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EUROPEAN UNION
Danube Transnational Programme
GRENDEL

GRENDEL „Green and Efficient Danube Fleet“

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

2nd Public Consultation

Charlotte SIOT

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

22nd January 2020 – Budapest – Hungary

DANUBE CARGO VESSELS

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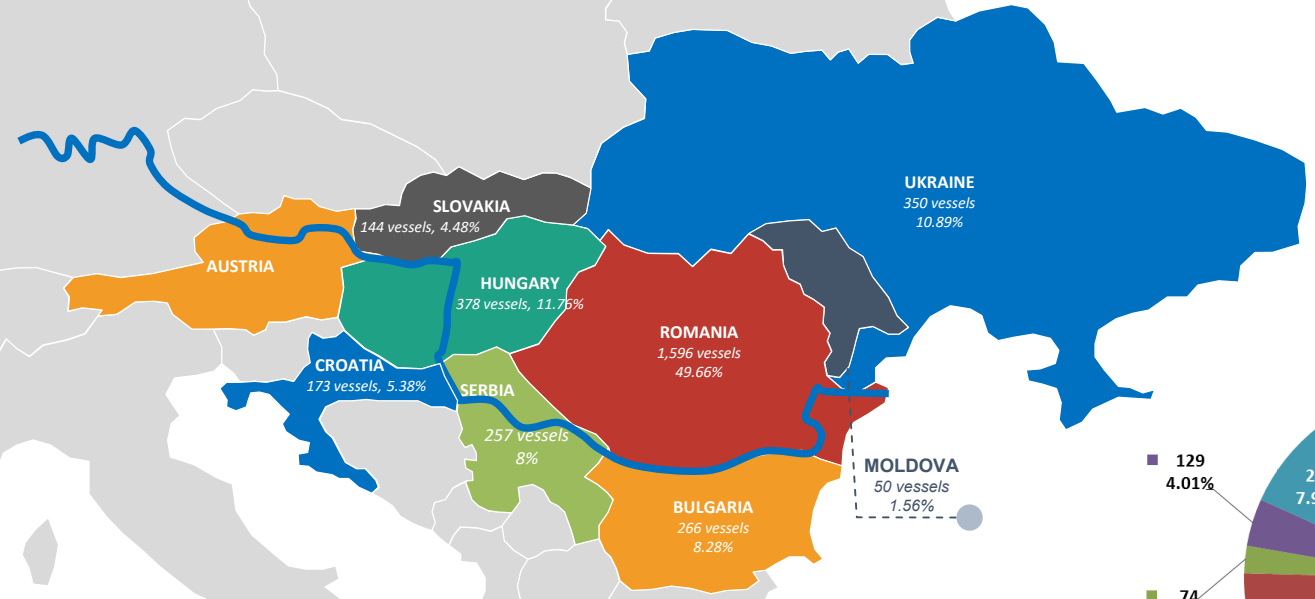
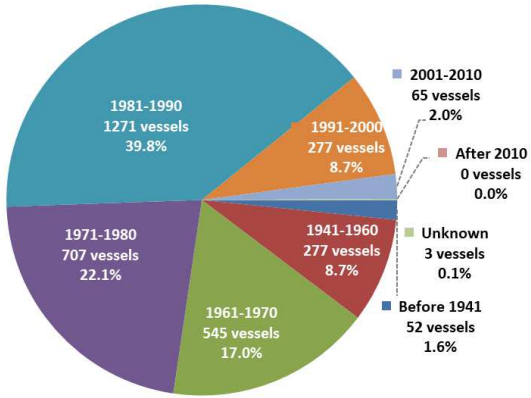
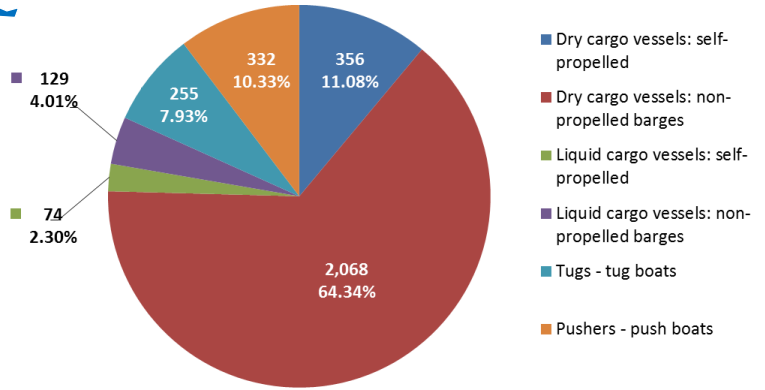


DANUBE FLEET

Self-propelled … 1,017 → 31.64%
Non-propelled … 2,197 → 68.36%
Total … 3,214





Inland vessels per country, per age and per type. Figures are for 2016.
[Source: Danube Commission. Charts: Pro Danube]

CHALLENGES
DANUBE CARGO VESSELS

WATERWAY MAINTENANCE
Insufficient waterway maintenance led to little operating profits, thus to almost no fleet investment and rather to repair activities

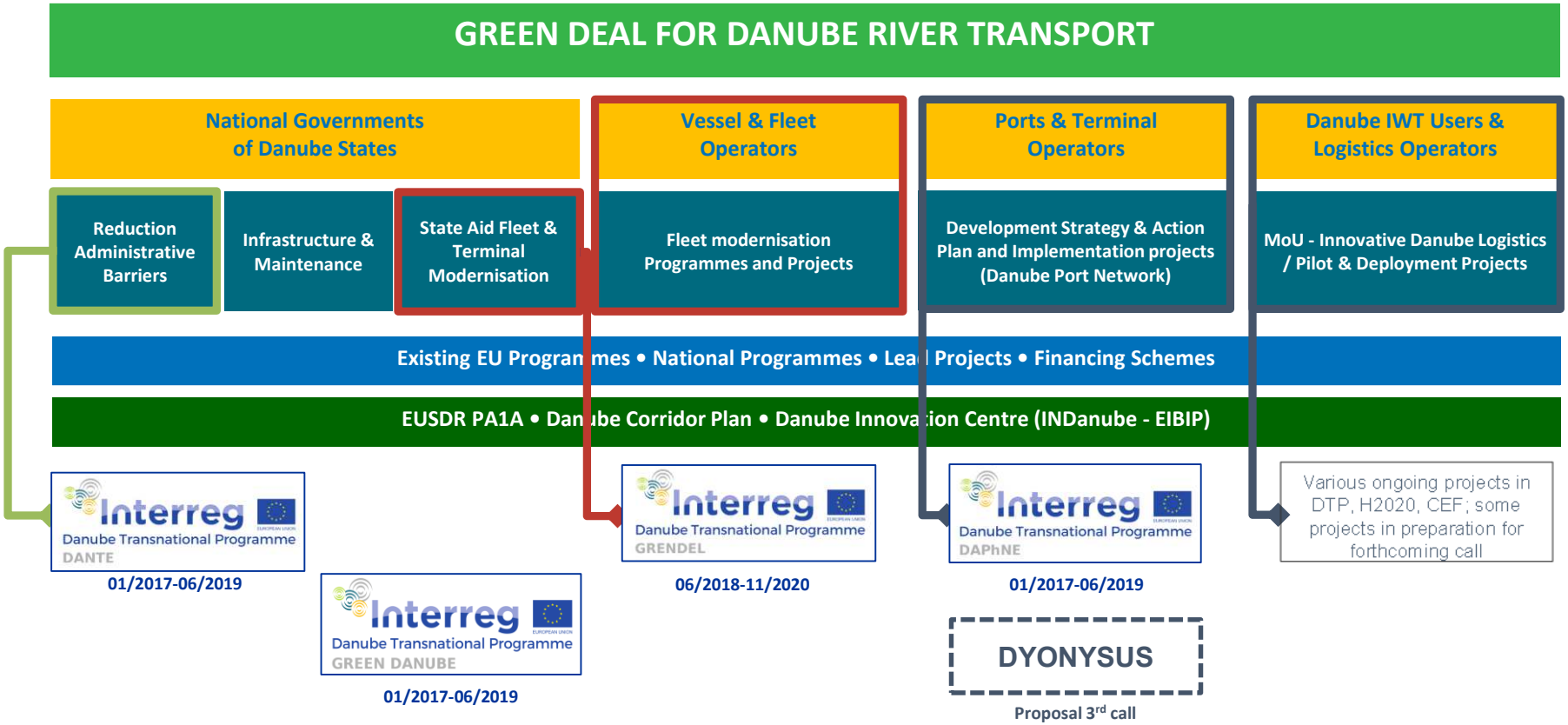
ADDRESSING ENERGY TRANSITION
- ❑ to be competitive (environmentally) to road & rail
- ❑ to be compliant with Stage V of NRMM
- ❑ to be politically supported and socially accepted

ADAPTATIONS TO NEW MARKETS
- ❑ RORO, container, biomass, biofuels, LNG & other gases, chemicals, fertilizers, high & heavy
- ❑ quality requirements beyond current equipment & service levels

GREENING & MODERNISATION OF INLAND VESSELS

- ❑ Enables the **transition towards zero-emission** and **climate neutral** economy
- ❑ Contributes to **improvement of air quality** in urban areas along waterway and to **reduction of global warming**
- ❑ Strengthens sector **competitiveness**, the industry can be boosted, and both jobs in Europe and export opportunity for greening technologies worldwide can be created.

