

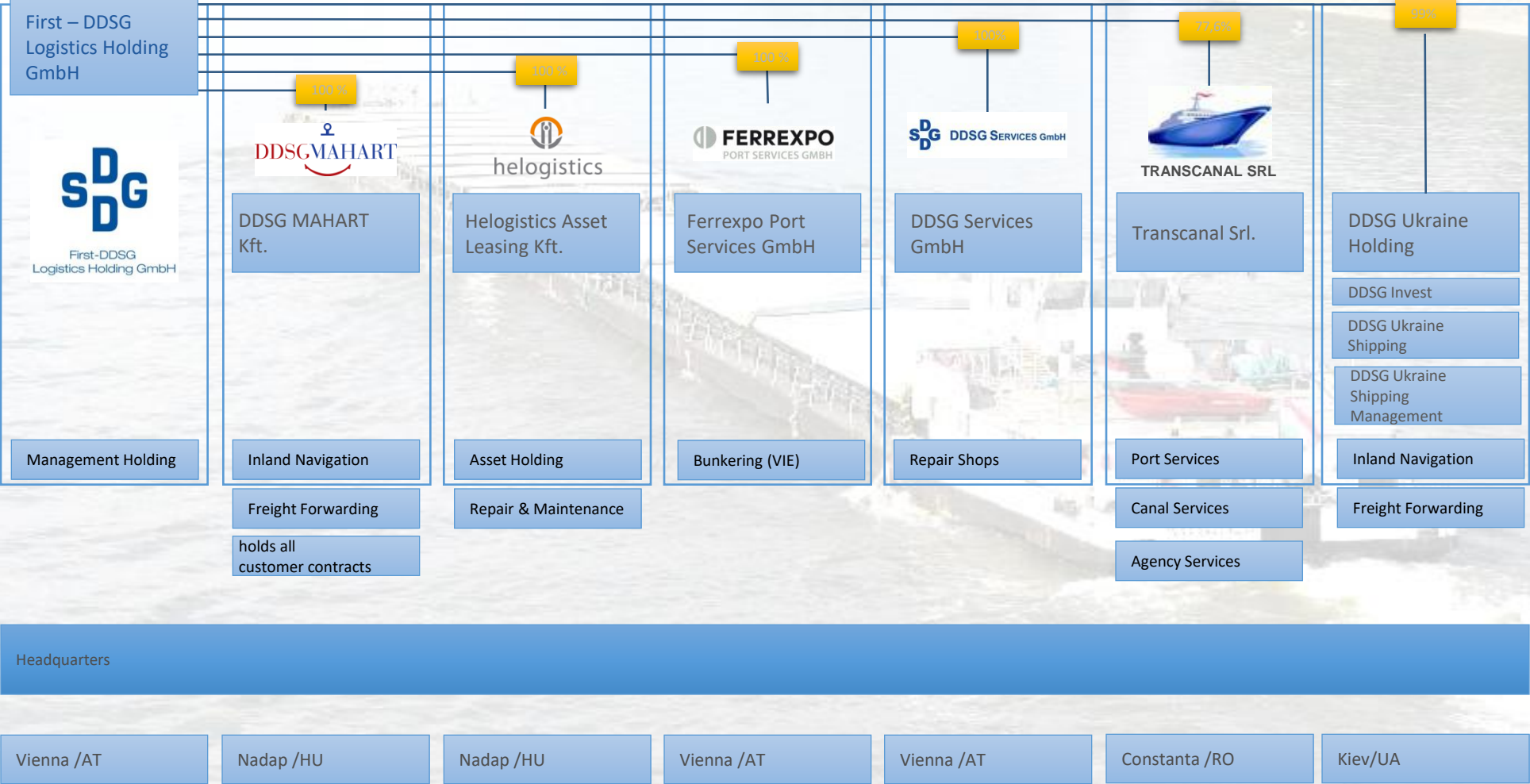
# DDSG MAHART Kft.

- registered in Hungary
- based in Hungary
- Hungarian shipping licence
- pays tax in Hungary



# First – DDSG Logistics Holding GmbH

## - Overview of the Group









DDSG MAHART Kft.

# Potential





# DDSG MAHART Kft.

## dry cargo fleet

pushers	28
self-propelled river vessels	15
barges	150

## liquid cargo fleet

bunker stations	5
tankers	2

## other units

pontoons	10
floating cranes	3
technical units	3
storage units	4

all of them	220
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total capacity	>300.000 tonna
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## DDSG MAHART Kft.

