021-2027) that will be reflected in the national operational programmes is on-going in Member States. Therefore, the work done in the GRENDEL project delivers the input for these operational programmes. The work of the GRENDEL consortium feeds to the operative work and processes of the Member States through their representatives. However, it is as well important that the priority to modernise the inland vessels is supported from the EC services, so that this becomes a priority in the upcoming Partnership Agreements negotiations with Member States.

The State aid model programme promoting sustainable modernisation of inland waterway vessels in the Danube region addresses five pillars (priorities).

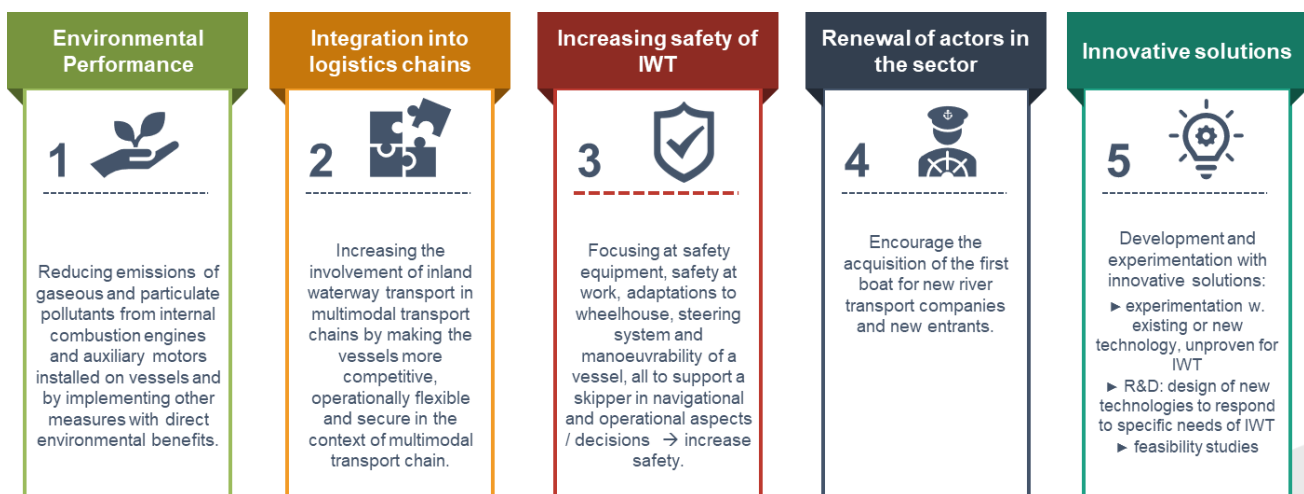


Figure 2: Priorities of the new State aid model promoting sustainable modernisation of inland waterway vessels in the Danube region

<sup>2</sup> “A Clean Planet for All”- a European strategic long-term vision for a prosperous, modern, competitive and climate-neutral economy by 2050; “A Europe that protects: Clean air for all” from the European Commission provides the policy framework for reduction of air pollutant emissions such as NO<sub>x</sub> and Particulate Matter; Paris agreement objectives (COP21); the Mannheim declaration of the Central Commission for Navigation of the Rhine (CCNR)

<sup>3</sup> 1) a **Smarter Europe, through innovation, digitisation, economic transformation and support to small and medium-sized businesses**; 2) a **Greener, carbon free Europe, implementing the Paris Agreement and investing in energy transition, renewables and the fight against climate change**; 3) a more Connected Europe, with strategic transport and digital networks; 4) a more Social Europe, delivering on the European Pillar of Social Rights and supporting quality employment, education, skills, social inclusion and equal access to healthcare; 5) a Europe closer to citizens, by supporting locally-led development strategies and sustainable urban development across the EU.

