

Clean Fuels for All

*The Pathway for the European Refining Industry
to Climate Neutrality*

Call with Commissioner Valean

30 November 2020



FuelsEurope represents 40 Member Companies ≈ 100% of EU Refining



Subjects for Discussion

- Introducing our plan for transition of Liquid Fuels to Climate Neutrality by 2050
- The Investment Plan
- The Refinery as a Hub for Industrial low-carbon technologies
- The transition under way - Projects planned by our members
- Understanding costs and policy price signals
- Our specific proposals for the policy framework
- Why road transport decarbonisation supports aviation, maritime, and industrial strategy
- Sustainable Finance and Aviation
- Sustainable and Smart Mobility Strategy
- Conclusions and Requests

The Clean Fuels for All Strategy

Our plan ...

- FuelsEurope has set out a potential pathway to meet climate neutrality by 2050 and to develop low-carbon liquid fuels for all remaining road, maritime, and air transport needs.
- Up to 160 Million Tonnes of Climate Neutral Liquid Fuels by 2050
- Investments estimate: between €400 to €650 billion.
- Our pathway shows how a 100 Mt CO₂/y reduction could be delivered in transport by 2035, equivalent to the CO₂ savings of 50 million additional Battery Electric Vehicles (BEVs) on the road.

...and a request

- The enabling regulatory framework to create the market conditions for the investments is within reach, but needs support and co-ordination.
- For 2050 climate-neutrality, low-carbon liquid fuels, electrification and hydrogen in road transport play complementary roles, but we need more equal levels of support for all renewables in transport.

