

Green and efficient Danube fleet

*“Towards modernisation & greening of Danube inland
waterborne sector and strengthening its competitiveness”*

Output 5.5 – Strategy validation workshop

Work Package 5 Regulations & Strategy

Version 1.0

Date: 30/11/2020

FINAL

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Document History

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1 Scope of the document

The Green and efficient Danube Fleet project (GRENDEL) is co-funded by European Union Funds (ERDF, IPA) under the Danube Transnational Programme and it aims at supporting the Danube vessel fleet operators and their public counterparts in modernisation of the sector. The project's overall goal is the improvement of the environmental and economic performance of the Danube fleet.

The Danube IWT fleet modernisation strategy and recommendations represent a key achievement of the transnational cooperation established by the project and were validated by the GRENDEL Consortium via a Strategy validation workshop held on 28.10.2020 (online).

GRENDEL, as comprehensively described in the Danube IWT Fleet Modernisation Strategy & Recommendations, proposed concrete actions, measures and recommendations to overcome the most problematic issues faced by IWT in the Danube Region and well beyond: (1) environmental quality through low emissions and (2) efficient integration of IWT into multimodal logistics chains.

Based on the results of the GRENDEL project, this strategy concludes with a set of recommendations reflecting the need for standardisation and harmonisation on corridor level to overcome the most urgent challenges IWT is currently facing from a twofold perspective: the existing legislation having a direct impact on IWT as well as its efficient and enduring integration into multimodal transport and logistics chains.

The present document intends to give an overview on the strategy validation workshop by providing the meeting minutes of this workshop, including the agenda and the list of participants, and the presentation held.

Danube IWT Fleet Modernisation Strategy Validation Workshop

Meeting Minutes

Date & Time:	28 October 2020, 12:45 – 14:30
Venue:	Online event
Meeting purpose:	The workshop allows public and private stakeholders to validate the Danube IWT Fleet Modernisation Strategy developed in the GRENDEL project
Minutes by:	Pro Danube

Participants (27)

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Agenda

12:45 – 13:00	Connectivity tests and start-up of video-conference
13:00 - 13:30	<p>Presentation of the developed strategy (PDI)</p> <ul style="list-style-type: none"> • <i>Policy context</i> <ul style="list-style-type: none"> ○ <i>Strategic position of IWT – challenges and opportunities</i> ○ <i>Shaping IWT on the European level</i> • <i>Danube fleet modernisation – challenges and strategy</i> <ul style="list-style-type: none"> ○ <i>Challenge 1 Environmental quality through low emissions</i> ○ <i>Challenge 2 Integration of inland waterway transport into the multimodal logistics chains</i> • <i>Recommendations</i>
13:30 - 14:10	Discussion with public & private stakeholders about the strategy (All)
14:10 - 14:30	Conclusions (PDI)

Meeting Minutes

1 Opening of the event

The event was opened by the General Secretary of Pro Danube International, Mr. Robert Rafael. In his introductory speech, Mr. Rafael briefly stressed the achievements of GRENDEL so far and the current status of the *Danube IWT Fleet Modernisation Strategy and Recommendations*. He thanked the partners who provided until now their feedback and input, saying that the cooperation with the GRENDEL consortium is of utmost importance in the ongoing drafting process of the strategy.

2 Presentation of the developed strategy

The core objectives of the strategy, regarded as a central output of the GRENDEL project, was presented by Ms. Charlotte Siot and Mr. Robert Rafael.

