

# Statement by the inland waterways transport and ports sector on the Sustainable Transport Investment Plan (STIP)

## Executive summary

Inland waterway transport (IWT) is a highly competitive and sustainable sector that plays a vital role in the various pillars of the Clean Industrial Deal. The IWT sector calls upon the Commission to include inland waterway transport in the upcoming European Maritime/Waterborne Industrial Strategy, the European Port Strategy and the Sustainable Transport Investment Plan. Recognized as a highly competitive, energy-efficient, safe, and sustainable alternative to other transport modes, inland waterway transport helps alleviate congestion on overloaded road and rail networks for both goods and passengers. Europe’s new industrial future and circular economy depend heavily on IWT as carrier of the building blocks of the EU economy, including renewable fuels. Increasing cargo volumes on inland waterways can make a significant contribution to achieving the European Green Deal policy objectives.

**A near-term transition to zero greenhouse gas (GHG) emissions in inland waterway transport is within reach through the widespread adoption of Hydrotreated Vegetable Oil (HVO).** HVO as renewable drop-in fuel enables full decarbonisation and can be used immediately in existing and modern internal combustion engines to replace fossil diesel. Moreover, HVO is fully compatible with the current refuelling infrastructure. However, the shift is currently hindered by the inability to pass on the considerably higher price of HVO to customers, leading to competitive disadvantages compared to fossil fuel users.

**In order to capitalise on the benefits and opportunities presented by HVO in the short term, it is essential to prioritise support for an annual supply of 1.6 million tons HVO for IWT at competitive pricing with diesel.** This should be backed by a stable EU regulatory framework and coordinated efforts of EU Member States. This approach would deliver a viable business case to barge operators and represent a major step forward in the decarbonisation of IWT, aligning with the EU Green Deal and supporting the objectives of a modal shift.



Creating dependency on HVO as the sole energy source carries potential risks in terms of availability (demand competition from other modes and sectors) and price volatility. Consequently, **it is recommended that other alternative fuel solutions such as battery-electric propulsion, methanol and hydrogen be developed concurrently to mitigate these risks and ensure resilience.** The higher costs of these zero-emission energy solutions, both in terms of operation and capital, mean that **regulation complemented by funding will be key to overcoming implementation barriers,** ensuring legal certainty, fostering investment and expanding renewable fuel supply networks. A stable, technology-neutral regulatory framework combined with incentives for innovation is essential to achieving full decarbonisation and securing the long-term sustainability and resilience of inland navigation.



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## 1. Policy objectives and scope

The European Green Deal sets an ambitious goal for the transport sector: a 90% reduction in transport-related greenhouse gas (GHG) emissions by 2050, compared to 1990 levels. In February 2024, the European Commission reinforced this commitment by proposing a 2040 climate target for the EU. It recommended reducing net GHG emissions by 90% by 2040 relative to 1990, reaffirming the EU's determination to tackle climate change and ensuring a clear pathway toward climate neutrality by 2050.

As a key implementation instrument of the Clean Industrial Deal, the Sustainable Transport Investment Plan (STIP) aims to accelerate the transition to renewable and low-carbon fuels in aviation and waterborne transport. This includes expanding alternative fuel production and distribution, scaling up refuelling infrastructure, and de-risking necessary investments. Additionally, a stable regulatory framework is expected to facilitate the shift from road transport to more sustainable modes, supporting the sector's clean and digital transformation.

### Reference studies

A [comprehensive study](#) commissioned by the Central Commission for the Navigation of the Rhine (CCNR, 2021) examined transitional pathways for achieving (near) zero-emission technologies, essential for meeting the 90% emission reduction target. The following analysis is primarily based on its findings while also incorporating recent developments that emerged since its publication, particularly:

- [PLATINA3 study on Clean Energy Infrastructure](#) (D4.2)
- [EU funded project SYNERGETICS](#) (D.1.1, D1.2, D1.3)
- [NEEDS case study for IWT on the Rhine](#)
- [PLATINA4Action, first version of progress report on implementation of the 35 NAIADES III actions](#) and Deliverable D4.1
- [Provincie Zuid-Holland \(PZH\) study 'Toekomst duurzame binnenvaart', TNO & EICB, 2021](#)

