



Tartu Hydrogen Valley

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TARK TARTU
SMART CITY



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SMART CITY



Smart city since 1632

- Second-largest city in Estonia
- Research and education centre
- University of Tartu was founded in 1632

- Almost **100 000** citizens
- 50% are **under 35** years
- About **18 000** students
- Around **15 000** companies
- **3%** of unemployment
- **90%** uses internet
- **98%** holds ID-card



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Marek



Timo

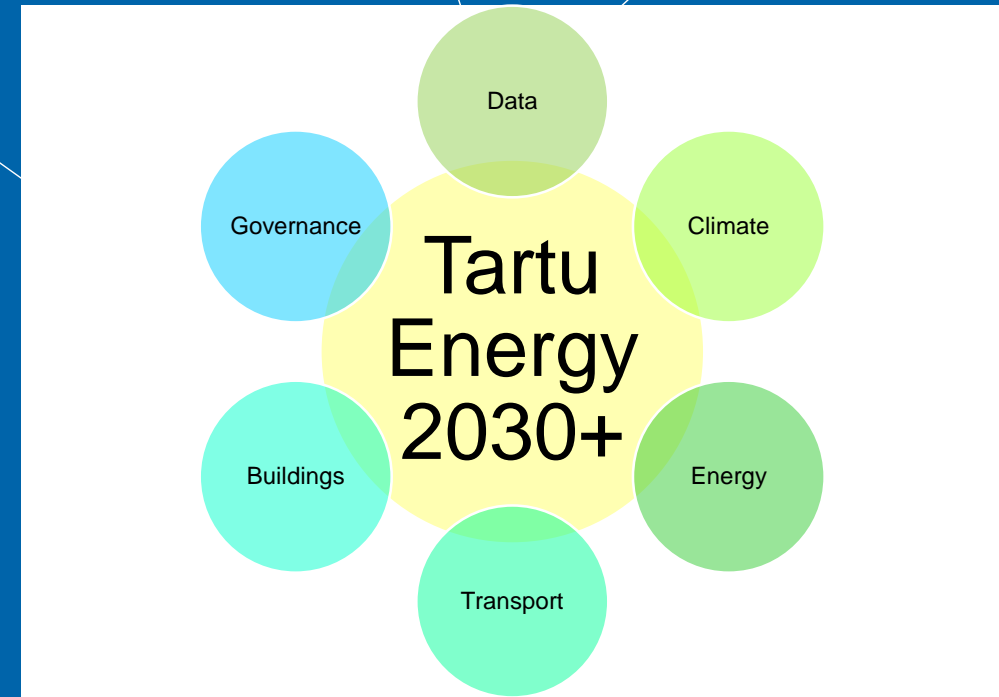


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Tartu Energy and Climate Action Plan 2030

- ☐ Climate neutrality by 2050
- ☐ Participation in EU Mission „100 Climate Neutral Cities by 2030“
- ☐ Hydrogen



Energy and climate development plan for 2020 - 2030

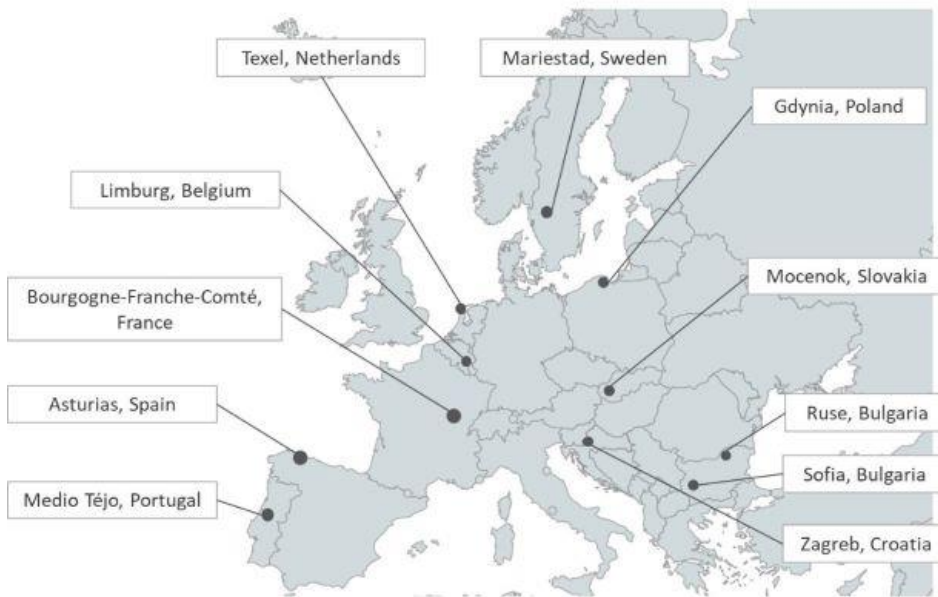
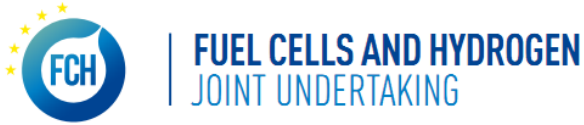
Methodology: Secap, IUP

Delivery: April 2021

VISION:

Tartu is a smart community with good energy and a green pioneer.

