



C2FUEL

General Presentation



The C2FUEL project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 838014.

The C2FUEL project results presented reflect only the author's view. The Commission is not responsible for any use that may be made of the information it contains.

A European Research & Innovation Project



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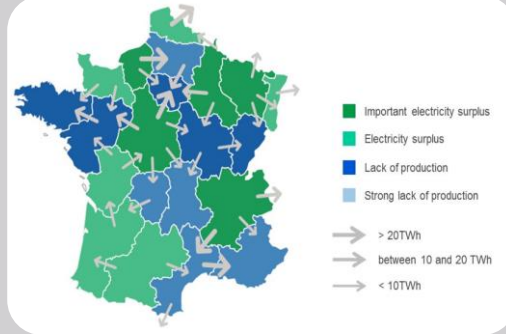
 The project started on July 1st 2019, and will **last 4 years (until November 2023)**.

 C2FUEL EU contribution is about **4 million €**.

 **11 partners** on board from 7 countries!



C2FUEL Approach: Aligning local supply and demand



Dunkirk Integrated steel making factory

- 11.5 Mt/yr steel products
- 5 GWh traded by AM and DK6

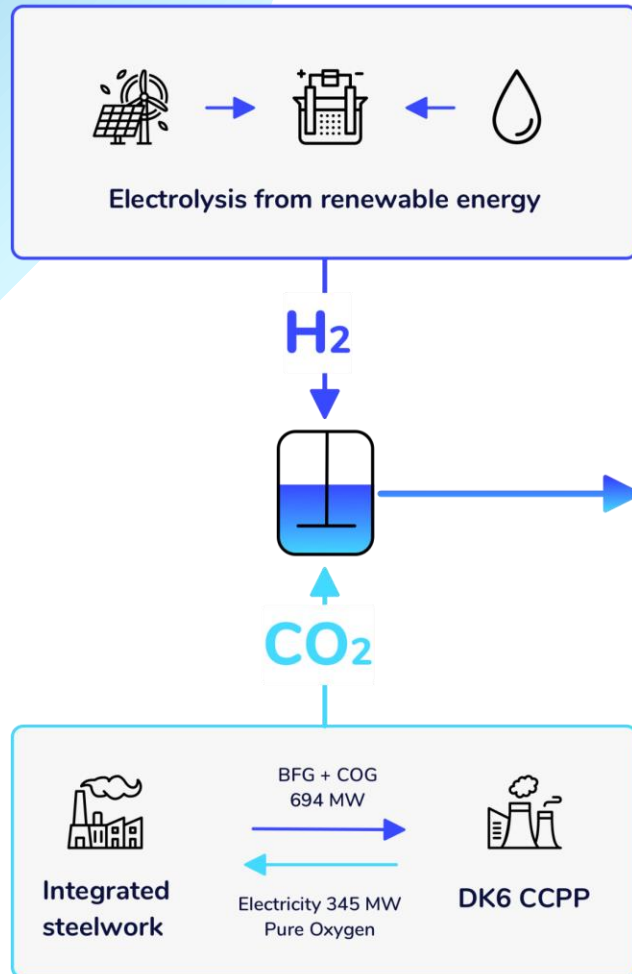
RE penetration

- 1.3 GW installed
- 3500 hr surplus
- 6 GW planned

Dunkirk Harbor

- 90 Mt_{CO2eq} worldwide
- ≈ 4 Mt_{CO2eq} in Dunkirk

C2FUEL Overall target: 2.4 million tCO₂ avoided per year



Formic acid as Hydrogen carrier

Decreasing the electricity footprint during boat charging on docks

C2FUEL Output

- 2,4 million ton of FA
- 100 000 ton of green hydrogen
- 1,8 TWh of green electricity
- Seasonal storage using 3.6 TWh of renewable electricity



Dimethylether as Maritime and truck fuel

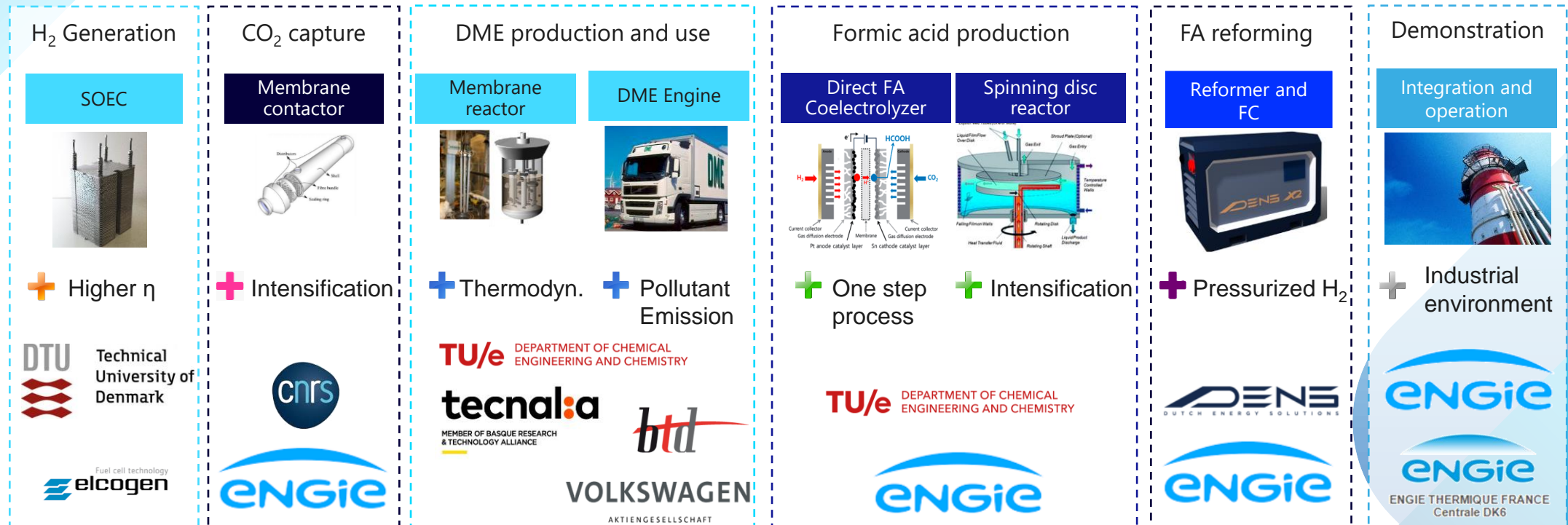
Displacing fossil fuel emission from power plant and decreasing harbor mobility footprint

C2FUEL Output

- 1,2 million ton of DME
- 320 000 ton of green H₂ produced using 11 TWh of renewable electricity

From TRL 3 to TRL 6 on innovative technologies

 C2FUEL partnership covers the whole value chain of conversion of CO₂ for carbon-captured fuel production.



CFUEL advisory board

FA Experts



CCU Experts



DME Experts



大连理工大学
DALIAN UNIVERSITY OF TECHNOLOGY









Local Stakeholders



H₂ Scale up Experts



Expected impacts

-  **Boost synergies** between power plants and steel industry.
-  **Novel approaches for CCU** in gas-fired power generation with **strong replication potential**.
-  Build strong **local circular economy** based on carbon.
-  Support carbon-captured fuel and hydrogen-carrier production EU value chain.
-  **Support Low Carbon policy** of EC.
-  **Increase knowledge on HT electrolysis** to support storage.



Circular
economy

Contact information



<https://c2fuel-project.eu/>



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Thank you very
much for your
attention

