

eFuels: A global solution for global challenges



Our Members



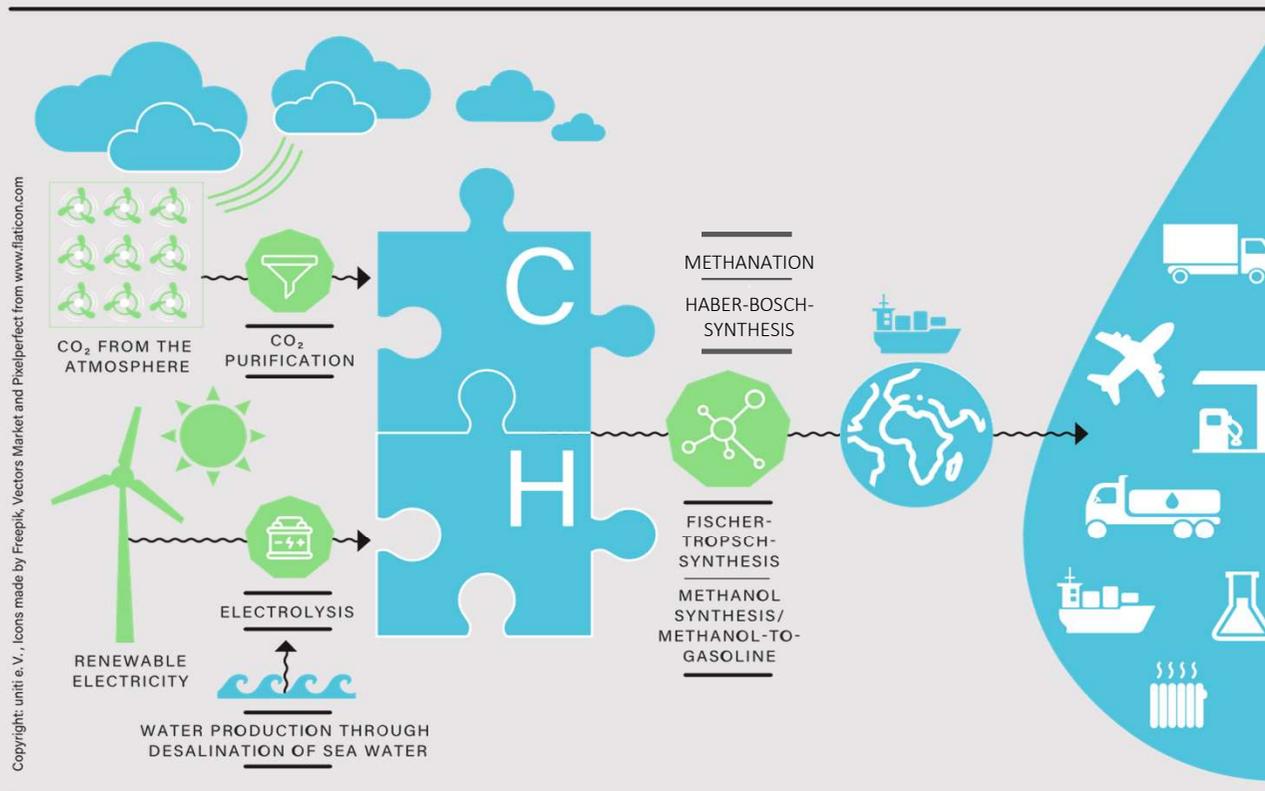
MORE THAN 170 COMPANIES, ASSOCIATIONS
AND CONSUMER ORGANIZATIONS,
INCLUDING:



