

An introduction: acceleration of Electrification in the Industry

Webinar 19-03-2021 Storage meets Fieldlab Industrial Electrification



The ambition is clear

⚡ Transition towards a new industry

- Sustainability, renewal and reinforcement of the Port Industrial Complex

⚡ Based on sustainable electrons and molecule

- Power supply of wind at sea and conversion to heat, hydrogen and chemicals (Power2X)



FLIE support the joint ambitions of the Rotterdam Climate Agreement

⚡ Rotterdam Climate Agreement (RKA) Port and Industry - joint deals with > 30 companies

- Barriers in the field of infrastructure, legislation, financing, room for experimentation and coordination of policy

⚡ Fieldlab Industrial Electrification recognized as the necessary experimental space for Port Industrial Complex

- Need for space to experiment
- Matchmaking of innovative players
- Maximizing learning capacity and lobbying effect



Upscaling of innovation



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



Why a Fieldlab in Rotterdam?

- ⚡ First selection and validation of available technologies
- ⚡ Create strategic options for the process industry
- ⚡ Access to subsidies (strengthening business cases)
- ⚡ De-risking of implementation technology and innovation in process industry

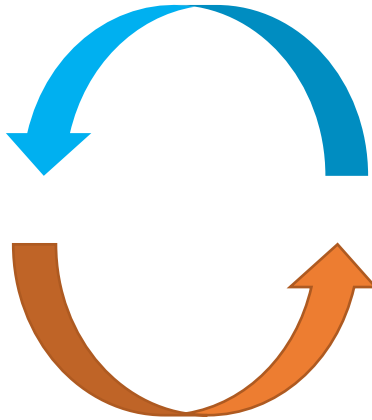


Cooperation: driven by the industry



Equipment industry

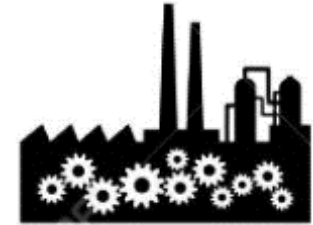
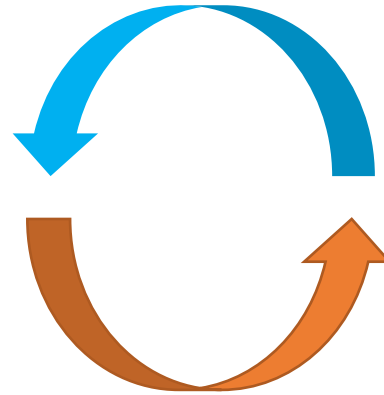
- SME
- New entrants
- Established technology firms



Process industry

- End-user of technology
- Highly efficient assets
- Backbone of Rotterdam

Cooperation: Acceleration of Energy transition



FIELDLAB
INDUSTRIAL
ELECTRIFICATION



The “best” solution doesn’t exist



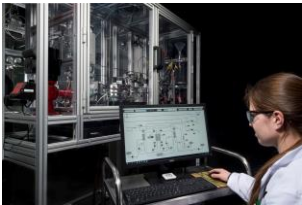
- ⚡ Backup e-boiler
- ⚡ Multifuel burner
- ⚡ Industrial Heatpump integration
- ⚡ Methanol and DME Green hydrogen & CO₂/CO
- ⚡ Water electrolyzer integration
- ⚡ Hydrogen electrolyzer integration
- ⚡ Barrier for synthetic fuels implementation
- ⚡ Synthetic fuels
- ⚡ High temperature electric heating
-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

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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

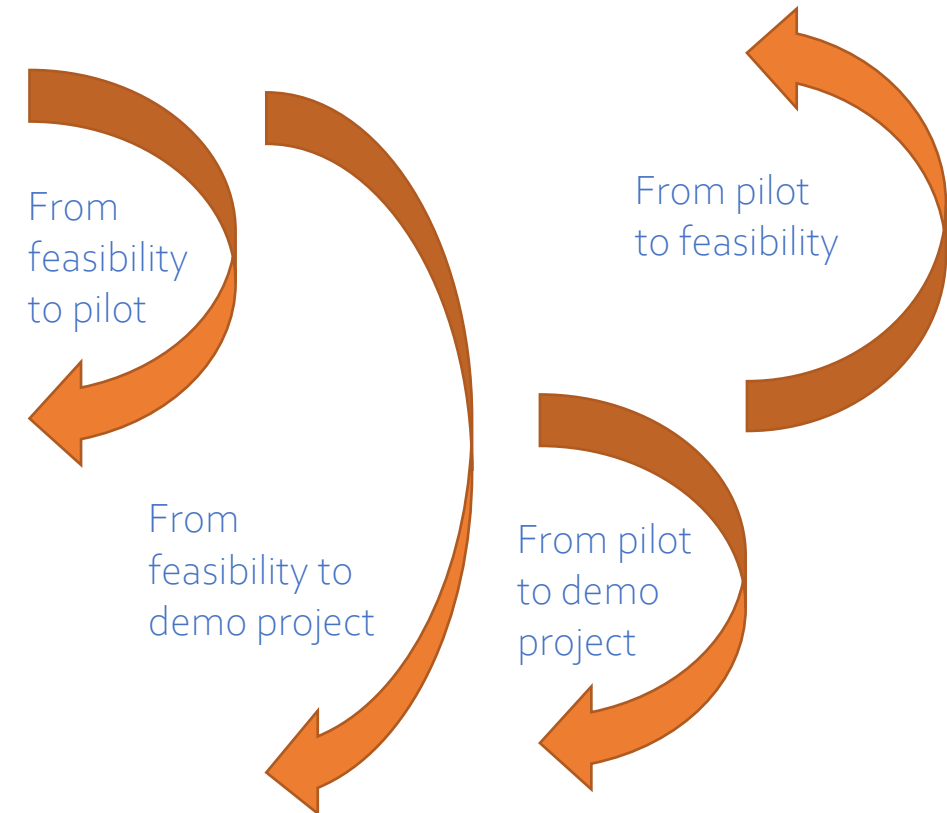
Test, experiment and pilot projects at a fixed location, TRL₄₋₆

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



Cooperation is key in the acceleration

- ⚡ The need for the energy transition of our industry is recognized by all industry players and government.
- ⚡ The road towards a CO₂ neutral future is unsure and still full with unsolved technical and economical questions.
- ⚡ Sharing unique knowhow, support and technology creates the right learning environment.
- ⚡ Cooperation with different players and entities in the value chain helps to accelerate the energy transition
- ⚡ The successful and fast transition of the (process) industry, will secure and strengthen the competitiveness of the industry.

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 and Cooperate!