POLICY INITIATIVE



DANUBE IWT MODERNISATION

USE OF ALTERNATIVE FUELS

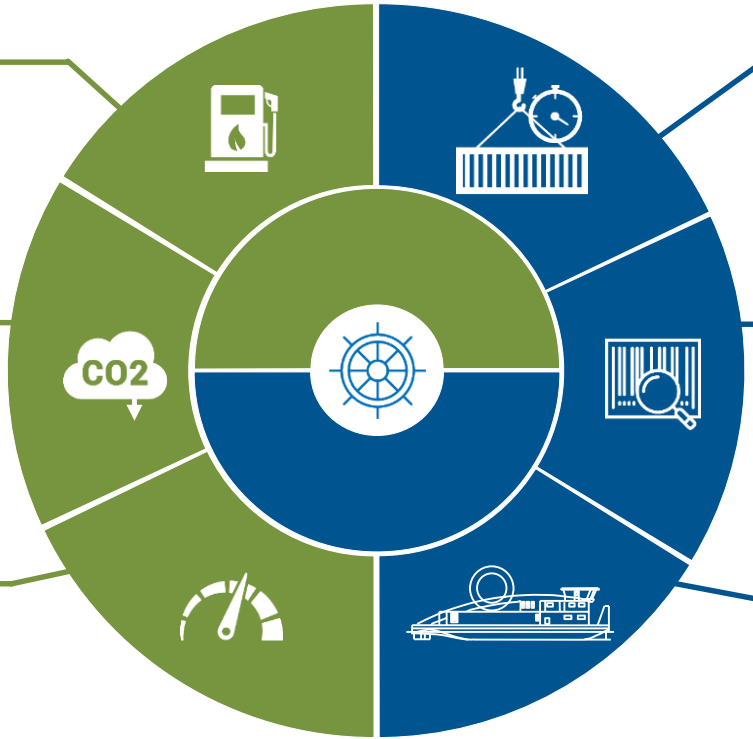
LNG/CNG • Bio-fuels • Methanol • Ethanol • Hydrogen • GTL

AIR POLLUTANT EMISSIONS REDUCTION

Alternative technologies • After-treatment • New engine concepts and optimisation

ENERGY CONSUMPTION REDUCTION

Energy-efficient navigation • Energy efficient ship design • Hybrid/diesel-electric propulsion • Electric propulsion



NEW LOGISTICS CONCEPTS

Synchromodality • DINA • Advanced RIS • Digital market places for cargo flows

NEW CARGO FLOWS

Find your (water)way • New market segments: (containerised) LNG as cargo | steel & cars | continental cargo flows

NEW VESSEL CONCEPTS

Optimal cargo load • Automation of navigation / vessel-trains

GRENDEL PROJECT KEY FACTS

PARTNERS

FUNDED PARTNERS

- Fleet owners & operators
- Innovation & technology organisations
- IWT development agencies
- Education institutes
- Ship design experts
- River commission (Danube Commission)

ASP

ASSOCIATED STRATEGIC PARTNERS

- Ministries & their implementing bodies
- Other fleet owners & operators

BUDGET

1.8 MEUR

- ERDF contribution: 85%
- IPA contribution: 85%
- State contribution: up to 15%
- Own contribution: up to 15%

TIME

6.2018 - 11.2020

- 30 months of working & cooperation together

ACTORS

NON-FUNDED STAKEHOLDERS

- Fleet owners & operators
- Logistics service providers
- Technology providers
- Cargo owners

GRENDEL *Work approach*

Green and Efficient Danube Fleet

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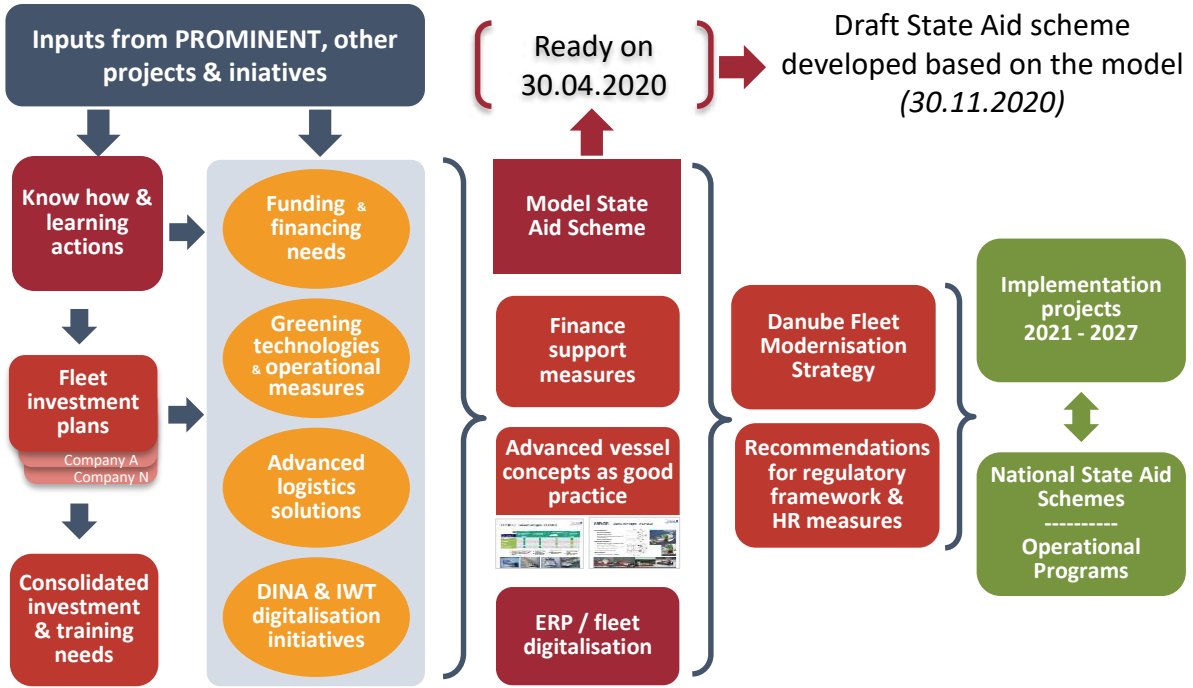
> *"GRENDEL addresses various fleet modernisation aspects: [i] use of low carbon & alternative fuels, [ii] reduction of air pollutant emissions (CO2, NOx, PM) and [iii] overall energy consumption. Besides this, [iv] transport & logistics management processes are addressed to ensure better integration of the Danube IWT into logistics chains…"*
>
> *Jun 2018 – Nov 2020*
> *Funding: Interreg / DTP*



GRENDEL *Know-how transfer to sector*

Technological factsheets & know-how transfer events

CONTENT

- Regulations & solutions in development
- Technical concept
- Economics: investment & operational costs
- Environmental sustainability
- Benefits
- Consideration for deployment
- Deployment examples


GRENDEL State Aid Scheme workshop. Budapest. March 2019


Fleet modernisation workshop. Vienna. March 2019

SAVE THE DATE

Join us on 01 **April 2020.** **Budapest**

01 APR 20 BUDAPEST

GRENDEL *Vessel concepts - FLUVIUS*

Interreg Danube Transnational Programme GRENDEL

Fluvius Schiffahrts und Speditions GmbH

	ELECTRICITY - RENEWABLE ENERGY SOURCE	RENEWAL OF ENGINES	HYDRODYNAMICS	CONCEPTUAL DESIGN (LOW EMISSION ENGINE)
MS JOHANNA	✓	✓	✗	✓
MS ELSAVA	✓	✓	✗	✗
MS ULM	✓	✓	✓	✗
MS MELANIE - H	✓	✓	✗	✗