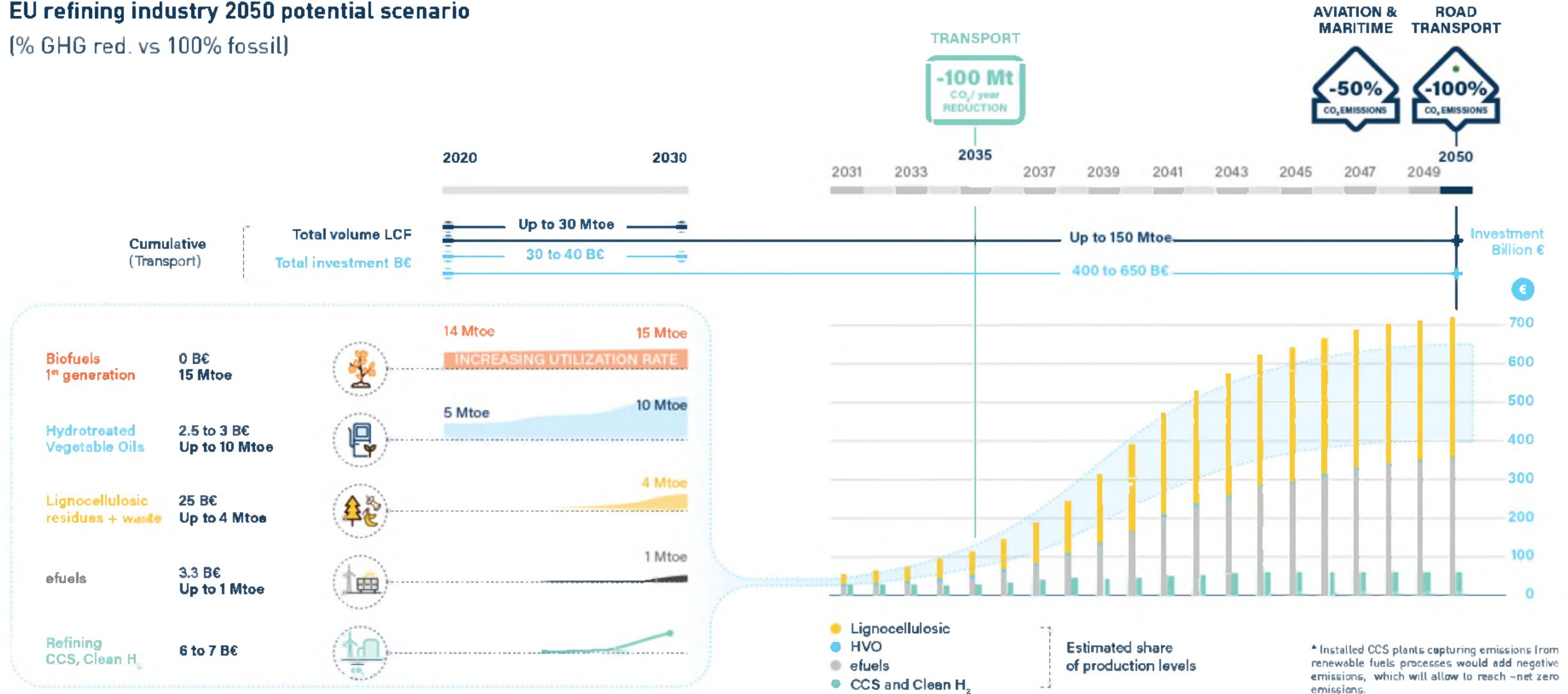


By 2050, at the latest, every litre of liquid fuel for transport could be net climate neutral, enabling the decarbonisation of aviation, maritime and road transport

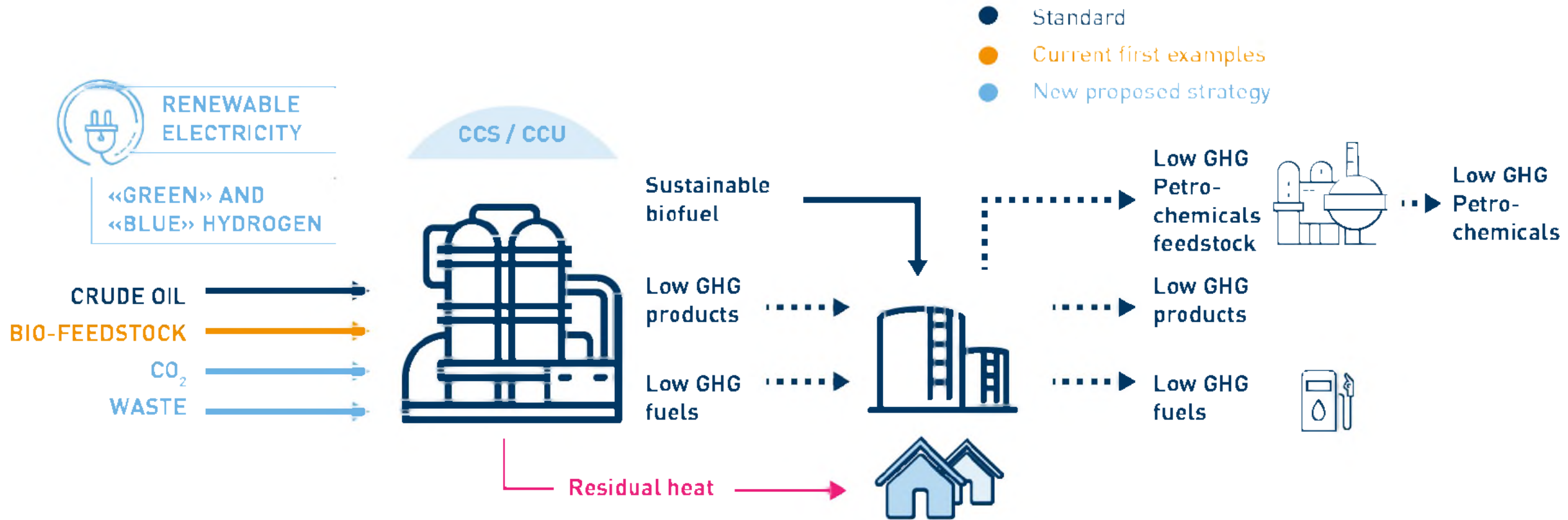
Clean Fuels for All in numbers

EU refining industry 2050 potential scenario

(% GHG red. vs 100% fossil)



The Refinery as an ENERGY HUB within an INDUSTRIAL CLUSTER



European Fuel Refining Industry - The Transition to Low-Carbon Liquid Fuels has started

Refining industry projects planned, contributing to the Green Deal & Climate Neutrality:

- Well over 20 projects for low-carbon liquids have already been started or are planned until 2030 (in the public domain).
- Projects facilitate industrial clustering through links with Chemicals, Recycling, Steel and Cement Industries, ...
- Scaling up and increasing the overall number of projects will be possible with the right enabling framework in place.

