



ZAFFRA

ENERTRAG, Zaffra & Concrete Chemicals

Aireg Webinar, march 13th 2025

A reliable partner for H2 supply with 30 years experience in renewables and >10 years in hydrogen production



Founded **30 Years** ago in North-East Germany



Headquarter in **Dauerthal** (Brandenburg)



Today more than **1,100 employees** worldwide



13 locations in Germany and **8 more** worldwide



Green electrons

- Approx. **2 GW** of wind and solar plants developed, financed and constructed
- Approx. **1 GW** on own balance sheet, resulting in **> 1,6 TWh/a** of electricity
- **15 GW wind & solar** in global development pipeline



Green molecules

- Operating a **0.6 MW wind-hydrogen plant since 2011**
- Developing **>500 MW electrolysis in Germany** and **>2 GW globally** by 2030 (incl. 185 MW IPCEI in NE Germany)
- **Developing eSAF & green ammonia projects** in Germany and worldwide



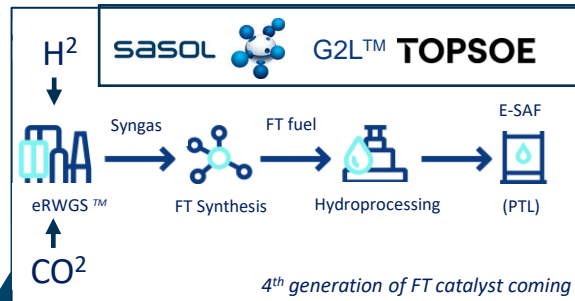
Green power plants

- **1 GW green Verbundkraftwerk^{®*}** planned in the Uckermark region
- **Operating >1,000 km medium and high-voltage grid** and **substations up to 380 kV**
- **6 GW renewables in 24/7** remote control
- **System services**, e.g. control power and back-up capacity (planned)

*Combining wind, PV, battery, electrolysis, wind heat storage in a 20-30km radius

Zaffra – decarbonizing aviation through experience and leading technology.

Leading E-SAF PTL technology



ZAFFRA

- Headquartered in Amsterdam with team in 8 countries
- JV to implement shareholders (Topsoe/Sasol) leading technologies
- Leading position in license market (of HEFA and PTL Technologies)
- Highest yields
- In house expertise of project- /asset development and operations
- Projects in Europa, USA und Asien (mainly PTL, status Q1 2025)
- First G2L™ technology in Germany: DLR plant in Leuna, Start in 2027

Project-/
Asset
Development



Operations



Examples of GTL assets (projected, built, oerated)



