

Hydrogen project development

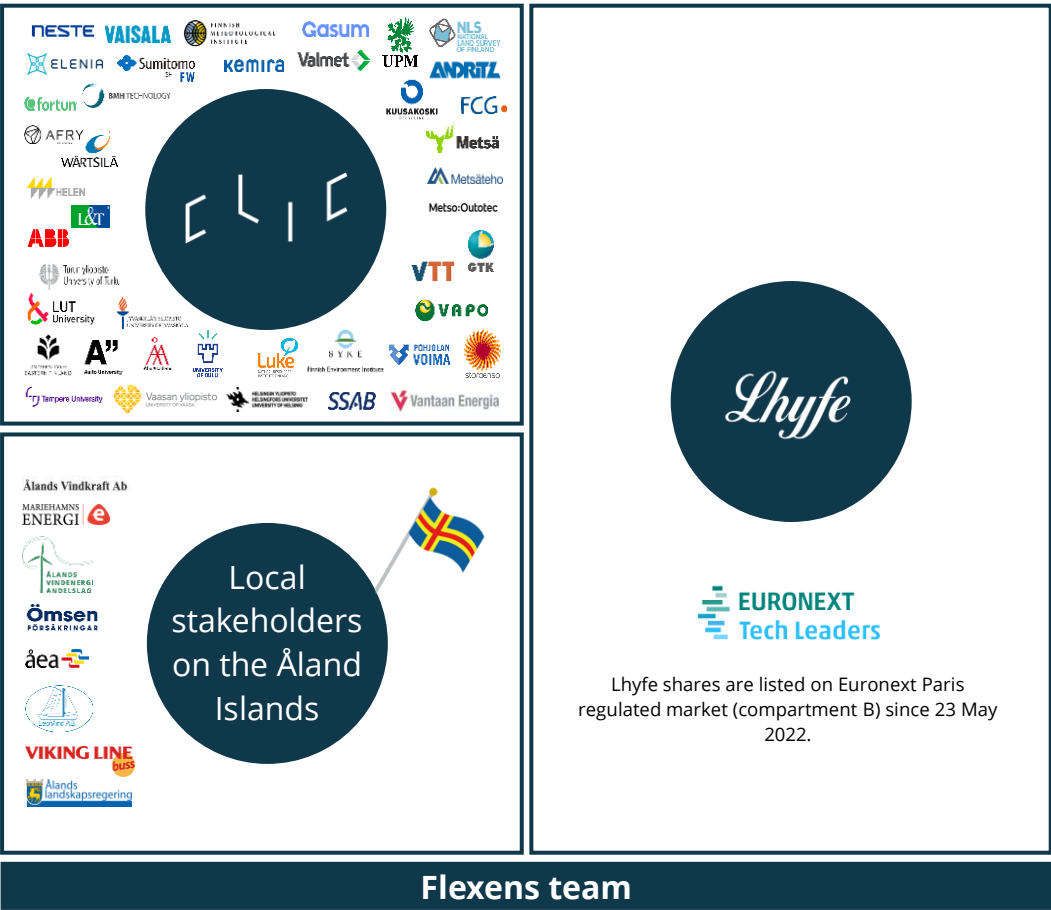
Flexens Oy Ab

Åsa Hedman, Head of Operations

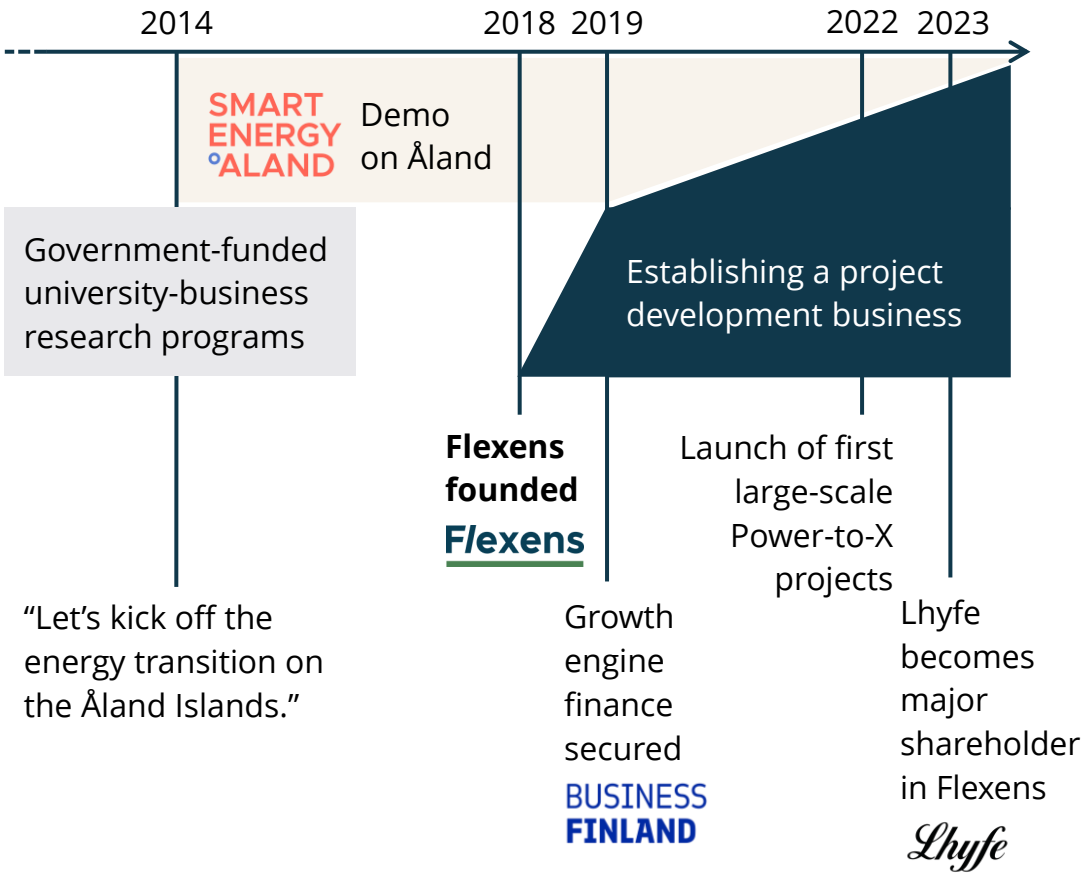
Advanced project development rooted in research

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

What does a project developer do until FID?

Things to do to reach Final Investment Decision (FID)

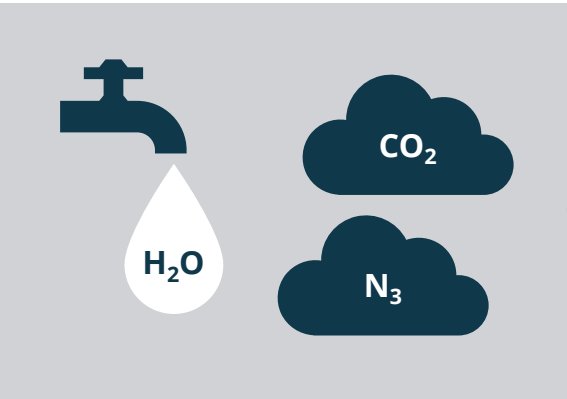
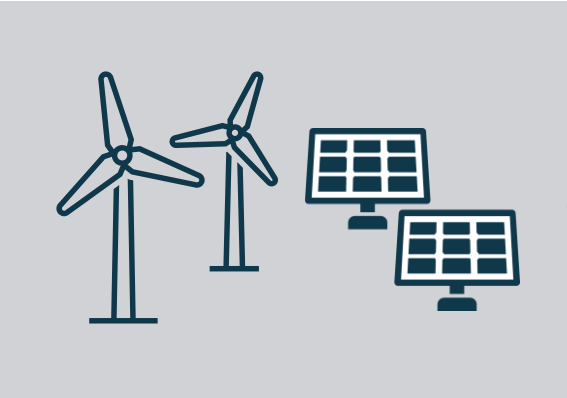
- Identifying sites
- Negotiating about land lease/purchase
- Feasibility study, including technical and business modelling
- Securing grid connection
- Energy system integration (DH, Steam, electricity)
- Water sourcing
- Carry out Environmental Impact Assessment
- Carry out permitting processes
- Negotiating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