- ✓ Electrical system assessed and performance measurements done → solar panels feasible
- ✓ Technical solutions with low enviro impact (LED, heating, cooling, water supply - examined
- ❑ Elaboration of detailed concept - starts soon

- ✓ Emission measurements
- ✓ Suggestions for environmental measures
- ❑ Elaboration of detailed concept - starts soon

- ❑ Vessel in shipyard – Sep 2019
- ❑ Measurements & detailed concept - Jan 2020

- ✓ Measuring operational profile is on-going with equipment installed
- ❑ Elaboration of conceptual design - starts soon

GRENDEL *Vessel concepts - NAVROM*

Structural modification

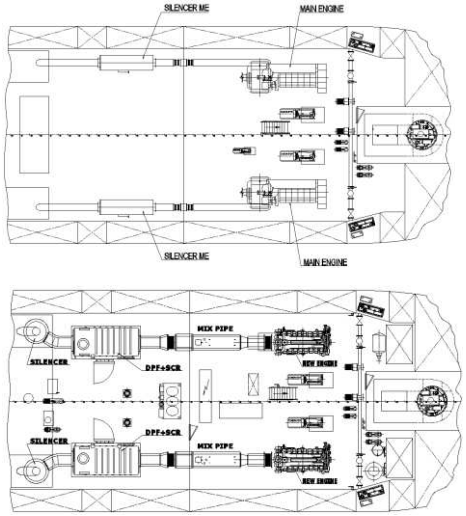
- New main engine foundation
- New exhaust system supports
- Top of funnel modifications, extension of funnel to aft (air draft unchanged)
- New stainless steel urea tank

Piping system modifications

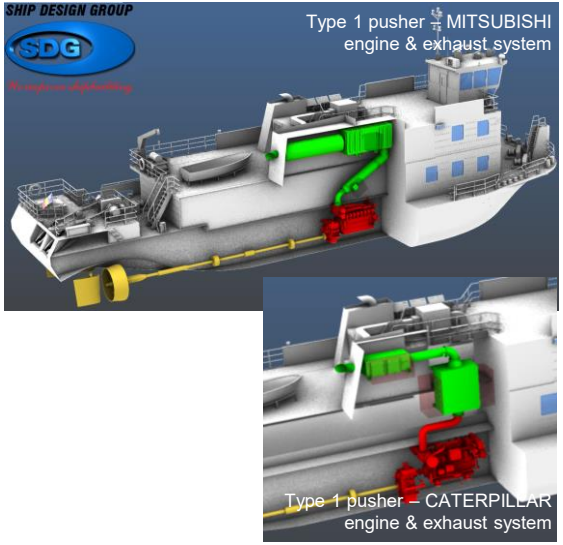
- New exhaust system for ME's and modified for DG's
- New box coolers for the ME's system
- Minor modifications for the fuel oil and lube oil systems
- Modified ventilation system arrangement
- New urea and compressed air systems

Other modifications

- Control panels and alarm panels, cable trays



Type 3 pusher



Type 1 pusher: 2 x 1194 kW/1800 rpm

Type 2 pusher: 2 x 895 kW/1800rpm

Type 3 pusher: 2 x 1185 kW/1000rpm

Type 4 pusher: 2 x 925 kW/750rpm

GRENDEL *State Aid scheme model*

Priorities

Environmental Performance

1

Reducing emissions of gaseous and particulate pollutants from internal combustion engines and auxiliary motors installed on vessels and by implementing other measures with direct environmental benefits.

Integration into logistics chains

2

Increasing the involvement of inland waterway transport in multimodal transport chains by making the vessels more competitive, operationally flexible and secure in the context of multimodal transport chain.

Increasing safety of IWT

3

Focusing at safety equipment, safety at work, adaptations to wheelhouse, steering system and manoeuvrability of a vessel, all to support a skipper in navigational and operational aspects / decisions → increase safety.

Renewal of actors in the sector

4

Encourage the acquisition of the first boat for new river transport companies and new entrants.

Innovative solutions

5

Development and experimentation with innovative solutions:

- ► experimentation w. existing or new technology, unproven for IWT
- ► R&D: design of new technologies to respond to specific needs of IWT
- ► feasibility studies

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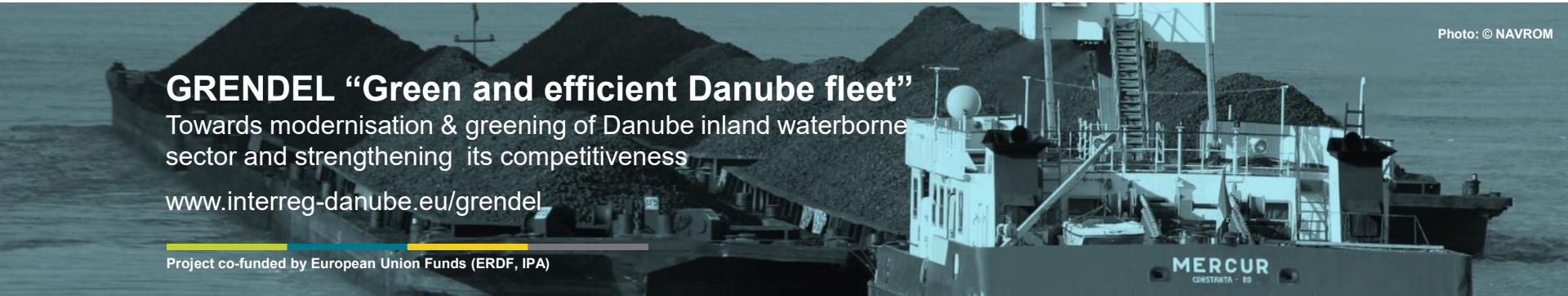

Photo: © NAVROM

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)

State aid for modernizing the Danube fleet - legal framework

GRENDEL 2nd Public consultation on State aid for the modernisation of the Danube Inland Fleet

Budapest, 22 January 2020

Daiwa Żukowska
Case Handler
Unit F2 – State aid, Transport
DG Competition, European Commission

Overview

1. Existence of State aid
2. GBER / Notification
3. Case practice
4. Revision of GBER

Is it State aid?

(1) Aid granted by a Member State

or through State resources

(2) Confers an advantage to an undertaking

(3) Selective advantage

(4) Potential to distort competition

(5) Effect on trade between Member States

Article 107(1) TFEU – all criteria must be met

- In principle, **State aid is prohibited**
- Commission has **sole competence** to approve State aid
- *De minimis* rule

EU funds and State aid

Directly managed funds

- financed by the EU's central budget;
- managed directly by the Commission or on the basis of a mandate of the Commission by (normally) the EIB/EIF;
- no margin of discretion for Member States as to the use of funds

=> **No State aid**

e.g. Horizon 2020, Connecting Europe Facility

Shared management funds

Responsibility for the management, control and selection of projects rests entirely with the national authorities => **Application of State aid law**

e.g. The European Regional Development Fund (ERDF), Cohesion Fund

If State aid is present

It can be declared compatible with the internal market by the Commission either:

1) by a **decision**, following prior notification of the aid by the Member State

2) by **block exemption regulations** laying down detailed compatibility criteria => no need to notify

Investment aid to go beyond EU standards or increase the level of environmental protection in the absence of EU standards (Article 36 GBER)

- EU Regulation for engines in non-road mobile machinery (NRMM) 2016/1628 introduced stage V emission limits for inland waterway vessel engines which came into force on:
  - 01.01.2019 (engines below 300 kW)
  - 01.01.2020 (engines above 300 kW)

- Applies to new inland waterway vessel engines;

- No obligation to replace old vessel engines;

- If a Member State gives aid for retrofitting old engines, it is State aid (but cf. *de minimis*, already approved schemes, GBER, notification).