PORSCHE

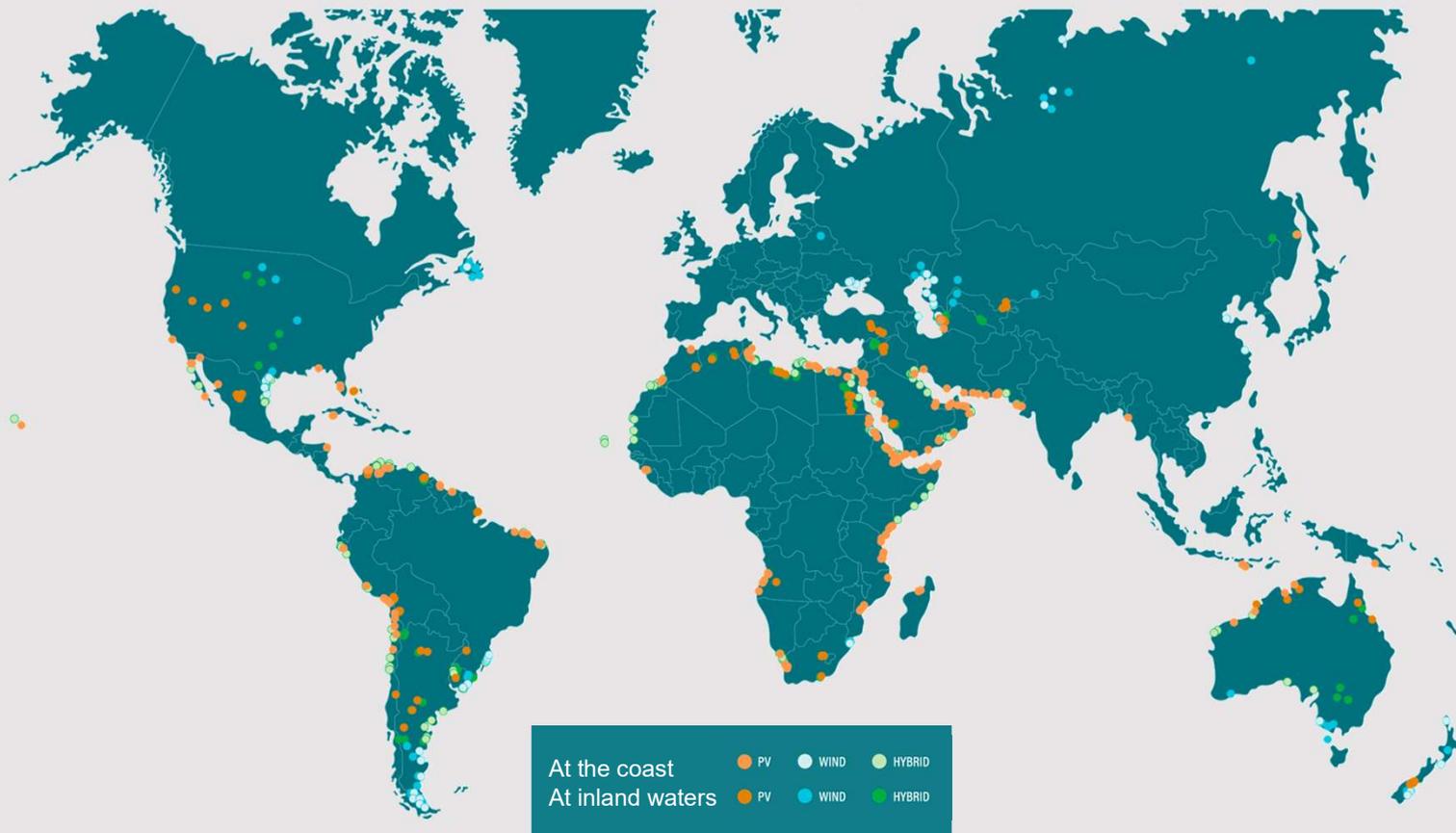


How are eFuels produced?



- Extraction of hydrogen from water by electrolysis using renewable electricity
- Hydrogen and CO₂, directly captured from the atmosphere, are converted into a liquid energy carrier, by using e.g. Fischer-Tropsch synthesis.
- Power-to-X (PtX): Renewable electricity is converted into a synthetic, multi-purpose fuel with drop-in ability
- Climate-neutral process, no additional greenhouse gases are produced

Availability check: PtX potential worldwide



- [Fraunhofer IEE](#) explored the potential outside the EU for the production of green H₂ and climate-neutral synthetic fuels
- **85,000 to 88,000 TWh** of climate-neutral synthetic fuels could be produced outside Europe
- Global energy consumption by transport in 2019 totaled **33,603 TWh**

Advantages of eFuels



Environmentally and Climate friendly

- Climate neutral, easy to store and transport
- No disposal and recycling issues



Quick and versatile in use

- Compatible with all existing combustion engines (cars, trucks, ships and planes) and existing infrastructure
- Can be mixed with conventional fuels (from 1% to 100%)



User-friendly and comfortable

- No expensive technology change required
- Affordable for consumers due to gradual blending