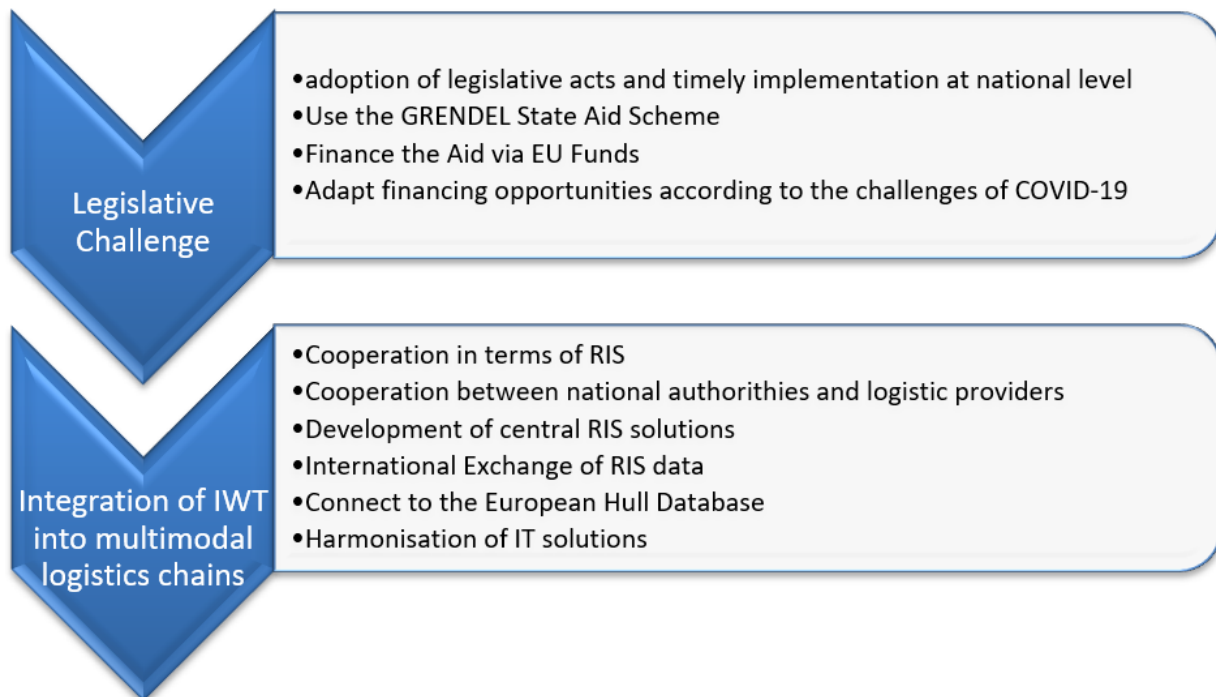
Mr. Rafael started his presentation with a brief description of the *GRENDEL Work Approach*, underlying the fact that, as mentioned in the Application Form, GRENDEL “addresses various fleet modernisation aspects: [i] use of low carbon & alternative fuels, [ii] reduction of air pollutant emissions (CO₂, NO_x, PM) and [iii] overall energy consumption. Besides this, [iv] transport & logistics management processes are addressed to ensure better integration of the Danube IWT into logistics chains...”. The project furthermore plays a vital role in the implementation process of EUSDR, being recognized as a key facilitator of vessel modernisation in the Danube Region. With IWT being regarded as a sector with a comparatively low innovation intake capacity, financial instruments play from a twofold perspective a vital role: on the one hand they secure the vessel operator’s capacity to invest in their fleet – either by retrofitting or by the acquisition of new vessel – while on the other hand they make IWT for technology providers a more attractive sector. Therefore, by providing a Model State Aid Scheme for IWT, both the IWT sector as well as the provider side benefit from the outcome of the project. Mr. Rafael furthermore pointed to the fact that GRENDEL is included in the *EUSDR PA1A Fleet Modernisation Strategy* as a facilitator of fleet modernisation in the Danube Region.

The Danube IWT Fleet Modernisation Strategy deals with 2 main challenges: on the one hand, it analyses the *policy framework having a direct impact on IWT* and in particular on fleet modernisation aspects and on the other hand on the *challenge to efficiently integrate IWT in the intermodal transport and logistics chains*.

The first challenge – environmental quality through low emissions – was presented by Ms. Siot. The policy analysis provides a clear image on the available options and requirements to enduringly increase the economic and environmental efficiency of IWT. The strict requirements set by the EU – as for instance the *NRMM* and the EC’s *Green Deal* – pose a pressure on the sector to adapt to the new environmental requirements. Having a comparatively low technological intake in IWT, the sector needs access to proactive financial instruments to secure a proper financing. Based on these assumptions, Ms. Siot presented the most important policies – bot adopted as well as those expected to be adopted – with regard to fleet modernisation.

