



Biokaasun ja synteettisen metaanin näkymät kuorma-autoliikenteessä

25.5.2023 Kuljetus 2023 -seminaari, Jyväskylä

Kaasuliiketoiminnan johtaja Matti Oksanen, St1 Nordic Oy

St1 solving global energy challenges

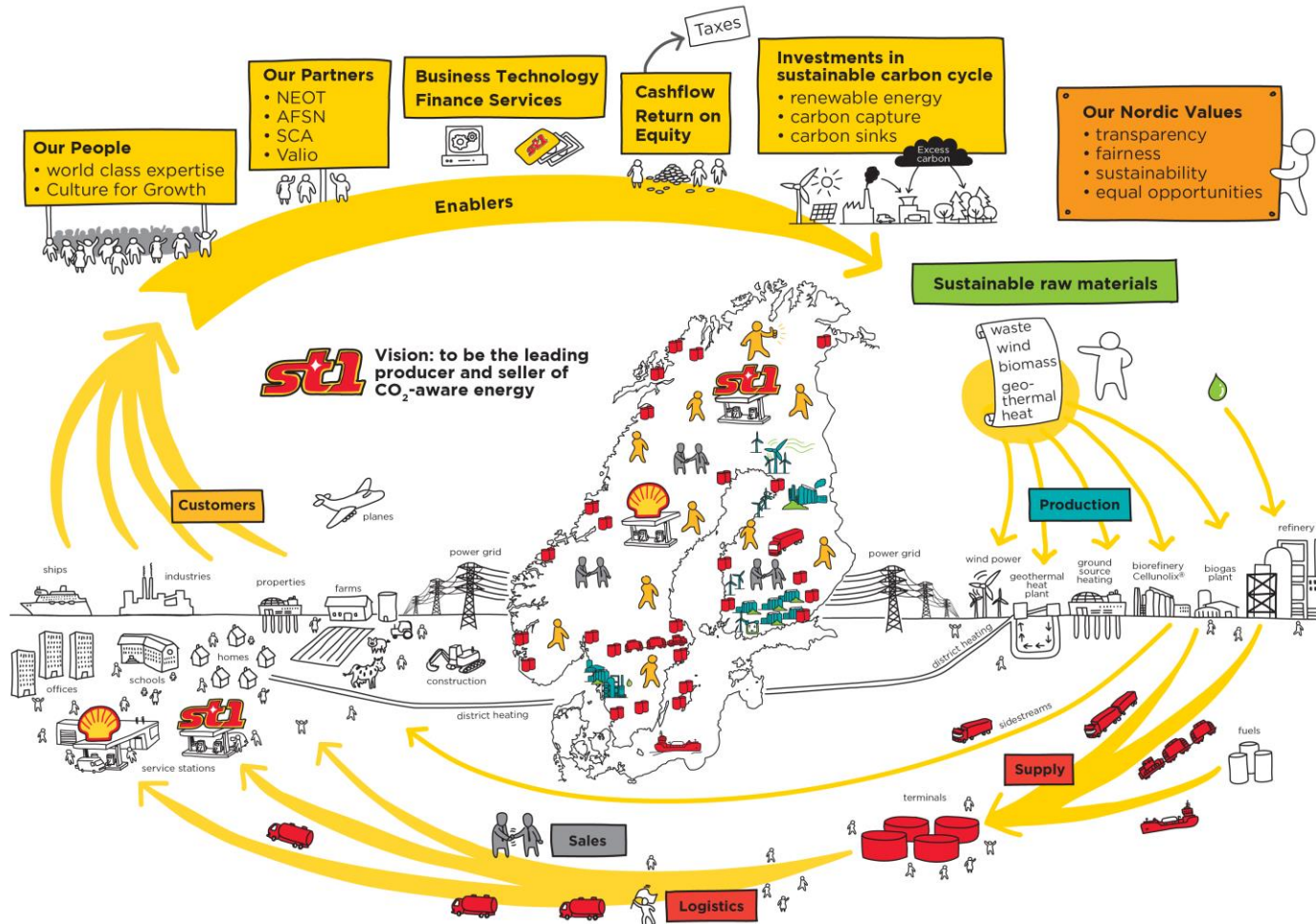
St1 Vision is to be the leading producer and seller of CO₂-aware energy