| Priority  | Measures  |
|---|---|
| <b>1. Environmental performance</b>   | <ol style="list-style-type: none"> <li>1. Acquisition (purchase and replacement) of lower emission engines</li> <li>2. Measures to reduce air pollutant emissions (other than through lower emission engines)</li> <li>3. Measures to improve energy efficiency and optimise energy management on board</li> <li>4. Measures to reduce noise emissions</li> <li>5. Measures to reduce and treat releases to water or waste</li> <li>6. Adapt vessels to improve their energy/fuel consumption performance through improved hydrodynamics</li> </ol> |
| <b>2. Integration of inland waterway transport into multimodal transport chains</b> | <ol style="list-style-type: none"> <li>1. Adaptation of vessels to attract new traffic or freight or perpetuate existing traffic or freight</li> <li>2. Construction or acquisition of vessels to attract new traffic or freight</li> <li>3. Construction or adaptation of vessels to serve maritime ports</li> <li>4. Acquisition of instruments and software to help the navigation or operation of vessels / fleet</li> </ol>  |
| <b>3. Increasing the safety of inland waterway transport</b>                        | <ol style="list-style-type: none"> <li>1. Measures to adapt equipment used for manoeuvring of inland vessel and related indicating and monitoring devices</li> <li>2. Measures addressing vessel's safety equipment and fire protection systems</li> <li>3. Measures addressing safety at work stations and crew safety</li> <li>4. Measures addressing other safety related issues</li> </ol>  |
| <b>4. Renewal of actors in the sector</b>   | <ol style="list-style-type: none"> <li>1. Acquisition of first vessel for new inland waterborne transport companies and new entrants</li> </ol>   |
| <b>5. Development and experimentation with innovative solutions</b>                 | <ol style="list-style-type: none"> <li>1. Experimentation of existing or new technology, unproven in the specific context of inland water transport</li> <li>2. Research and development related to design of new technologies to respond to specific needs of inland water sector</li> <li>3. Elaboration of feasibility studies</li> </ol>  |

## ABOUT GRENDEL PROJECT

Long service life of inland vessels, high investment costs, low re-investment capacity of the Danube fleet operators together with knowledge deficits about green technologies as well as the lack of public actions and incentives impose severe barriers for the adaptation of the Danube IWT fleet to forthcoming European IWT and environmental policy objectives.

The GRENDEL project supports the Danube vessel fleet operators and their public counterparts in modernisation of the sector. GRENDEL addresses various fleet modernisation aspects: [i] use of low carbon and alternative fuels, [ii] reduction of air pollutant emissions (CO<sub>2</sub>, NO<sub>x</sub>, PM) and [iii] overall energy consumption. Besides this, [iv] transport and logistics management processes are addressed to ensure better integration of the Danube IWT into logistics chains through new services (including River Information Services), digital data provision as well as dedicated tools to improve efficiency of fleet operations.

The project's overall goal is the improvement of the environmental and economic performance of the Danube fleet. This will be achieved through three specific objectives:

1. Know-how transfer for Danube fleet operators with the help of intensive transnational collaboration between private & public stakeholders and targeted know-how transfer activities in order to overcome the existing knowledge gap, lack of activities and absence of instruments to deploy innovative solutions
2. Elaboration of innovative technical vessel concepts and improved transport and logistics management processes of fleet operators and sharing these as good practices for wide-scale implementation to strengthen the competitive position of inland navigation and to exploit its market potential
3. Supporting development of favourable regulatory framework and well-designed public support measures by introducing Model State Aid Scheme and innovative financial instruments to design national public support measures which will clearly address the needs of the sector

With its activities, GRENDEL aims to achieve a higher acceptance and use of inland waterway transport (IWT) as an environmentally friendly transport mode contributing to economic growth and a more sustainable transport system in the Danube region

### PROJECT PARTNERS

**Pro Danube International (AT)** • DST - Development Centre for Ship Technology & Transport Systems (DE) • National Association of Radio Distress-Signalling and Infocommunications (HU) • Danube Commission (International Organisation) • Bulgarian-Romanian Chamber of Commerce and Industry (BG) • Pro Danube Romania (RO) • Romanian Maritime Training Centre – CERONAV (RO) • Ship Design Group S.R.L. Galati (RO) • Romanian Naval Authority (RO) • River Navigation Company NAVROM SA (RO) • Fluvius Shipping and Forwarding Ltd. (HU) • Danubia Kreuzfahrten GmbH (AT) • Innovation Centre of the Faculty of Mechanical Engineering in Belgrade (RS)

### ASSOCIATED STRATEGIC PARTNERS

Federal Ministry for Transport, Innovation and Technology (AT) • Ministry of National Development (HU) • Executive Agency Maritime Administration (BG) • CFND (RS) • DTSG (AT) • Romanian River Ship Owners and Port Operators Association (RO) • BAVARIA (DE) • Ministry of Maritime Affairs, Transport and Infrastructure (HR) • Ministry of Transport (RO) • Ministry of Transport and Construction (SK) • Bulgarian Register of Shipping (BG)

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