



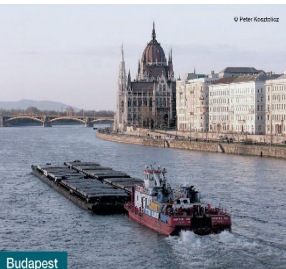
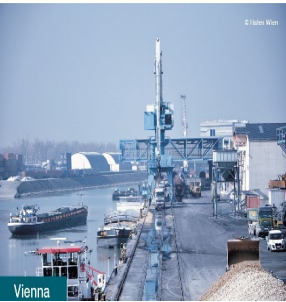
The Potential of Alternative Fuels on the Pathway Towards Climate Neutrality

Robert RAFAEL, General Secretary

Danube Commission – EM PORTS

26 March 2025

Who are we?



Pro Danube International (Non-profit business association)

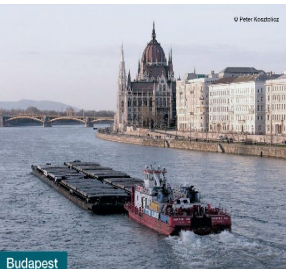
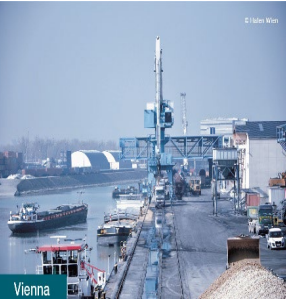
„We believe that the potential of the Danube waterway, as a competitive logistics system, is by far bigger as we use it today. To unlock this potential is our vision. This strives for passenger as well as for cargo transportation.“

We are: Driving force in the development of the Danube waterway as a competitive and sustainable logistics system
Network of about 200 private businesses
Representing the interests of our members towards EU, public authorities and administrations



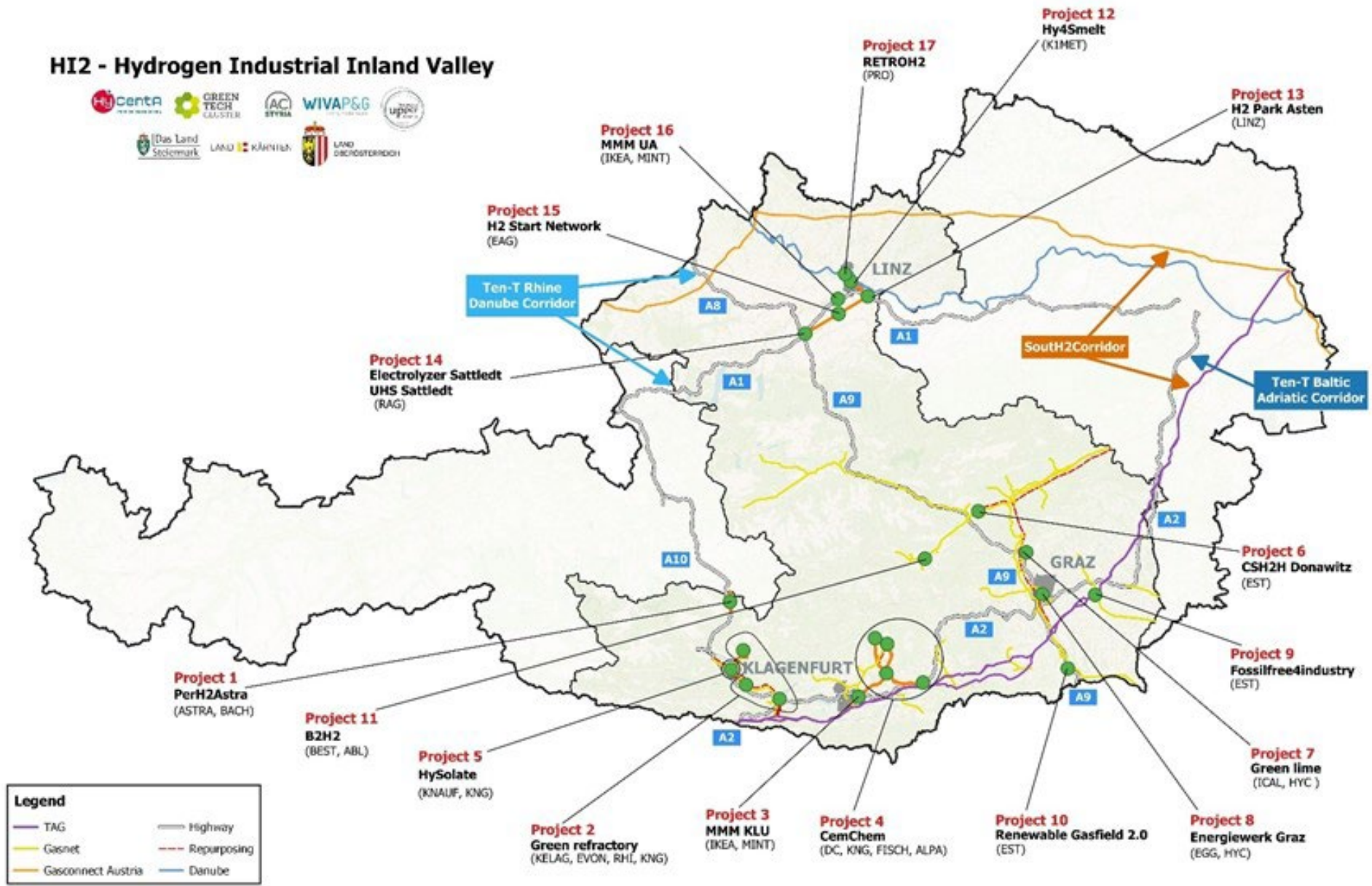
Great together – instead of – small alone