- yearly about 2,5M mts cargo shipping
- West Line has been closed for 4 years (water-levels, cargo availability, ...)
- mainly cargos discharged, loaded in and transited via Hungary (>2022.)  
mainly cargos loaded in Ukraine (2022.>)

loaded quantity (in 1.000 mts)		West Line	Upper Danube Line	East Line (Middle Danube and Ukraine-Serbia Lines included)
2020	2 427	11	113	2 303
2021	2 399	0	114	2 285
2022	2 290	0	43	2 247
2023	2 612	0	0	2 612



## river carriage

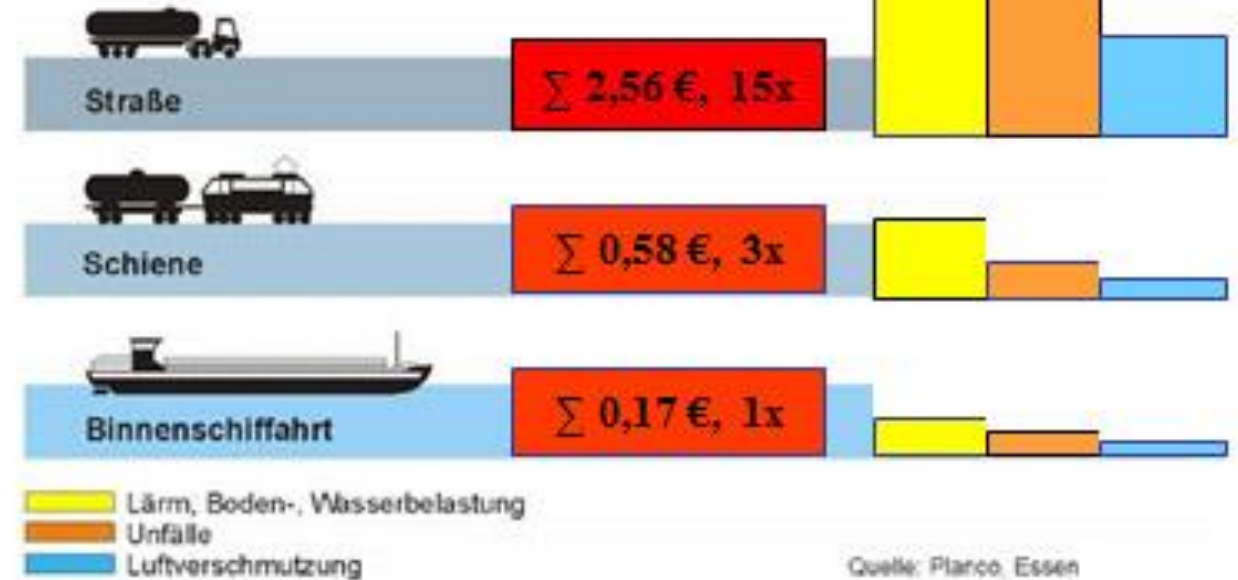
➤ has the lowest cost for long distance carriage (1 mts cargo can be shipped at a distance of 500 km on river, 333 km on railways and 100 km on road, consuming 5 l gasoil)

➤ and the most environmental friendly (railway: 3x higher environmental damage, road: 15x):

- noise, ground and water pollution
- accidents
- air pollution

## Externe Kosten im Güterverkehr

Je 100 Tonnenkilometer (tkm)





... a pushed caravan is equivalent with the cargo capacity of about 13 block trains, and more than 800 trucks.



1 Danube caravan is close to 20.000 mts DWCC

it is equivalent with about 13 block trains,



and more than 800 trucks (14 km long line)





DDSG MAHART Kft.



**„Directives”**



# DDSG MAHART Kft.

According to the EU transport policy objective approved in 2011, by 2030, 30% of road freight transport over a distance of 300 kilometers and 50% by 2050 should be taken over by other transport modes, such as rail or river transport.



DDSG MAHART Kft.

**We are GREEN enough!**



# DDSG MAHART Kft. CO<sub>2</sub> friendly carriage

CO<sub>2</sub> emission/tkm (tonkilometer)



26,26 g  
CO<sub>2</sub>/tkm  
\*



66,1 g  
CO<sub>2</sub>/tkm  
\*\*

\* as per the average performance of DDSG MAHART fleet in 2022.

