

Towards commercial solar thermochemical production of sustainable drop-in fuels (Project SUNFUELS)

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To determine the techno-economic feasibility...

...of industrial-scale production of **drop-in transportation fuels**...

...using **CO₂, H₂O** and **concentrated solar energy**.

Why drop-in transportation fuels?

High energy density

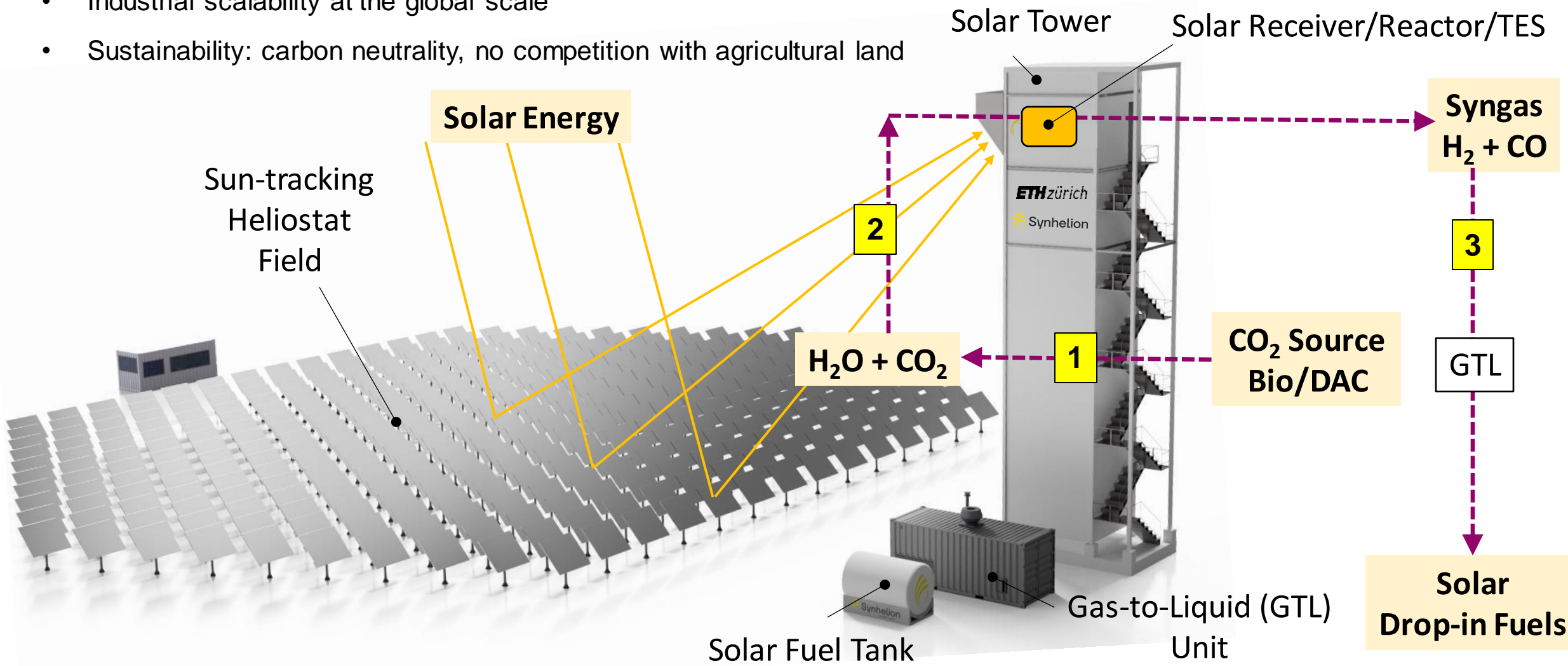


Existing infrastructure



Why solar fuels?

- High thermodynamic efficiencies → economic feasibility
- Industrial scalability at the global scale
- Sustainability: carbon neutrality, no competition with agricultural land



Research plan

2022

Q1 2023

Technological examination

Economic and environmental assessment

Identification of R&D needs

Comparison with other pathways

ETH Zurich:



Industrial partners:



Synhelion



SBB CFF FFS

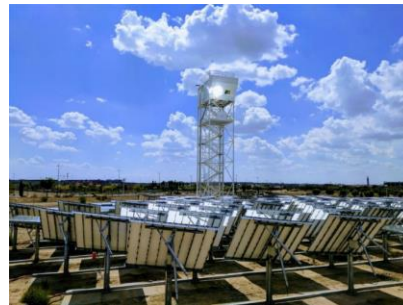
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Key stakeholders

Governments



R&D institutes and industrial developers



Businesses in fuel storage, transportation, distribution, sale



Fuel consumers