The second main challenge – the *efficient integration of IWT in the intermodal transport and logistics chains* – was presented by Mr. Rafael. In this part of the presentation, the focus lay on the necessity to increase digitalisation in IWT and as such to ease the transport flow across the region and beyond. This part of the strategy contains a comprehensive analysis on the legal provisions governing digitalisation, the implemented initiatives and, at the end, concrete recommendations on how to increase the level of digitalisation in IWT.

The last part of the presentation provided an overview on the recommendations made so far:



As was highlighted during the presentation, the *Model State Aid Scheme* developed in the framework of GRENDEL together with the *Danube IWT Fleet Modernisation Strategy & Recommendations* represent key achievements of the transnational cooperation established by GRENDEL.

3 Discussion with public & private stakeholders about the strategy

After the presentation was finalised, a series of feedback and input was provided – both before the workshop as well as during the workshop.

Benjamin Friedhoff (DST) proposed to concentrate in the framework of the recommendations more on the applicable technologies available to green the fleet. He pointed in this regard on the *“Report on applicable most promising greening technologies and efficient fleet management solutions”* that was developed in the framework of GRENDEL. The final version of the strategy will include the results of this report as a recommendation.

Ship Design Group provided the following feedback:

- The NRMM regulations will guide operators, designers and equipment manufacturers through the transition stage, but the end-goal is zero-carbon emission transportation. While fuels or new technologies are being developed, what needs to be done now is a shift of public opinion towards modern fuels, and this can be done by helping the first movers, financially, with regulations or by providing concepts, data and designs.
- The retrofit solution for this transition stage is feasible, as proven by the SDG concepts and reports, and it is a lot cheaper than a new build. Although still a significant financial investment, this solution can help vessel operators remain financially competitive until infrastructure for modern fuels is developed and investment opportunities towards new builds are available for them.

- We need to understand that infrastructure develops due to demand for it, and public opinion changes with successful implementation of technologies. We must act on both fronts in order to push the modernization of the Danube River transportation system. The fact that LNG is a mature fuel should be clearly stated.
- Exhaust after-treatment systems and LNG new-builds should clearly be stated as transition-stage solutions for vessel operators looking towards the modernization of their fleet, with emphasis on the fact that concept designs are available and there is sufficient know-how from the designers' and engine manufacturers' side.

This feedback will as well be included in the final version of the strategy.

Furthermore, a feedback was received by the **Croatian Ministry of Transport**. This feedback, containing valuable information on potential state aid scheme measures in Croatia, will as well be included in the final version of the strategy.

4 Conclusions - Action Points

Nr	Short Description	Responsible Person	Due Date
1	Any further input, feedback or any kind of improvement comments to Pro Danube on the draft version of the Strategy and on the Excel table are highly welcome.	All project partners	06/11/2020

Meeting ended at: 14:20



Danube Transnational Programme

GRENDEL

GRENDEL „Green and Efficient Danube Fleet“

Towards modernisation and greening of Danube inland waterborne sector and strengthening its competitiveness

Strategy Validation Workshop

Charlotte SIOT

Project co-funded by European Union Funds (ERDF, IPA)