## 2. Considered (near) zero-emission technologies in IWT

A variety of sustainable engine and fuel technologies are considered as solutions to contribute to the transition to zero-emission inland waterway transport:

- Stage V combustion engines (ICE) using renewable diesel (HVO)
- Stage V combustion engines (ICE) using Liquid Bio Methane (LBM)
- Battery-electric power
- Hydrogen (H<sub>2</sub>) as fuel, either in fuel cell (electric) or applied in internal combustion engines
- Methanol (MeOH) as fuel, either in fuel cell (electric) or applied in internal combustion engines

**Table 1: Emission reduction potential per technique/fuel and their cost impacts compared to CCNR Stage 2 engines using fossil fuel [Source: CCNR and Province Zuid-Holland, 2021]**

Technology	GHG / CO <sub>2e</sub> <sup>1</sup>	NO <sub>x</sub>	PM	Cost increase compared to costs of using CCNR2 engines and fossil diesel (year 2030 time horizon)
CCNR w2 and below	0%	0%	0%	0% (=baseline)
CCNR 2+SCR	0%	82%	54%	[not assessed]
Stage V, Diesel	0%	82%	92%	10%
Stage V, HVO	100%	82%	92%	40% to 60%
Stage V, LNG	10%	81%	97%	[not assessed]
Stage V, LBM	100%	81%	97%	80% to 110%
Battery	100%	100%	100%	50% to 370%
H <sub>2</sub> FC	100%	100%	100%	350% to 520%
H <sub>2</sub> ICE	100%	82%	92%	210% to 370%
MeOH FC	100%	100%	100%	300% to 450%
MeOH ICE	100%	82%	92%	60% to 90%

HVO plays a crucial role in achieving significant short-term GHG emission reductions, as 99.9% of the current fleet still relies on conventional diesel. The role of LBM is rather limited on short term as only around 25 vessels are having propulsion systems which can use LBM as drop-in solution to replace fossil LNG. Moreover, today there are only a handful of pioneering vessels using batteries and hydrogen fuel cell solutions.

HVO and LBM enable full decarbonization of inland waterway transport (IWT) but require after-treatment systems to eliminate residual NO<sub>x</sub> and PM emissions. Unlike other alternative fuels, HVO and LBM can be integrated into the existing diesel or LNG refuelling infrastructure, facilitating a smooth and fast transition. In contrast, other renewable fuels (e.g. hydrogen, methanol, ammonia) would require the development of a new fuel supply infrastructure as well as large investments in the propulsion systems of vessels. Swappable battery containers as energy carrier can however use the existing infrastructure of container terminals in Europe.



Ammonia was not included in the CCNR and PZH studies due to higher external safety risks and a lack of technical provisions, which currently make it unsuitable as a fuel for inland vessels. However, green ammonia is regarded as a promising energy carrier in other industry sectors and might find its way as a fuel also into IWT in the long run.

<sup>1</sup> This concerns the IPCC method for national accounting of GHG emissions of transport, where biofuels are seen as zero-emission from tank-to-wake viewpoint.

## Price scenarios for alternative fuels

A 2021 study by TNO and EICB for Provincie Zuid-Holland (PZH) compared the total costs of (near) zero-emission propulsion systems to conventional CCNR Stage 2 diesel engines across various vessels and routes. By 2030, the study estimated that using HVO with Stage V engines would cost ~50% more than CCNR Stage 2 with fossil diesel, while LBM would be ~80% more expensive. Battery-electric propulsion was ~50% costlier for short-distance container transport, though its competitiveness depends on vessel type and operations. Hydrogen fuel cells were the most expensive, with costs increasing by 350%-520%, while hydrogen combustion engines would be 210%-370% more costly. Methanol fuel cells were estimated at 300%-450% higher costs, whereas methanol combustion engines appeared more viable at 60%-80% above conventional diesel. However, methanol combustion faces delays due to NRMM regulatory bottlenecks, particularly because of concerns over formaldehyde emissions. As a result, methanol adoption will likely be slow, while HVO, if sufficiently available, remains a more cost-efficient and effective alternative. Additionally, methanol requires significant capital investment in storage, fuel systems, and new engines.