Focus on green hydrogen and its derivatives

Flexens as a project developer

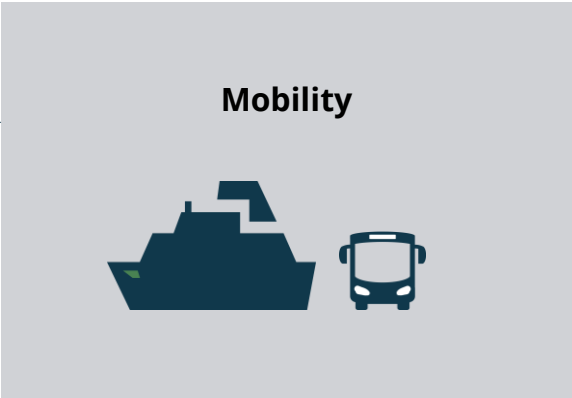
PREREQUISITE SUPPLY



GREEN HYDROGEN & DERIVATIVES



CURRENT MARKET SEGMENTS



Business model overview

Flexens as a project developer

As a project developer, Flexens main revenue stream derives from divestment proceeds from yielding Power-to-X assets that are being developed.

An asset development project is typically carried out through a so-called Special Purpose Vehicle (SPV) structure.

Flexens estimates the average asset project development period to be 2 – 4 years and the average return when divesting the asset (money multiple) to be 3 – 5x.

POWER-TO-X ASSETS



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.

LEMPÄÄLÄ



In Lempäälä, Finland, we are developing a 2,5 MW electrolyser plant for a mobility off-taker (hydrogen refuelling station). The planning started in 2022.

