



Hydrogen project development

Flexens Oy Ab

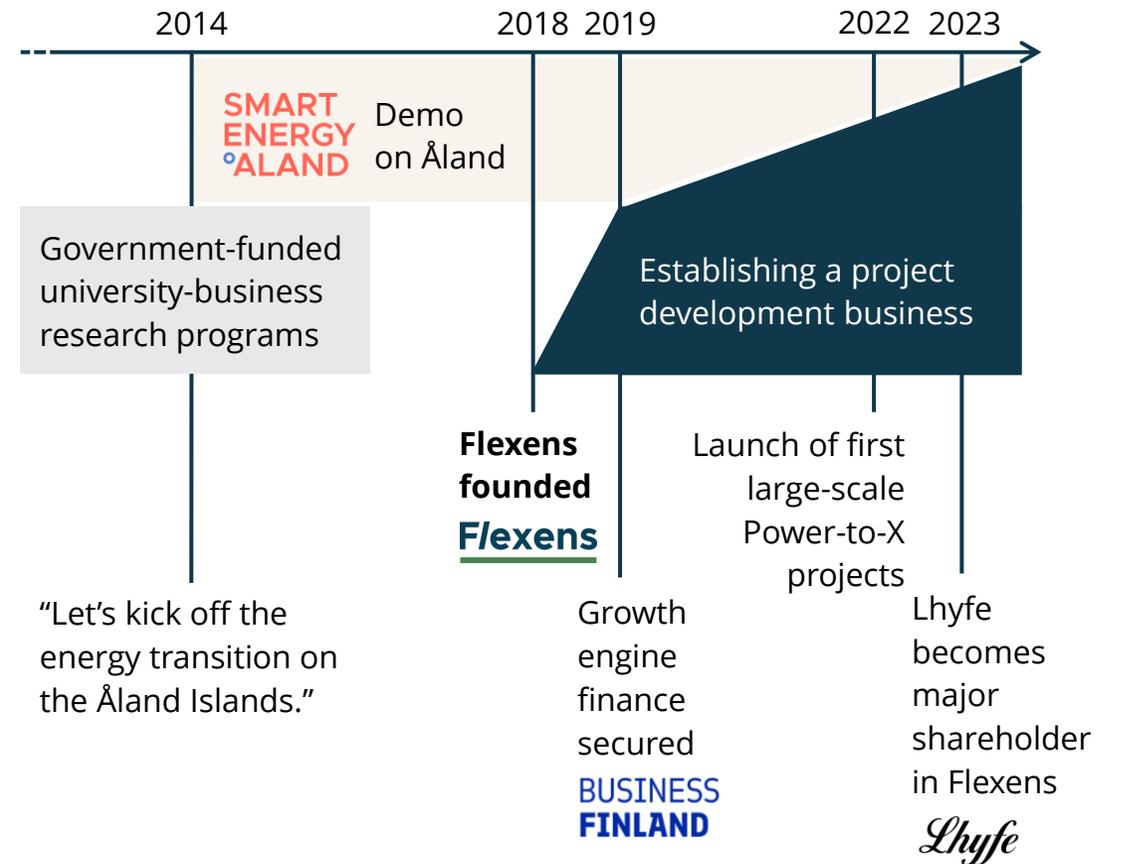
Åsa Hedman, Head of Operations

Advanced project development rooted in research

Flexens: Your ideal Power-to-X partner

BUILT ON A SOLID OWNERSHIP STRUCTURE

TIMELINE AND HIGHLIGHTS



Exceptional team driven by necessary change

Flexens: Your ideal Power-to-X partner



21 dedicated professionals
