

Towards green, efficient and competitive river Danube transport

GRENDEL - Green and efficient Danube fleet

DTP2-052-3.1-GRENDEL

Kick off - Meeting, 30 August 2018, Constanta

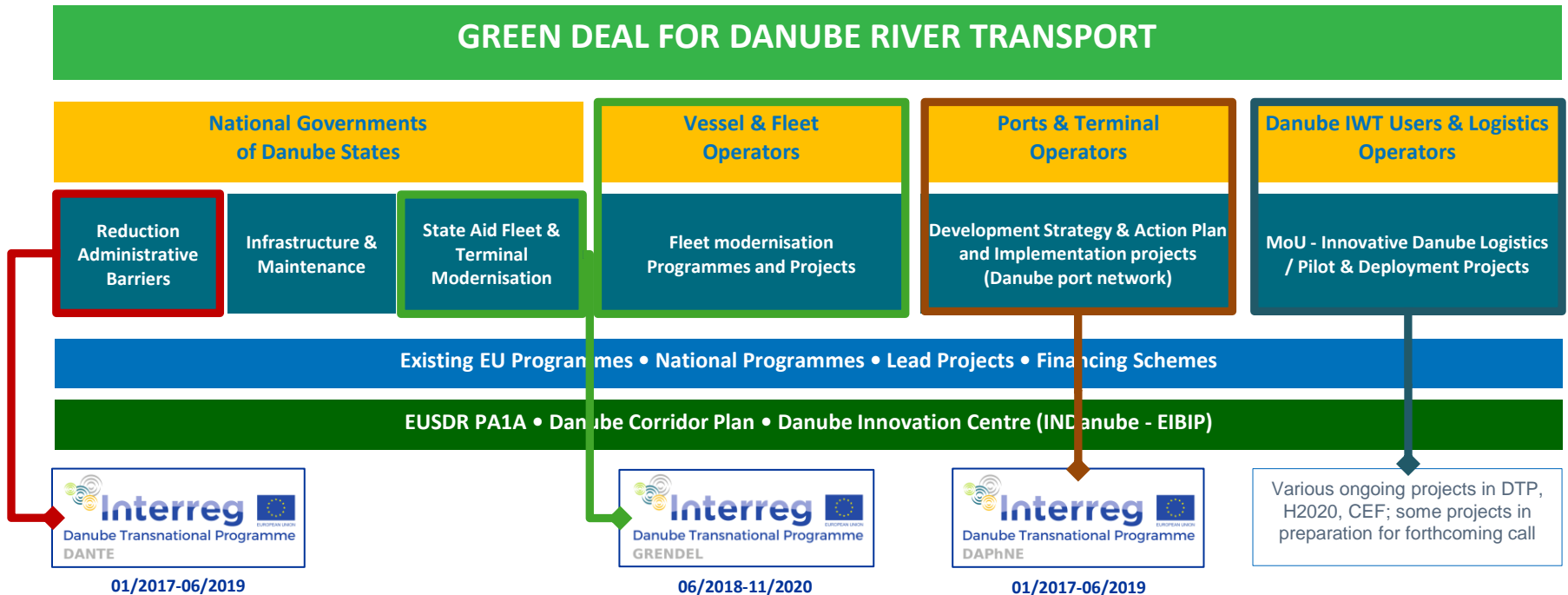
Manfred Seitz

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

August 2018 Vienna



Motivation: Policy initiative based on cooperation & commitment



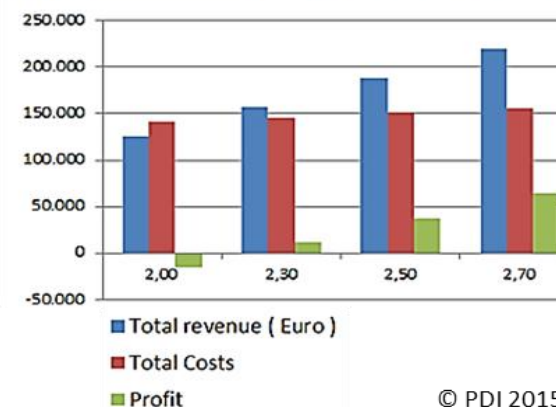
Challenges for greening of Danube fleet



- **Current fleet:** c.450 self-propelled vessels, c.370 pushers, c. 1.700 barges; 20 companies own more than 75% of vessels
- **Highly insufficient waterway maintenance in several Danube countries deprived vessel operators from major fleet investment** → fleet average >> 40 years
- **Need to fulfil NRMM STAGE V REGULATION (EU) 2016/1628**
*Priority for IWT till 2030 is **to improve air pollutants** to keep-up with road haulage (Euro VI trucks) and rail. Otherwise, shift to water policies undermined, while CO2 reduction is maintained.*
- **Need to adapt fleet to new market requirements** in order to expand into new markets such as RORO, Container, biomass, biofuels, LNG & transport of other gases, chemicals and others goods with quality (control) requirements which can't be matched with current equipment.