Provisional examples*:

- 8 Advanced biofuel projects, with capacities between 100.000 and 750.000 tonnes of output.
- 6 CCUS projects, up to 6 mt. of capacity for CO2 sequestration.
- 10 Green Hydrogen Projects, some of which lower the GHG intensity of manufacturing processes, others combine the green H2 with captured carbon to produce synthetic fuels with a capacity of up to 3.4 million tonnes of output per year.
- 3 Waste-to-fuel projects, with a capacity of up to 100.000 tonnes per year in output (derived from urban waste).

9.9 MT

Potential quantity of low-carbon liquid fuels produced per year in 2030

24

New sites in Europe

See more:

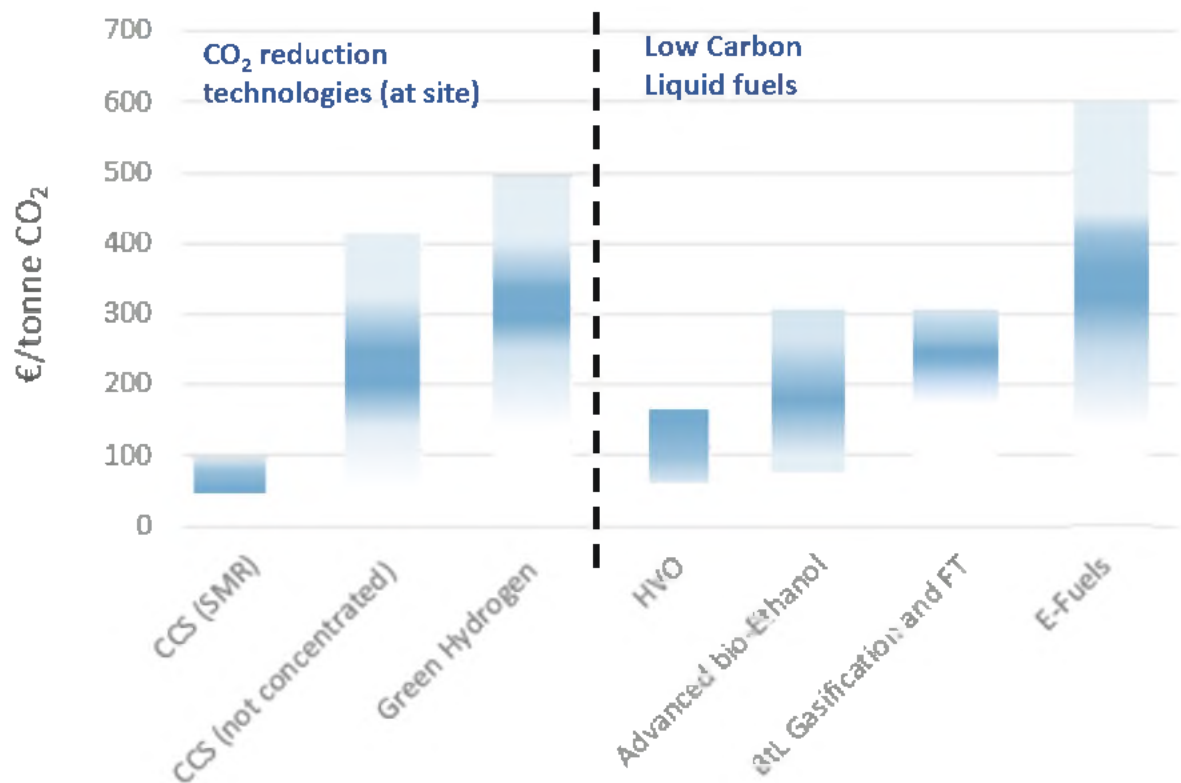
<https://www.cleanfuelsforall.eu/towards-climate-neutrality/>

