E-Methanol production and industrial integration

Riitta Silvennoinen Lappeenranta 8.11.2022



St1 solving global energy challenges

St1 Vision is to be the leading producer and seller of CO_2 -aware energy

In the spirit of our vision, we research, develop, produce and invest to be able to provide our customers with CO_2 -aware energy while creating positive societal impact

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

GROUP STRATEGY:







Watch the video

Transport: Short vs. long term actions







The balance between direct- and indirect transport electrification



P2X Routes for transportation





Source: Sunfire 2018, JRC, https://www.sciencedirect.com/science/article/pii/S235248471830266X#fig1, https://www.mdpi.com/2305-7084/3/4/87/htm#ChemEngineering-03-00087-f001



Sustainable energy projects 2022-2030

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



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St1 and Horisont Energi to collaborate on green ammonia production in Finnmark

RELEASE 16.08.21



Illustration of the green ammonia facilities. To be credited to Tek3d.





Vantaa Energy and St1 to cooperate in the distribution of electric fuel

RELEASE 31.05.22

Vattenfall and St1 form a new partnership to produce a large volume of fossilfree aviation electro fuel on the Swedish west coast

Lappeenranta eMethanol

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St1 Power to Methanol Lappeenranta





Lappeenranta e-Methanol



High-level timeline

Pre-engineering II 02/2023

Basic engineering ready 08/2023

Final Investment decision 01 /2024 (environmental permit ready)

Commissioning and start-up 01/2026

- The eMethanol business development support St1 in reaching vision & finding new sustainable business from wind to methanol customers.
- The aim is to build a new eMethanol facility to Lappeenranta
- eMethanol 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 eMethanol 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.



Thank you!

Head of Energy transition business