24th FLORENCE RAIL FORUM

ARNO TREUR

26th OF APRIL

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YOUR TAILOR MADE ROADS TO SUSTAINABILITY

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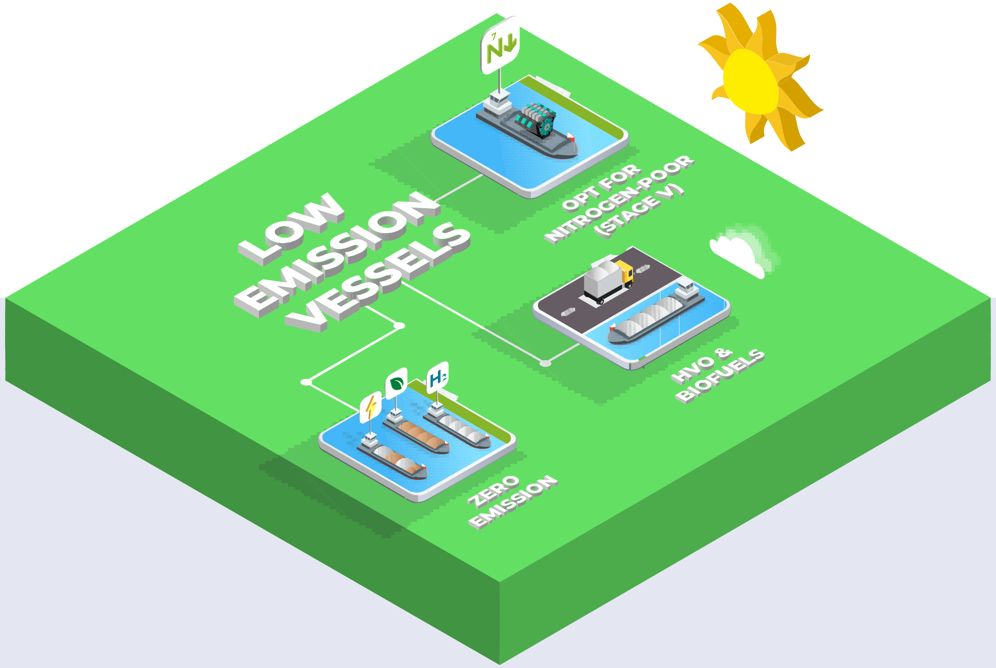
MODERNISATION AND GREENING OF THE FLEET



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GREENING OF THE FLEET

A lot is happening as a sector in transition

HIGH AWARENESS/WILLINGNESS

Barge owners are willing to invest

CSRD FOCUSES ON CO2 REDUCTION

Concentrating on industry/charterer

CONSUMER NEEDS & ENTREPENEURS

A task for NPRC to connect the two parties

RETROFIT TO NEW STAGE V ENGINES

Currently underway at maximum capacity in Dutch shipyards often running on **HVO**

VESSELS ARE DESIGNED CLIMATE-ADAPTIVE

First zero-emission vessels in service, technically possible!

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GREENING OF THE FLEET

The keys to success

STRONG COLLABORATIONS

Between barging entrepreneurs, cooperation & charterer

LOCAL AUTHORITIES SUPPORTING PIONEERS

SUSTAINABILITY – ZERO EMISSION

Also, many bottlenecks & high risks

LONG-TERM COMMITMENT

Barge owners can only invest with long-term responsibility in the chain, while 1–5 year contracts are the norm

DEMANDS OF FASTER TRANSITION

Investments are always for a period of 15-20 years, while technological developments & society demand speed

CAPEX FOR ZE = HIGHER (DOUBLE)

OPEX FOR ZE = HIGHER & UNCERTAIN

RISK OF HIGHER CAPEX/OPEX WITH BARGE OWNER

Has no influence on demand for zero-emission transport in the chain

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EUROPEAN INLAND FLEET

Source: Marketobservation CCNR/EC 2023

TABLE 1: **SIZE OF FLEETS** (NUMBER OF INLAND VESSELS) **PER MACRO-REGION AND VESSEL TYPE IN EUROPE**

	Dry cargo vessels	Liquid cargo vessels	Push and tug boats	
RHINE FLEET	7,283	1,435	1,268	9,987
DANUBE FLEET *	2,652	204	642	3,498
TOTAL NUMBER OF VESSELS (RHINE AND DANUBE)	9,935	1,639	1,910	13,484
OTHER COUNTRIES **	951		266	1,217
	12,525		2,176	14,701

EUROPEAN IT COMPANIES & EMPLOYMENT

Source: Marketobservation CCNR/EC 2023

FIGURES 1 AND 2: **DEVELOPMENT OF NUMBER OF COMPANIES AND EMPLOYMENT IN FREIGHT AND PASSENGER TRANSPORT IN THE INLAND WATERWAY TRANSPORT SECTOR IN EUROPE**