with diverse backgrounds

16 based in our Helsinki office
5 based on the Åland Islands

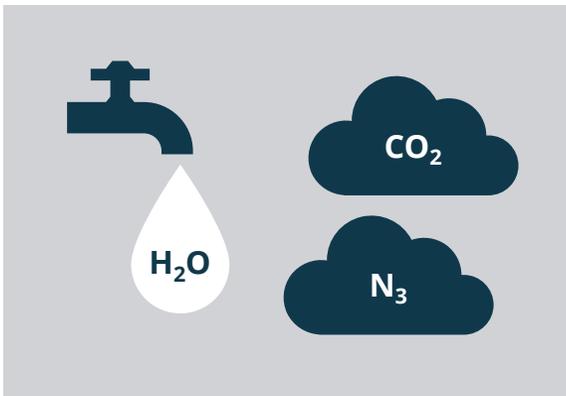
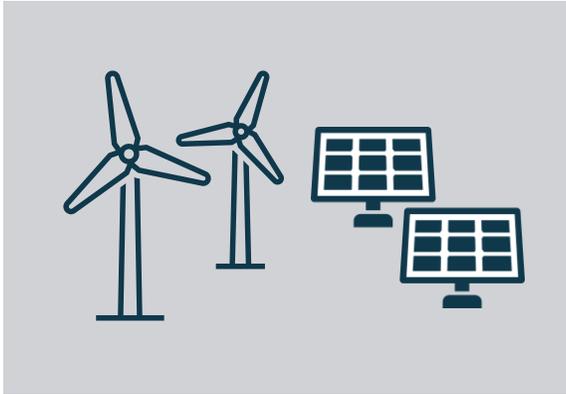
Over 250 years of shared
experience in key industries

We are growing: In the past 2
years, our team size has
doubled

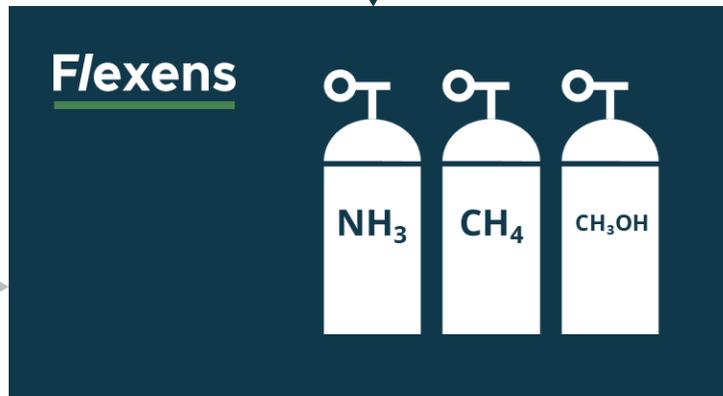
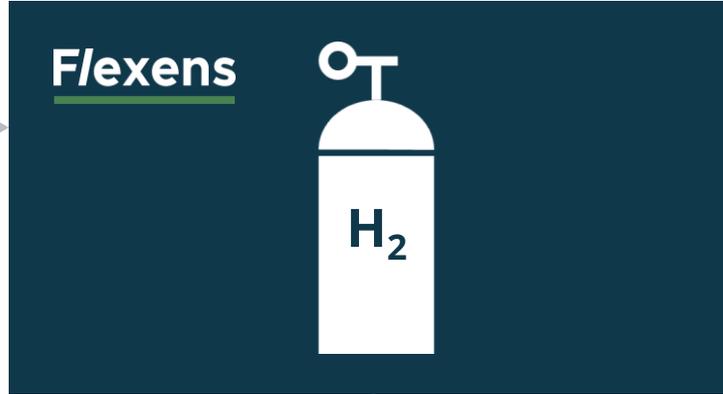
Focus on green hydrogen and its derivatives