## Dual-fuel end hybrid applications

The CCNR study primarily examined mono-fuel applications, but in practice, dual-fuel engines and hybrid configurations – which combine multiple energy converters and energy carriers – are already in use and may see further adoption. These approaches enhance redundancy and help mitigate risks associated with fuel price volatility and availability.

Dual-fuel and hybrid solutions would contribute to the zero-emission trajectory in several ways:

- Stepwise transition: Gradual adoption allows operators to spread financial investments over time.
- Energy carrier availability: Hybrid systems provide flexibility, ensuring continued operations even when HVO is not competitively priced or readily available.
- Operational resilience: Using multiple energy sources increases reliability and reduces dependency on a single fuel type.

These factors highlight why a diverse energy transition strategy – combining drop-in renewable fuels, hybrid configurations, and other renewable energy carriers – will be crucial for achieving cost-effective and sustainable decarbonization in inland waterway transport.

## 3. Current state of play

Close to 12,000 inland waterway transport vessels are being used on European waterways. 99.9% of them are using fossil diesel today to transport the goods and passengers. According to the CCNR (2021) study the number of large and small passenger/cabin vessels, as well as larger motor cargo vessels, is expected to grow steadily until 2050. This reflects the economies of scale of larger vessels. Smaller cargo vessels and smaller push boats are projected to decline significantly, mostly as result of the age of the concerned vessels.

Table 2: Projected fleet development [Source: CCNR, 2021]

Year	2020	2035	2050	Change 2020-2050
Large cabin vessels	361	406	451	25%
Push boats < 500 kW	840	690	540	-36%
Push boats 500-2000 kW	525	540	555	6%
Push boats ≥ 2000 kW	36	36	36	0%
Motor cargo vessels ≥ 110 m	630	690	750	19%
Motor tankers ≥ 110 m	567	597	627	11%
Motor cargo vessels 80-109 m	1,792	1,762	1,732	-3%
Motor tankers 80-109 m	622	637	652	5%
Motor vessels < 80 m	3,938	2,813	1,688	-57%
Coupled convoys	145	160	175	21%
Ferries	103	103	103	0%
Day trip and small cabin vessels	2,257	2,407	2,557	13%

In a Business-as-Usual (BAU) scenario projected in 2020/2021, most vessels are expected to continue operating with diesel engines due to their long lifespan. By 2050, a substantial portion of CCNR 2 and older engines will likely be replaced or decommissioned. Though air pollutants emissions are expected to decrease significantly already in the BAU scenario (-76% NOx and -83% PM compared to 2015), the reduction in greenhouse gas (GHG) emissions remains insufficient, with only a 22% decrease in CO<sub>2</sub>e by 2050, mainly because a 15% energy saving was assumed.

The number of newly built vessels is expected to be relatively limited. It is anticipated that between 2020 and 2050 approximately two-thirds of the fleet will undergo retrofitting, while only one-third will consist of new constructions (about 140 new vessels per year). However, certain segments, such as river cruise vessels, ferries, large pusher craft, large tankers, and coupling barges, are expected to see a relatively higher number of new builds.

**As a result, the most significant progress in fleet decarbonization must therefore come from retrofitting existing vessels using HVO as renewable drop-in fuel combined with clean engines.**