The **IWT sector** is dominated by SMEs

5,486 IWW freight companies in EU with a total employment of **22,417 persons**

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INVESTMENT MATERIALISING EU GREEN DEAL

To reach emission reduction goals of the IWT sector needs

FINANCIAL GAP TO BE BRIDGED TOWARDS ZERO EMISSION

Of inland vessels, based on an average price scenario of 5.22 billion, to speed up the deployment and close the gap between investment and operations

MAKING THE BUSINESS CASE

Through supportive state aid guidelines, higher thresholds and extended catalogues of eligible costs (CAPEX & OPEX)

TAILOR MADE & DEDICATED FUNDING

Combining national and EU funding schemes for:

- **Engine renewals;**
- **Innovative vessel design** – reducing energy consumption & making fleet resilient towards climate change;
- **Retrofitting of engines** – of existing vessels with electric drive/propulsion (exchangeable for future green solutions).

How to contribute to the EU strategy on sustainable and smart mobility

ADAPTATION & ALTERNATIVE ENERGY SOURCES

What is needed?

AVAILABILITY & ROLL OUT OF ALTERNATIVE FUELS

On the entire system of inland waterways

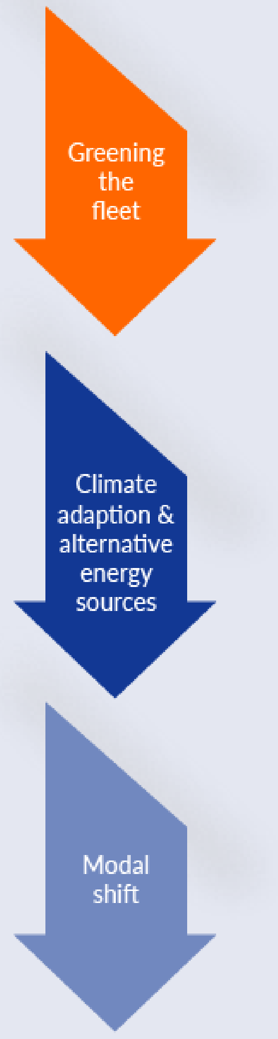
NEUTRAL TECHNOLOGICAL APPROACH

To ensure most suitable & promising technologies being deployed in a safe manner

SUPPORT MEASURES FOR ENERGY TRANSITION

- Low or zero-emission fleet, renewables, infrastructure & superstructure (GBER, Section 7 Aid aligned with CEEAG 2022)
- Facilities & equipment producing, storing & transporting renewables

How to contribute to the EU strategy on sustainable and smart mobility



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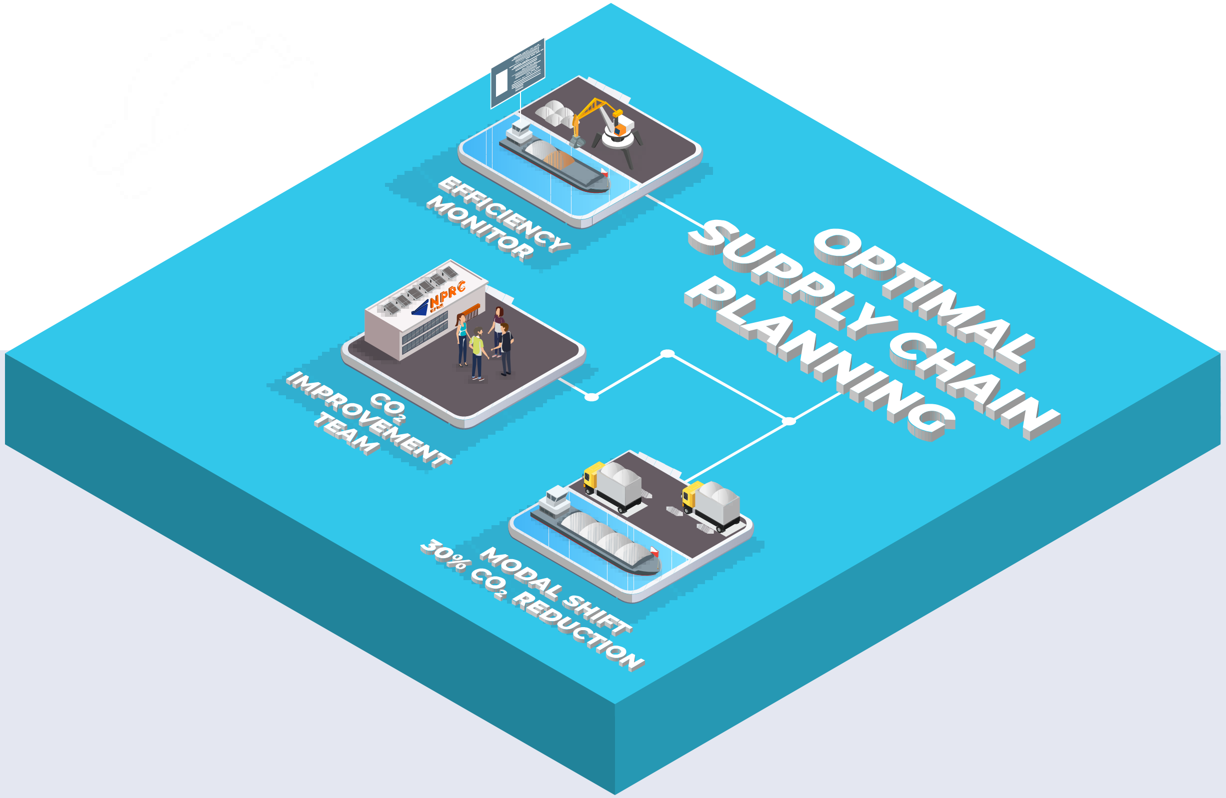
OPTIMAL PLANNING & MODAL SHIFT