In the spirit of our vision, we research, develop, produce and invest in the energy transition to be able to provide our customers with CO₂-aware energy while creating positive societal impact

Our operations are strengthened by strategic long-term partnerships in various areas

GROUP STRATEGY:

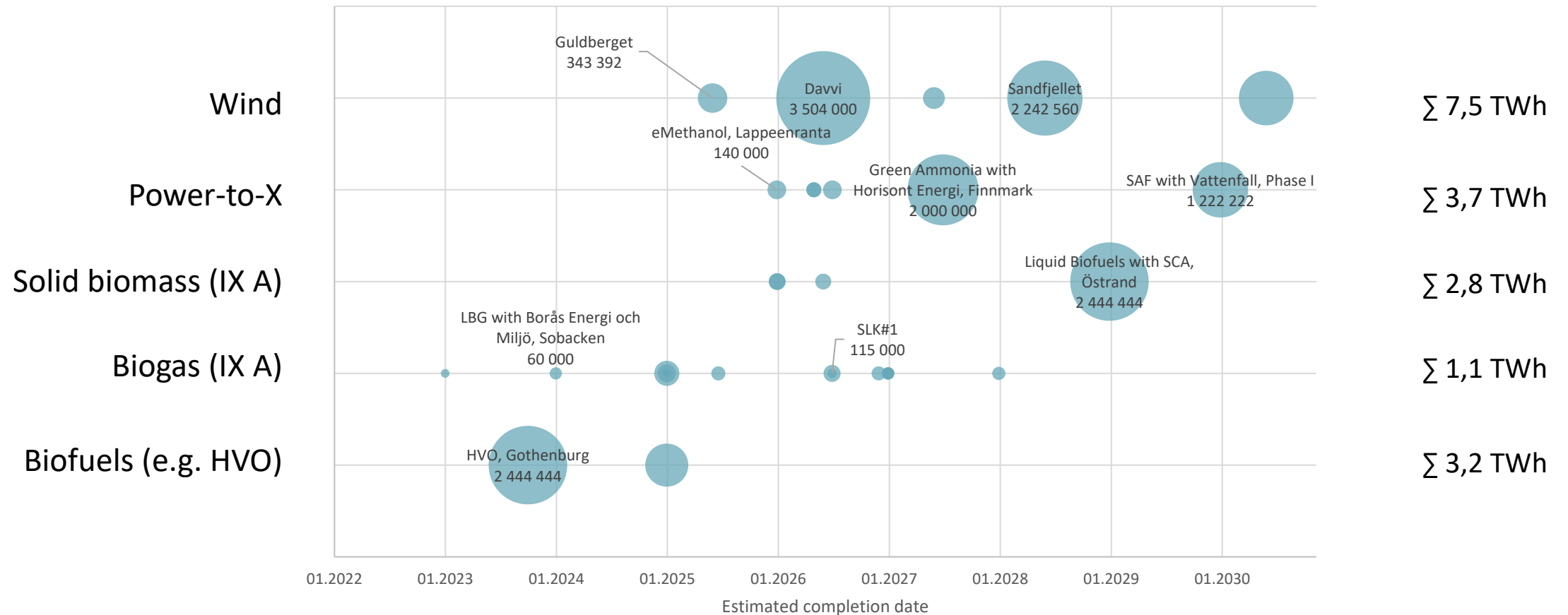
ST1 VALUE CHAIN



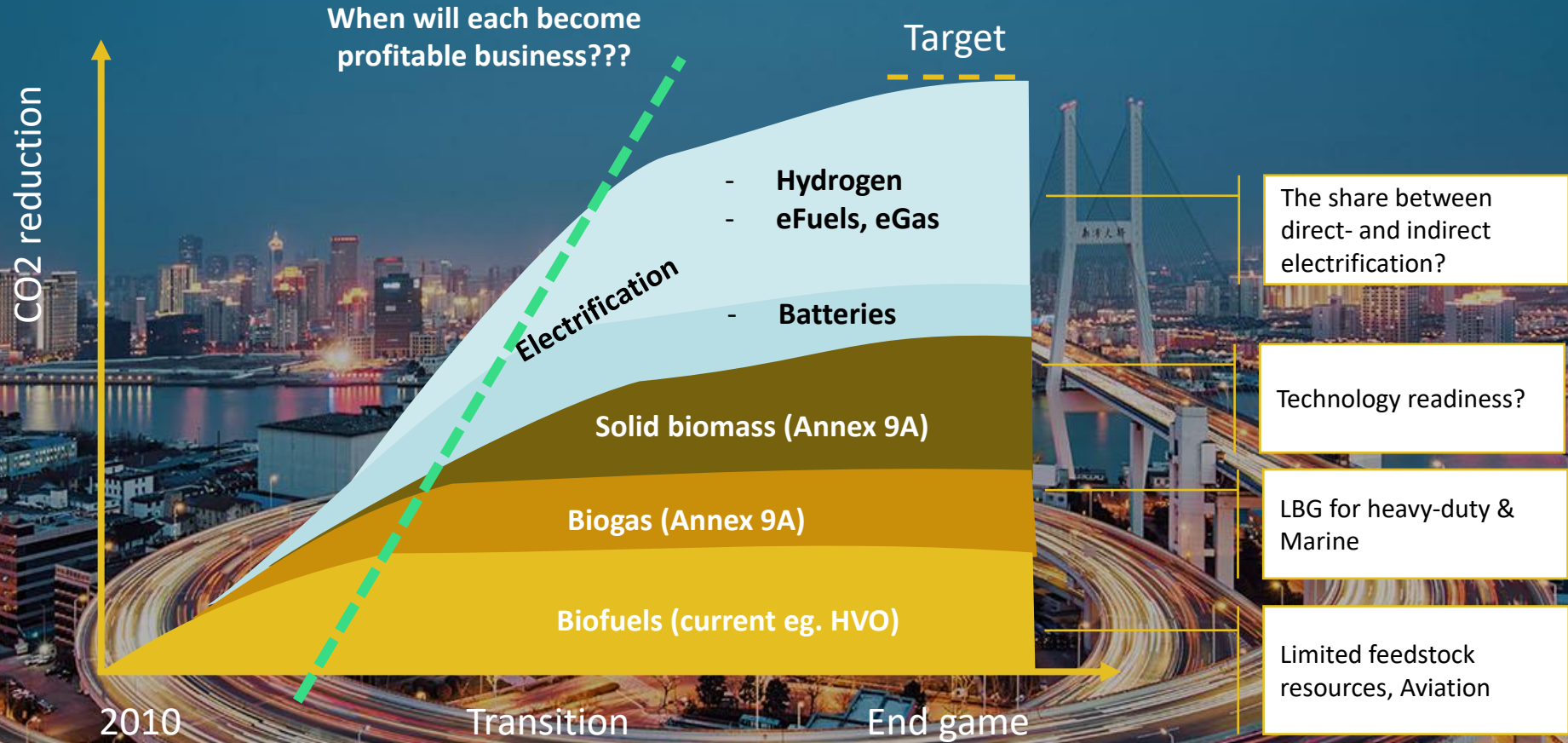