28th October 2020 – Online / MS Teams



AGENDA

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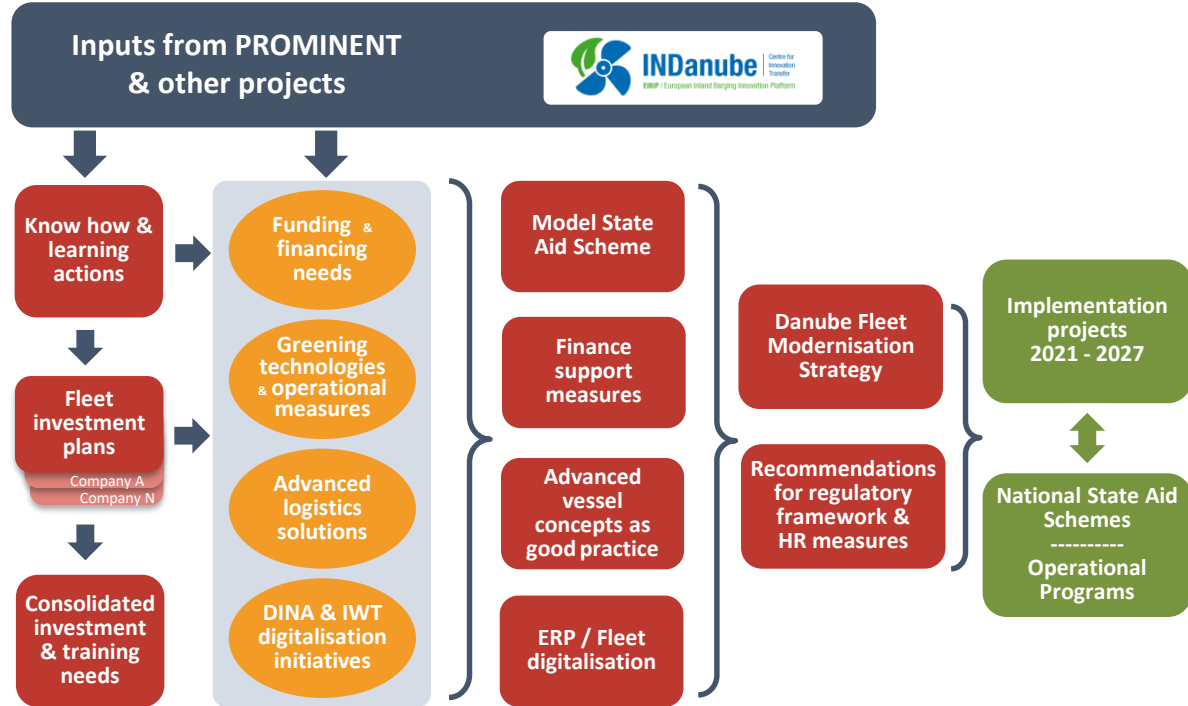
GRENDEL *Work approach*

Green and Efficient Danube Fleet

“

“GRENDEL addresses various fleet modernisation aspects: [i] use of low carbon & alternative fuels, [ii] reduction of air pollutant emissions (CO₂, NO_x, PM) and [iii] overall energy consumption. Besides this, [iv] transport & logistics management processes are addressed to ensure better integration of the Danube IWT into logistics chains...”

*Jun 2018 – Nov 2020
Funding: Interreg / DTP*



EUSDR PA1A – Framework

Key recommendations – package of measures

- **Policy and regulatory instruments**
 - Set ambitious emission limits for legacy fleet (with clear transitional periods)
 - Involve approval and certification authorities in an early stage of technology development to avoid delays in approval procedures
 - Create environmental zones with bonus conditions for clean and compliant vessels
- **Financing instruments**
 - Develop coordinated national grant schemes (GRENDEL)
 - Develop European Greening Fund
 - Make available soft loans and create fiscal incentives
- **Research and development**
 - Define clear technological pathways to raise investment security for commercial parties (shipping and supplier industry)
 - Search for modular refit systems to allow large scale introduction
 - Expand innovation labs/platforms to disseminate good practices

EUSDR PA1A – Strategy on fleet modernisation



EU Strategy for the Danube Region

Priority Area 1a – To improve mobility and multimodality: Inland waterways

Strategy on fleet modernisation

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The INTERREG project **GREDEL** (2019) identified some of the main current and future challenges of the Danube inland fleet. On the one hand, the significant improvement of the environmental performance of inland vessels is required through a reduction of energy consumption and a reduction of greenhouse gas and air pollutant emissions. On the other hand, the further integration of inland waterway transport into logistic supply chains is to be secured through – among others – improving the logistical performance of the inland vessels and exploiting the possibilities of digitalisation.

Set up coordinated national grant schemes aimed at tangible modernisation measures

Taking into account the lessons learned from previous national fleet modernisation schemes, national grant schemes should be developed in close coordination with other member states. The project **GREDEL** provides an opportunity to coordinate contents of funding programmes, avoiding undesired side-effects (e.g. selective subsidy applications).