Profitable navigation requires sufficient draft

Draft	2,00	2,30	2,50	2,70
Total Revenue (Euro)	125.700	157.125	188.550	219.975
Total Costs (Euro)	140.863	145.891	150.919	155.947
Profit	-15.163	11.234	37.631	64.028
Profit %	-12,06%	7,15%	19,96%	29,11%
Profit per to	-2,53	1,50	4,18	6,10



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GRENDL: Project key facts



FUNDED PARTNERS

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



ASSOCIATED STRATEGIC PARTNERS

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



1.8 MEUR

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



6.2018 - 11.2020

- 30 months of working & cooperation together



NON-FUNDED STAKEHOLDERS

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



GRENDL: Project partners



FUNDED PARTNERS

Pro Danube International (LP)

- DST – Development Centre for Ship Technology and Transport Systems (DE)
- National Association of Radio Distress-Signalling and Infocommunications (HU)
- Danube Commission (International Org.)
- Bulgarian-Romanian Chamber of Commerce and Industry (BG)
- Pro Danube Romania (RO)
- Romanian Maritime Training Centre – CERONAV (RO)
- SDG – Ship Design Group S.R.L. Galati (RO)
- Romanian Naval Authority (RO)
- River Navigation Company NAVROM SA (RO)
- Fluvius Shipping and Transport. Company (HU)
- Danubia Kreuzfahrten GmbH (AT)
- Pro-Danube Serbia (RS)

ASSOCIATED STRATEGIC PARTNER

- Federal Ministry for Transport, Innovation and Technology (AT)
- Ministry of National Development (HU)
- Executive Agency Maritime Administration (BG)
- CFND (RS)
- Donau Tankschiffahrts-Gesellschaft m.b.H (AT)
- Bulgarian River Shipping (BG)
- Bulgarian River Cluster „Danube” (BG)
- Romanian River Ship Owners and Port Operators Association (RO)
- BAVARIA Schifffahrts- und Speditions-AG (DE)
- Ministry of Maritime Affairs, Transport and Infrastructure (HR)
- Ministry of Transport (RO)

Pending:

