





Modernization and greening of the fleet on the Danube

Projects on the Danube

UNECE

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EU Strategy for the Danube Region European Moravskoslezsko terfranken Středn Chernivets'ka Čechy Střední Ivano-frankivs'ka Východné Morava Mittelfranke Jihovýchod Slovensko Oberpfal Jihozápad Stredné Zakarpats'ka Slovensko Stuttgart Odes'ka Moldova Niederbayerr Kishinev Západn Nord-Est Schwabe Slovensko Észak-Magyarország Tübinge Oberbayern Freibura Nord-Vest Közép-Magyarország Észak-Alföl Steiermark Közép-Dunántú Centr Salzburg Dél-Alföld Kärnten Sud-Est Dél-Dunántú Vest Bucures ontinentalna Sud Hrvatska Muntenia Sud-Vest Beograd Oltenia Srbija Severoiztoche Bosna I Hercegovina Severer Severozapaden tsentralen Saraie ugoiztoche Sofiya Crna ugozapader EU areas Gora Yuzhen Other areas tsentraler *todao* 200 Km © EuroGeographics Association for the administrative boundaries (NUTS regions

The EU Strategy for the Danube Region (EUSDR) is a macroregional strategy adopted by the European Commission in December 2010 and endorsed by the European Council in 2011.

The Strategy was jointly developed by the Commission, together with the Danube Region countries and stakeholders, in order to address common challenges together. The Strategy seeks to create synergies and coordination between existing policies and initiatives taking place across the Danube Region

14 States

11 Priority Areas

https://www.danube-region.eu/about







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= Technical Secretariat Mihaela Mocanu mihaela.mocanu@mt.ro Cristina Cuc crstina.cuc@mt.ro Monica Patrichi monica.patrichi@mt.ro Priority Area 1A — To improve mobility and multimodality: inland waterways of the EU Strategy for the Danube Region.

This Priority Area is coordinated by Austria and Romania, with the involvement of a wide network of key players and stakeholders from the 14 countries of the Danube region.

6 Working Groups

https://www.danube-navigation.eu/wg-3-fleet-modernisation







"To modernize the Danube Fleet in order to improve environmental and economic performance"

Inland waterway transport has been the most environmentally friendly mode of inland transport for decades.

However, this advantage has steadily been eroding due to the rapid improvement of emission levels in other transport modes. The long lifetime of inland barge engines - 15 to 20 years, whereas road vehicles are replaced after 5 to 10 years - results in a slow uptake of new engines in the fleet. Retrofitting the existing vessels causes significant additional investment costs for the vessel owner/operator and the relatively small and specific market for inland vessels causes disadvantages of scale. Engine manufacturers prefer to concentrate their research and development activities on larger and potentially more profitable markets and need to take foreign standards into account.

The Working Group therefore supports the joint development and co-operation in the field of innovation and consequently the building up of buying power for specific and cutting edge applications specifically developed for inland navigation.







"To modernize the Danube Fleet in order to improve environmental and economic performance"

Projects:

Innovative Danube Vessel, 2012 – 2013, PA 1a https://www.danube-navigation.eu/uploads/files/Conferences/2014-01-30_IDV_full_report.pdf

PROMINENT - Promoting Innovation in the Inland Waterways Transport Sector, 2015-2018, HORIZON 2020 http://www.prominent-iwt.eu/

GREEN DANUBE - Integrated transnational policies and practical solutions for an environmentally-friendly Inland Water Transport system in the Danube region, 2017 – 2019, Danube Transnational Programme (DTP) 2014 – 2020

http://www.interreg-danube.eu/approved-projects/green-danube

GRENDEL - Green and efficient Danube fleet, 2018 – 2020, Danube Transnational Programme (DTP) 2014 – 2020 http://www.interreg-danube.eu/approved-projects/grendel









First 100% electric ferry built in Romania in Brăila; will be delivered to the end 2019

Source: Green Danube project









Zero-emissions Solar Powered USV Boat for Hydrographyc Survey

operational in Bulgaria,

technology applicable to small boats

Source: Green Danube project







POST 2020

"Develop the Danube fleet in order to become more fuel-efficient and to reduce emissions of greenhouse gas and pollutants,,

- > Monitor ongoing innovations in greening and fleet modernization technologies
- Contribute to the development of a roll out strategy to support the uptake and practical implementation of innovation and modernization measures in the Danube fleet







Thank you for your attention !!