www.st1.com

Sustainable energy projects 2022-2030

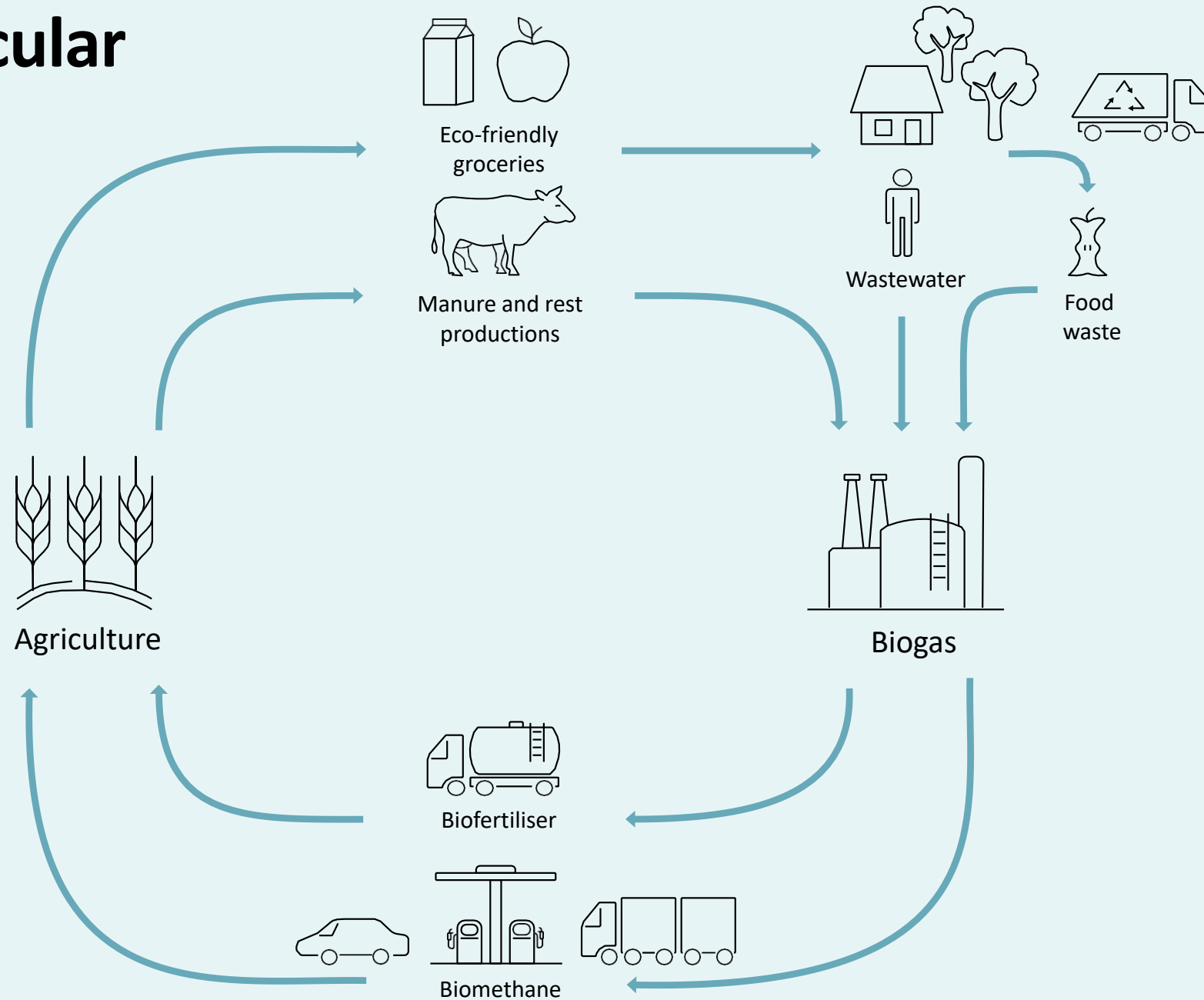
Preliminary values based on projects in concept development phase (G-1), and further



Transport: Short vs. long term actions



Biogas circular economy



Biogas business in Sweden

- **In Sweden, St1 is a leading biogas player in the traffic segment.**
 - St1 has six biogas production and upgrading units, two of which are partly owned companies.
 - St1 is in the construction phase of a biogas upgrading and liquefaction refinery in Sobacken, Borås. The biorefinery is expected to commence operations by the end of 2023.
- **In Sweden St1 imports and exports biogas and deliver it to customers through several sales channels.**
 - St1 has a distribution network of 50 public filling points and 20 bus depots.