Baselines



- ... *Without repeating the learnings from the past several years ...*
- Limited investment capacity of vessel operators
 - Technological advancements are adopted more quickly in road, rail, and air transport than in IWT
 - The IWT sector is facing disadvantages
 - Technological neutrality
 - Options – none of them being a one-fits-all solution
 - Hydrogen
 - Battery electric
 - Hydrotreated Vegetable Oil (HVO)

HI2 - Hydrogen Industrial Inland Valley



Legend

- TAG
- Gasnet
- Gasconnect Austria
- Highway
- Repurposing
- Danube



Regional cooperation for a greener Danube fleet - preparation of the DEMETER project

Project ID: DRP0401480

Acronym: PREMETER

Interreg
Danube Region



Co-funded by
the European Union



AIMS

to prepare a large-scale project called DEMETER, which focuses on the **green modernisation of the Danube fleet**. Its primary objective is to advance the **electrification and retrofitting** of short-distance vessels to reduce greenhouse gas emissions and promote sustainable inland waterway transport.

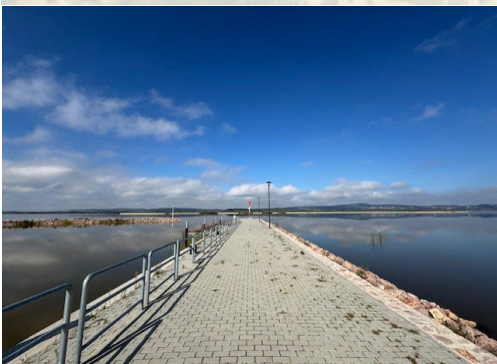
ACTIVITIES

1. Conducting a **state-of-play report** on Danube short-distance shipping.
2. Developing a detailed **work plan** for the DEMETER project.
3. Mapping **funding opportunities** for project implementation.
4. Assessing **socio-economic and environmental impacts** to define the intervention area.
5. Building **partnerships and dissemination** of results.

PARTNERSHIP AND TIMING

1. Lake Velencei Development Nonprofit Limited Company, Hungary
2. Pro Danube Management GmbH, Austria
3. Faculty of Technical Sciences of the University of Novi Sad, Serbia

Implementation period:
from September 2024 till August 2025



Position Paper – Fall 2024



office@prodanube.eu
www.prodanube.eu



POSITION PAPER

The Potential of Alternative Fuels on the Pathway Towards Climate Neutrality

One of the greatest challenges facing inland waterway transport (IWT) on the pathway towards climate neutrality is the limited investment capacity of vessel operators. This, combined with the fact that technological advancements are adopted more quickly in road, rail, and air transport than in IWT, puts the sector at a disadvantage. However, alternative fuels like **Hydrotreated Vegetable Oil (HVO)**, while not a one-size-fits-all solution, represent a significant step forward with minimal additional investment requirements.

