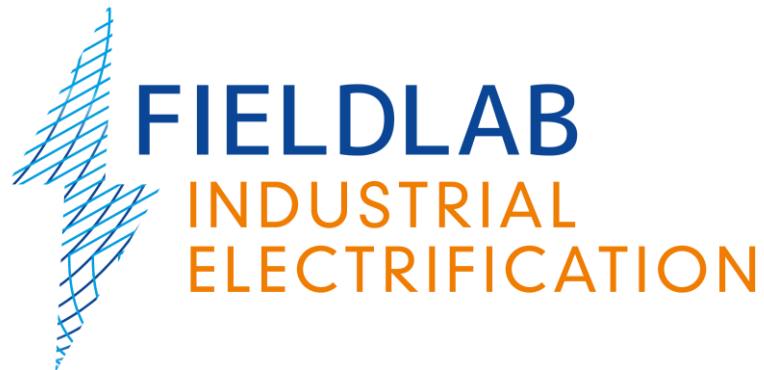


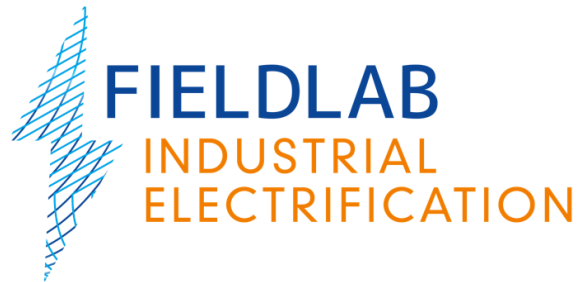
Fieldlab Industrial Electrification

Initiative by: Deltalinqs, FME, Port of Rotterdam, InnovationQuarter en VoltaChem (TNO)



Fieldlab Industrial Electrification

We unite ambitious players from around the world to create a new cleaner process industry, helping to fulfill the potential of the energy transition in Rotterdam. Join us!



Upscaling of innovation



A giant step from pilot to industrial application, chain and system integration

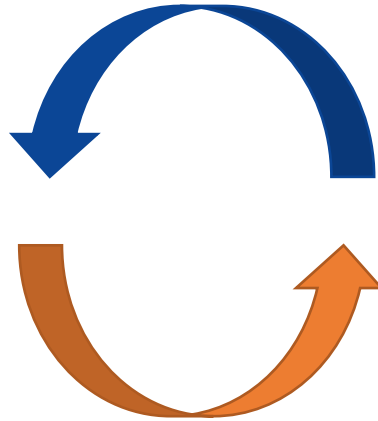


Fieldlab proposition and segmentation



Equipment industry

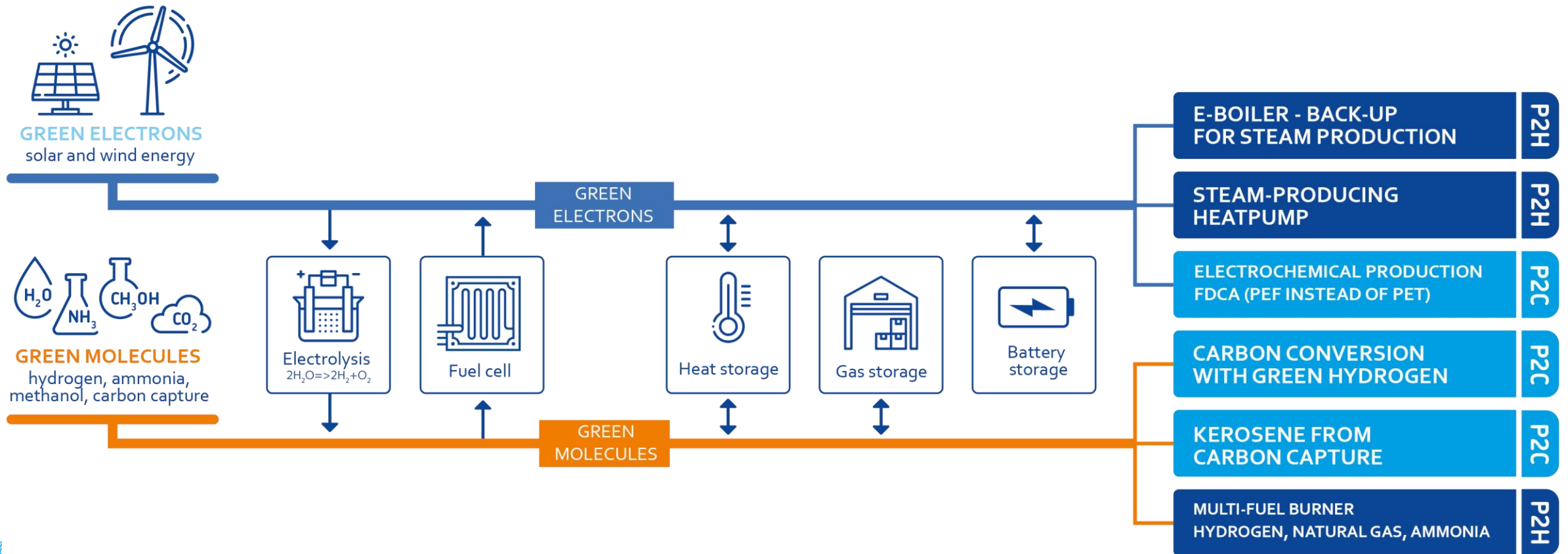
- SME
- New entrants
- Established technology firms