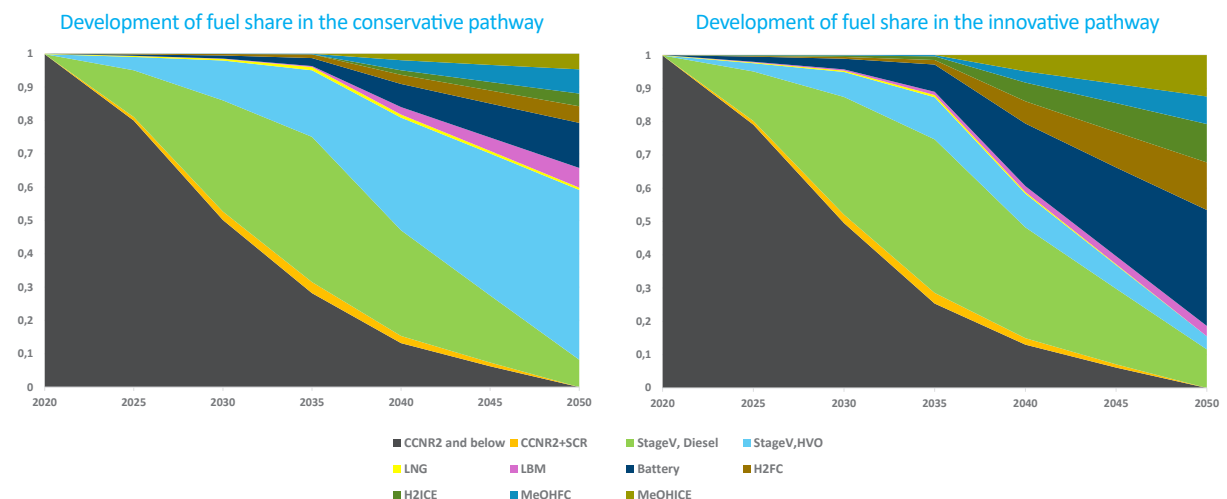
## 4. Transition pathways towards 90% reduction in inland waterway transport GHG emissions by 2030-2040-2050

### 4.1. Conservative and innovative pathways (CCNR, 2021)

The CCNR (2021) study presents two pathways on the possible uptake of renewable fuels and energy: a conservative as well as an innovative scenario in order to reach at least 90% reduction of GHG emissions by 2050.

Under the conservative pathway, the larger part of the fleet will be equipped with Stage V engines operated with Hydrotreated Vegetable Oil (HVO) as a drop-in fuel by 2050, which is relatively easy to implement and cost efficient, also for the existing fleet. Furthermore, the use of HVO in modern (Stage V) internal combustion engines (ICE) drastically reduces air pollutant emissions as well, next to the reduction of GHG emissions. Using modern diesel engines combined with HVO as fuel can therefore be seen as a logical step and no-regret investment, provided that sufficient HVO will be available on the market at competitive prices.

The innovative scenario exploits the opportunities of battery and fuel-cell (FC) technologies to propel electric engines rather than ICE to increase the share of technologies with zero-emission tailpipe performance. Although there are a handful of pilot vessels, these technologies show a lower technology readiness level (TRL) and are generally much more expensive. Moreover, the real GHG emission performance also depends on the Well-To-Tank emissions for producing the energy such as methanol, hydrogen and electricity.





### Estimation of required renewable energy quantities (for CCNR pathways)

The next table presents the estimated quantities per fuel (in tonnes) for the two CCNR pathways projected for the year 2050. By comparison, European IWT operators required around 1.6 million tonnes of conventional diesel in 2015.

Table 3: Needed fuel in the pathways (in tonnes) [Source: CCNR, 2021]

Fuel	Conservative Pathway 2050	Innovative Pathway 2050
Fossil diesel	170,312	190,322
Renewable diesel (HVO)	509,481	73,809
Fossil methane (LNG)	8,832	0
Liquid Bio Methane (LBM)	113,287	61,038
Hydrogen (H2)	20,347	62,370
Methanol (MeOH)	154,351	359,060

Additionally, the CCNR study (2021) calculated the electricity demand for battery operated vessels (measured in energy MWh) as follows:

Table 4: Needed electric power (in MWh per year) [Source: CCNR, 2021]

Battery	Conservative Pathway 2050	Innovative Pathway 2050
Electric power needs	381,005	1,120,359

In certain market segments, battery-electric solutions can be cost-competitive with HVO, particularly for container shuttle services. These operations can leverage existing container terminal infrastructure to swap battery containers during standard handling procedures, as demonstrated by Zero Emission Services (ZES) in the Netherlands. There are also electrification projects for passenger vessels (e.g. Vedettes de Paris on the Seine), ferries (e.g. Santa Maria on the Moselle) and push barges on short distances (e.g. KOTUG E-Pusher in The Netherlands).