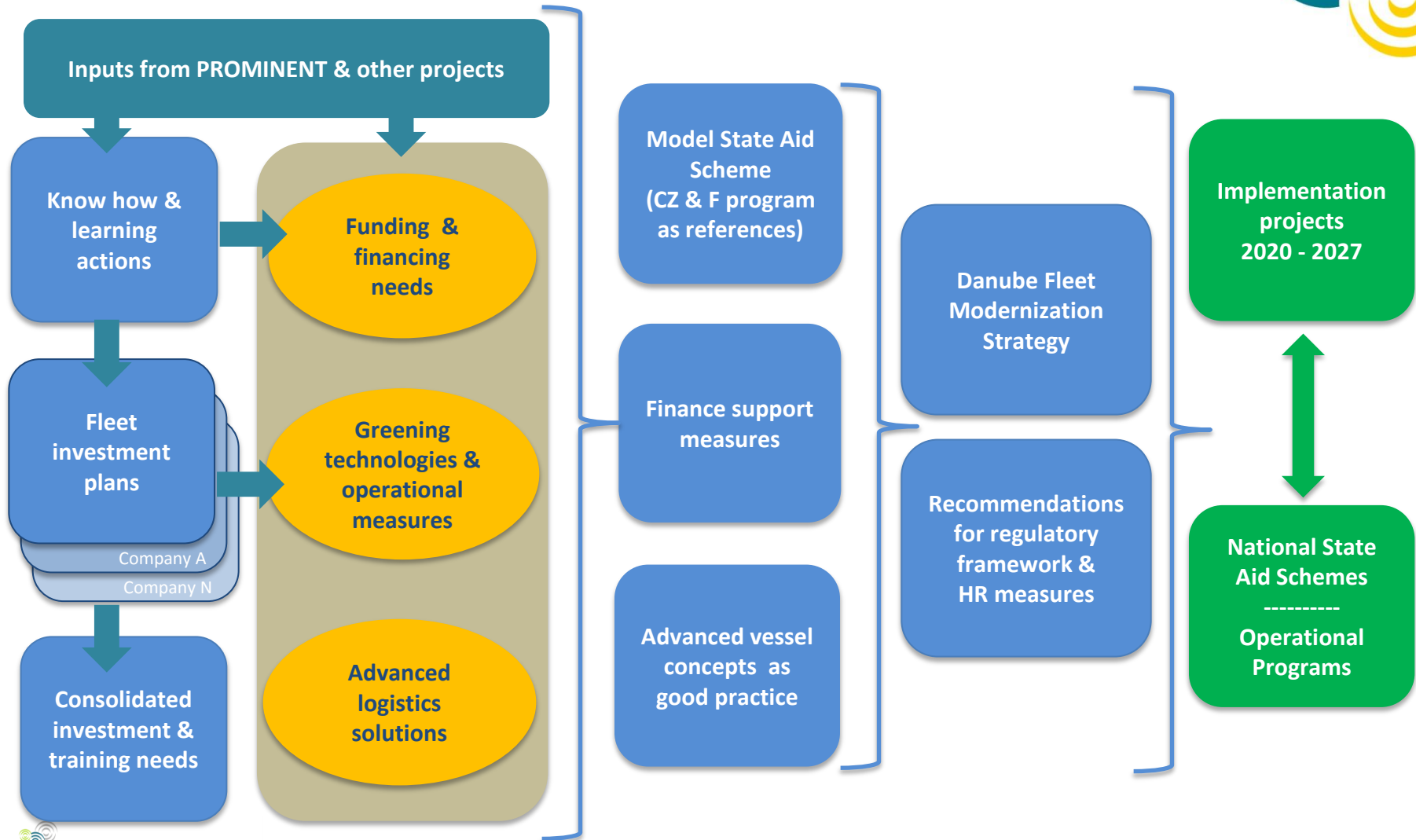
- *Ministry of Transport and Construction (SK)*
- *Ministry of Construction, Transport and Infrastructure, Republic of Serbia*
- *Yugoslav River Shipping Company (JRB)*

Project Objectives



- Prepare / support vessel operators for modernisation / greening of Danube fleet based on **know-how transfer and results of European and regional innovation projects** & real-life demos following the European transport and environmental policy priorities
- **Elaborate fleet investment plans** defining investment volumes and greening technologies
- Investigate support to vessel operators regarding **financing opportunities for fleet greening**
- Facilitate state aid for fleet modernisation (funding volumes, funding objectives and activities) by **drafting a harmonized State Aid Scheme** which shall be implemented in as many Danube states as possible with the support of EU funds
- Further **develop regulatory framework for implementation of greening technologies**
- Identify required **new / future skills of workforce & prepare for training**
- Build up a **vessel operators' platform to facilitate knowledge transfer on greening technologies** (technical feasibility and financial viability) as part of the stakeholders' management
- Elaborate **Danube wide fleet modernisation strategy** and related recommendations
- **Implement tools, learning interactions and pilot actions** which are part of fleet modernisation strategy
- **Integrate IWT into logistics systems** in cooperation with logistics providers

GRENDL: Work approach



Why public support for Danube fleet modernisation?

- Various **studies point to great value for society and to necessity of public interventions** in order to speed-up greening of inland fleet in Europe
- **Limited added value due to NRMM Stage V** as only applicable for new engines from 2019/2020
- **NO legislation for existing vessels** and their engines to bring down pollutant emissions
- **NO incentives & funding programmes** in Danube region yet
- **Hardly any business case for greening solutions** (except for LNG with high oil price scenario)
- Without intervention **ship owners must keep using the old** (polluting and inefficient) **engines**. This results in poor levels of emission reduction over the next decades and persisting high levels of harmful air pollutants (NO_x, PM) and high CO₂
- **Danger that old (polluting) vessels pushed out from Rhine** will be transferred to the Danube
- Modernisation of Danube fleet must be **coordinated and in line with Western Europe**



LNG-fuelled type C tanker EcoLiner developed by DAMEN within the LNG Masterplan for Rhine-Main-Danube project (2013-2015) © DAMEN



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GRENDEL “Green and efficient Danube fleet”

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

www.interreg-danube.eu/grendel