<https://www.concawe.eu/low-carbon-pathways/>

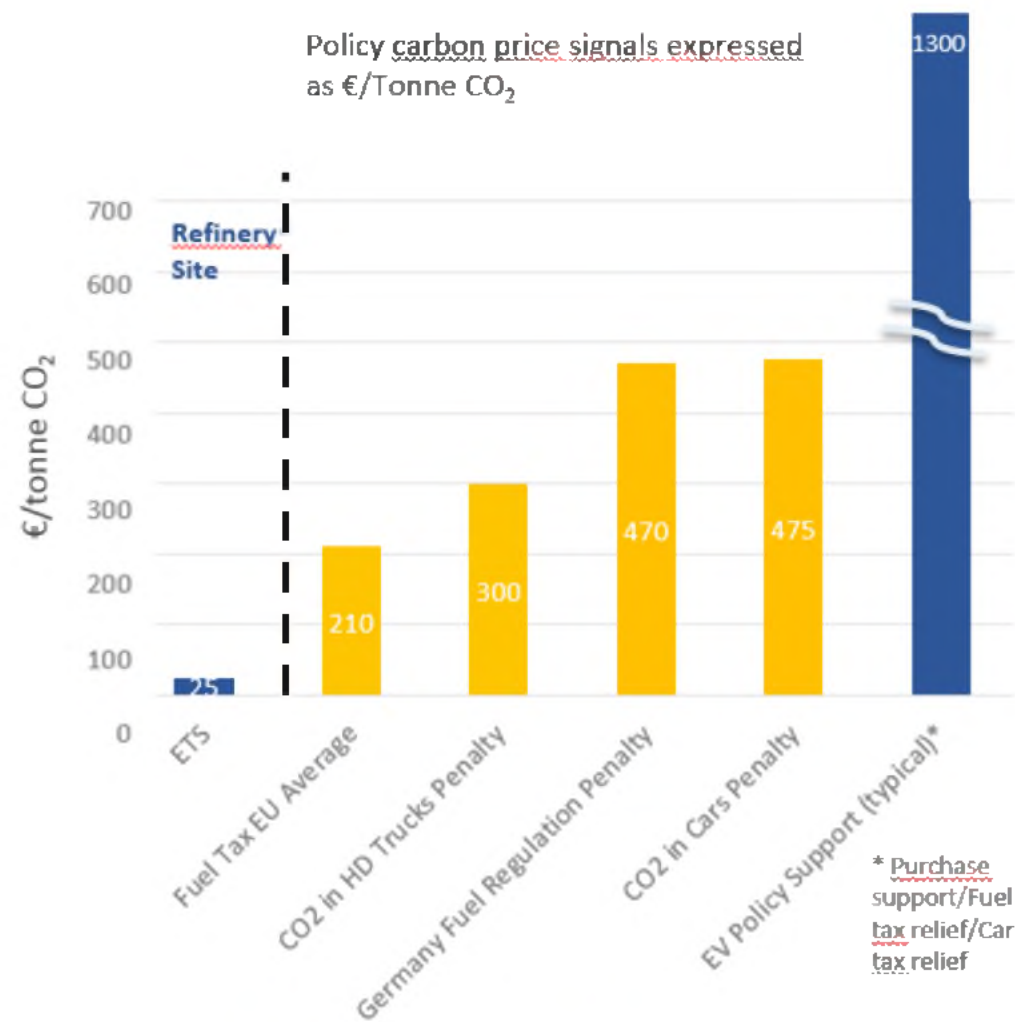
*While the final list of projects may differ from the map or the list shown here, these projects are being considered by FuelsEurope's members to be put forth for support under the EU Recovery Fund.

Low Carbon Fuels: Technology Costs and Policy Price Signals

Decarbonised fuel costs expressed as
 €/tonne CO₂ avoided.
 (Fully-built-up capex + opex costs)



Policy carbon price signals expressed
 as €/Tonne CO₂



* Purchase support/Fuel tax relief/Car tax relief

Fixed price

Market Price

Sources:
 Roland Berger, Integrated fuels and vehicles roadmap to 2030+ (2016)
 Cerully Report: <https://www.fuelsEurope.eu/publication/cerully-study-truckinon/>
 FuelsEurope Estimates

What is the Enabling Framework we ask of Policy Makers?