**Oryx
Qatar**
32400 barrels per day



**Sasolburg Wax
South Africa**
7 500 barrels per day

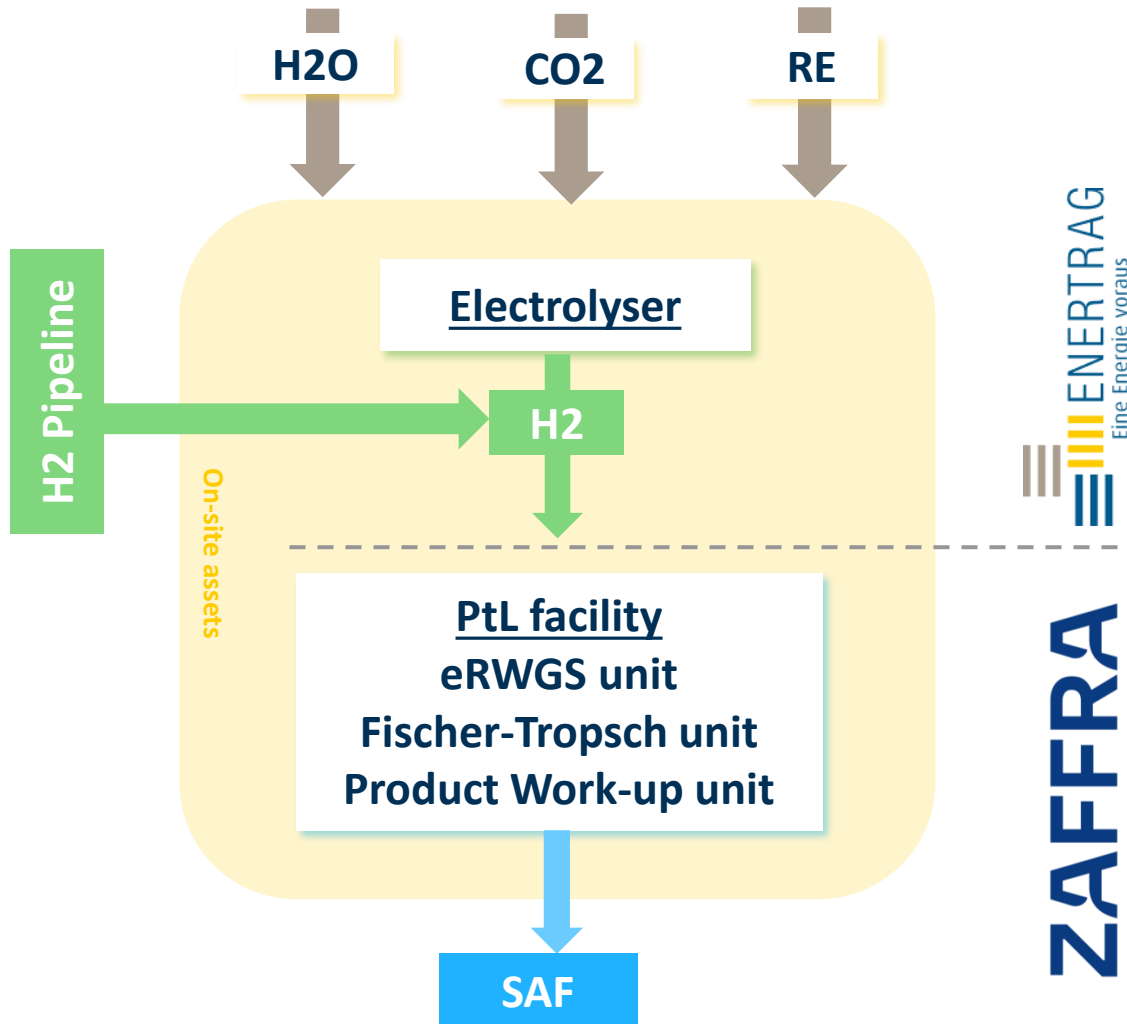


**Escravos GTL
Nigeria**
33 200 barrels per day



**Uzbek GTL
Uzbekistan**
38 000 barrels per day

Concrete Chemicals – strong partners for success to produce eSAF in Brandenburg



- Development of Electrolyser locations along H2 core grid
- Focus on system-serving electrolysis and interconnected power plants
- Connection of H2 customers through the core grid

- JV of leading global e-fuel technology providers Sasol and Topsoe
- License market share in Bio-SAF and E-SAF of > 30%
- Latest technologies / highest output (performance guarantees)

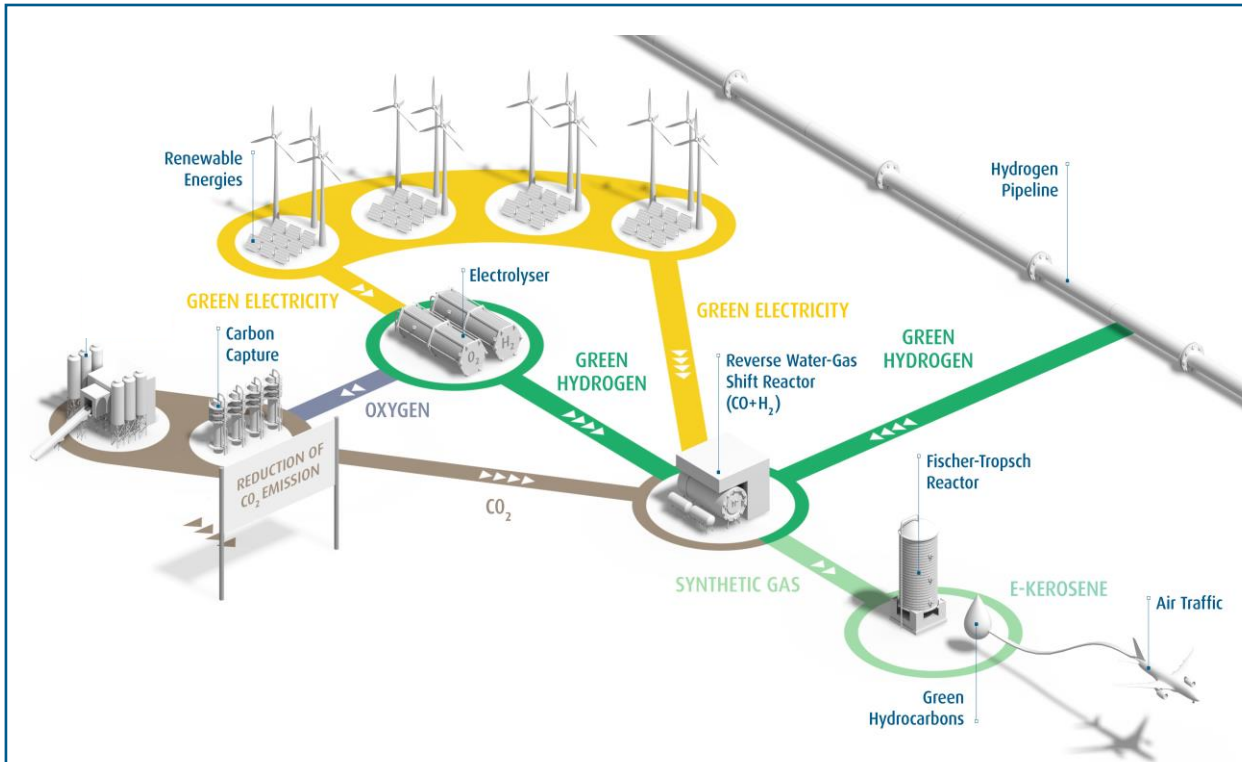
Concrete Chemicals implements the first eSAF production plant in Brandenburg by 2029.