## Estimated transition costs (of CCNR pathways)

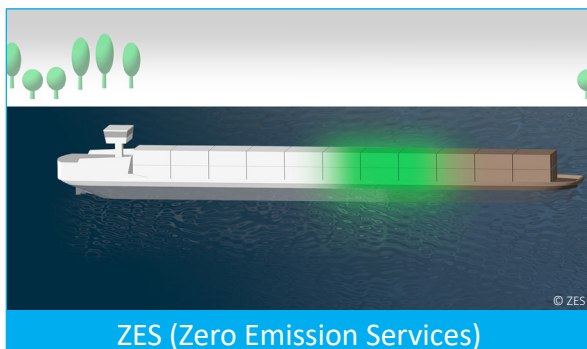
Given uncertainties surrounding the prices and availability of alternative fuels and zero-emission technologies, the CCNR (2021) study assessed the Total Cost of Ownership (TCO) – the sum of operating (OPEX) and capital expenditures (CAPEX) – under three scenarios: Business-as-Usual (BAU), conservative pathway, and innovative pathway.

Over a 30-year period, the estimated TCO gap compared to the BAU scenario is:

- Conservative Pathway:
  - €2.4 billion (minimum price scenario)
  - €6.4 billion (maximum price scenario)
- Innovative Pathway:
  - €5.3 billion (minimum price scenario)
  - €10.2 billion (maximum price scenario)

It is important to note that these gaps are calculated against the BAU scenario, which assumes fossil diesel remains tax-free and outside the scope of the Emission Trading Scheme (ETS). Note also that since 2021 the costs increased: if the TCO gap estimations would be made with today's price levels, the gap would be much larger (~50%).

Anyway, the TCO gap for the innovative pathway is roughly twice as high as for the conservative pathway, with a bandwidth factor of 1.6 to 2.9. This comparison highlights that the conservative pathway using mostly drop-in fuels (HVO) is the most cost-efficient strategy to achieve a 90% emission reduction by 2050 (compared to 2015 levels).



## 4.2. Accelerated pathway and estimation of renewable energy quantities

Table 1 confirmed that the drop-in fuels HVO (Hydrotreated Vegetable Oil) and LBM (Liquefied Biomethane) can achieve 100% decarbonization according to IPCC standards. In principle, nearly the entire Inland Waterway Transport (IWT) fleet could transition to these renewable fuels immediately, as they are compatible with both existing and modern (Stage V) internal combustion engines (ICEs) equipped with exhaust gas after-treatment systems to eliminate air pollutant emissions. However, the primary barriers to widespread HVO adoption are its higher cost and limited availability compared to conventional diesel. If policymakers ensure that sufficient quantities of HVO are available at competitive prices, an immediate transition to these fuels would be feasible. This would allow the phasing out of fossil diesel in the short term.



To achieve such a transition on short term (e.g. 2030), an estimated 1.6 million tonnes of HVO per year would be required for the IWT sector. This shift would result in zero greenhouse gas (GHG) emissions, in line with the IPCC national accounting procedure for transport emissions. Looking ahead to 2050, adapted CCNR scenarios project the replacement of fossil diesel with HVO and LNG with LBM, leading to the following required fuel volumes.

Table 5: Needed fuel in the pathways in adapted CCNR scenarios for 2050 to abandon fossil fuels [own calculations]

Fuel (tonnes)	Conservative Pathway 2050	Innovative Pathway 2050
Fossil diesel	0	0
Renewable diesel (HVO)	684,823	269,741
Fossil methane (LNG)	0	0
Liquid Bio Methane (LBM)	122,119	61,038
Hydrogen (H2)	20,347	62,370
Methanol (MeOH)	154,351	359,060

Currently, the market price of HVO is, on average, 30% higher than that of conventional diesel but prices largely differ between Member States due to differing national fuel policies (different implementation of Renewable Energy Directive and taxation regimes). However, **in a scenario where HVO reaches price parity with fossil diesel, the TCO gap for achieving 100% GHG emission reduction would be eliminated.**

Since existing engines can run on HVO without costly modifications, operational costs (OPEX) would remain unchanged if it is made available at competitive pricing against conventional diesel. No significant additional investments would be required either. However, to reduce air pollutant emissions to near zero, the existing fleet would need to undergo engine replacements or alternatively, install aftertreatment systems to abate the NOx and PM emissions.