Flexens as a project developer

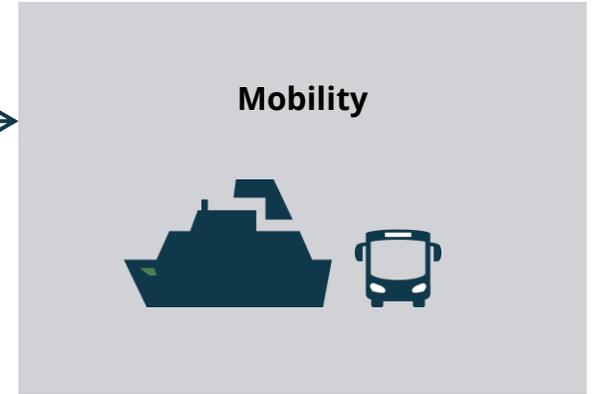
PREREQUISITE SUPPLY



GREEN HYDROGEN & DERIVATIVES



CURRENT MARKET SEGMENTS



What does a project developer do until FID?

Things to do to reach Final Investment Decision (FID)

- **Identifying sites**
- **Negotiating about land lease/purchase**
- Feasibility study, including technical and business modelling
- **Securing grid connection**
- **Energy system integration (DH, Steam, electricity)**
- **Water sourcing**
- **Carry out Environmental Impact Assessment**
- **Carry out permitting processes**
- Negotiating contracts for off-takers of the end product
- Negotiating contracts for energy sourcing
- Basic engineering
 - Increasing maturity of the project through technical planning, identifying, negotiating and choosing technology suppliers.
- **Citizen engagement**
- **Communication**



Examples from our project pipeline (Public)

Highlighting our current activities

KOKKOLA



We are developing a 300-350 MW green hydrogen and ammonia plant in Kokkola, Finland. Its planning started in 2022, and we're currently in the EIA phase.

ÅLAND ENERGY ISLAND



Copenhagen Infrastructure Partners, Flexens, and Lhyfe have formed a partnership for the development and construction of an integrated energy island solution enabling large-scale offshore wind, green hydrogen production, and other value-creating activities on Åland.

CABO VERDE



Cabo Verde and Flexens have signed an MoU to collaborate further in developing feasibility studies for the implementation of large-scale green ammonia production in Cabo Verde.

NAANTALI (GNE)



Flexens is a minority shareholder (8 %) in Green North Energy. Their planned 280 MW plant in Naantali is Finland's first green ammonia project.

Large-scale green ammonia

Highlighting our current activities



FLEXENS KOKKOLA

Status: Planning started

The Flexens Kokkola plant is one of the largest green ammonia and green hydrogen projects in Europe.

