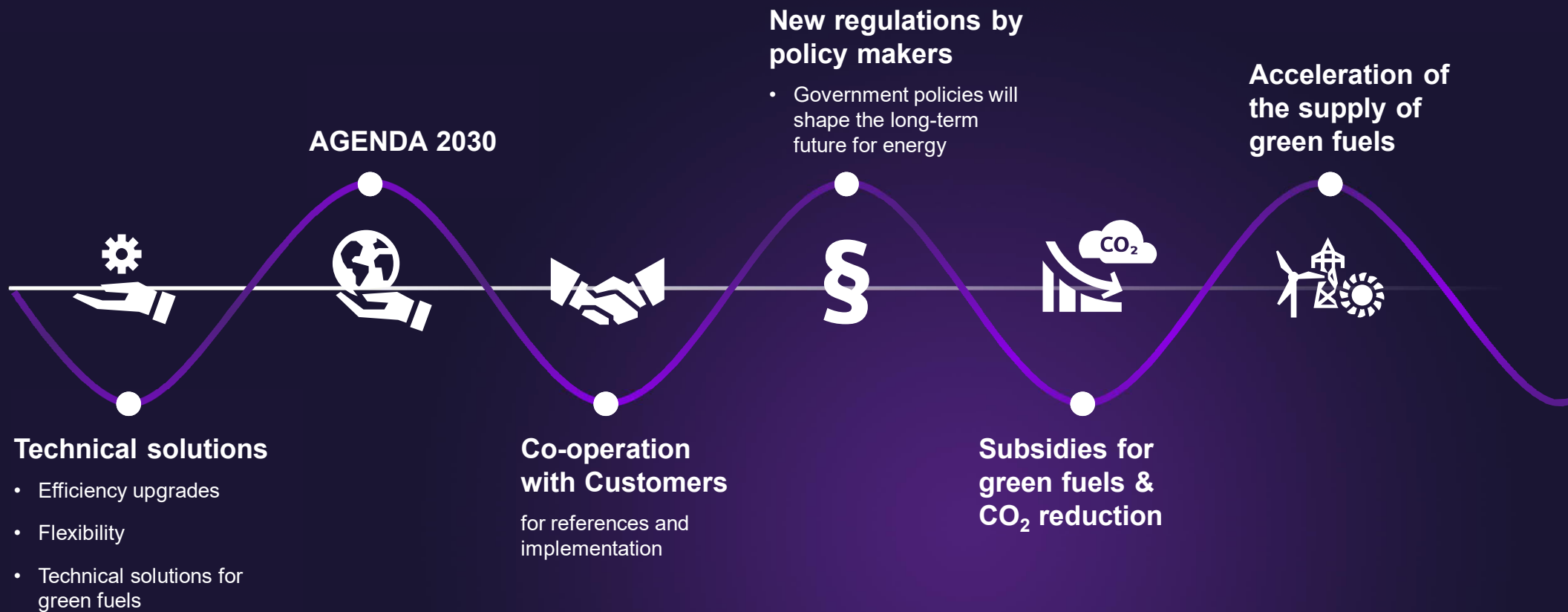




Vätgas i gasturbiner och Zero Emission Hydrogen Turbine Center

Åsa Lyckström
Hållbarhetsstrateg

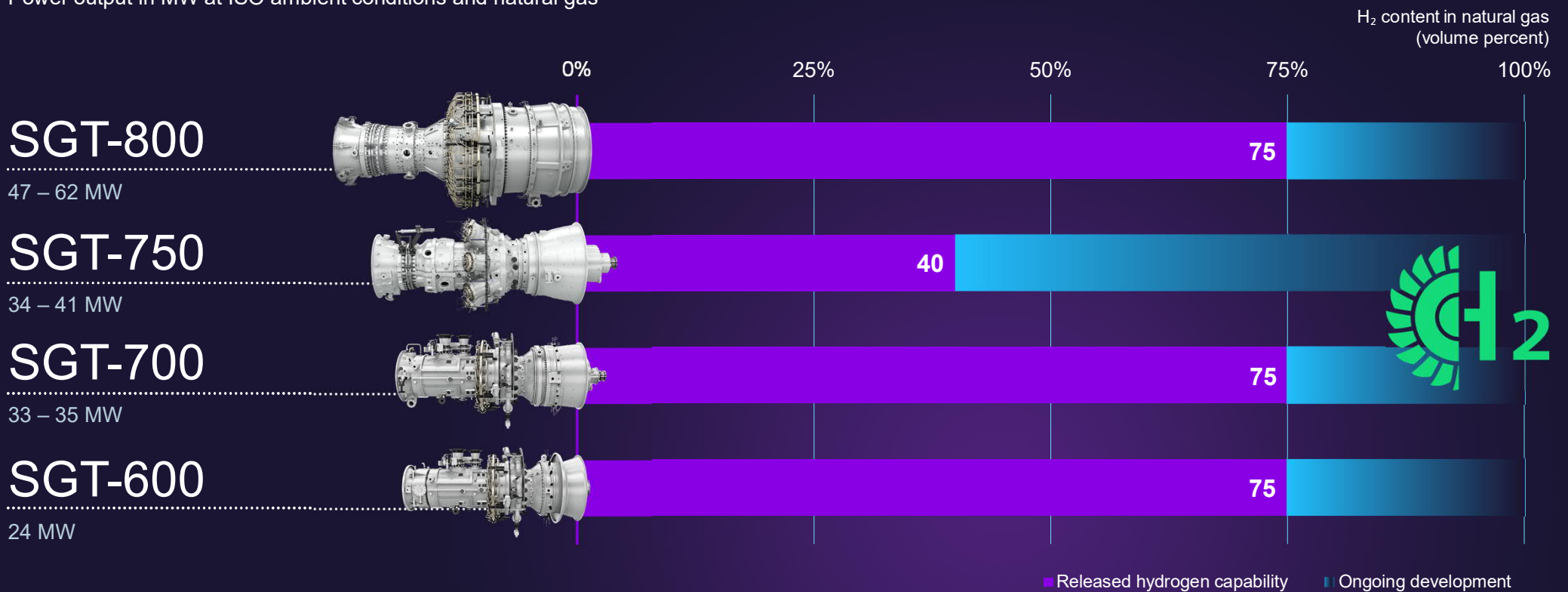
The road ahead for CO₂ reduction in gas turbines



Hydrogen Capability in Siemens Energy medium size gas turbines

All turbines equipped with DLE burner technology

Power output in MW at ISO ambient conditions and natural gas



Zero Emission Hydrogen Turbine Center

The zero emission demonstrator plant at the gas turbine test facility in Finspång, Sweden

- Utilizes **excess power from turbine test runs to produce hydrogen** in an **electrolyzer**
- **Solar panels** for continuous hydrogen production
- A **micro grid** together with **batteries for backup**