Member States

GRENDEL – Aim of the IWT Fleet Modernisation Strategy



The Strategy addresses a range of actions and measures that deal with fleet modernisation issues



It provides a clear policy analysis of the available options & requirements to increase the economic and environmental performance of the fleet

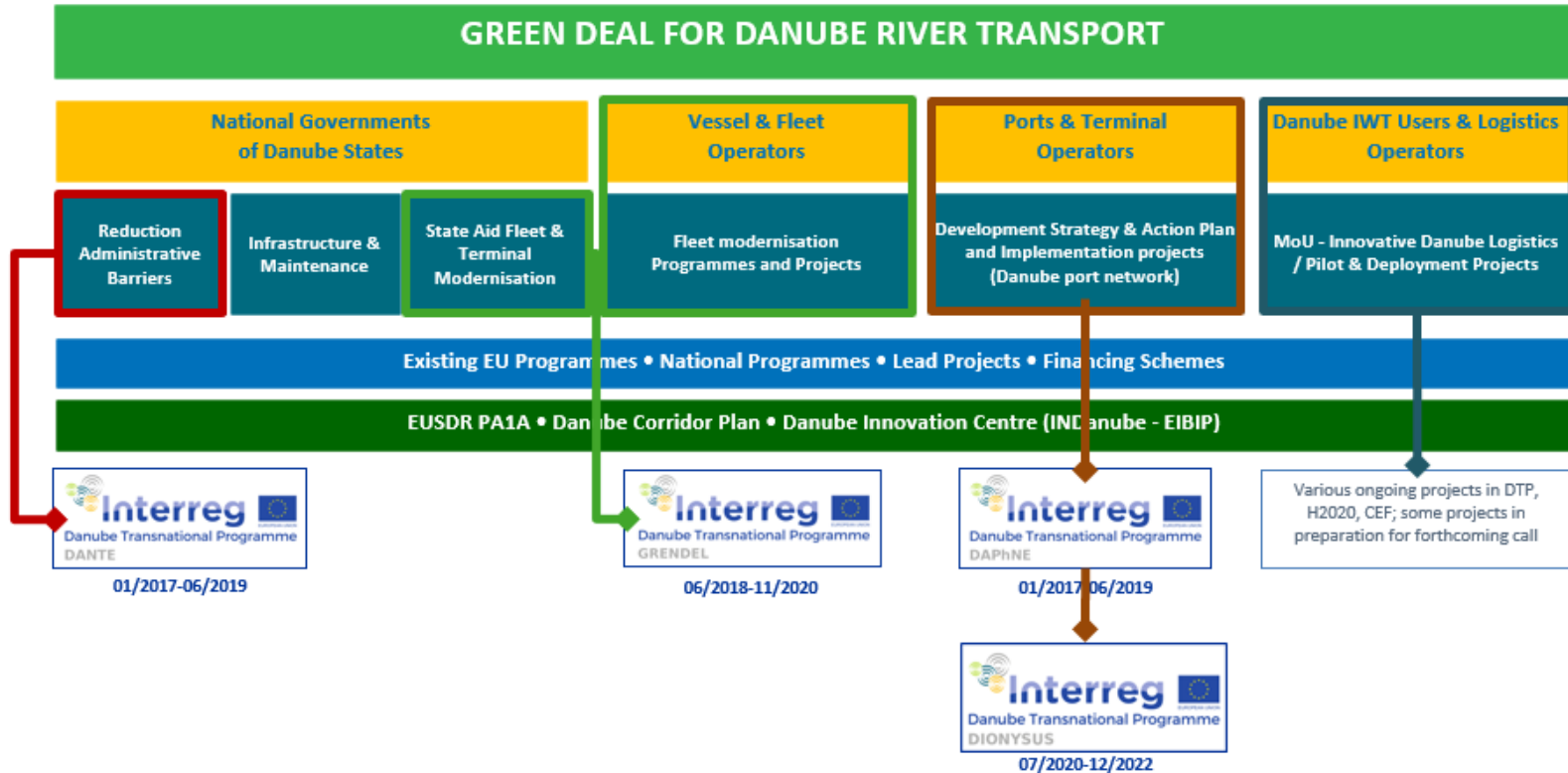


It discusses – based on comprehensive consultations carried out during the entire lifetime of the project with relevant decision makers and the sector – operational aspects of efficient integration into multimodal chains of logistics