SA.48804 Prolongation and adaptation of the aid plan for modernisation of the inland waterway fleet 2018-2022 (PAMI)

Articles 25 & 49 GBER (R&D, environmental studies)

(i) fostering innovative solutions

Article 36 GBER (environmental protection)

(ii) reducing pollution, e.g. filter systems for vessels

(iii) waste treatment on board vessels and reducing waste, e.g. systems for stocking waste on board

Articles 38 & 41 GBER (energy efficiency)

(iv) transforming vessels to make them more hydrodynamic, e.g. by reconstructing back parts of vessels so that they use less energy

(v) optimising energy on board, e.g. by installing solar panels

Notification of aid measures

- If notification is necessary, allow time for the Commission's assessment
- For novel measures, consider pre-notification
- Possible legal basis:
  - Modal shift
    - Article 93 of the Treaty
  - Greening
    - Article 107(3)(c) of the Treaty
    - Environmental Guidelines
- If you have questions:
  - e-WIKI
  - contact Unit F2: COMP-F2@ec.europa.eu

Article 93 of the Treaty

1. **Common interest**
   - Promoting a shift from road to inland waterway transport
   - 2011 White Paper on Transport
   - NAIADES action programmes (I and II)
2. **Necessity and incentive effect**
   - Beneficiaries would not have carried out the aided activities absent the granting of the aid
3. **Proportionality**
   - Aid limited to the minimum necessary
   - Presumptions
4. **The distortion of competition must not be contrary to the common interest**
   - Addresses a well-defined market failure

SA.48804 PAMI

Notified measures:

(A) Integrating the inland waterways network in the logistic chains

- Adapting vessels so they can attract new traffic
- Building or adapting vessels serving seaports
- Purchase of hardware and software to aid navigation or vessel operation

(B) Supporting renewal of operators in the industry

- Purchase of the first vessel

Aid intensities: 20-50%

Commission's review of GBER: scope and timing

Proposal to extend the GBER to three new areas:

- Financing and investment operations supported by the **InvestEU Fund**
- **RD&I** projects with Seal of Excellence, co-funded projects and Teaming Actions
- **European Territorial Cooperation** projects (also called Interreg)

Timing of GBER review:

- aim to adopt the GBER in time for the next MFF (tentative Q3 2020)

Thank you for your attention !

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GRENDEL „Green and Efficient Danube Fleet“

Activity 5.1 Public consultations

Public Consultations of the Danube Commission – State Aid

Lucia KARPATYOVA

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

22 January 2020 ● Budapest ● Hungary

GRENDEL *Work approach*

Green and Efficient Danube Fleet

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Danube Transnational Programme
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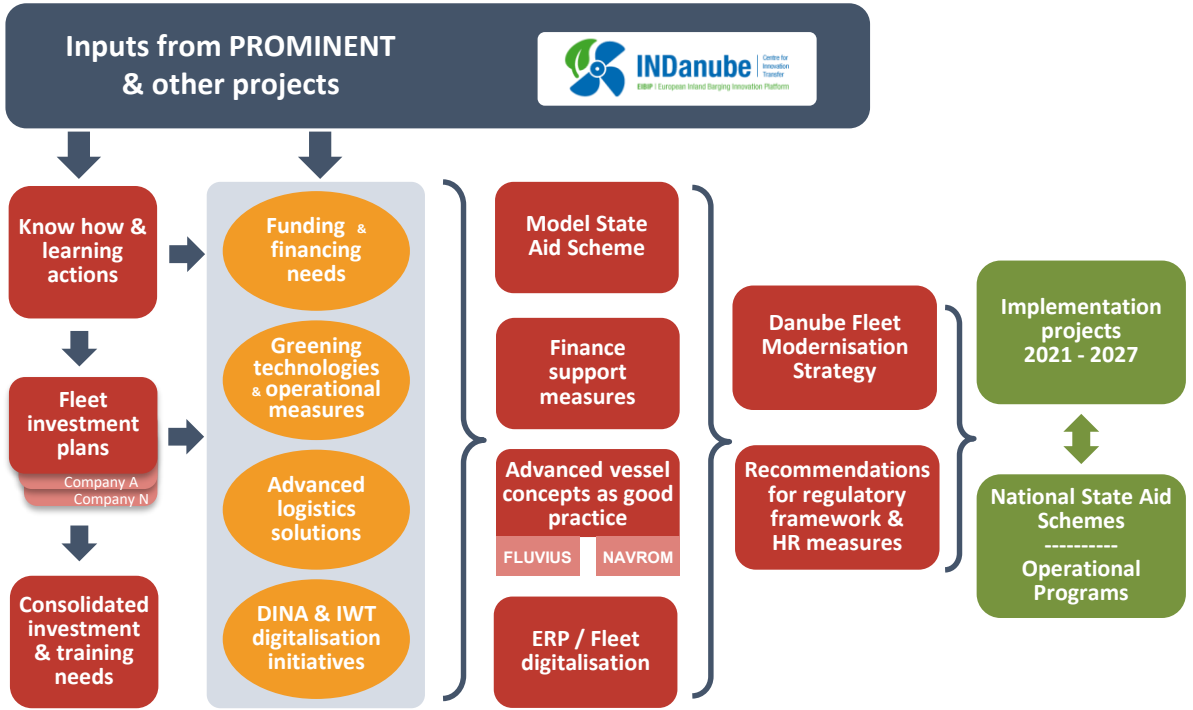

GRENDEL *Danube fleet modernisation State Aid*

Objectives

Programme promoting the sustainable modernisation and innovation of inland waterway vessels in the Danube region

- The aim is to make inland waterway transport **more energy efficient and more climate and environmentally friendly** through modernisation and greening of inland waterway vessels and to **shift more goods from roads to inland waterways** in order to achieve European (and world-wide) climate protection and environmental goals

- IWT still the **most environmentally friendly mode** of transport in terms of transported volumes (tonne-kilometre) → however need to catch up with air pollutant emissions and logistics challenges. The proposed **measures address**:
  - Air pollutant **emissions** & noise emissions abatement measures, water and waste treatment, **energy efficiency** and **economic elements** through new engines, alternative drives and exhaust after-treatment systems, fuel saving technologies …
  - **Adaptations of vessels** to adapt logistics needs of carries and shippers and digitalisation of processes to be integrated into the digital multimodal logistics

- Scheme aims to support the development of the sector three-fold …
  - help the Danube fleet (existing & new) to become **more energy-efficient, more climate and environmentally-friendly**
  - help the Danube fleet (existing & new) to **adapt the logistics needs** of carriers and shippers (changes in vessels & equipment, digitalisation of processes, integration to logistics chains)
  - support actions likely to make this sector **more competitive in order to make the profession more attractive** and to ensure the **renewal of its actors**
  - support actions **increasing the resilience of the IWT (inland vessels) towards the climate change** (low water periods, etc.)

Beneficiaries I.

Sector affected by the measure [3.3]	H.50.30 - Inland passenger water transport H.50.40 - Inland freight water transport
Type of beneficiaries [3.4.1]	SME *Selection from (a) large, (b) SME, (c) medium-sized, (d) small, (e) micro enterprises*
Estimated number of beneficiaries [3.4.2]	from 11 to 50 *Selection from (a) under 10, (b) from 11 to 50, (c) from 51 to 100, (d) from 101 to 500, (e) from 501 to 1000, (f) over 1000*
Outstanding recovery orders in case of aid schemes [3.7.2] … & legal basis concerning this point:	Include „*MS commit to suspend the award and/or payment of any aid … to any undertaking that has benefited from earlier unlawful aid declared incompatible by a Commission Decision, until that undertaking has reimbursed or paid into a blocked account the total amount of unlawful and incompatible aid and the corresponding recovery interest*.“

LARGE ENTERPRISES

→ to be checked on eligibility (e.g. if back-financed through ESIF, if any exist in Danube region

Beneficiaries II.

- **Small and Medium Enterprises** (SME) as beneficiaries
  - Cargo vessel owners / operators
  - Passenger vessel owners / operators
  - *Design offices, shipyards or other technical service providers (& similar) ← sub-programme 5. Promote emergence of innovative solutions*
- **all owners or operators of fleets** of inland waterway vessels whose vessels are recorded in the **national vessel register**, **regardless of the nationality** of the operator, having its **registered office**, branch or subsidiary **in Country and carrying goods transport** by inland waterways **in Country**
- **any natural or legal person** under civil-law and commercial-law **belonging to a Member State of the European Union** *(, in Iceland, Liechtenstein, Norway or Switzerland)* and **exercising its trade of inland waterway goods** in Country, or any legal person belonging to a Member State of the European Union having its registered office, branch or subsidiary in Country and **carrying goods transport by inland waterways** in Country
- requirement of XX journeys on the Country stretch of the Danube

VESSEL OWNERS / VESSEL OPERATORS

A
- ✓ any nationality
- ✓ national vessel register
- ✓ registered office in country
- ✓ trade / carrying goods via IW in country

B
- ✓ EU Member State (+)
- X ~~national vessel register~~
- ✓ registered office in country
- ✓ trade / carrying goods via IW in country