\*\* as per the datas of „Emissions Key Figures 2022” (Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology)

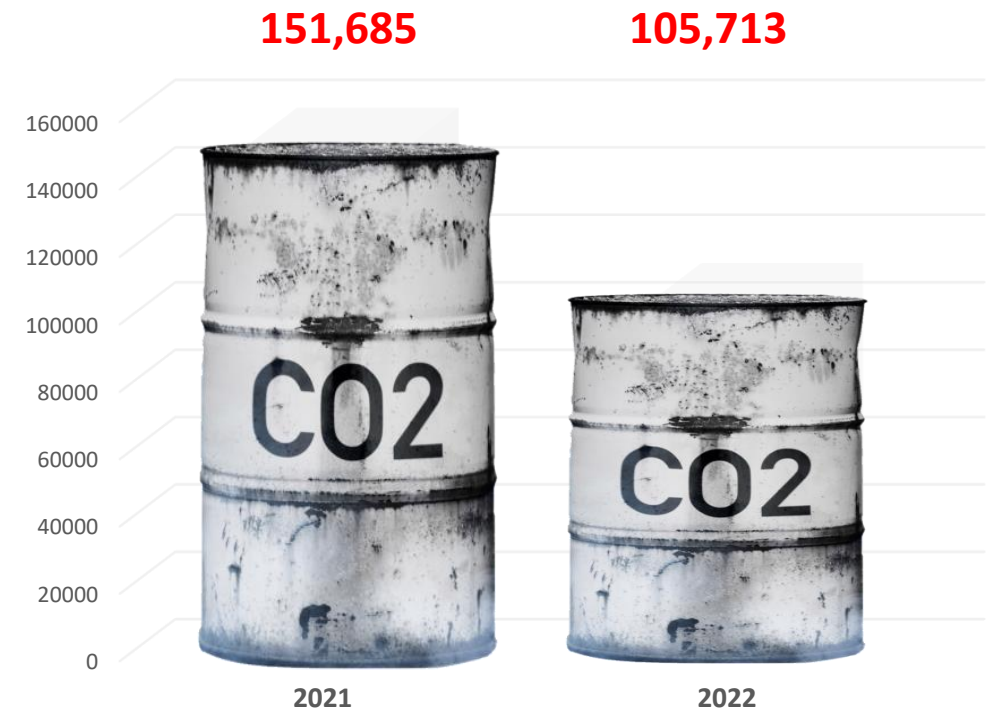


**DDSG MAHART Kft.**  
**CO<sub>2</sub> freindly carriage**

CO<sub>2</sub> emission/year

	2021	2022
loaded quantity (mts)	2 398 634	2 290 014
tkm (tonkilometer)	3 583 517 446	2 653 141 747
CO <sub>2</sub> /tkm difference river vs road (g)	42,33	39,84
<b>CO<sub>2</sub> difference in total river vs road (t)</b>	<b>151 685</b>	<b>105 713</b>