Hydrogen Regions – PDA followers network



The European Commission has set up a series of facilities funding **Project Development Assistance (PDA)** to support ambitious public authorities - regions, cities, municipalities or groupings of those - and public bodies in **developing bankable sustainable energy projects.**

Aid for local authorities in developing their **work plans for regional hydrogen projects.** These projects will accelerate the progress of hydrogen deployment in Europe by providing a blueprint to other regional hydrogen projects, as part of a drive towards carbon neutrality.

- TÜ
- Sky-Corp
- Estiko
- Keila
- Rakvere
- Tartu



European Clean Hydrogen Alliance

Working towards the objective of climate-neutrality in the EU by 2050, the European Clean Hydrogen Alliance aims at developing and **deploying hydrogen as a viable energy carrier in Europe that is globally competitive.**

The Alliance supports the implementation of the hydrogen strategy for a **climate-neutral Europe**, by working towards developing a full and accessible hydrogen value chain.

This will be achieved, among others, through an investment agenda and a pipeline of concrete projects, as well as mobilising resources and actors to install at least **6 GW of renewable hydrogen electrolyzers in the EU by 2024 and 40 GW of renewable hydrogen electrolyzers by 2030.**

European Clean
Hydrogen Alliance

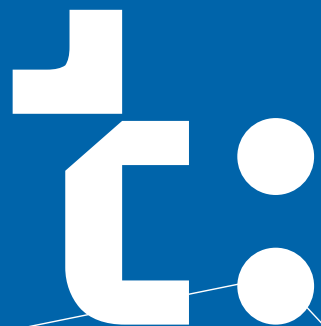




Rising awareness – hydrogen trains

- Alstom - 2021
- Stadler – 2024
- Siemens – 2023, 2024
-





Small steps –hydrogen, autonomous bus lines

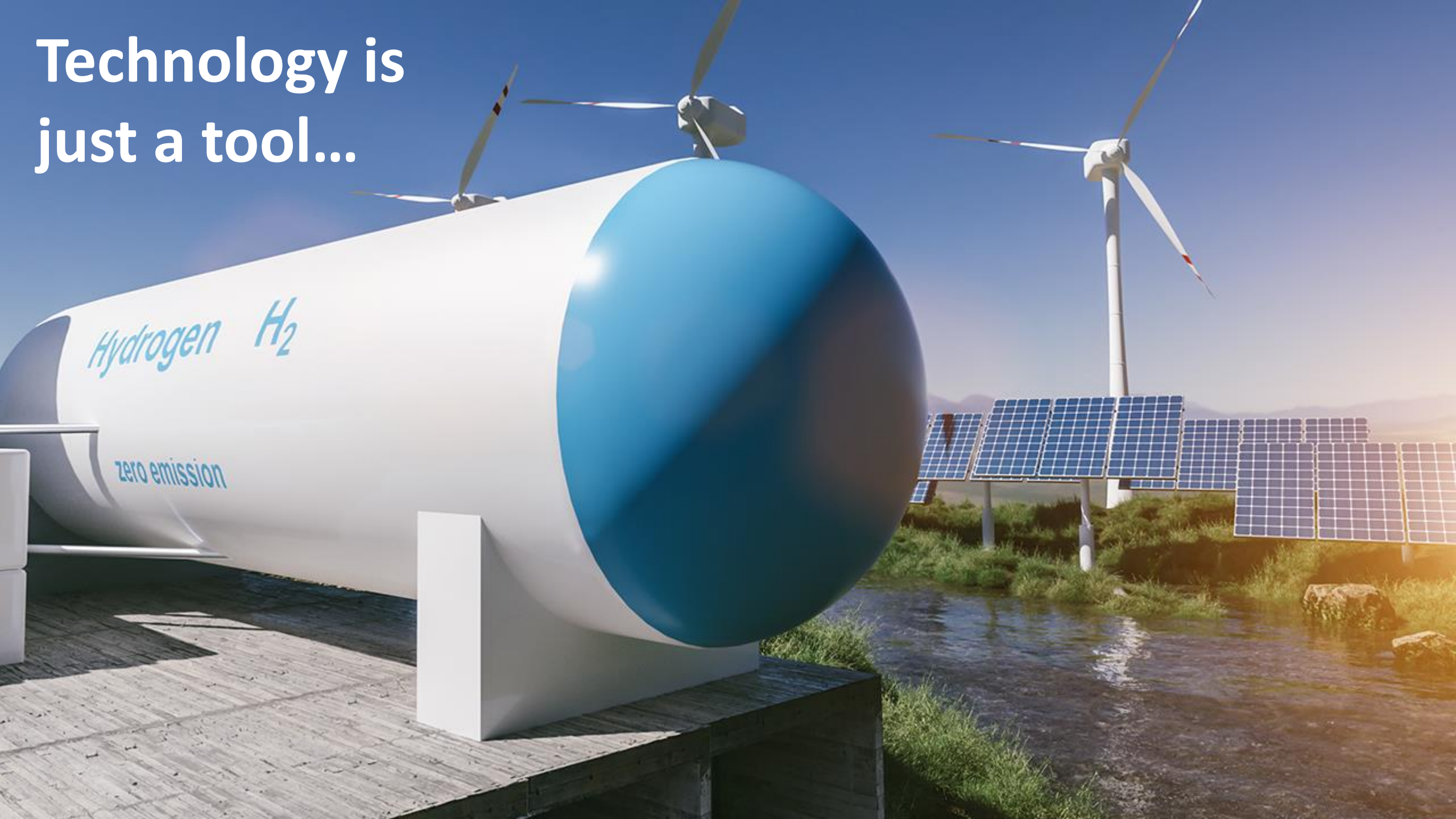
First Estonian Full Value Chain project

Application for support in
October 2021

- 3 hydrogen buses
- First public HRS in Estonia
- First (large scale) green hydrogen production in Estonia
- 35 000 kg h₂ / y
- ~25 000 for public transport
- Pilot will start in 2023 and last 7 years

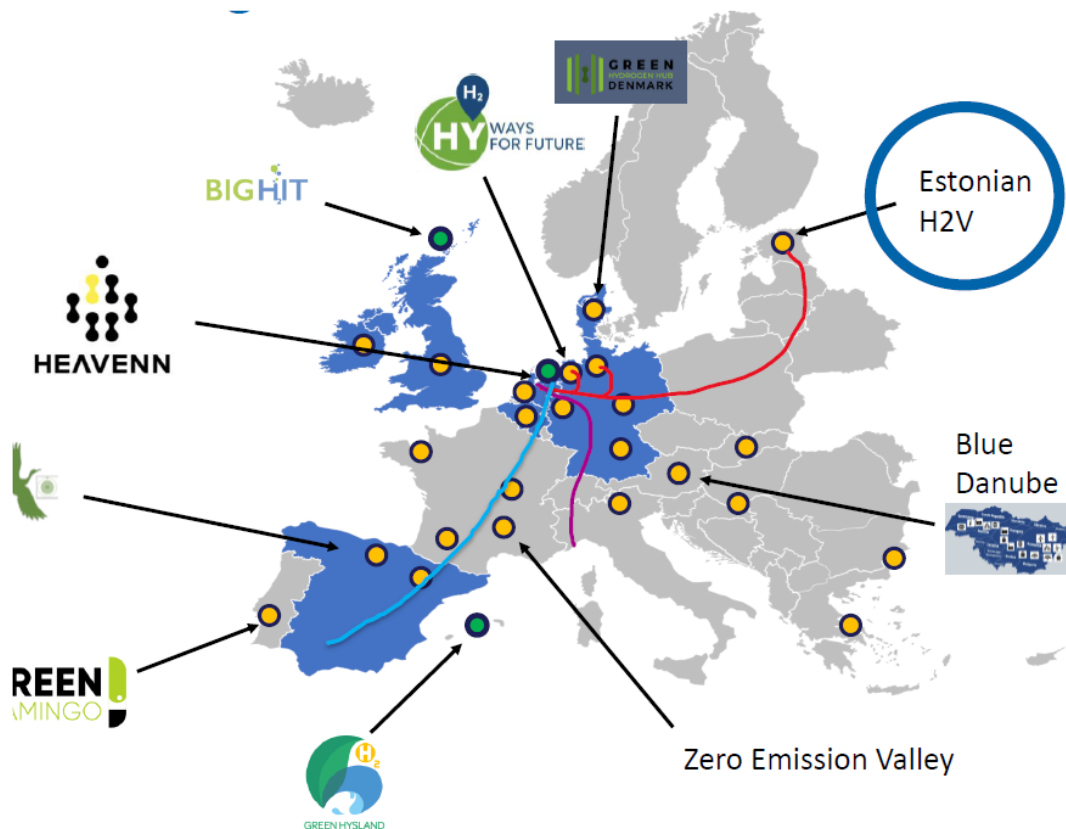


Technology is
just a tool...





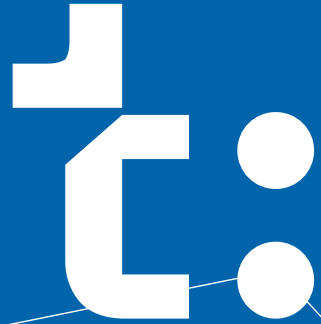
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Ecosystem:

- • Private Companies
- • Tartu University
- • Tartu Science Park
- • Tartu Regional Energy Agency
- • Tartu Vocational Education School
- • Tartu Aviation Academy
- • Tartu Airport
- • Potential for 1500 tonnes green h2 (PV)
- • Observers' Network for Hydrogen
- Regions (2020)
 - • Strong IPCEI representation
 - • ZeroEST Climate Neutral Air Mobility
- Hub
 - • Member of The European Clean
- Hydrogen Alliance
 - • Climate Neutral City by 2030
 - • Culture Capital of Europe

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Thank you for your attention!

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