

Danube Transnational Programme

GRENDEL "Green and efficient Danube fleet"

DTP2-052-3.1-GRENDEL

Know-how transfer event on the modernisation of Danube vessels fleet Charlotte SIOT



Fields of action for Danube fleet modernisation

Use of alternative fuels

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

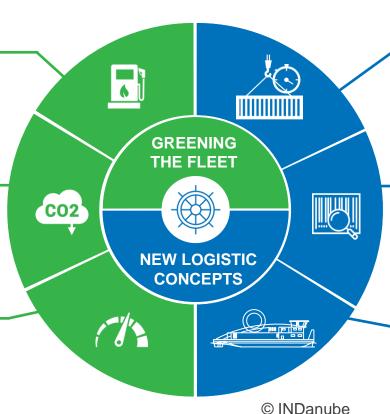
Air pollutant emissions reduction

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





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

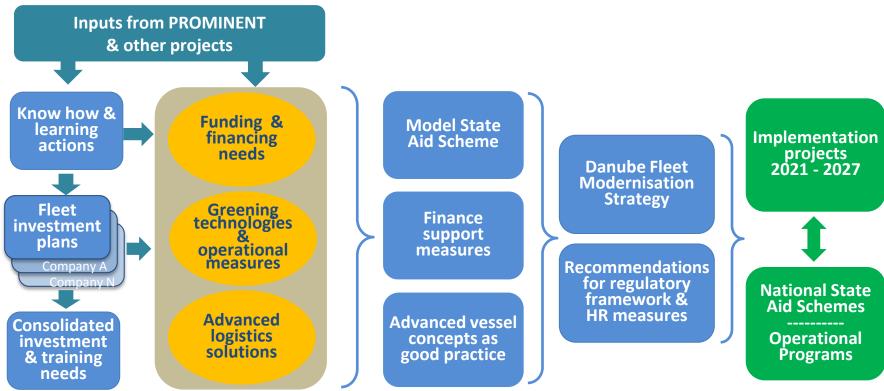
- Fleet owners & operators
- Logistics service providers
- Technology providers
- Cargo owners





GRENDEL: Work approach







GRENDEL: Outputs



FLEET INVESTMENT PLANNING

Know-how transfer events

Technological Factsheets & other documents

Consolidated
Investment
&Training
requirements

PREPARATORY ACTIONS

Advanced green vessel & operational concepts

Guidelines for transport & logistics management

Support to fleet owners & operators (financing instruments)

REGULATION & STRATEGY

Public consultations

Model State Aid scheme & other public support measures

IWT Fleet
Modernisation
Strategy &
Recommendations



GRENDEL: State Aid schemes (starting point)



CZ state aid scheme



Reduction of environmental impacts & energy consumption

Aimed at reducing the environmental impacts of IWT by reducing emissions of gaseous and particulate pollutants from internal combustion engines & auxiliary motors and reduction of energy consumption.

Examples:

- low-emission engines, auxiliary motors
- modernising propulsion equipment
- vessels conversions to a new fuel e.g. LNG
- hydrodynamics improvements



Modernisation of vessels to increase multi-modality of freight transport



Modernisation of vessels leading to increased safety of IWT

Aimed at increasing the involvement of waterway transport in the multimodal transport chain by making the vessels more competitive, operationally flexible and secure

Adaptation of the fleet to **new** market requirements in order to expand into new markets RORO, container, biomass, biofuels, LNG & transport of other gases, chemicals & others goods with quality (control) requirements which cannot be matched with current equipment

Examples:

- lightweight stacking covers for the hold (cargo compartment)
- raising hatchways
- transportation frames for passenger cars
- broadening a vessel (push boats) or prolonging a vessel
- digitalisation

Examples

- bow steering equipment
- outer plating
- electrical wiring



GRENDEL: State Aid schemes (timeline)

Preparatory works:

- Inventory on past, existing & upcoming State Aid measures
- 2 State Aid workshops (first one on 26.03.2019)
- "State Aid meetings" with European Commission services
- Analysis of impact and compatibility of proposed State Aid measures

Model State Aid scheme& public support measures

available on 30.04.2020

- Model which considers investment priorities of Danube inland waterway transport sector
- With a summary on other innovative financial instruments

Draft State Aid scheme developed based on the model prepared

ready on 30.11.2020

 Will be prepared by at least one participating state

Objective that the Model State Aid scheme will be implemented in as many Danube states as possible with the support of EU funds.





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