Process industry

- End user of technology
- Highly efficient assets
- Back bone of Rotterdam

Concrete electrification solutions & Projects

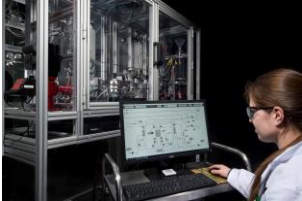


Fieldlab Industrial Electrification

Solution Centre



Pilot - and test location



Demo location



Feasibility studies (technical, economic, markets, clusters)

Financing / subsidy support

Building network & community

Technology advice and market research

Workshops, training and education

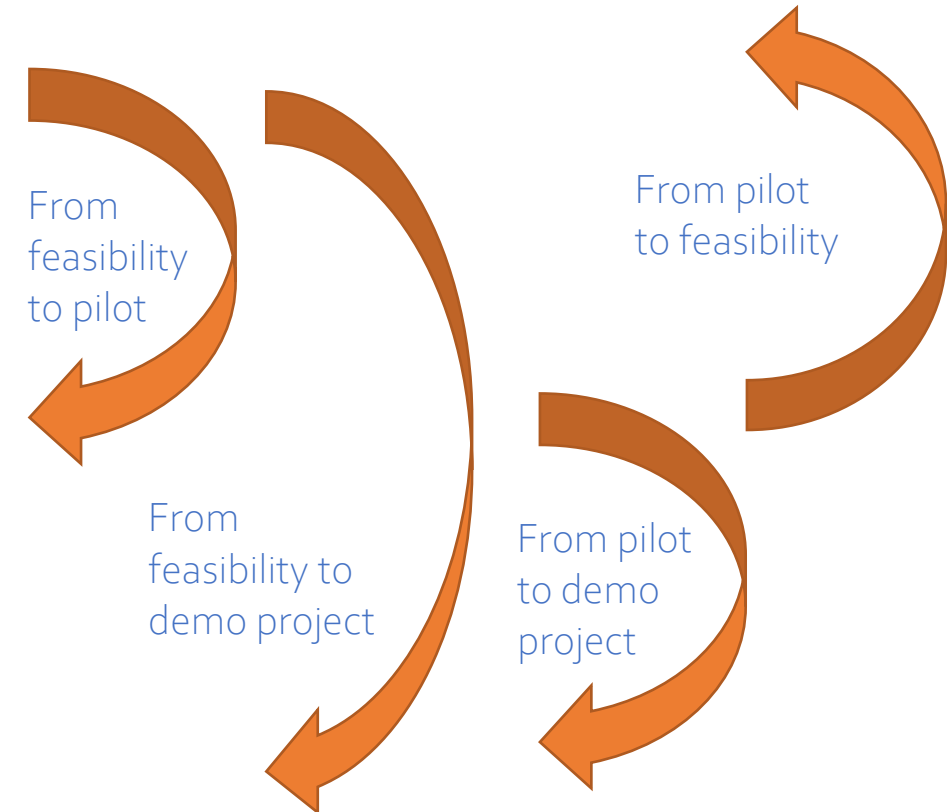
Test, experiment and pilot projects at a fixed location, TRL₄₋₆

Demo location for new technologies

Testing and knowledge exchange in a relevant setting

Demonstration projects on a relevant scale (TRL 6 to 8)

Knowledge exchange on risk mitigation, implementation, legislation and regulations



Solution centre activities

Solution Centre

A bundling of initiatives and knowledge to provide support in starting up, guiding and realizing projects.