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MODAL SHIFT INLAND SHIPPING: WHY?

LOWER LONG-TERM INFRASTRUCTURE COSTS

Current road infrastructure needs to be expanded + (heavier) road transport also does more damage to it; infrastructure costs fall with modal shift.

STRENGTHENS COMPETITIVE POSITION OF EU INDUSTRY

Already under pressure. Efficient logistics processes are proven USPs compared to competition with other world economies

ENERGY EFFICIENT

Contributes to reducing CO_2 emissions by up to 30% in the short term and is the best choice in the long term to use as little energy as possible for transport

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MODAL SHIFT & EMISSION REDUCTION

Potential of inland waterway transport

MODAL SHIFT INLAND SHIPPIN

MORE ACTIVE POLICY NEEDED

Despite EU ambitions, we do not see major shifts in market share of inland waterway transport in recent years, based on ‘soft’ policy

RELIABLE INFRASTRUCTURE

With dense network of container terminals & multipurpose bulk terminals

MODAL SHIFT ON AGENDA OF BUSINESS COMMUNITY

As a strategic core value for the future

CLOSE KNOWLEDGE GAP OF INTERMODAL TRANSPORT

ENCOURAGE DATA-DRIVEN CARGO FLOW ANALYSES

BE ALERT TO POLICY CHOICES

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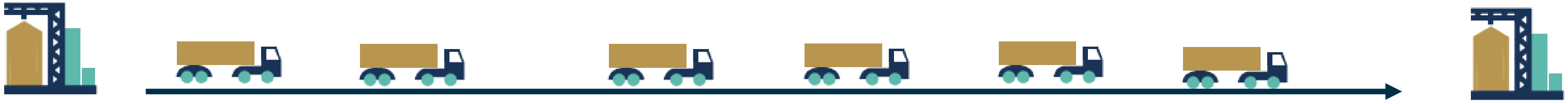
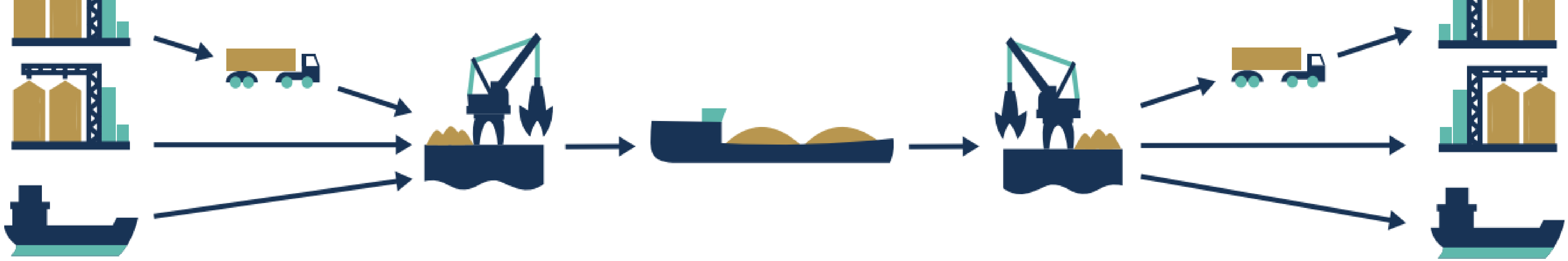
MODAL SHIFT = SUPPLY CHAIN RE-DESIGN = PROCESS TRANSFORMATION

Straightforward supply chain



Intermodal supply chain



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THANK YOU FOR YOUR ATTENTION

Any questions?

WANT TO KNOW MORE?

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