- Utilize the produced hydrogen as turbine fuel for upcoming turbine tests to **reduce our own LNG consumption and provide inhouse testing of 3D-printed hydrogen burners**

Three-year project with funding from EU

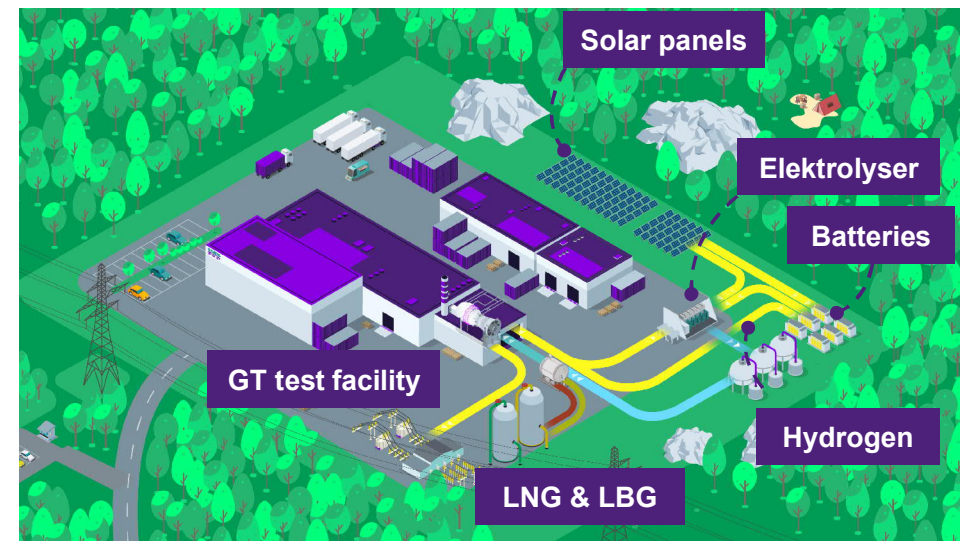
- **Operation starts in 2021**
- Supports Siemens Energys efforts in achieving
 - **100% hydrogen ready gas turbines by 2030**
 - **climate neutral own operations by 2030**
 - **green electricity 100% of own power consumption by 2023**
- Funded by the six partners and EU project **ERA-Net Smart Energy Systems** program through the **Swedish Energy Agency**

Two ZEHTC web pages

>> [ZEHTC siemens-energy](https://zehtc.siemens-energy.com)