It provides a set of recommendations based on the core findings of GRENDEL

Defining the main challenges



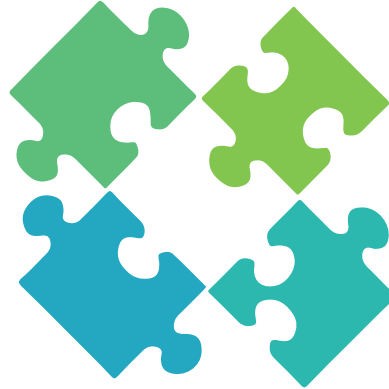
Building the strategy

EUSDR Priority Area 1a

Continuous exchanges

GREDEL Consortium

Preparatory works, Strategy workshop



Organisation of events

Public Consultations, Know-how transfer events

Continuous exchanges with Danube countries & beyond

AT, SK, HU, HR, BG, RO, RS, DE

Starting point

1. Green Deal for Danube River Transport

- Developed by PDI, the framework's main pillars are:
 - National Governments of Danube States
 - Vessel & Fleet Operators
 - Ports and Terminal Operators
 - Danube IWT & Logistics Operators
- GRENDL is an integral part of the 2nd pillar – *Vessel & Fleet Operators*
 - Addressing key aspects of financial instruments to provide consistent solutions for fleet modernisation
 - It proposes concrete actions and measures (*Model State Aid Scheme for Fleet Modernisation*) to counteract the impact of an outdated fleet on IWT's efficiency and reliability

Addressed challenges

1. Policy framework – Environmental quality through low emissions

- European Green Deal
- A Clean Planet for all
- Sustainable & Smart Mobility Strategy
- European Climate Law
- NRMM

2. Integration of IWT into the multimodal logistics chains

- Digitalisation
 - RIS
 - DINA
 - DTLF
 - CEF Building Blocks
 - Effects of COVID-19

I. Policy framework

1. Policy framework – Environmental quality through low emissions

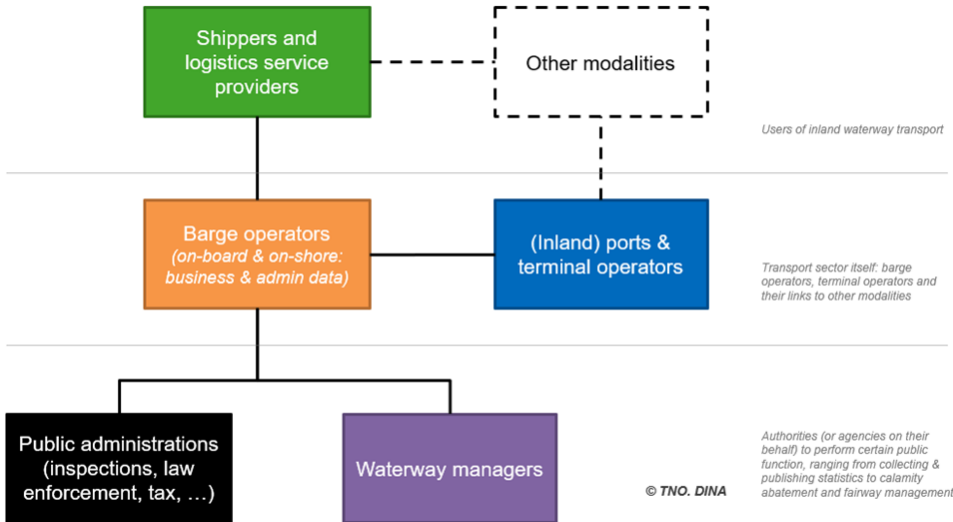
European Green Deal

- In line with EU's commitment towards the goals enshrined in the **Paris Agreement**;
- Provides a precise roadmap with concrete actions and measures to stop climate change;
- **Sustainable & Smart Mobility Strategy** – more stricter climate target by means of sustainable and digital transition (2030: reduction by at least 55% instead of 40% compared to 1990 levels).
- **European Climate Law** – policy instrument as part of the general framework as defined by the Green Deal. It still has to pass the ordinary legislative procedure.