The benefits of HVO are considerable: compared to standard diesel, HVO can improve local air quality by reducing nitrogen oxides (NOx) by 29% and particulate matter by 85%. It can also lower carbon dioxide equivalents (CO2e) by up to 96% and reduce greenhouse gases by 90%.

As the voice of the Danube IWT industry, we advocate the following:

- **HVO as an Immediate Solution:** HVO – from reasonably sustainable sources – is currently the only widely available alternative to immediately reduce greenhouse gas (GHG) emissions, with minimal impact on operational costs.
- **Flexible Blending:** We believe HVO should be blended with gasoil directly in the vessel's tank, allowing vessel owners to determine their own blending ratios provided by the availabilities. This approach would avoid logistical challenges at bunkering stations and among suppliers along the waterways.
- **Joint Purchasing:** We recommend joint purchasing, either by the entire sector or at least per waterway, to achieve critical volumes that attract producers and improve purchasing power, as well as to contribute to circular economy.
- **Accurate Greening Efforts:** Joint purchasing would also enable the sector to accurately track its environmental impact by monitoring the volumes of HVO used.
- **Taxation Relief:** At the European level, we urge the EU, River Commissions, and national governments to agree on a tax exemption for HVO used in the inland waterway sector, including the case of flexible blending. This would ensure consistent access to HVO across all waterways. At the same time, the tax exemption is needed to be applied to the full blended fuel quantity in the tank.
- **Unified Labelling:** We also call for EU, River Commissions, and national governments to implement a uniform labelling system for HVO, similar to that for gasoil. This would prevent varying tax obligations across countries where blending different energy sources could trigger tax reassessments.

In summary, HVO presents a viable, immediate solution for reducing emissions in the IWT sector.

Herfried LEITNER
President and Chairman of the Board

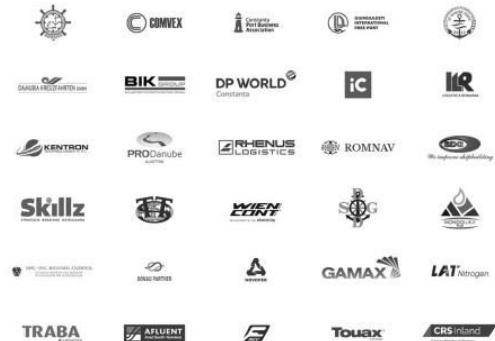
Róbert RAFAEL
General Secretary

Pro Danube International – Non-Profit Association for the promotion of transportation on the Danube
Registered Office: Vienna, Central Register of Associations (ZVR): 203524390

About us

Pro Danube International represents the voice of Danube-minded businesses which are interested in the promotion of better navigation conditions, waterway infrastructure and transport services, hence being an active contributor in the political debates on transport policy, technology, and regional development fora. For over a decade, Pro Danube International has been involved in the initiation and execution of transnational EU-funded projects related to the development of the inland waterway transport sector in the Danube Region.

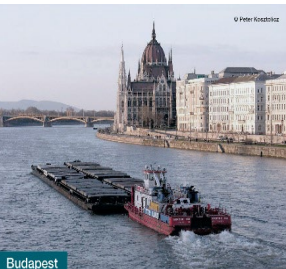
Members of Pro Danube International



Pro Danube International – Non-Profit Association for
Registered Office: Vienna, Central Register of Associati



Proposal - HVO as an Immediate Solution



- **Flexible Blending:** HVO should be blended with gasoil directly in the vessel's tank, allowing vessel owners to determine their own blending ratios
- **Joint Purchasing:** We recommend joint purchasing, either by the entire sector or at least per waterway
- **Taxation Relief:** tax exemption for HVO used in the inland waterway sector to be applied to the full blended fuel quantity in the tank
- **Unified Labelling** confirming the network approach

Conclusion



- ✓ Significant step forward with minimal additional investment requirements
- ✓ HVO is currently the only widely available alternative to immediately reduce greenhouse gas
- ✓ With minimal impact on operational costs



Source: green.org

Save in your calendar



Green Inland Ports

synergetics

PIONEERS
Portable Innovation Open Network
for Efficiency and Emissions
Reduction Solutions

Danube Ports Days 2025

16 - 17 September

📍 Constanta, Romania | Hybrid