Knowledge for acceleration

Support and conduct feasibility studies

Business case development

Studies of shared interests, including for infrastructure parties, cluster parties and governments

Innovation

Support Identifying technology opportunities for companies
Technology advice and research into market needs
Support in raising the necessary financing (subsidy)

Collaboration and activities

Building a learning community and network

Connecting on-site facilities

Expanding and connecting networks throughout the chain

Training, workshops and education

Phasing – Fieldlab planning

Solution Center & Decentralized technological development activities (start Q1 2021)

- Start-up fieldlab
- **Start offer** Solution Centre + Bundling partner activities
- Start-up of the **learning community**
- Start-up of the **first phase of technological developments** for pilot projects
- Start **business development** & network activities
- Start developing pilots and demo projects
- Location determination & preparation incl. HSE

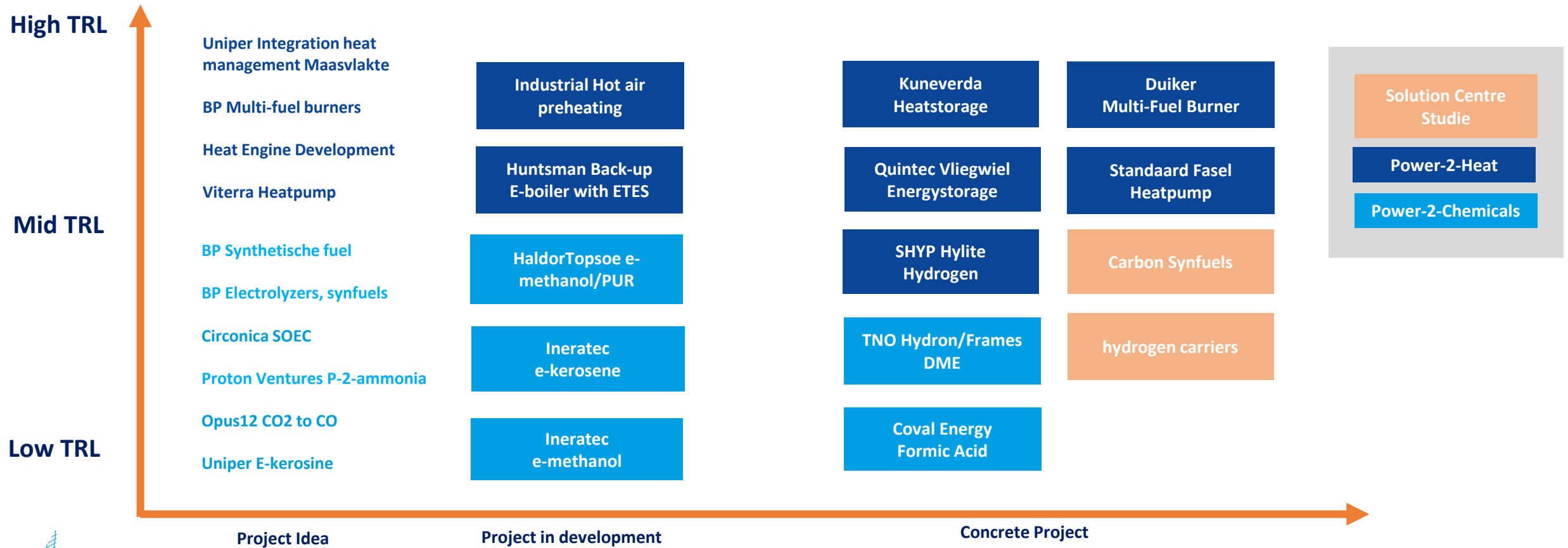
Central hub pilots (start Q4 2021)

- Start up **central hub activities**
- **Development of infrastructure** for the central hub location incl. Implementation of SHE
- Move decentralized development pilots to central hub for **small-scale industrial testing**.
- **Implementing test programs** on pilots
- Develop new (combination of) pilots in the central hub

Field demonstrations (start 2022/23)

- Final **investment decision** on the first in-field demonstrations
- Building **demonstration infrastructure** at industrial partners
- Running **test programs** and feedback to the central hub
- Development of new **on-site demonstrations**

FLIE Project funnel: setting up and running pilots with partners



Test technologies of the future in a save environment



- ⚡ Backup e-boiler
- ⚡ Multifuel burner
- ⚡ Industrial Heatpump integration
- ⚡ Methanol and DME Green hydrogen & CO₂/CO
- ⚡ Water electrolyzer integration
- ⚡ Hydrogen electrolyzer integration
- ⚡ Barrier for synthetic fuels implementation
- ⚡ Synthetic fuels
- ⚡ High temperature electric heating
- ⚡ Hydrogen carrier production, import & export

Cooperate with the fieldlab

⚡ Ask us

⚡ Join us

⚡ Cooperate with us

⚡ Visit our website: www.flie.nl



The fieldlab has been made possible in part by the European ERDF-subsidy and financial support from the government, the province of South Holland and the Municipality of Rotterdam.