Policy measures to support investments in eFuels via the Sustainable Transport Investment Plan (STIP)

The scaling of alternative fuels depends to a large degree on the development of a suitable and enabling political framework as well as targeted support for project investments. Currently, the industrialization of hydrogen derived synthetic fuels – eFuels – is not taking place in the size and speed as could be the case. While **eFuels are recognized as a crucial part of the EU energy system within European legislation**, both in transport and in industry policy, leading to high investment interest to fulfill mandates, the main challenges currently are in achieving Final Investment Decisions, financing and offtake agreements as well as certain regulatory bottlenecks that increase cost and insecurity. **The Sustainable Transport Investment Plan STIP provides an opportunity to address these bottlenecks** and will outline short- and medium-term measures to prioritize support for renewable and low-carbon fuels. We welcome this initiative and aim to contribute to the discussion with a set of recommendations in the table below.
In our view, the most important policy levers to decrease the cost of eFuel production, increase production capacity of eFuels and hence contribute to reducing emissions across all sectors are:

- **Increasing investment security via long-term binding targets.** The crucial role of renewable fuels should be reflected in the upcoming 2040 Climate targets, the foreseen revised Renewable Energy Directive and all sectoral legislations such as CO_2 Standards for Cars, Vans and Trucks as well as ReFuelEU Aviation and FuelEU Maritime.
- **Recognizing the use of eFuels and advanced biofuels in the road sector** to reflect the technical reality of fuel production and supply to the market. Producing renewable fuels solely for aviation and maritime sectors is economically unfeasible without economies of scale. The absence of a viable market in road transport prevents cost optimization and raises the financial risk of investment in SAF/e-SAF and maritime fuels.
- **Revising the delegated acts on hydrogen and eFuel production.** The electricity supply criteria as well as limitations on CO_2 sources and imports to the EU are increasing cost significantly and hinder investment. The European Court of Auditors found that the electricity supply criteria alone can lead to an increase in renewable hydrogen cost between 25% and 35%.
- **Improving existing and installing new funding schemes.** Existing support systems such as 'SAF allowances/FEETS support', RFNBO funding within the EU Innovation Fund and the European Hydrogen Bank should be continued, improved and extended. New funding mechanisms should complement existing ones, especially the establishment of a double-sided auction mechanism comparable to H2Global, both for domestic production and imports of clean energy carriers.
- **Developing a renewable fuel import strategy**. The EU should complement domestic production with a strategy for importing renewable hydrogen and derivatives from low-cost regions. Imports should focus on molecules that can be further processed in Europe, preserving parts of the value chain and supporting local industry through downstream refining into low-carbon products like e-SAF. Importing renewable energy will help bolster European energy security and competitiveness.
- **Including grandfathering to ensure investment security.** To unlock capital for CAPEX-intensive projects, investments reaching FID should be allowed to recertify under the RFNBO criteria in effect at that time of investment for the project lifetime of 20 years. This is essential to secure offtake and financing, and to ensure long-term market access for green products.
- **Finalizing the revision of the European Energy Taxation Directive** and introducing lower taxes for eFuels and advanced biofuels. As a first step this should be done for the existing scope.

Industry and business developers have shown huge interest and have announced more than 300 eFuel projects globally. In the long term, many independent studies demonstrate that the potential production capacity is multiple times higher than the current global demand. The German research institute Fraunhofer IEE in cooperation with the university of Kassel demonstrate in the so-called PtX Atlas that enough potential production capacity could be built up outside the EU in addition to projects that are built in the EU to cover the global energy demand in transport almost thrice. The Finish Lappeenranta-Lahti University of Technology foresees a potential of more than 40,000 TWh in 2050 – almost 3,000 TWh already in 2030. In order to realize this potential, political action is required as soon as possible. Below you will find a table with an overview of several possible levers that could be announced in the STIP.

Recommendation	**Affected Legislation**	**Type**
Short term		
Revise the RED RFNBO Delegated Acts to reflect the following developments essential to enable cost effective delivery of sustainable fuels to the market, strengthening conditions for domestic production and imports: - grandfathering clause to protect ongoing investments that comes into effect from pre-certification for a duration of 20 years from that date. - maintaining a monthly time correlation instead of switching to an hourly framework - Postponement of additionality criteria until 2035 - Inclusion of unavoidable industrial CO2 point sources - Removal of the criteria 'effective carbon pricing' - Remove criteria banning capital or operational aid for renewable power generating assets delivering electricity to RFNBO installations	Delegated Acts of the Renewable Energy Directive (refers to Delegated Regulation (EU) 2023/1184 and Delegated Regulation (EU) 2023/1185) Or if applicable via other delegated or implementing acts of RED	Regulatory
Ensure CISAF is fit for purpose and does not exclude OpEx for RFNBO projects: - Reference RFNBO instead of renewable hydrogen (otherwise RFNBO production could fall under obligation to enter into force 36 months after grant; excludes integrated processes using co-electrolysis that are able to produce RFNBO derivatives directly) - Ensure provisions on direct price support schemes are applicable to RFNBO and not only electricity - Clarify which sectors are deemed as technically unable to achieve full decarbonisation to give regulatory guidance on unavoidable industrial CO2 sources	CISAF	Regulatory
Preshadow planned RED revision with more ambitious RFNBO quotas from 2030 to at least 2040 as well as reflection in 2040 climate targets.	STIP/2040 Climate Target/RED	Communicative
Review of the CO2 Standards Legislation for Cars and Vans as well as Trucks already in 2025. Inclusion of Carbon neutral fuels (eFuels and advanced biofuels) as compliance option towards the CO2 targets.	CO2 Standards	Regulatory
Finalize the pending revision of the Energy Taxation Directive. As first step the existing scope should be finalized.	ETD	Regulatory