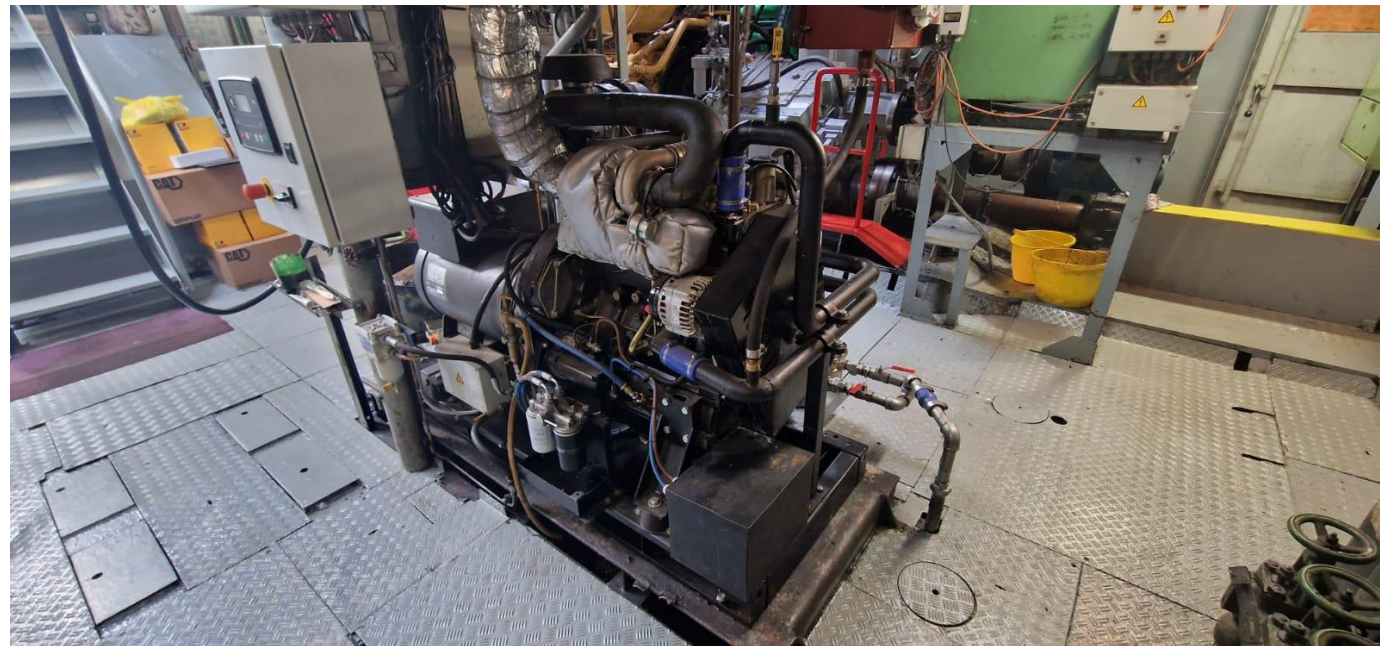
**CO<sub>2</sub> EMISSION SAVING WITH RIVER  
CARRIAGE VS ROAD TRANSPORT**



# Comparative analysis of alternative fuels (1)

## Ethanol and methanol

- moderate compatibility
- balance between feasibility and sustainability





## Comparative analysis of alternative fuels (2)

### Hydrogen and ammonia

- greater challenges
- long-term potential for achieving zero-emission shipping



# Comparative analysis of alternative fuels (3)

## HVO

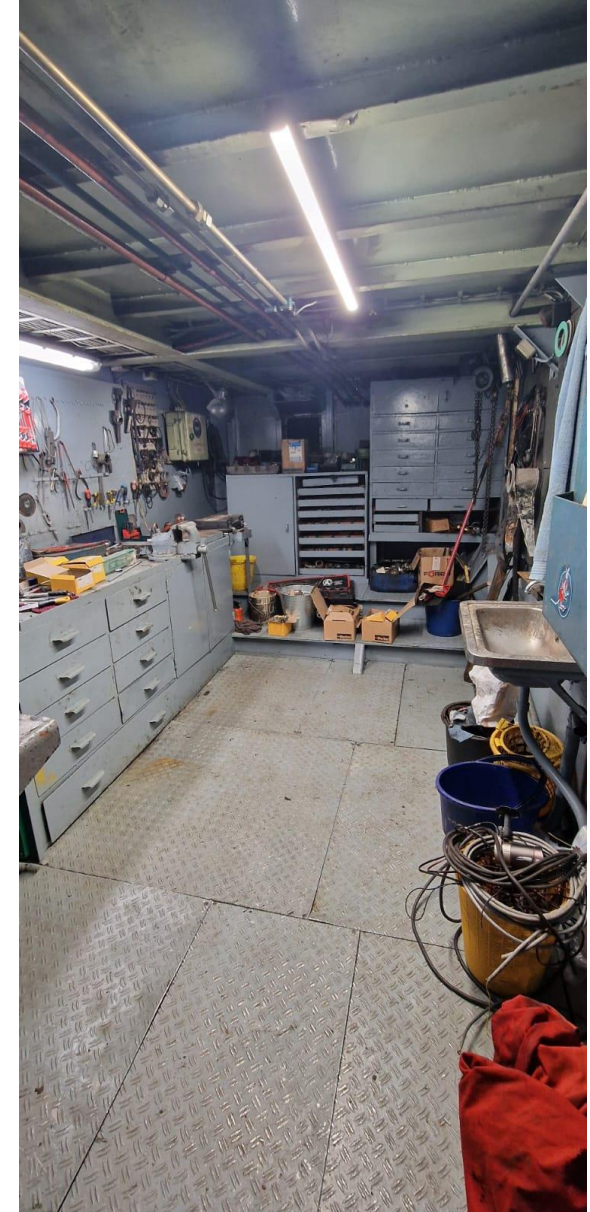
- practical and immediate solution
- high infrastructure compatibility
- significant environmental benefit