>> zehtc.org

The future energy system on display



SIEMENS
energy

CHALMERS
UNIVERSITY OF TECHNOLOGY

 **ALMA MATER STUDIORUM**
UNIVERSITÀ DI BOLOGNA

 **LÄNSSTYRELSEN**
ÖSTERGÖTLAND

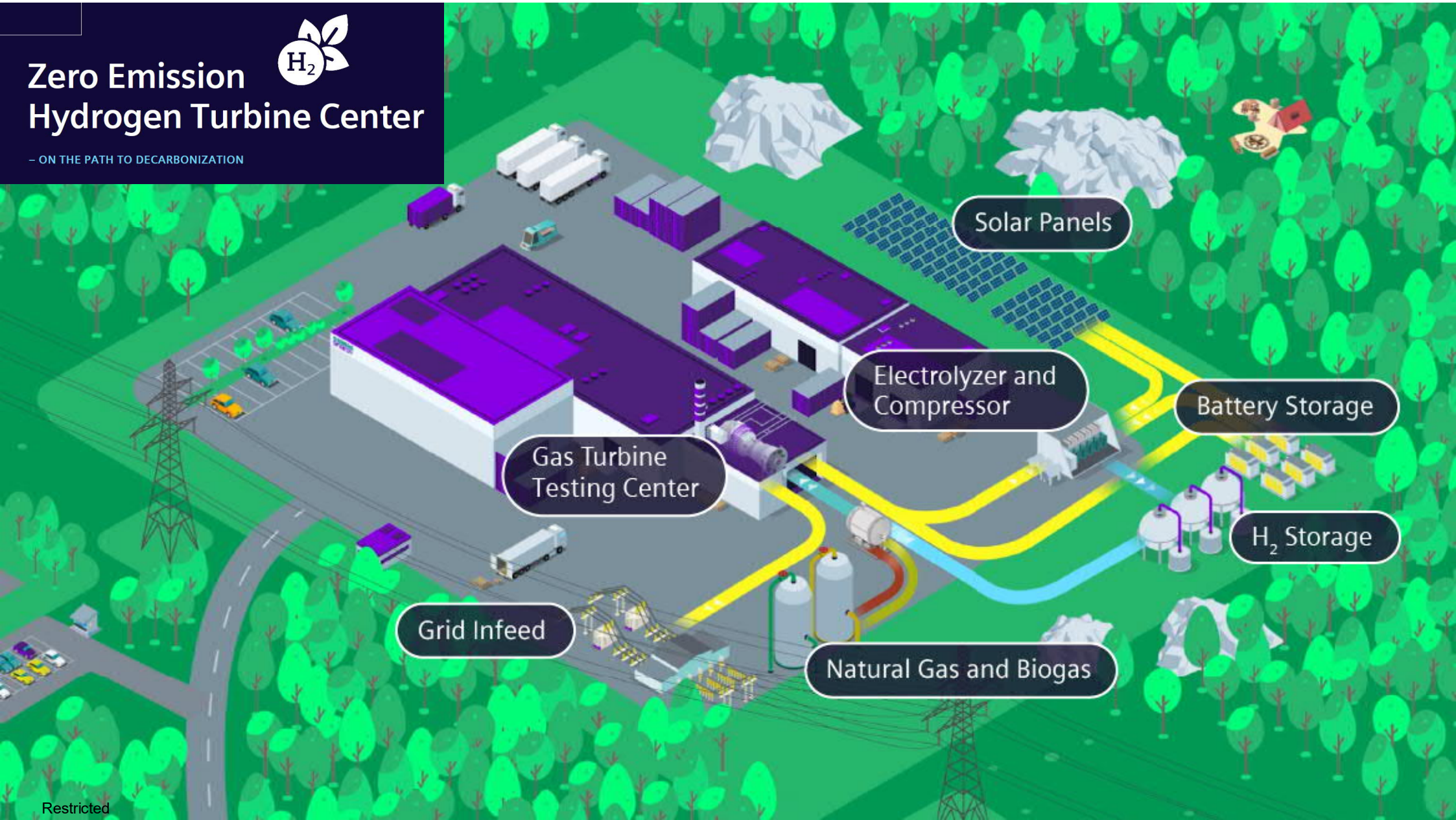
 **FINSPÅNG**

 **THE LINDE GROUP**



Zero Emission Hydrogen Turbine Center

- ON THE PATH TO DECARBONIZATION



Zero Emission Hydrogen Turbine Center



ZEHTC websidor:

- 1) <https://www.siemens-energy.com/global/en/priorities/future-technologies/hydrogen/zehtc.html>
- 2) www.zehtc.org

Paneldiskussion om ZEHTC på Enlit Europe webinar

23 Juni 2021 kl 11-12. Gratis.

<https://www.enlit-europe.com/online-calendar/new-energy-landscape-series-season-2-zehtc-testbed-for-a-new-sustainable-and-flexible-energy-system>

Kontakt

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