If air pollutant emission reduction needs to be increased compared to BAU scenario, these measures would require some additional capital expenditures (CAPEX) and higher OPEX due to the consumption of urea for the catalytic process. However, these costs are relatively minor compared to the substantial CAPEX and OPEX investments required for alternative zero-emission technologies, such as fuel cells, full vessel electrification, batteries, and the installation of costly fuel storage systems for hydrogen, methane and methanol.



## 5. Optimizing existing infrastructure for clean energy refuelling

To enable clean energy adoption in inland navigation, the existing refuelling infrastructure must be assessed for compatibility with alternative renewable fuels. Whereas HVO is fully compatible with the current refuelling infrastructure and current refuelling stations and boats offer a foundation, for other solutions investments are needed. For other alternative fuels, technical and legal constraints – such as restrictions on carrying hydrogen tanks – pose challenges and require significant investments. Mapping these limitations is essential to determine how existing infrastructure can be adapted, preventing stranded assets while ensuring efficient fuel distribution.

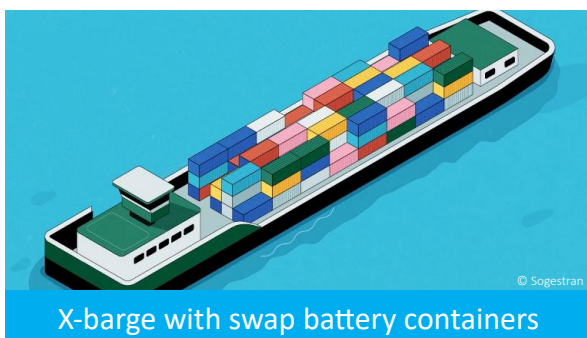
### 5.1. Standardizing Onshore Power Supply (OPS) for scalability

A standardized and extensive onshore power supply (OPS) system is essential for vessel electrification. Member States must ensure that at least one shore-side electricity installation is available for inland waterway vessels at all TEN-T core inland waterway ports by 31 December 2024 and at all TEN-T comprehensive inland waterway ports by 31 December 2029, in accordance with Regulation (EU) 2023/1804 on the deployment of alternative fuels infrastructure (AFIR).

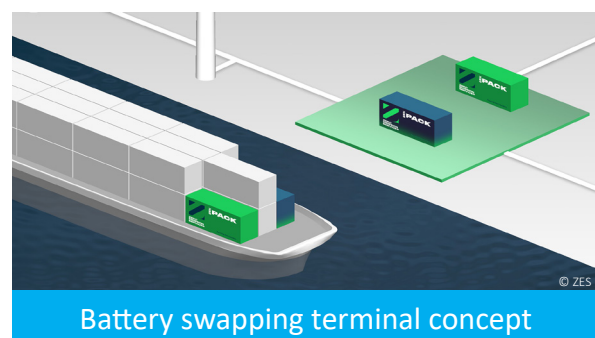
To meet future demand, the current pace of OPS deployment must accelerate. The power grid must be extended to quay areas, support the energy needs of diverse vessel types, and incorporate standardized operational procedures and payment systems. Additionally, future OPS infrastructure should facilitate rapid battery charging for vessel propulsion, requiring substantial upgrades to transform conventional OPS installations into high-capacity charging hubs.

### 5.2. Exchangeable energy storage at terminals and along waterways

Containerized energy storage solutions, such as batteries and hydrogen, present both technical and logistical challenges. Many vessels are not designed to carry energy containers, and numerous inland terminals lack the necessary handling capacity. However, energy-container swapping locations could be established at dedicated shore-side points along waterways, beyond conventional container terminals, improving accessibility and feasibility. Synergies can be created as well with geographic locations where there is good access to green electricity and supply of energy carriers (e.g. green methanol or hydrogen production plants).