## HVO as marine fuel

- can be used in current river objects with almost not any modification
- minimal changings are required in storage and handling systems
- can be freely mixed with traditional dieseloil
- +20-100% price
- similar energy content
- same fuel consumption rate
- cleaner burning > less maintenance cost



# Ferrexpo Port Services GmbH

## Project „Wientank 1”: usage of HVO as marine fuel (1)

- own river tanker of the Holding
- co-operation with OMV Vienna, to supply Maritime GasOil ECO 20 with 20% HVO
- actually negotiating with Clients and Suppliers, to match details, requirements and delivery logistics

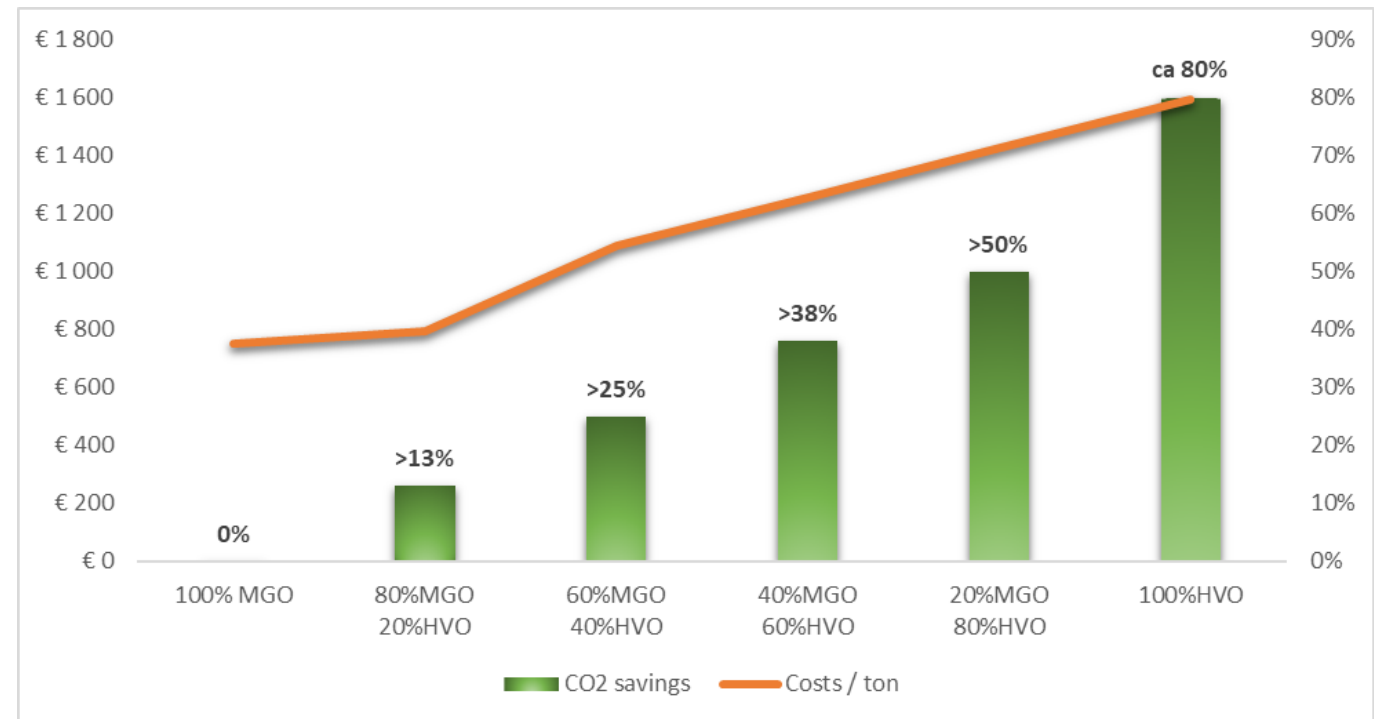




# Ferrexpo Port Services GmbH

## Project „Wientank 1”: usage of HVO as marine fuel (2)

➤funding program of Austrian Authorities: „Subsidy Program for Climate- and Environmentally-Friendly Shipping”



# First-DDSG Logistics Holding GmbH

## Future Project: alternative-fueled port pusher

- own port pusher
- relatively low fuel consumption
- small operational cost increasement
- trial period > small financial risk
- offering environmentally-friendly service to Others