- To reform and simplify overlapping fuel policies, namely the Fuel Quality Directive and the Renewable Energy Directive.
- A reform of CO2 standards in vehicles, to enable the contribution of Low-Carbon Liquid Fuels to the improved CO2 performance of vehicles, including visibility at customer level.
- To shift from fuels energy taxation to carbon-based taxation to incentivize investments in all advanced renewable fuels technologies.
- Together, all of the above measures will create a predictable and stable regulatory framework to attract investors, and help make products affordable for customers, citizens and businesses.

What is the link between Road transport, Aviation, Maritime and Industrial Strategy?

Aviation and Maritime:

- Policy instruments are still in early stages to support renewable fuels at scale.
- Aviation operators have been financially hit hard by Covid crisis.
- Globally competitive markets, carbon leakage/ tankering risk.
- Extremely cost-sensitive industries may be impacted by higher fuel costs.

Industrial Strategy for Energy Intensive Industries:

- Main carbon pricing mechanism is ETS, in future with Carbon Border Adjustment Mechanism, but still may not achieve sufficiently high C prices.
- CCS, CCU, Clean H2 projects (essential for most EII) will have costs initially far exceeding ETS price signal.
- Only a few projects can be funded by IPCEI or recovery funding.
- Clustering with fuels production gives access to high C price policies.

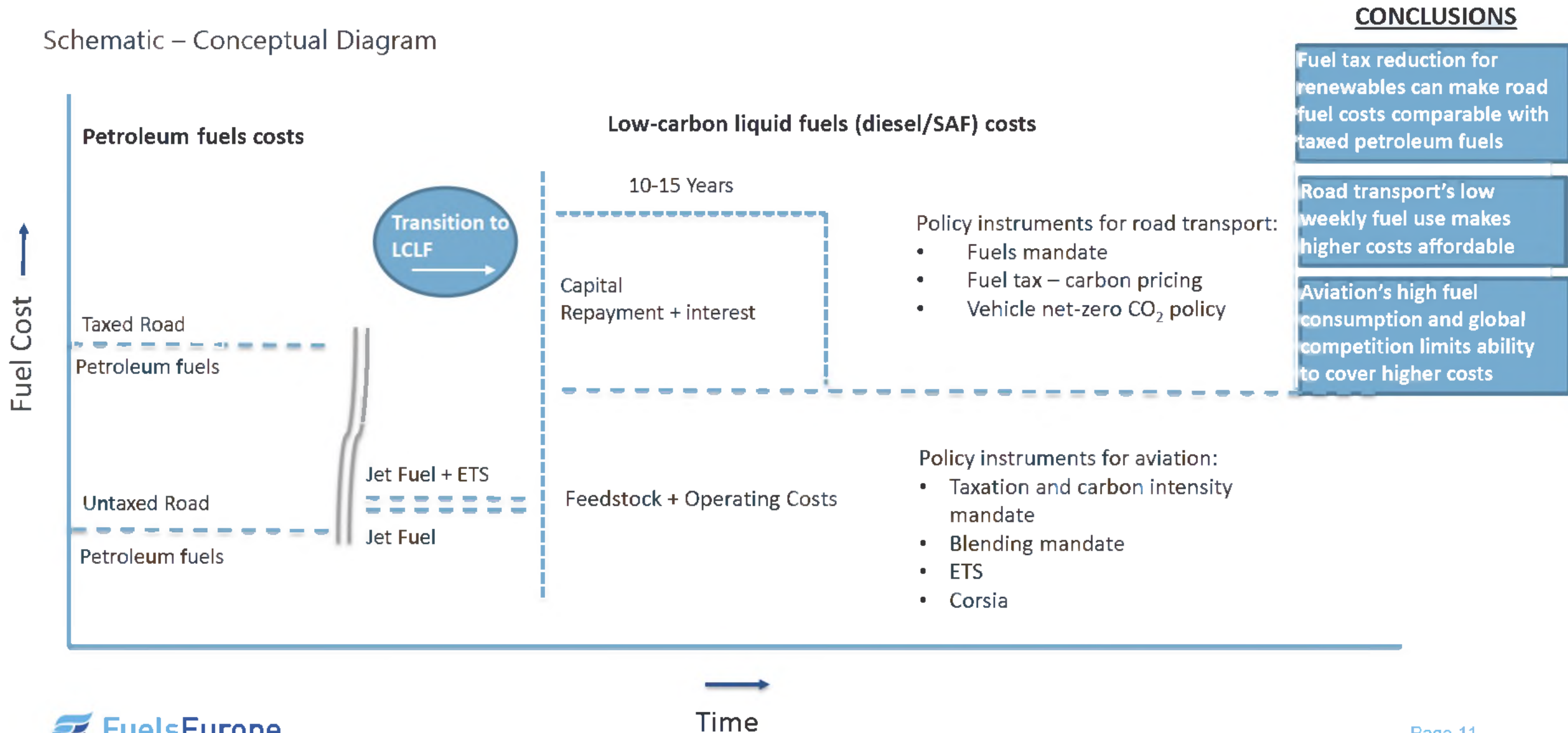
The logic for Road transport as Critical Lead Market:

- Has large scale, strong (high C price) signals, lower energy intensity, low carbon fuels with higher costs are more affordable.
- Is a no-regret policy for developing liquid fuels, they be diverted to aviation and maritime if/when electrification dominates in road sector.
- CCS/CCU and Clean H2 technologies at refining hubs can also serve industrial clusters.

“We can accelerate the technologies’ experience curve, and build scale using the high C price signals of the Road Transport CO2 and Renewables policy framework”.

Why is Road Transport a Critical Lead Market for Low-Carbon Liquid Fuels (LCLF)?

Schematic – Conceptual Diagram



Sustainable Finance and Aviation

- FuelsEurope's views on the Delegated Act implementing the Taxonomy Regulation (input to the public consultation):
 - We welcome the eligibility of biogas and biofuels for use in transport and in particular the reference to RED II sustainability criteria.
 - However, there are still some inconsistencies and we call for a full compliance with RED II to enable all low-carbon liquid fuels (from sustainable biomass, from recycled CO2 and from waste) to contribute to the climate transition.
 - We welcome the life-cycle approach used in the Delegated Act. It should also be applied to the transport sector.
- **As the maritime and aviation sector are not covered by the Delegated Act, we understand that the Platform on Sustainable Finance will define the relevant specific technical screening criteria:**
 - FuelsEurope learned that DG MOVE is developing a methodology to assess the 'green' impacts of investment in the aviation sector and projects (DG MOVE webinar of 29 September 2020), and we welcome its realistic approach.
 - We welcome the consideration for aviation of e-fuels as low-carbon activities. We encourage to adopt this position by proposing reasonable thresholds.
 - We hope that DG MOVE will participate directly in the specific subgroup of the Platform dedicated to the technical screening criteria for the Transport sector (focus on aviation and maritime). First meeting on 1 December 2020.
 - As FuelsEurope has not been given a seat in the Platform, we offer our contribution to DG MOVE.

The upcoming Sustainable and Smart Mobility Strategy

- We understand that:
 - Under the lead of DG MOVE, the strategy will design a policy framework for the future of mobility.
 - It will not present regulatory proposals, but a set of options to support the green and digital transition of transport, in a resilient Single Market.
- We encourage DG MOVE to uphold its defence of constructive principles:
 - The support of real technology neutrality: many solutions are needed for climate-neutrality and they should receive equal or similar policy support.
 - The recognition of the key importance of clean fuels for aviation, marine, and heavy-duty road transport.
 - The fact that – beyond financial support to low-carbon investments - the right incentives on the demand and supply side of low-carbon fuels should be created by regulations.
- FuelsEurope, similar to what it has been doing for aviation and SAF, is ready to offer its cooperation and contribution to DG MOVE in the implementation phase of the Sustainable and Smart Mobility Strategy.

Conclusions and Requests

We request that you consider:

- Support for recognition of the value of our “Clean Fuels for All” strategy for:
 - EU Industrial Strategy.
 - Sustainable Finance.
 - Sustainable and Smart Mobility Strategy.
- Support for Revision of ETD to create strong C price signal.
- Participation in the next Refinery Forum (as indicated by Commissioner Simson) in 1Q2021 dedicated to the transition of this industry in support of a climate-neutral transport.

FuelsEurope is ready to keep offering our contribution in the next steps of the regulatory process for SAF in aviation, as well as for the other files of the sustainable mobility.



www.cleanfuelsforall.eu

Thank you