Add-on
- ✓ Certain amount of journeys on the country stretch

Fleet investment needs catalogue

Approach & basis for the elaboration of the fleet investment needs catalogue

- **Research and innovation projects** *(LNG Masterplan, PROMINENT, PLATINA, EIBIP …)* as well as the **policy initiatives** *(NAIADES)* which looked into modernisation of inland vessels
- EU-Wide Strategy for Innovation Uptake in Inland Waterway Transport (EIBIP & www.INDanube.eu)
  - improve the **environmental footprint** (reduction of air pollutant and greenhouse gas emissions) and to improve the **position and performance of inland navigation in overall transport system** in Europe
- **Legislation** was taken into account *(ES-TRIN, ADN, NRMM, etc.)*
- **Lessons learned** from the **preparation of the new State Aid schemes,** incl. **past** and **existing** in various EU Member States *(Germany, Croatia, France, Belgium, Netherlands, Czech Republic, etc.)*
- **State Aid block exemption categories (GBER)** → the basis for structuring the catalogue of investment needs along with the notification rule of Member States

Fleet investment needs catalogue

Priorities vs. state aid regulatory framework

State Aid regulatory framework undergoes changes for MFF 2021-2027

A. Priorities (Aid categories) exempted from notification on the basis of COMMISSION REGULATION (EU) No 651/2014 ← TFEU Art 107(3)(e)

1. **Aid for research and development and innovation** (Section 4)
   a) Aid for research and development projects (Art 25)

2. **Aid for environmental protection** (Section 7)
   a) Investment aid enabling undertakings to go beyond Union standards for environmental protection or to increase the level of environmental protection in the absence of Union standards (Art 36)
   b) Investment aid for early adaptation to future Union standards (Art 37)
   c) Investment aid for energy efficiency measures (Art 38)
   d) Investment aid for the promotion of energy from renewable sources (Art 41)
   e) …
   f) …
   g) Aid for environmental studies (Art 49)

B. Notification needed on the basis of the Articles 107(1) and 108(3) of the Treaty

Greening → Art 107(3)(c) … "facilitate development of certain economic activities"

Modal shift → Art 93 TFEU … "compatibility if SA meets the needs of coordination of transport"

1. **Modernisation of inland vessels to integrate inland waterway transport into intermodal transport chains and increase its competitiveness**
   a) New logistics concepts, incl. synchromodality, digitalisation
   b) New vessel concepts
   c) New cargo flows

2. **Modernisation of vessels leading to the increased safety of inland waterway transport**
3. **Supporting the renewal of actors in the inland waterway transport sector**

C. COMMISSION REGULATION (EU) No 1407/2013 (application of Articles 107 and 108 of the Treaty) related to *de minimis* aid

Ceiling of € 200,000 as the amount of de minimis aid that a single undertaking may receive per Member State over any period of three years

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Sub-programmes

Danube fleet modernisation State Aid

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Environmental Performance

1

Reducing emissions of gaseous and particulate pollutants from internal combustion engines and auxiliary motors installed on vessels and by implementing other measures with direct environmental benefits.

DETAILS

Integration into logistics chains

2

Increasing the involvement of inland waterway transport in multimodal transport chains by making the vessels more competitive, operationally flexible and secure in the context of multimodal transport chain.

DETAILS

Increasing safety of IWT

3

Focusing at safety equipment, safety at work, adaptations to wheelhouse, steering system and manoeuvrability of a vessel, all to support a skipper in navigational and operational aspects / decisions → increase safety.

DETAILS

Renewal of actors in the sector

4

Encourage the acquisition of the first boat for new river transport companies and new entrants.

DETAILS

Innovative solutions

5

Development and experimentation with innovative solutions:

► experimentation w. existing or new technology, unproven for IWT

► R&D: design of new technologies to respond to specific needs of IWT

► feasibility studies

DETAILS

Priority 1. Improving environmental performance

OBJECTIVE ► Environmental protection ►►► MEASURES & EXAMPLES

1.1 ACQUISITION OF LOWER EMISSION ENGINES

Art. 36

- Acquisition of lower-emission engines N E
- Acquisition of lower-emission auxiliary engines, including installation N E
- Acquisition of directly subsequent components *(e.g. gearbox),* including installation N E
- Replacement of the previously used conventional diesel engine with a lower emission engine (removal & installation) E
- In case of gas engine, the associated gas storage and supply system. N E

1.2 MEASURES TO REDUCE AIR POLLUTANT EMISSIONS

Art. 36

- Installation of (re)processing technologies and equipment for emitted gases – these include in particular catalytic converters, particulate filters, unless they are part of the lower emission engine, as well as combined exhaust gas reduction systems and other pollution control systems. N E
- Installation of fuel water emulsion technology / plant N E

1.3 ENERGY EFFICIENCY & MANAGEMENT ON-BOARD

Art. 38 & Art 41

- Installation of technologies to reduce fuel consumption provided that a saving of at least XX% in fuel consumption *(e.g. alternative drive systems – diesel and gas electrical & purely electric drives, …)* E
- Installation of energy reduction systems on board *(e.g. energy management automat, eco-pilot, generator)* N E
- Installation of renewable energy production systems *(e.g. solar panels, fuel cells for domestic use)* N E
- Adaptations of vessels energy supply wiring / network resulting from installations above *(e.g. overhaul of electrical or hydraulic circuits).* N E

1.4 NOISE EMISSION REDUCTION

Art. 36

- Installations and adaptations to reduce noise emissions and vibrations in engine rooms E
- Installations and adaptations measures to reduce noise emissions and vibrations in a wheelhouse E
- Installations and adaptations measures to reduce noise emissions and vibrations in accommodation spaces, both communal living quarters and sleeping cabins. E

1.5 WATER AND WASTE REDUCTION AND TREATMENT

Art. 36

- waste storage systems *(e.g. storage tanks)* N E
- waste reprocessing systems *(e.g. reprocessing station, adaptation of piping)* N E
- equipment to limit the waste generated *(e.g. propeller shaft limiting grease)* N E

1.6 ADAPTATIONS TO VESSELS: HYDRODYNAMICS

Art. 36

- modification of the rear and / or front forms of a vessel E
- improvement of the propulsion system *(e.g. nozzles)* E

Rear-ship replacements

(vessel to be used to appr. 80% ▪ 10%-40% fuel savings ▪ significantly reduced downtime compared to conversions)

- Conversion from single to **multi-propeller propulsion** (incl. replacing rear ship)
- **Optimisation** in development phase
- Replacement of classic propeller tunnel by so called **flex tunnel** (allowing operation from a draft of 1.2m; reducing the energy demand)
- Coordinated design of the **duct, propeller, rudder and flow plate arrangements** → reduction of power requirements, vibration, noise

N New builds E Existing vessels

Priority 1. Improving environmental performance

OBJECTIVE ► Environmental protection ►►► FURTHER INFORMATION

ACTIONS

❑Acquisition of new transport vehicles - conditions to be clarified with EC services

To apply under GBER the intensity of aid shall be as described in GBER. The aid can be two-fold:

- *Aid for undertakings which **go beyond Union standards** or which increase the level of environmental protection **in the absence of Union standards***
- *Aid for **acquisition of new transport vehicles** which go beyond Union standards or which increase the level of environmental protection in the absence of Union standards*

Objective	Reducing emissions of gaseous and particulate pollutants from internal combustion engines and auxiliary motors installed on vessels and by implementing other measures with direct environmental benefits		
Assessment basis for eligible costs	❑ Purchasing / acquisition of equipment	❑ Extra costs, without VAT, compared to conventional fuel system – power trains & related equipment … (FR-SA.48804) ❑ Flat rates – power trains (e.g. XX€/kW), fuel water emulsion plant … (DE-SA.52931) ❑ Proven expenditure for acquisition of technology not dependent on kW (DE-SA.52931) ❑ Extra costs (compared to no investment), capped to 85% (CZ.43080)	
	❑ Installation costs / replacement costs	❑ Full	capped at certain amount (FR-SA.48804 → 30% of installation costs capped at 70,000€ per vessel)
		❑ Flat rate	flat rate per ranges of engine power (DE-SA.52931)
	❑ Costs of work (external)	❑ Full	capped at certain amount (FR-SA.48804)
	❑ Technical documentation	❑ Full	reasonable costs (e.g. classes, technical inspection, etc.)
Aid intensity	❑ Measures 1.1, 1.2, 1.4, 1.5 & 1.6 (enviro measures): 40% of eligible costs (medium 10%, small 20%) ❑ Measure 1.3 (energy efficiency measure): 30% of eligible costs (medium 10%, small 20%) ❑ E.g. 85% in CZ-SA.43080 capped at 30% of new reference vessels = CZK 80 mill. (~3.2M€)		
Terms of application	Vessels eligible for State Aid must have certificate; Obligation to use a vessel at least 2 years after installation or replacement or more if the cumulative aid is higher (e.g. 5 years in case 23,000€ in FR.SA48804); Use of equipment for certain time; Cooperation with on-the-spot-checks; Logging system e.g. in case of aftertreatment …		

HIGHER INTENSITY EXPECTED → NOTIFICATION NEEDED

Priority 1. Improving environmental performance

Assessment on the basis of derogations provided in the TFEU [1/3]

Aid is granted for investments enabling the beneficiary to **increase the level of environmental protection** resulting from its activities **in the absence** or **going beyond the Union standards**.