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

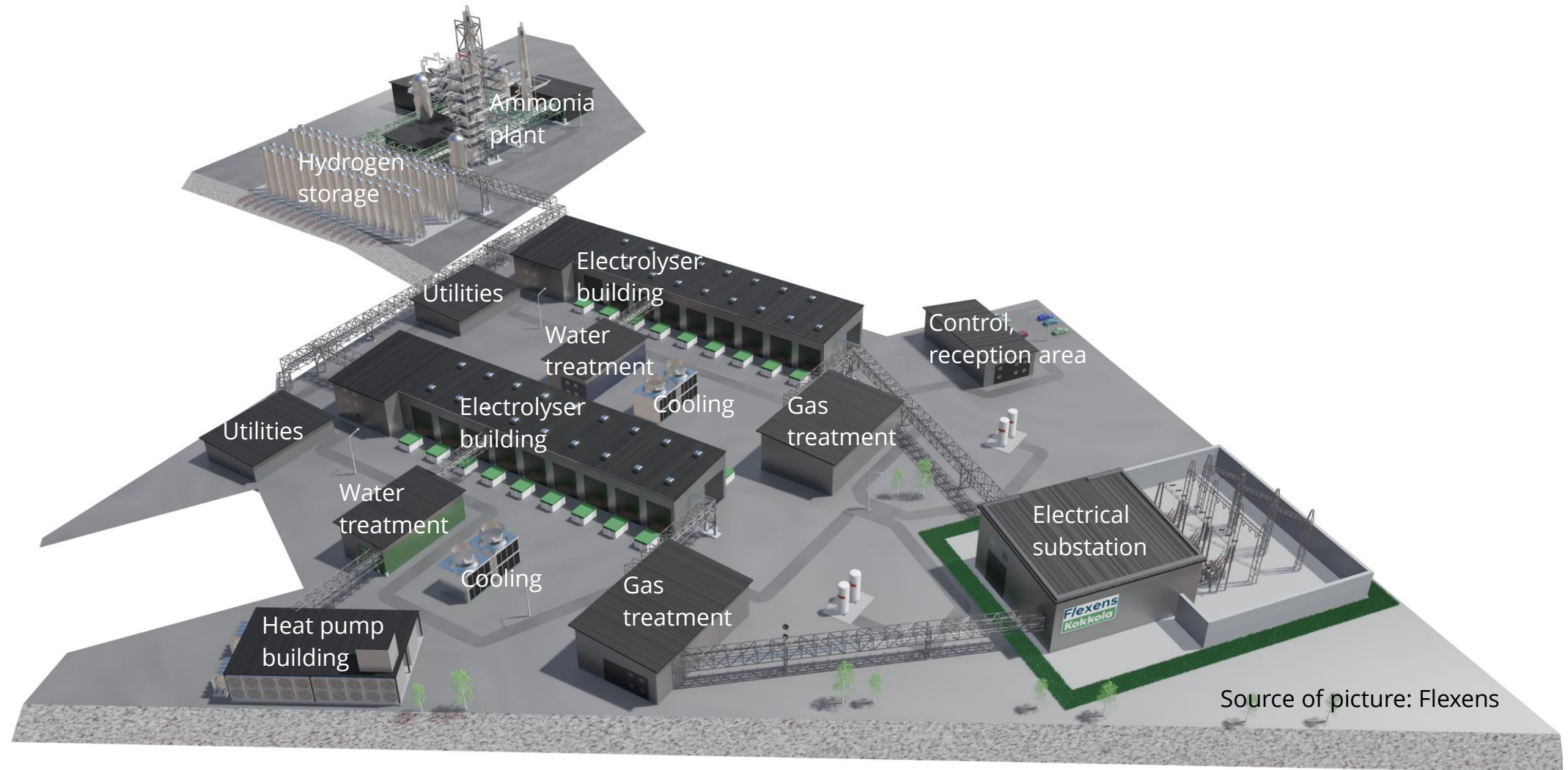
Estimated start of operation: 2027

Estimated investment: 800 M€

Flexens
Kokkola



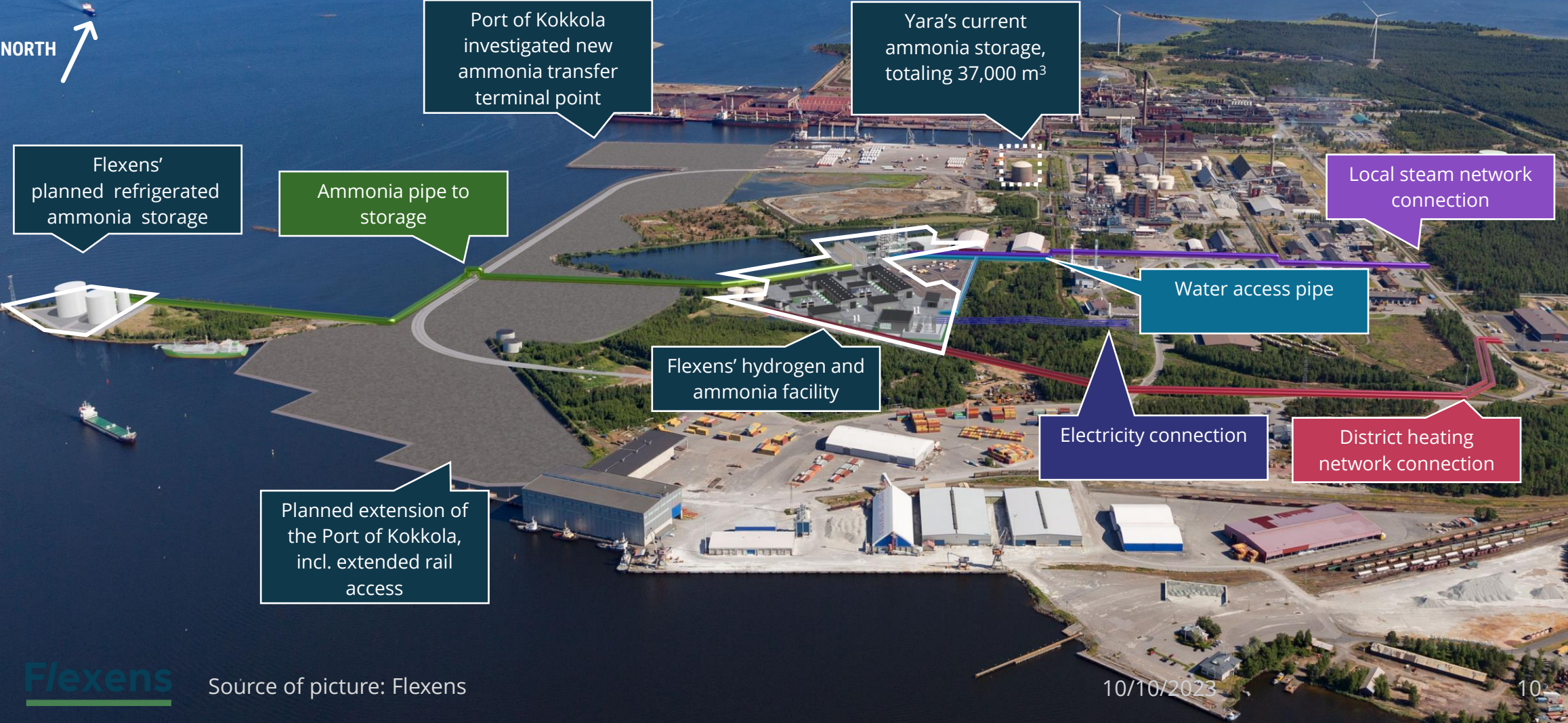
Overview of facilities



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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