NRMM

- Strict emission requirements on non-road mobile machinery, directly affecting IWT
- Problem: low innovation intake in IWT, low financing capacities

II. Efficient Integration of IWT in the multimodal logistics chains



Digitalisation

- River Information Services (RIS)
- Digital Inland Navigation Area (DINA)
- Digital Transport & Logistics Forum (DTLF)
- CEF Building Blocks

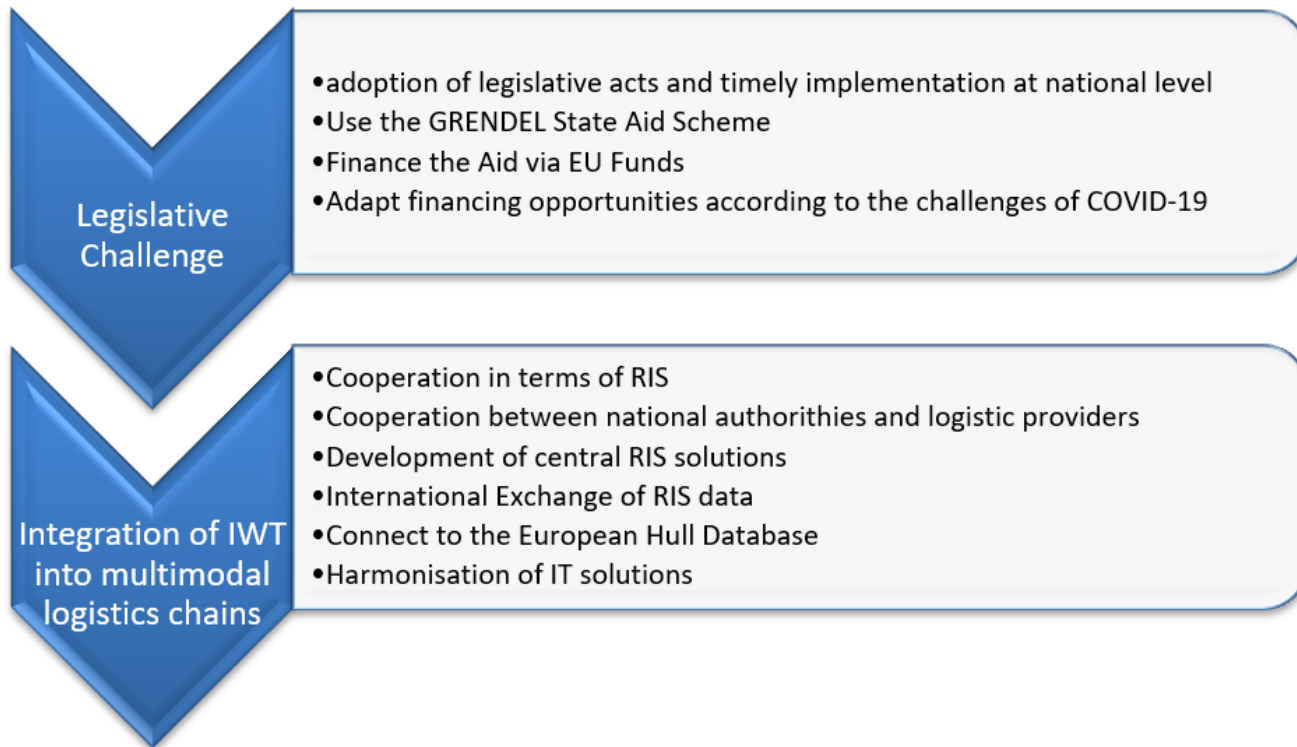
III. Recommendations. Challenge 1 – Environmental topics