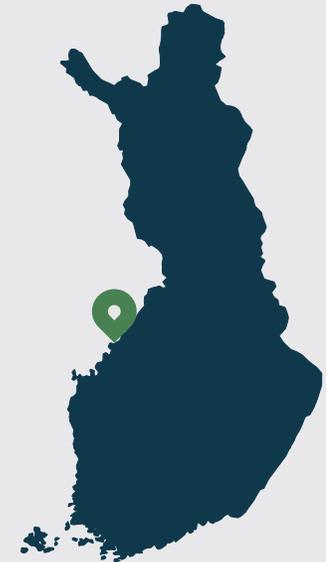
Location: Kokkola, Finland

Capacity: 350 MW

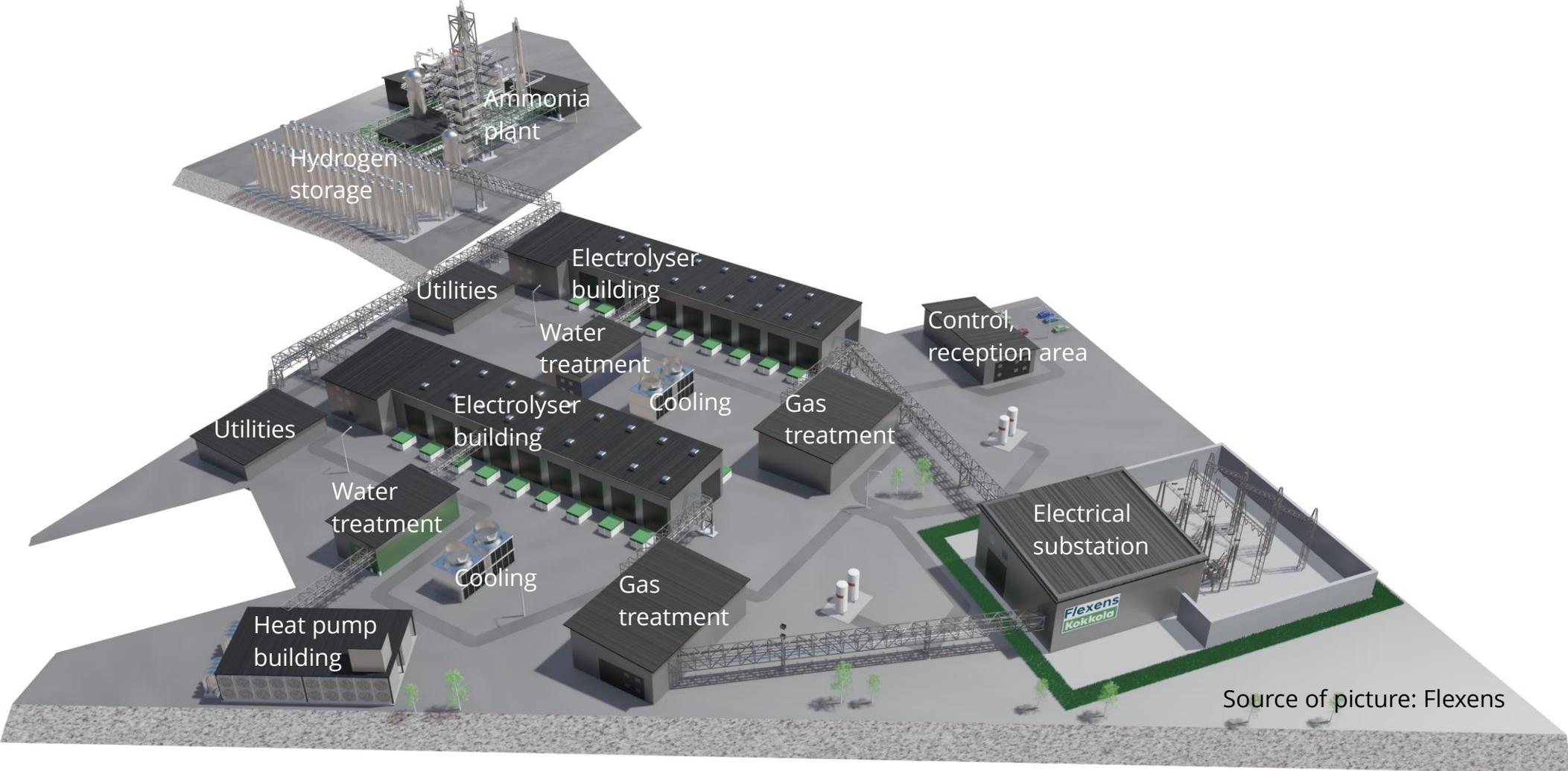
Estimated start of operation: 2027

Estimated investment: 800 M€

Flexens
Kokkola



Overview of facilities



Source of picture: Flexens

Our locations

NORTH 



Thoughts on challenges and opportunities

- Hydrogen is a new field, also for permitting authorities
 - Key is open and active communication with ELY keskus, TUKES, the city authorities etc.
 - TUKES is publishing "guidelines for hydrogen projects" shortly.
- Everyone is learning the field. In-depth long term H2 experts only a "handful".
 - Education, research and development is needed, on all levels
- Huge opportunity for Finland, let's not waste this!
 - Smooth and open permitting process needed (already in good shape now)
 - Smooth process securing grid connection
 - Enable "behind the meter" connection combining RE production directly to H2 plants.
 - Create as high value as possible in Finland, not sell out too low valued products (electricity => H2 => e-fuels => fertilisers and other products)



Thank you!



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