Communicate clear roadmap with short-term, mid-term and long-term support systems to avoid a “wait-and-see”-approach and increase security for first movers	STIP	Communicative
Increase confidence in regulatory framework – more communication on security of quotas	STIP/ ReFuelEU Aviation	Communicative
Issue guidance pertaining to the specific actions the European Commission will take in response to the adoption of the IMO Net Zero Framework with clear timelines and implementation stages for harmonization and alignment with the now existing global protocol.	FuelEU Maritime	Communicative
Ensure the Union database for biofuels (UDB) can handle the scale and diversity of marine fuels by enabling a scalable, flexible and swift entry of Member state databases and third countries into the centralized registry. For maritime, a pilot phase will be essential to identify bottlenecks specific to maritime value chains and accommodate corresponding complexities.	Union Database	Regulatory
Earmark a share of revenues derived from the EU-ETS sectoral obligations to reinvest in eFuel production and offtake	EU-ETS	Financial
Maintain dedicated maritime funding window within the next EU Hydrogen Bank auction.	Hydrogen Bank	Financial
Dedicated aviation funding window within the next EU Hydrogen Bank auction	Hydrogen Bank	Financial
Adopt the ESSF–SAPS report on Marine Fuels Certification Procedures as a technical basis for implementing FuelEU Maritime and ETS Maritime compliance. The document provides a technical foundation to facilitate certainty in certification procedures. Adoption would enhance clarity and legal certainty for bunker operations and fuel documentation across EU ports, supporting seamless compliance with both FuelEUMaritime and ETS Maritime.	FuelEU Maritime, EU-ETS	Regulatory
Integrate RFNBO infrastructure and production into the Global gateway program and the existing green corridors initiatives. Integrate modules into the initiatives aimed at dedicated RFNBO funding streams including grants and low-interest loans for bunker facilities, storage hubs and production installations.	Global Gateway	Regulatory
Consider sovereign guarantees as additional instruments e.g. via the EIB/InvestEU	New	Financial
Develop targeted funding Instruments that support large-scale commercialization, filling a gap between innovation (HorizonEurope & Innovation Fund) and cost-effectiveness (Hydrogen Bank).	New	Financial
Enable commercial-scale implementation of strategic net-zero technology projects via the Net-Zero Industry Act by including the entire value chain under its scope. The STIP framework could be leveraged to ensure that the fast-tracking obtained via NZIA qualification would apply to RFNBO projects in their entirety, instead of individual components.	NZIA	Regulatory

Mid term		
Put in place a double-sided auction mechanism similar to H2Global introducing an intermediate.	New	Financial/Regulatory
Develop a renewable liquid and gaseous fuels strategy to transition the fuel industry.	New	Communicative
Develop a comprehensive renewable fuel import strategy that complements domestic production by importing eFuel from low-cost regions with abundant renewable resources. This should include incentivizing the final stages of the value chain in Europe —such as refining - to drive industrial value creation while enhancing energy security through diversified and resilient renewable fuel supply chains.	New	Communicative
RED revision: An ambitious overall RFNBO quota within the RED revision can incentivize investments into RFNBO plants for all sectors and alleviate the cost pressure on the aviation and maritime sector: Further this enables supply to decarbonize the fuel used in road sector.	RED	Regulatory
Extending the SAF allowances/FEETS within the EU-ETS beyond 2030, with a dedicated amount of SAF Allowances/FEETS support allocated towards eSAF to increase the transparency and plannability.	EU-ETS	Regulatory
Implement competition-neutral measures such as a passenger- and destination-based levy to generate private funds for SAF support.	New	Regulatory
Redirect ReFuelEU penalties: Fines from non-compliance with SAF quotas should be reinvested into SAF production and uptake to bridge the cost gap, differentiating between bio-based SAF and eSAF.	ReFuelEU Aviation	Regulatory
Establish binding minimum quotas for RFNBOs in maritime under FuelEU Maritime revision	FuelEU Maritime	Regulatory
Establish a matchmaking platform under the STIP for institutional investors and maritime energy transition projects. The forum would offer project vetting, due diligence standardization and public co-financing options. The existing network of the Renewable and Low-Carbon Fuels Value Chain Industrial Alliance of DG Move can be leveraged to facilitate the platform's formation.	New, RLCF Alliance or Hydrogen pilot mechanism	Financial
Under the STIP in relation to the Port Strategy, establish a green port infrastructure fund to support integration of bunker storage and fuel delivery infrastructure in ports as well as retrofitting and scaling of existing alternative fuel bunkering terminals. In conjunction, leverage the 2027 revision of the alternative fuel infrastructure regulation (AFIR) to place mandatory targets for port infrastructure deployment for alternative ports and speed up permitting in that regard.	Port Strategy, AFIR	Financial

ABOUT THE eFUEL ALLIANCE

The eFuel Alliance is interest group working for the political and social acceptance of eFuels and for their approval. We represent more than 170 companies, associations and consumer organizations along the eFuel production value chain. We stand for fair competition and a level playing field for all relevant emission reduction solutions. We are clearly committed to greater climate protection and want to see the significant contribution of eFuels to sustainability and climate protection more widely recognized. Our goal is to enable the industrial production and widespread use of CO_2-neutral fuels from renewable energy sources.