Economic potential

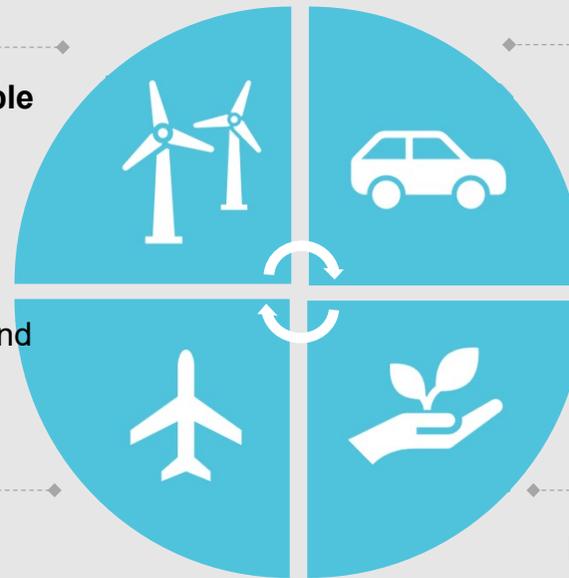
- Harnessing the global potential of solar and wind energy
- Maintaining leading competence in engine and plant engineering
- Safeguarding jobs

Green Deal legislative initiatives - our demands

Green Deal refers to the EU's target of reducing net greenhouse gas emissions and becoming climate neutral by 2050

Press for a more ambitious revision of the **Renewable Energy Directive**

- Higher GHG reduction targets in the transport sector
- Binding 5% sub-quota for eFuels in all sectors
- Targets beyond 2030
- Pragmatic delegated acts for electricity supply and CO₂ sources



Account for renewable fuels in the revision of the **CO₂ standards of new cars, vans and trucks**

- Life cycle analysis
- Carbon Correction Factor
- Introduction of voluntary crediting system

More ambitious goals and eFuel sub-targets in the **ReFuelEU Aviation** and **FuelEU Maritime**

- Long-term investment planning security

Reflect the climate benefit of renewable fuels in the revision of the **European energy taxation**

- Contribution to climate protection should be considered in taxation
- Additional price signal through EU-ETS
- Funding schemes: Hydrogen Bank, H2 Global

Green Deal legislative initiatives - the results

Green Deal refers to the EU's target of reducing net greenhouse gas emissions and becoming climate neutral by 2050

Renewable Energy Directive:

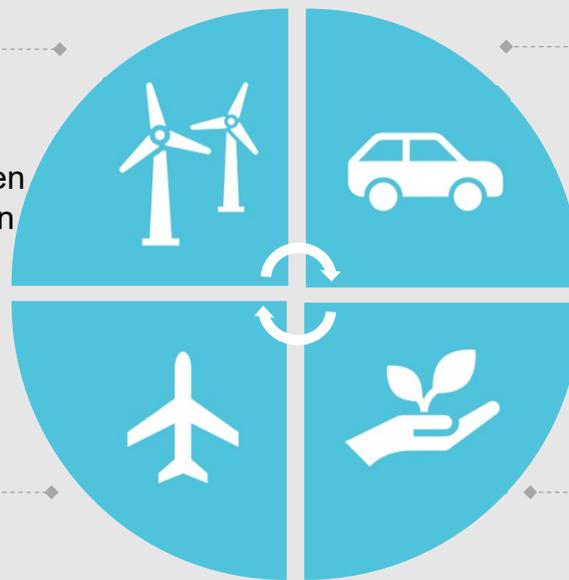
- Joint quota for advanced biofuels and hydrogen/ eFuels of 5.5% with sub-quota of 1% for hydrogen and eFuels in 2030 with double counting below in transport sector
- Delegated Acts for electricity supply and CO₂ sources are too complicated and do not provide the necessary framework

FuelEU Maritime:

- Inclusion of a sunrise clause for a 2% eFuels quota in 2034 is eFuel share below 1% by 2031

ReFuelEU Aviation:

- Sub-quota for synthetic fuels of 1.2% in 2030, 2% in 2032 and 5% in 2035 and gradually increase to 35% in 2050



CO₂ emission standards for cars and vans:

- No inclusion of eFuels within regulation itself
- But: Proposal of the EU Commission for the approval of vehicles with combustion engines when refuelled purely with eFuels.

CO₂ emission standards for heavy duty vehicles:

- Inclusion of CO₂ neutral fuels definition and obligation of Commission for methodology to register trucks fuelled exclusively by CO₂ neutral fuels
- Legislative process is not completed yet

European energy taxation

- File is still on hold due to unanimous vote in the council
- Aims to establish lower taxation for RFNBOs compared to fossil fuels
- EU-ETS sets a CO₂ price for fossil fuels in transport, which reduce price differences between fossil fuels and renewable fuels
- Big investments in global Hydrogen strategies e.g. H2 Global with a 900 million investment

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