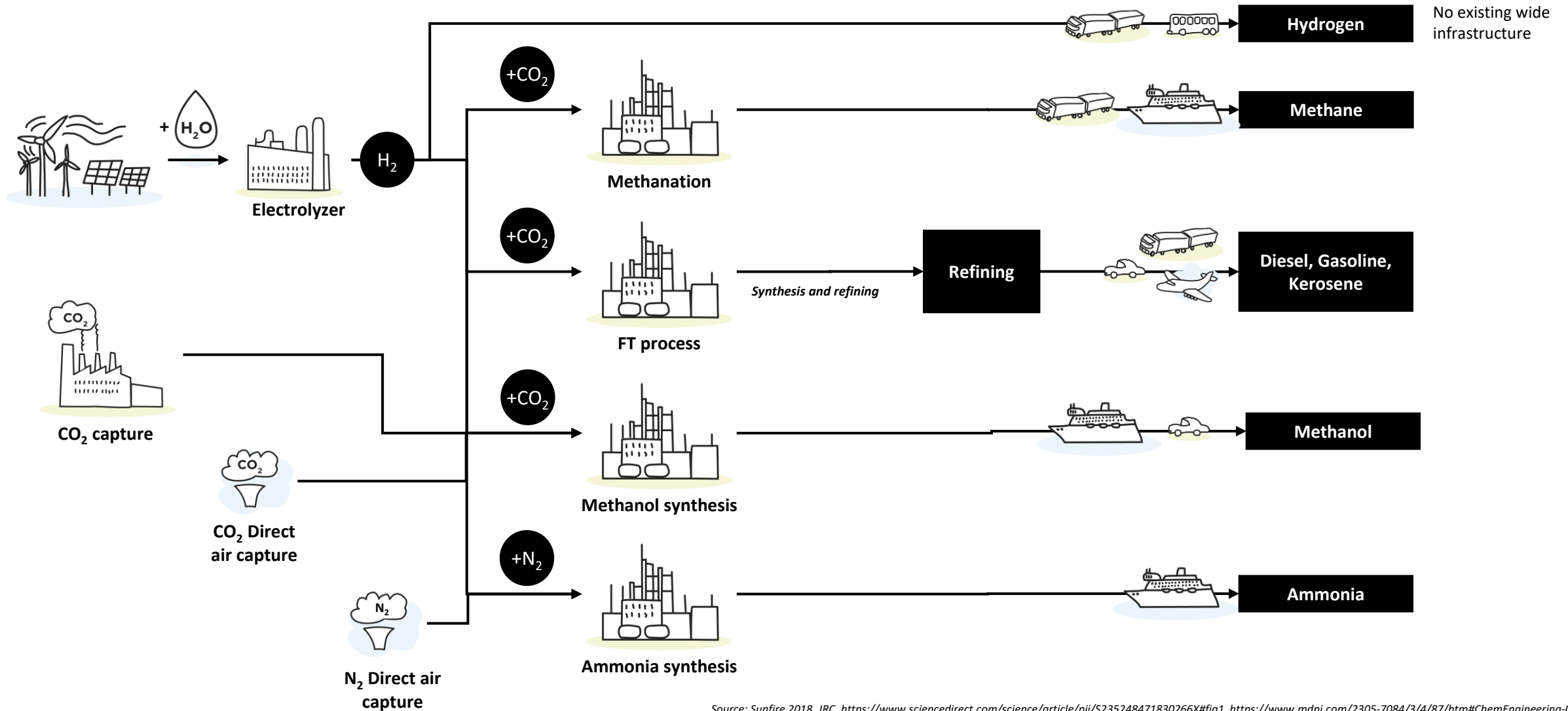
Biogas business in Finland

- In Finland we have established a joint venture Suomen Lantakaasu Oy with food company Valio with the aim at producing biogas from dairy farm manure
 - Suomen Lantakaasu Oy is planning to build Finland's biggest biogas production plant in Kiuruvesi.
 - The planned annual production capacity of the plant is 125 GWh, and the goal is to be operational by 2026.
- St1 is building biogas filling stations for heavy traffic in Finland
 - The first LBG filling stations will be opened in Mäntsälä and Hämeenlinna littala at the end of the year 2023.
 - St1's goal is to build a nationwide network of biogas filling stations for heavy traffic.

The background of the slide is a nighttime photograph of a city. In the foreground, a large, multi-level highway interchange is visible, with light trails from cars creating a sense of motion. In the middle ground, a body of water reflects the city lights. In the background, a dense city skyline is visible under a dark blue sky, with a prominent cable-stayed bridge on the right side.

