

WATERSTOF ELEKTRISCH VRACHTSCHIP ANTONIE

WEVA-PROJECT

**TOGETHER WE CAN
DO SO MUCH MORE!**

26 OCTOBER 2022 – Seminar European Hydrogen week



ABOUT **NPRC**

➤ **#1 INLAND SHIPPING COOPERATION EU**

145 members, daily > 200 barges sailing.

➤ **DRY BULK, CONTAINERS & PROJECT CARGO**

Diversification in cargo flows & sailing areas.

➤ **TURNOVER €120 MILLION & 50 EMPLOYEES**

Teams in Rotterdam, Antwerp, Doornik, Duisburg & Mannheim.

➤ **FRONTRUNNER IN DIGITIZATION & SUSTAINABILITY**

'Data-driven' corporation with focus on smart logistics and supply chain integration.



ABOUT ARNO TREUR

➤ CFO @ NPRC

Background in accountancy/auditing.

➤ DIFFERENT LEGAL FORM

After a listed company and an LLC, now a cooperation. Complex playfield.

➤ TANGIBLE BUSINESS

Sailing from A to B with a barge.

➤ BESIDES FINANCE, ALSO INVOLVED IN PROJECTS

For example, the WEVA project. There has to be a business case. The story behind the numbers.



INLAND SHIPPING & HYDROGEN



SPECIFIC **MODE OF TRANSPORTATION**

Capital-intensive, international.



STANDARDISATION AND REGULATIONS

Renewable fuel.



CATCH22

Landside infrastructure and barges.



HOW DO **WE REALIZE WEVA?**



COLLABORATION & COLLABORATION

Getting things done together that cannot be done alone. This requires trust and business agreements.



A LEAP INTO THE UNKNOWN

Pioneering together and coming up with green (sustainable) transportation solutions.



COMBINED EXPERTISE & KNOWLEDGE

The puzzle fits together seamlessly when we act together.



FLEXIBLE

The base is hydrogen-electric but can also sail with battery packs or a diesel generator.



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JAAR

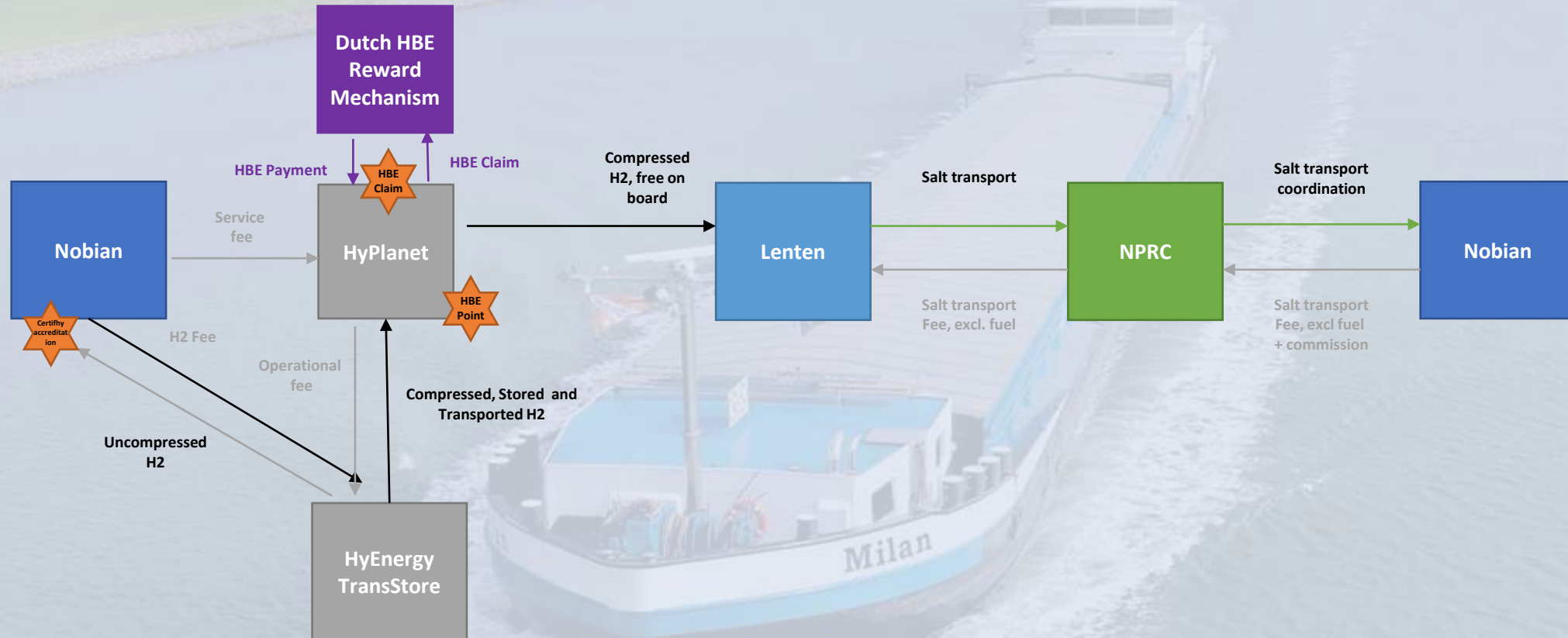
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SALT SHUTTLE