X-barge with swap battery containers



Battery swapping terminal concept

### 5.3. Step-by-step development of clean energy corridors

Due to the dynamic nature of inland shipping, achieving full geographic coverage for clean energy refuelling will be complex. Initially, infrastructure development should focus on specific vessel types – such as container ships and ferries – and dedicated routes with high energy demand along strategic waterway corridors. A phased approach will enable gradual expansion while ensuring reliable energy supply in key areas. In addition, inland waterway transport has an important potential to ship alternative fuels in large quantities and at competitive costs thanks to scale efficiency.

## 6. Policy roadmap for rapid uptake and up-scaling

A near-term transition to zero greenhouse gas (GHG) emissions in inland navigation – as defined by the IPCC national accounting method for transport emissions – is within reach. It requires a coordinated approach of the EU Members States.

### 6.1. Market failure: a catch-22 situation

Despite the potential of alternative fuel solutions, the business case for (near) zero-emission fuels and technologies is currently non-existent. The key challenges include:

- Higher costs: Renewable fuels and clean technologies are today much more expensive than fossil fuels, creating a competitive disadvantage for operators looking to decarbonize.
- Cost absorption: The investment and operational costs of switching to greener alternatives cannot be passed on to cargo owners and shippers.
- Unfair competition: Early adopters must compete against operators using cheaper fossil fuels, with no financial incentives for aligning with net-zero policy goals.
- Partly lacking availability of renewable fuels on the market.

This results in a deployment gap – a chicken-and-egg dilemma where the absence of a level playing field at the EU level reinforces the status quo and delays the transition.

### 6.2. Short-term policy strategy for drop-in fuels as a ready solution

#### Roll-out of HVO (Hydrotreated Vegetable Oil)

HVO as main drop-in fuel offers a pathway to 100% decarbonization and is compatible with existing and modern (Stage V) internal combustion engines (ICEs) as well as with the existing diesel refuelling infrastructure. To eliminate air pollutant emissions as well, exhaust after-treatment systems will be required.

A reliable annual supply of approximately 1.6 million tons of certified HVO at competitive pricing would be an immediate game-changer for the inland waterway sector and for the sustainability of Europe's transport system.

#### Regulation as key driver for the roll-out of HVO

In order to exploit the benefits and opportunities of HVO on the short-term, a stable regulatory framework and coordinated approach between EU Member States shall be pursued. Such a framework shall secure availability of the required annual supply of HVO at competitive pricing for IWT (compared with diesel and other modes), safeguard coordinated implementation between Member States of REDIII in the area of IWT, etc.

Harmonized taxation of HVO and HVO blends are further crucial elements for a competitive price and for wide-scale availability. The ultimate objective of this regulatory framework is to ensure a positive business case for the use of HVO on the short-term.

### 6.3. Mid-term policy strategy for zero-emission technologies beyond drop-in fuels

#### Advancing the development of alternative zero-emission technologies

Creating dependency on HVO as sole energy carrier brings risks terms of the availability (competition from other modes and sectors) and the price levels. Other energy solutions shall therefore be developed further in parallel to mitigate risks and to be resilient. Beyond drop-in fuels, other clean solutions must be explored and further developed with a focus on long-term sustainability and higher innovation:

- Battery-electric propulsion could be cost-competitive with HVO for container shuttle services, where

battery containers can be swapped at existing container terminals. Electric propulsion is also an important and viable alternative for passenger vessels, ferries and pushers.

- Methanol and hydrogen projects are currently in development, though these require new refuelling infrastructure and further technological advancements.

## Regulation and funding as key drivers for further development of alternatives beyond drop-in fuels

As seen with the transition to double-hull tanker vessels, regulation has historically been the main driver of transformation in the inland waterway sector. To successfully achieve decarbonization through implementation of alternatives beyond drop-in fuels, the current market failures must be urgently addressed through:

- 1. A predictable and pro-innovation regulatory framework** that provides legal certainty and levels the playing field for EU energy suppliers, shipyards, the waterborne technology sector, and vessel owners.
- 2. A goal-based and technology-neutral approach**, ensuring investment security while driving demand for renewable energy and expanding the renewable energy supply network for inland vessels.
- 3. Funding and support for technological advancements** beyond drop-in solutions, making other renewable energy solutions more efficient and cost-effective over time.