- Create harmonised technical and environmental legal framework on the corridor level to ensure levelled playing field
- Adapt financing opportunities to the strict requirements set by the Legislator
- Secure a smooth integration of European legislative provisions at national level
- Adopt a widely harmonised State Aid Scheme for Fleet Modernisation using the GRENDL proposal as a basis
- It is recommended to closely follow the developments with regard to the Recovery and Resilience Fund

III. Recommendations. Challenge 2 – Logistics aspects

- Continuous cooperation of the Danube riparian countries involved in RIS
- Continuous cooperation between relevant national authorities and logistics providers
- Promotion of national best practices promoted on the transnational level
- Development of central RIS solutions considering the corridor approach
- All Danube riparian countries should participate in the international exchange of RIS data with special focus on position and electronic reporting data

III. Recommendations. Overview



GRENDEL results already embedded on Danube Region level



The GRENDEL project and the recommendations of it clearly support the achievement of the targets established in the revised [EUSDR Action Plan](#)’s for PA1a

ACTION 2: Foster business development

ACTION 3: Facilitate fleet modernisation

ACTION 4: Support the further roll-out and enhancement of River Information Services

ACTION 6: Contribute to the simplification, harmonisation and digitalisation of administrative processes

with which it is to support the optimisation of logistics processes with a green and efficient Danube fleet

Capitalisation of the results – NOW



Capitalisation of the results – IN THE VERY NEAR FUTURE

LET'S GET READY TOGETHER!

**LET'S MOVE DANUBE WATERBORNE
TRANSPORT FURTHER TOGETHER!**



 **pro DANUBE**
INTERNATIONAL

- **Connecting Europe Facility 2**
- **Recovery and Resilience Facility**
- **Horizon Europe**
- **National programmes & schemes**
- **Financing opportunities & incentives**
- **... and the combination of all these and COMPANY initiatives**

IV. To Do

1. Provide information on potential discussions or preparations held in your countries regarding the implementation of a state aid scheme for fleet modernisation as defined in GRENDel (all)
2. Fine-tune the Strategy until the end of November based on the input & comments of the involved partners (PDI)

General overview of the supported measures as proposed by the GREDEL State Aid Scheme for Fleet Modernisation			
Country:	yes	no	Status/Remarks
Priority 1. Improving environmental performance			
1.1 Acquisition (purchase or replacement) of lower emission engines			
1.2 Measures to reduce air pollutant emissions (other than through low emission engines)			
1.3 Measures to improve energy efficiency and optimise energy management on board			
1.4 Measures to reduce noise emissions			
1.5 Measures to reduce and treat releases to water or waste			
1.6. Adapt vessels to improve their energy/fuel consumption performance through improved hydrodynamics			
1.7 Promotion of education and training in inland navigation			
Priority 2. Better integration of inland water transport into logistic chains to increase multimodality of freight transport			
2.1. Adaptation of vessels to attract new traffic or freight or perpetuate existing traffic or freight			
2.2. Construction or acquisition of vessels to attract new traffic or freight			
2.3. Construction or adaptation of vessels to serve maritime ports			
2.4. Acquisition of instruments and software to help the navigation or operation of vessels / fleet			
Priority 3. Modernisation of vessels leading to increased safety of inland water transport			
3.1. Measures to adapt equipment used for manoeuvring of inland vessel and related indicating and monitoring devices			
3.2. Measures addressing vessel's safety equipment and fire protection systems			
3.3. Measures addressing safety at work stations and crew safety			
3.4 Measures addressing other safety related issues			
Priority 4. Renewal of actors in the sector			
4.1 Acquisition of first vessel for new inland waterborne transport companies and new entrants			
Priority 5. Promote the emergence of innovative solutions			
5.1 Development of innovative solution and experimentation with innovations			



Danube Transnational Programme
GRENDEL

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Photo: © NAVROM

GRENDEL “Green and efficient Danube fleet”

Towards modernisation & greening of Danube inland waterborne sector and strengthening its competitiveness

www.interreg-danube.eu/grendel

Project co-funded by European Union Funds (ERDF, IPA)

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