P2X Routes for transportation

P2X Routes for transportation

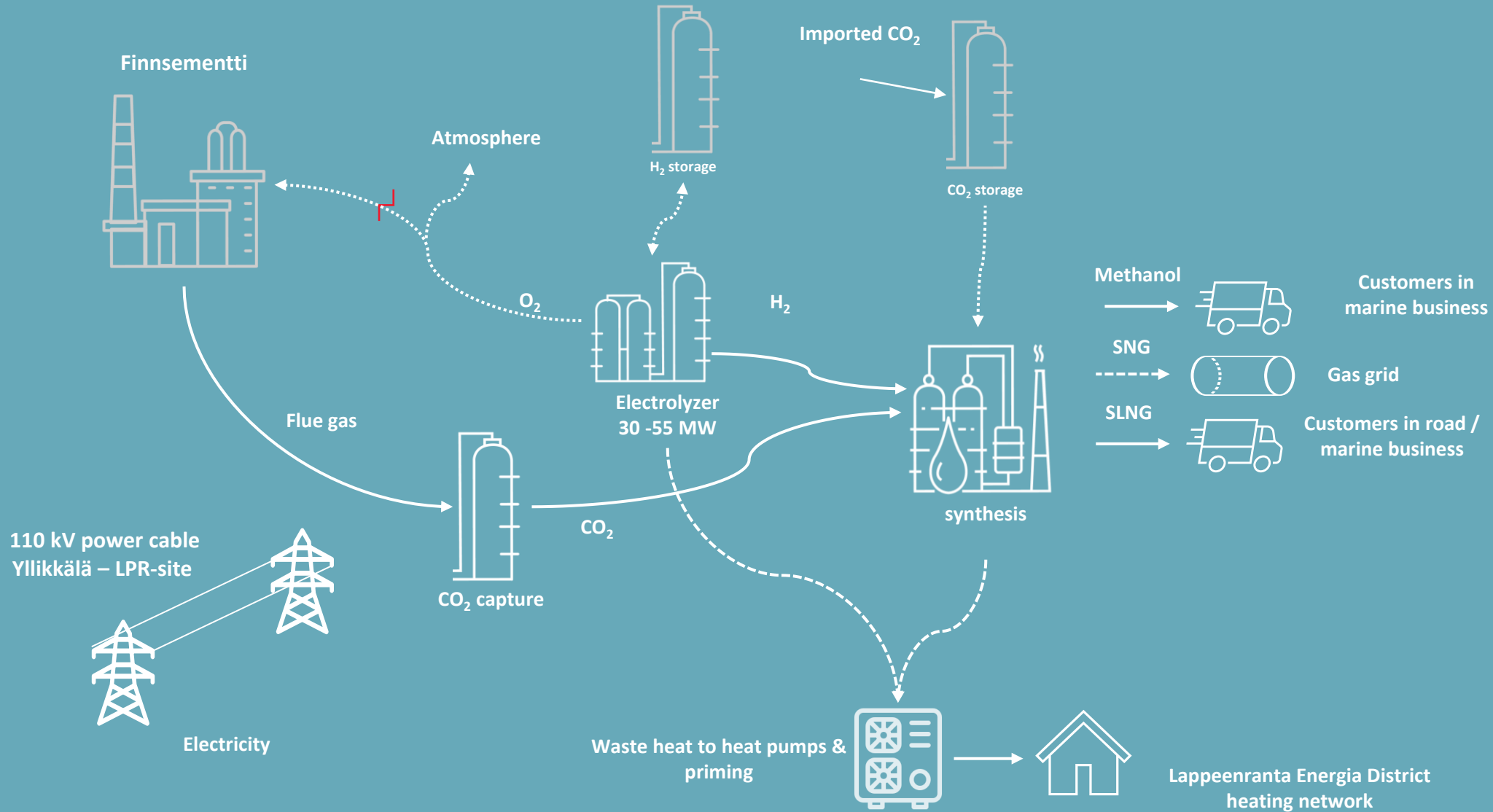




Lappeenranta P2X project



Lappeenranta Power to X



Lappeenranta P2X project

- P2X business development support St1 in reaching vision & finding new sustainable business from wind to fuel customers.
- The aim is to build a new eFuel facility to Lappeenranta.
- eFuels creates new value chain responding to the growing demand on **green marine fuel, road fuel mandates** and **chemical industry feedstocks** originating from growing mandates in EU and customers' climate targets.
- We will increase our **competence to design and optimize eFuels production as well as understand the markets and customers better**. We will also create valuable **partnerships**.
- Project has proceeded in EIA (Environmental Impact Assessment) phase. EIA program was sent to the Finnish authority (ELY-keskus) on Monday 31st of October 2022.

High-level timeline

Pre-basic 03/2023- 08/2023

Basic engineering starts 09/2023

Final Investment decision 2024
(environmental permit ready)

Commissioning and start-up 2026



Thank you and have a nice day!