By implementing clear regulations and fostering innovation, the current deadlock can be broken – allowing the inland waterway sector to decarbonize effectively while securing long-term investment in clean technologies.

POLICY ROADMAP	EC	MS	IWT sector	Waterborne technology sector	Energy suppliers	Timeline
Secure availability of annual supply of 1.6 million tonnes of HVO at competitive pricing for IWT (compared with diesel and other modes)	X	X			X	As of 2025
Safeguard coordinated implementation between Member States of REDIII in the area of IWT	X	X			X	As of 2025
Create predictable technologically neutral legal framework for emission reduction: <ul style="list-style-type: none"> <li>▪ EITHER EU-wide ETS2 opt-in provided that revenues are earmarked for IWT sector incl. SMEs to de-risk investment;</li> <li>▪ OR create EU wide equivalent framework</li> </ul>	X					Before 2030
Harmonise and improve taxation regime ensuring competitive pricing for renewable energy including blends via ETD (e.g. tax exemption for clean fuels and on shore power)	X	X				Before 2030
Amend NRM Regulation to include hydrogen and methanol as reference fuels for certification of combustion engines	X	X				As of 2025
Create RTD and innovation funding opportunities that ensure SME-friendly access and that result in technology at lower cost and improved efficiency of renewable energy types and energy systems and refuelling	X		X			New MFF
Create dedicated IWT investment Fund: Creation of a dedicated fund for IWT barge owners/operators aiming on pooling national and EU funding schemes together in large deployment projects involving all value chain partners	X	X	X	X	X	By 2030
Ensure active state aid implementation by Member States of GBER and CEEAG to de-risk the required investments with high co-funding rates		X				By 2030

## Supporting organisations



Inland Navigation Europe (INE) is the European Platform of waterway authorities and bodies promoting transport by water, working together to improve waterway infrastructure for navigation and other important economic and societal functions.

[www.inlandnavigation.eu](http://www.inlandnavigation.eu)



The European Barge Union (EBU) represents the inland navigation industry in Europe. Its members are the national associations of barge owners and barge operators of 9 European inland navigation countries (Austria, Belgium, Czech Republic, France, Germany, Luxemburg, Netherlands, Romania and Switzerland).

[www.ebu-uenf.org](http://www.ebu-uenf.org)



The European Skippers Organisation is the voice of the independent Inland Waterway Transport entrepreneurs. ESO looks after the interests of the barge owners at European level with representatives from 6 European countries (Belgium, France, Germany, Netherlands, UK and Poland).

[www.eso-oeb.org](http://www.eso-oeb.org)



As an executive body of EBU and ESO, the European IWT platform aims at a stronger positioning of Inland Navigation in European and national transport policies by an intensified contribution to various governing bodies, working parties and standard setting committees like CESNI and ADN.

[www.inlandwaterwaytransport.eu](http://www.inlandwaterwaytransport.eu)



Europe's inland ports, Enablers of Green Logistics, are represented since 1994 by the European Federation of Inland Ports. EFIP consists of nearly 200 inland ports located in 18 Member States of the EU and Switzerland, Serbia and Ukraine.

[www.inlandports.eu](http://www.inlandports.eu)



The industry-oriented Waterborne Technology Platform establishes a continuous dialogue between all waterborne stakeholders and EU Institutions, including Member States.

[www.waterborne.eu](http://www.waterborne.eu)



The EICB aims to make inland waterways transport more economically attractive and innovative by investigating opportunities & threats, and propose next steps such as market stimulation via promotion, innovation, fleet renewal, reinforcement & security of the chain, ICT, elimination of bottlenecks in the physical, logistical and knowledge infrastructure.

[www.eicb.nl](http://www.eicb.nl)



The EU-funded PLATINA4Action project aims to promote inland waterway transport in Europe through targeted coordination and support activities. It bridges the gap between current IWT research and future innovation needs, focuses on deploying green and connected inland waterway transport, evaluates NAIADES III, and prepares a policy agenda. *This project received funding from Horizon Europe research and innovation programme of the European Union under grant agreement No 101137650.*

<https://platina4action.iwtprojects.eu>