DELFZIJL - ROTTERDAM

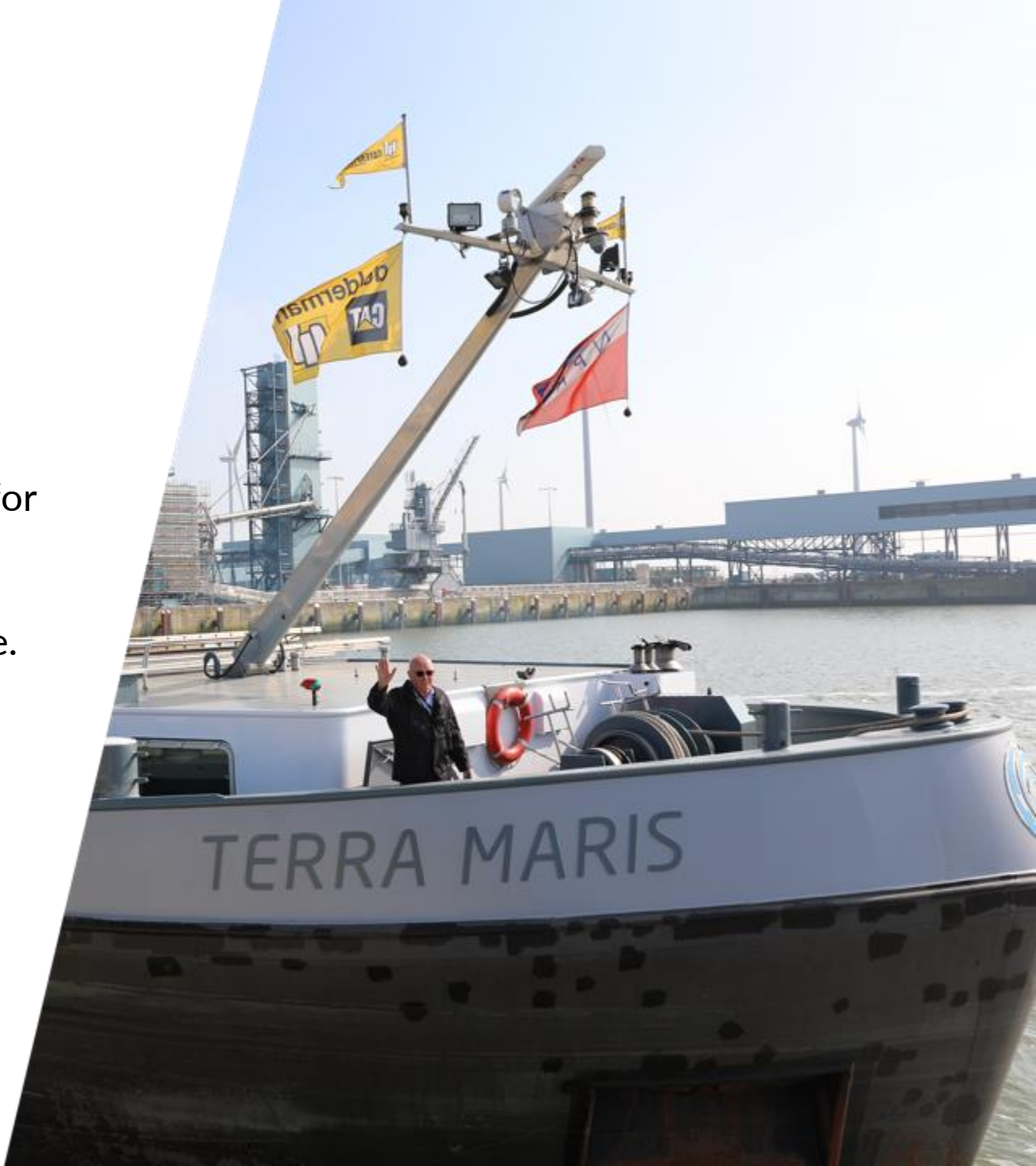


WHAT DOES THE COLLABORATION OF PARTIES LOOK LIKE?



TECHNICAL SPECIFICATIONS

- ▶ Propulsion with hydrogen from electrochemical production
- ▶ Exchangeable containers, fuel cells and battery pack on board
- ▶ Shore power charges battery pack (1000 kWh) for increased range of 9 hours
- ▶ First new-build inland waterway hydrogen barge. Q2 2023 in service
- ▶ Transport capacity of 3,850 tons and annual payload of 240 kton salt.
- ▶ H₂ consumption per trip: 1.2 tons, fuel cell power: 400 kW and hydrogen storage pressure: 300 bar.



FROM DREAM TO REALITY

BENEFITS OF **THIS PROJECT**



CO2-REDUCTION

880 tons per year. NOx 8 tons per year



KNOWLEDGE DEVELOPMENT & REGULATIONS

Accelerate adoption of hydrogen



LONG-TERM COLLABORATION

Working together to develop more hydrogen-powered barges



FIRST MOVER NEWBUILDING BARGE

'The proof of the pudding is in the eating'



ALONE YOU GO FASTER, **TOGETHER YOU GO BEYOND**





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