LEGAL BASIS	Art 107(3)(c) TFEU and Guidelines on State aid for environmental protection and energy (2014-2020) EEAG, point 27.
ACTIONS ❑Clarification of support for existing and new vessels	[Existing vessels] NRMM (Regulation (EU) 2016/1628) does not oblige vessel owners to replace old engines, therefore aid is granted in order to incentivise such owners to do investment, thus making them increase environmental protection **in the absence of EU standards applicable** to them. [New vessels] Question: can be funded if going beyond the EU standards, e.g. by going 5% or more beyond defined emission values in reduction of at least one of these emission limits.

COMMON INTEREST	If a measure is co-financed by **ESIF**, MS may rely on **reasoning from Operational Programmes** [illegible] indicating the energy objectives pursued.
	Other references to be used:
	• **EU environmental policies & legislation** (examples)
	  • Green Deal & co.
	  • A Clean Planet for All (COM/2018/773 final, 28 November 2018)
	  • A Europe that protects: Clean air for all (COM/2018/330 final, 17 May 2018)
	  • Call by Council of transport ministers and European Parliament for improvement of sustainability of inland waterway transport in view of contributing to Paris agreement objectives (COP21)
	  • Mannheim declaration
	  • Political Guidelines for the next European Commission 2019-2024 with its "European Green Deal"
	  • Regulation related to emission limits for internal combustion engines for non-road mobile machinery (NRMM)
	• National **Air quality plans**, etc. (country input needed)

	ACTIONS ❑MS to include "option" for State Aid to OPs ❑Support of DG REGIO
NEED FOR STATE INTERVENTION **(MARKET FAILURE)**	• Greening investments **not possible if purely commercial interests** are pursued → the vessels are operationally & technically fit. • **High financial costs of modernisation / greening**, no motivation on the side of vessel operators to modernise / green, thus contribute to the environmental improvements without State Aid • Vessel **operators do not have sufficient own resources** (structural problems of the sector, problems with waterway maintenance in past, etc.)

Priority 1. Improving environmental performance

Assessment on the basis of derogations provided in the TFEU [2/3]

Aid is granted for investments enabling the beneficiary to **increase the level of environmental protection** resulting from its activities **in the absence** or **going beyond the Union standards**.

APPROPRIATE	… for aid schemes implementing the objectives and priorities of the Operational Programmes, the financing instrument chosen in the programme (OP) is in principle presumed to be an appropriate instrument. → proper OP 2021-2027 needed in the Danube countries (action point for MS + support of DG REGIO)
INCENTIVE EFFECT *(49 of EEAG) occurs when the aid induces the beneficiary to change its behaviour to increase the level of environmental protection and the aid must not subsidise the costs of an activity that an undertaking would anyhow incur*	Aid aims to support investments that lead to a **higher level environmental protection** as it supports the realization of investments that **go beyond the applicable Union standards** (e.g. air pollutant emissions) or are done in the **absence of Union standards** (no legislation for existing vessels) and contributes positively to the environmental objective set out in point 55 of the EEAG. Investments are not mandatory and the vessel owner would not undertake them without aid. Aid awarded based on • Basis of a **transparent, non-discriminatory competitive bidding** and a call with defined conditions, duration, specifications … (vs. open scheme ?) • Application must be submitted prior to the start of works on the project • Standardised application form shall be used with justifications (e.g. proof of positive environmental impact, assessment of benefits, etc.)
AVOID UNDUE NEGATIVE EFFECTS ON COMPETITION **ACTIONS** ❑Details / structure of beneficiaries to be provided by MS	• Being green is currently no benefit or competitive advantage. In the Danube region, there is no pressure from the side of shippers, consumers to have the cargo delivered in a green way, just as cheap as possible. • **Well defined non-discriminatory, transparent and open selection process for all SME owners or operators → definition of beneficiaries to be agreed** *(EU+ vs any nationality; yes/no in national vessel register; office/branch in country, trade via IW in country, journey on the country stretch)* • **Same / similar conditions of the State Aid scheme applied in (all) Danube countries** → vs. possibility to have one regional State Aid scheme • Budget XX M€ disbursed over six-year period to relatively large number of potential recipients (expected up to 50 per country)
TRANSPARENCY **QUESTION** ❑Website shall be running another 10years?	• Publication of **required information (104 of AAEG)** on a comprehensive State aid **website, at national or regional level** • (106 of EEAG) Such information must be published after the decision to grant the aid has been taken, must be kept **for at least 10 years** and must be **available to the general public** without restrictions

Priority 1. Improving environmental performance

Assessment on the basis of derogations provided in the TFEU [3/3]

Aid is granted for investments enabling the beneficiary to **increase the level of environmental protection** resulting from its activities **in the absence** or **going beyond the Union standards**.

PROPORTIONATE

(69 of EEAG) "… aid amount per beneficiary is limited to the minimum needed to achieve the environmental protection or energy objective aimed."

(70 of EEAG) "…if the aid corresponds to the net extra cost necessary to meet the objective, compared to the counterfactual scenario in the absence of aid."

ACTIONS
- ❑Clarify with DG COMP
- ❑Agreement on method needed at MS level

"… aid amount per beneficiary is limited to the minimum needed ..." which is defined as "net extra cost necessary to meet the objective compared to the counterfactual scenario in the absence of aid …" (70 of EEAG)

- **Simplified method** (71 of EEAG) → extra investment costs (not taking into account operating benefits & costs)
- Eligible costs:
  - (73)(a) of EEAG → in case costs can be identified → e.g. a separate after-treatment
  - (73)(b) of EEAG → costs are difficult to identify in the total investment costs. Examples:
    - (1) difference between a low emission engine and a conventional diesel engine (how to set a price of a conventional diesel engine as such type shall not be anymore on the market?) → this approach might be applicable for **new vessels** in case they prove that the specific engine will contribute to higher level of environmental protection **going beyond the Union standards** (e.g. by 5% in at least of one of emission limits)
    - (2) full acquisition price of a low emission engine as extra investment costs in case of retrofits (because counterfactual scenario is no action, thus zero investment) → reference to (73)(b) of EEAG
    - (3) SA.43080 [CZ] *"… in case of replacement of vessels' engines, the market price of the existing engine of the vessel will be deducted from the eligible costs (the estimate of the market price will be supported by a court-sworn expert's opinion)"* → is there really a market price on the existing 40-years old engine or just the costs related to scrapping of the engine. If market price is to be considered, this gives a sign to support the "further use" of old non-conform engines for other purposes, rather than to get rid of it completely by scrapping.
- (Annex 1 of EEAG) Maximum aid intensities → up to 100% of eligible costs, if bidding process

CUMULATION
- Aid granted under the scheme **cannot be cumulated with other aid** or ***de minimis*** for the same eligible costs.

Priority 2. Integration into logistics chains

OBJECTIVE ► Coordination of transport ►►► MEASURES & EXAMPLES

2.1 ADAPTATION OF VESSELS TO ATTRACT NEW TRAFFIC OR FREIGHT OR PERPETUATE EXISTING TRAFFIC

Measure aims to support the adaptation of existing vessel to attract new cargo and further develop their activity. It also plans to help carriers to make the necessary adjustments to sustain transport activities already in place. Investments may relate to:

- adaptations of the vessel's equipment *(e.g. bottom or deck reinforcement, acquisition and installation of stacking covers, raising the hatchways, extending hatchways, …)* E
- adaptations of the dimensions of the vessel *(e.g. lengthening, shortening, broadening)* E
- adaptations related to handling or transport *(e.g. on-board handling equipment, hazardous material transfer systems, acquisition transportation frames for cars)* E

2.2 CONSTRUCTION OR ACQUISITION OF VESSELS TO ATTRACT NEW TRAFFIC OR FREIGHT

Measure aims to encourage the construction or acquisition of new or used vessels adapted to new transport/cargo in order to capture new market shares. Investments may relate to:

- design studies and pilots N E
- construction or acquisition of units responding to specific traffic N E

2.3 CONSTRUCTION OR ADAPTATION OF VESSELS TO SERVE MARITIME PORTS

Measure is to encourage the construction, acquisition or adaptation of inland waterway vessels to navigate in the seaport area addressing peculiarities which imply certain specific equipment; projects that generate additional traffic (new or increasing compared to existing ones). Investments may relate to:

Aid for the construction of vessels N E

- design studies
- construction of units responding to traffic crossing a river-sea zone

Adaptation of existing vessels E

- adaptation to navigation conditions *(e.g. buoyancy reserve, stowage of containers)*
- adaptation to the specificities of seaports *(e.g. coarse risers)*

2.4 ACQUISITION OF INSTRUMENTS AND SOFTWARE TO HELP THE NAVIGATION OR OPERATION OF VESSELS / FLEET

Measure aims to modernise the management of vessels and their loads by carriers, and to improve their productivity. Investments may relate to:

- navigation aids *(e.g. GPS, anemometer, AIS interfaced radars, ECDIS chart, tempomat, autopilot, …)* since their acquisition is not an obligation regulatory framework, provided in particular under the specific regulation(s) N E
- software *(e.g. logistics planning software, loading plan optimisation software, enterprise resource planning and fleet management software, interfaces with other transport modes and port community systems, …)* N E

N New builds E Existing vessels

Priority 2. Integration into logistics chains

OBJECTIVE ► Coordination of transport ►►► FURTHER INFORMATION

	GBER not applicable → notification is needed together with assessment on the basis of derogations provided in the Art 93 TFEU	
Objective	Increasing the involvement of inland waterway transport in multimodal transport chains by making the vessels more competitive, operationally flexible and secure in the context of multimodal transport chain	
Assessment basis for eligible costs *→ "Proven expenditure for the acquisition of the technology and the implementation of the measure (alternative with capping per vessel)"* & Aid intensity	❑ adaptations to attract new traffic or freight or preserve existing traffic or freight	❑ Pre-cond.: existing vessels ▪ responding specific traffic/freight ▪ business plan / justification of investments towards adaptations *FR SA.48804: 30% of costs of work capped at € 230,000 per vessel ▪ CZ SA.43080: 75% with bonus 10% for small enterprises, whereas all modernisations under the aid must not exceed 30% of the price of new reference vessel (~2.96M€)*
	❑ construction/acquisition of vessel to attract new traffic or freight	❑ Pre-cond.: Year of the build of the vessel vs. first registration ▪ business plan / justification of investments towards adaptations *FR SA.48804: 50% of the costs of studies capped at € 100,000 per vessel & 20% of the construction or acquisition, capped at € 200,000 per vessel*
	❑ construction or adaptation to serve maritime ports	❑ Aid for the construction of boats *FR SA.48804: design studies → 50% of costs of studies, capped at €100,000 per vessel; construction → 20% of construction costs, capped at € 400,000 per vessel* ❑ Aid for adaptation of existing boats *FR SA.48804: 30% of the cost of work, and is capped at € 90,000 per vessel*
	❑ instruments/SW to help navigation & operation of vessels	❑ Pre-cond.: acquisition of software incl. licences / development of software interfaces only, not development of software itself *FR SA.48804 - 30% of the cost of works, capped at € 20,000 per vessel*
Terms of application	if installation of certain equipment or features is mandatory (will become mandatory), the corresponding works or equipment will no longer be eligible	

Priority 3. Increasing safety of IWT

OBJECTIVE ► Coordination of transport ►►► MEASURES & EXAMPLES

3.1 MEASURES TO ADAPT EQUIPMENT USED FOR MANOEUVRING OF VESSEL AND RELATED INDICATING AND MONITORING DEVICES

Installation of equipment and technologies to enhance manoeuvrability of inland waterway vessels (such as steering system and rudders) and to ensure the proper signalling indicating any problem. Investments may relate to:

- Installations and adaptations related to control, indicating and monitoring devices and equipment *(e.g. automatic switch of indicating and monitoring devices to alternative power source , control for main engines by a single lever, display of operational status of devices and equipment , …),*
- Installations and adaptations related to wheelhouse *(measures to ensure unobstructed view , installation of independent alarm system , measures enabling lifting and lowering the wheelhouse , …),*
- Installations and adaptations related to steering system *(measures related to steering system like presence of second independent drive unit, hydraulic steering apparatus and related tanks, pipework as well as alarm and monitoring , other measures to ensure required manoeuvrability of steering system, temperatures, design of rudder stocks or manual drive , ...)*

3.2 MEASURES ADDRESSING VESSEL'S SAFETY EQUIPMENT AND FIRE PROTECTION SYSTEMS

Installation and adaptations to safety equipment on-board of inland vessels aimed to enhance the safety of operation of inland vessels. Investments may relate to:

- Installations and adaptations related to safety measures of engines and engine equipment *(e.g. securing engines against unintentional starting, protecting fuel and oil pipeline connections against leakage, jacketed piping system for external high pressure fuel delivery pipes of diesel engines, monitoring devices used to monitor propulsion systems, switch off and indication of automatic device for reduction of engine speed from helmsman's position)*
- Installations and adaptations related to anchor equipment
- Installations and adaptations related to mooring equipment *(replacement of mooring and other cables)*
- Installations and adaptations related to firefighting system *(portable fire extinguishers)*

3.3 MEASURES ADDRESSING SAFETY AT WORK STATIONS AND CREW SAFETY

Installation and adaptations to the inland vessel and working areas aimed to enhance the safety of operations and crew safety. Investments may relate to:

- Installations and adaptations to (completing of) deck cover & deck equipment *(e.g. hatch covers , winches)* and other protection against falling , or safety equipment like inflatable lifejackets

3.4 MEASURES ADDRESSING OTHER SAFETY RELATED ISSUES

Installation of other equipment or adaptations to inland vessels to support the skipper. Investments may relate to:

- Installation of equipment that increases the safety of navigation and support skippers in (difficult) navigational/operational aspects and situations *(e.g. cameras, CCTV on board, LED lights, …)*

N New builds E Existing vessels

Priority 4. Renewal of actors in the sector

OBJECTIVE ► Coordination of transport ►►► MEASURES & EXAMPLES

4.1 SUPPORT TO RENEWAL OF ACTORS IN THE SECTOR

› Acquisition of first vessel for new inland waterborne transport companies and new entrants

Potential beneficiaries:

- Only new vessel operators / owners / companies *(not another newly established company of person who already owns a vessel)*

Eligible of costs:

- Purchase price of a vessel

Assessment basis for costs:

- E.g. XX€/dwt, within a limit of XX% of the purchase price of the vessels and XX,000€ per vessel *(FR SA.48804 80€/dwt, within a limit of 20% of the purchase price of the vessels and 60,000€ per vessel)*

Legislation / Standard: N/A

Terms of application:

- Only to new entrants into the profession / into IWT sector (new individuals or new companies only that have not benefitted from this aid)

Priority 5. Promote emergence of innovative solutions

OBJECTIVE ► Research, development and innovation ►►► MEASURES & EXAMPLES

5.1 DEVELOPMENT OF INNOVATIVE SOLUTION AND EXPERIMENTATION WITH INNOVATIONS

Aid for research and development projects (GBER Art 25) & Aid for enviro studies (Art 49)

- Experimentation of existing or new technology, unproven in the specific context of inland water transport
- Research and development related to design of new technologies to respond to specific needs of inland water sector
- Elaboration of feasibility studies

Potential beneficiaries:

- as well other project promoters (design offices, naval architects, shipyards or other technical services providers, consortia, as well as passenger inland vessels' operators provided that the project freight inland vessels operators can benefit from proposed project)

Eligible of costs:

- staff costs, costs of instruments and equipment (depreciation), research contracts, knowledge, patents purchased or licensed, consulting and similar services, overheads and operating expenses (to be defined in detail in the programming documentation)
- costs of studies, including energy audits, directly linked to investments referred to Section "Aid for environmental protection (Art 36-49)"

Assessment basis for aid:

- E.g. intensity depends on a project type & an applicant; cap on projects (e.g. 100,000€ per project), …

Intensity of aid	Maximum	Medium enterpr.	Small enterpr.
Art 25 of GBER	(a) 100% fundamental research (b) 50% industrial research (c) 25% experimental development (d) 50% feasibility studies	(b) see Art.25, 6 (c) see Art.25, 6 (d) ↑ by 10%	(b) see Art.25, 6 (c) see Art.25, 6 (d) ↑ by 20%
Art 49 of GBER Aid for enviro studies	50%	↑ by 10%	↑ by 20%