Problem & status quo

- EU-Aviation sector needs 0,6 Mt/a e-SAF until 2030 to meet blending quotas under REDIII, GER: 0,1 Mt)
- Supplier of fuels must fulfil quotas

Solution: “Concrete Chemicals” is pioneering the of the transformation of aviation

- First mover project to produce and market SAF under RFNBO regulation
- maintaining industrial value creation and enables transformation and preservation of jobs in Brandenburg



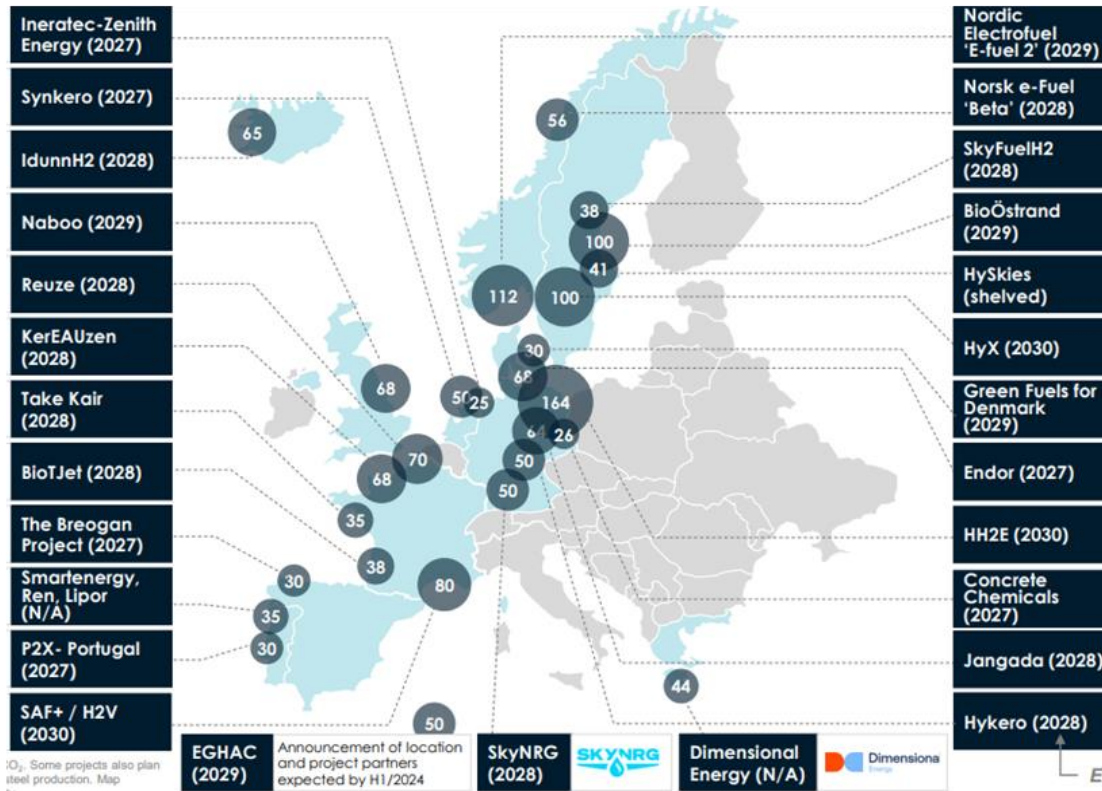
Key facts

Strong, complementary partners with expertise and existing assets for large-scale industrial PtL production aim for:

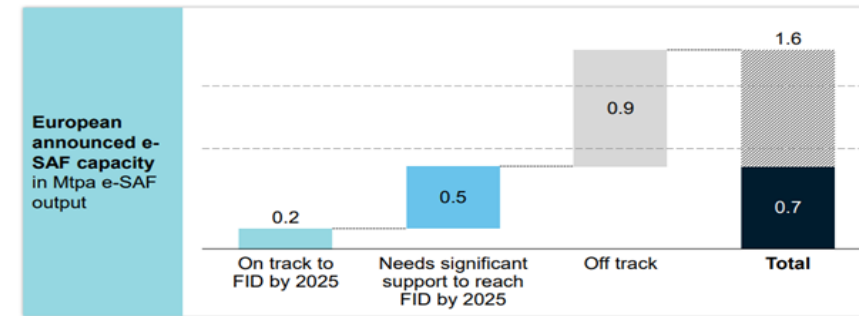
- Production of PtL e-SAF from biogenic CO₂ and green H₂ in FT-Reactors from 2029 onwards
- **Scalable solution with unique funding opportunity and political support**

Given the slow progress of PTL projects, offtake & bankability support from policy makers is most urgent imperative.

Sum of all announcements would have delivered 1.6mt PTL production (2030)....



... of which less than 50% is still on track...



... likely resulting in shortage of PTL supply unless policy support for offtake/bankability is coming soonest.