Legislation: N/A

Terms of application: N/A

Interreg
Danube Transnational Programme
GRENDEL

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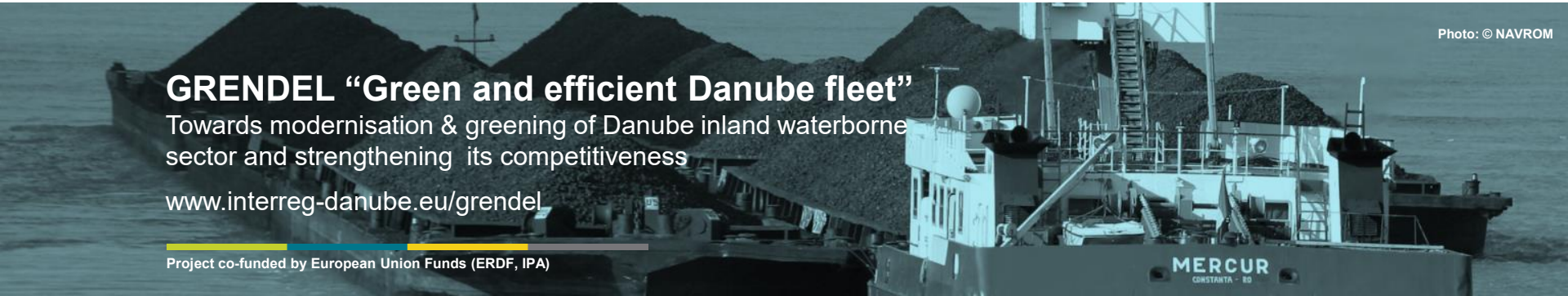


Photo: © NAVROM

GRENDEL “Green and efficient Danube fleet”

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

www.interreg-danube.eu/grendel

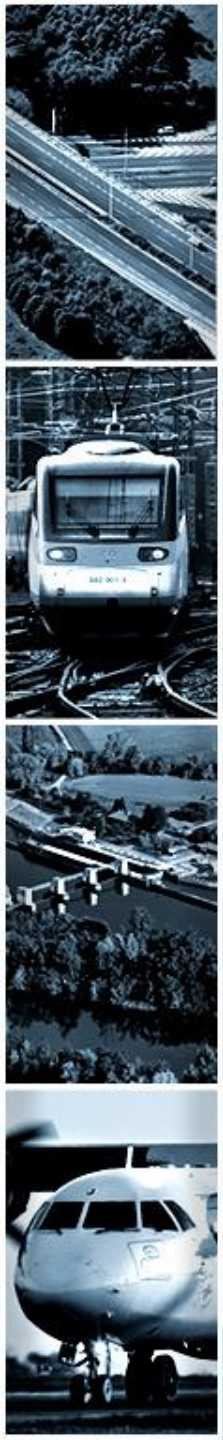
Project co-funded by European Union Funds (ERDF, IPA)

Czech Republic
Ministry of Transport

Modernisation of Inland Waterway vessels in the Czech Republic

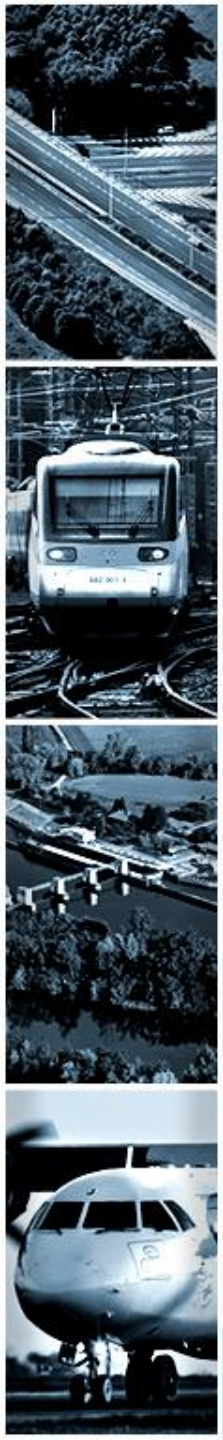
Vojtěch Dabrowski
Deputy Head of Water Transport Unit
Rail – and Waterborne Transport Department

Budapest, Danube Commission, 22nd January 2020



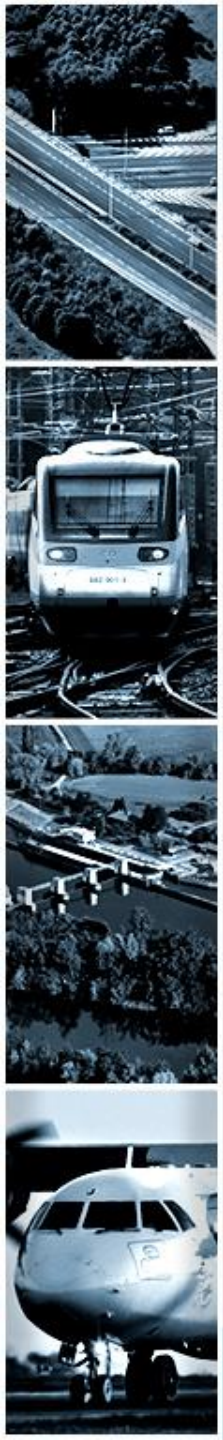
The general facts and framework

- Very high age of Inland waterway vessels in the Czech Republic
- Unsufficient navigation conditions on the certain parts of waterways in the Czech Republic (especially in the CZ/DE border area)
- Difficult negotiations with NGO´s and Ministry of environment on realisation of appropriate infrastructure measures on the Elbe – no chance to include these measures into Oparational Programme Transport
- Decission to help skippers by inclusion of vessels modernisation programme to OPT



Aid Density

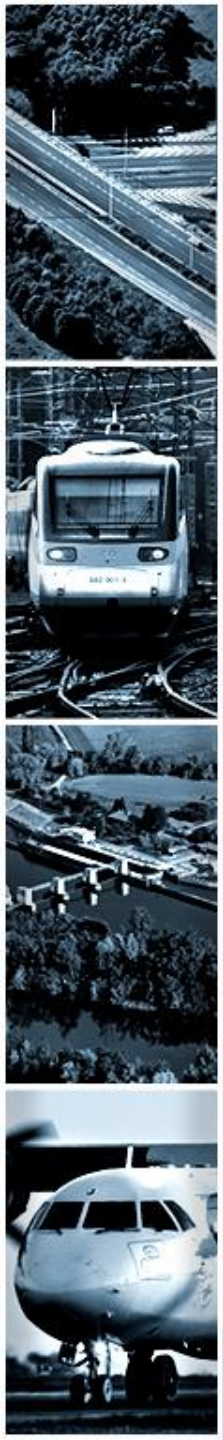
- Programme Modernisation of Inland Waterway Vessels (OPT I) max. 49%
- Programme Modernisation of Inland Waterway Vessels II (OPT II, ongoing) 75% - 85% according to the company size
- **Intended for SME´s only**



Aid Density

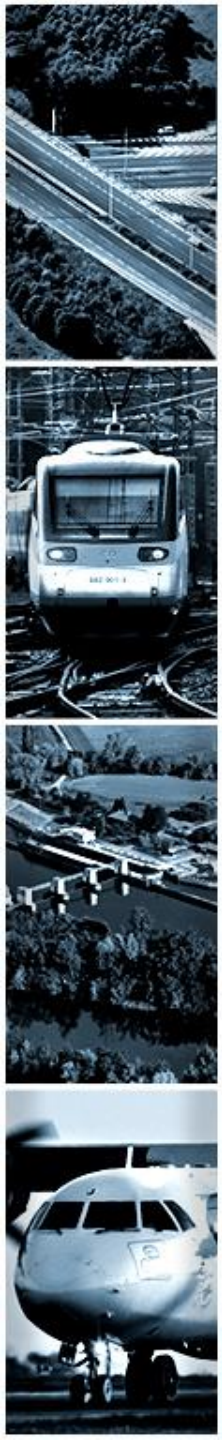
The actual density volume is based especially on the follwing facts:

- The Czech Republic is connected to the European Inland Waterway System by the Elbe only
- The development of Elbe is currently planned in coordination of DE,CZ and European Commission (derogation of TEN-T Regulation parameters, preparation of Czech – German Treaty)
- According to existing analysis and in accordance with the White Book (transfer of transports from road to railway and IWT) the transport demand with increase
- The need to have the fleet capacity available
- **Special conditions /requests – the certain amount of transports must be realised to / from the CZ**



The currently ongoing call

- Subprogrammes:
  - Enhancement of IWT safety
  - Increase of multimodality of cargo transport
  - Remotorisation of vessels - purchase of low emission propulsion and auxiliary units
  - Lowering of fuel consumption
- Total allocation of 10 mil EUR
- 103 applications recieved, evaluation ongoing



Ministerstvo dopravy

Thank you for your attention