

Conversion of the Tyrolian Energy System Based on the Example Demo4Grid

Fossil World

Oil, Coal, Gas,
CO2, Dust, Noise,
Climate Change,

Green World

Sun, Water Wind
Free from CO2
Dust, Noise,
Climate Change,



Energy Revolution



Radical Change



The Future is Now!



Building Bridges ...

Green Energy Center

... Towards a Green Future



Green World
Sun, Water, Wind
No CO2, Dust, Noise



~~**Fossil World**~~
Oil, Coal, Gas,
CO2, Dust, Noise



... supporting Tyrol's vision

> 100 years

2017

2020

33 years < 400 months

2050



Demo4Grid Project ...

Green Energy Center

... kickoff meeting 14th March 2017



Green World
Sun, Water, Wind
No CO2, Dust, Noise

~~Fossil World~~
Oil, Coal, Gas,
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> 100 years

2017

2020

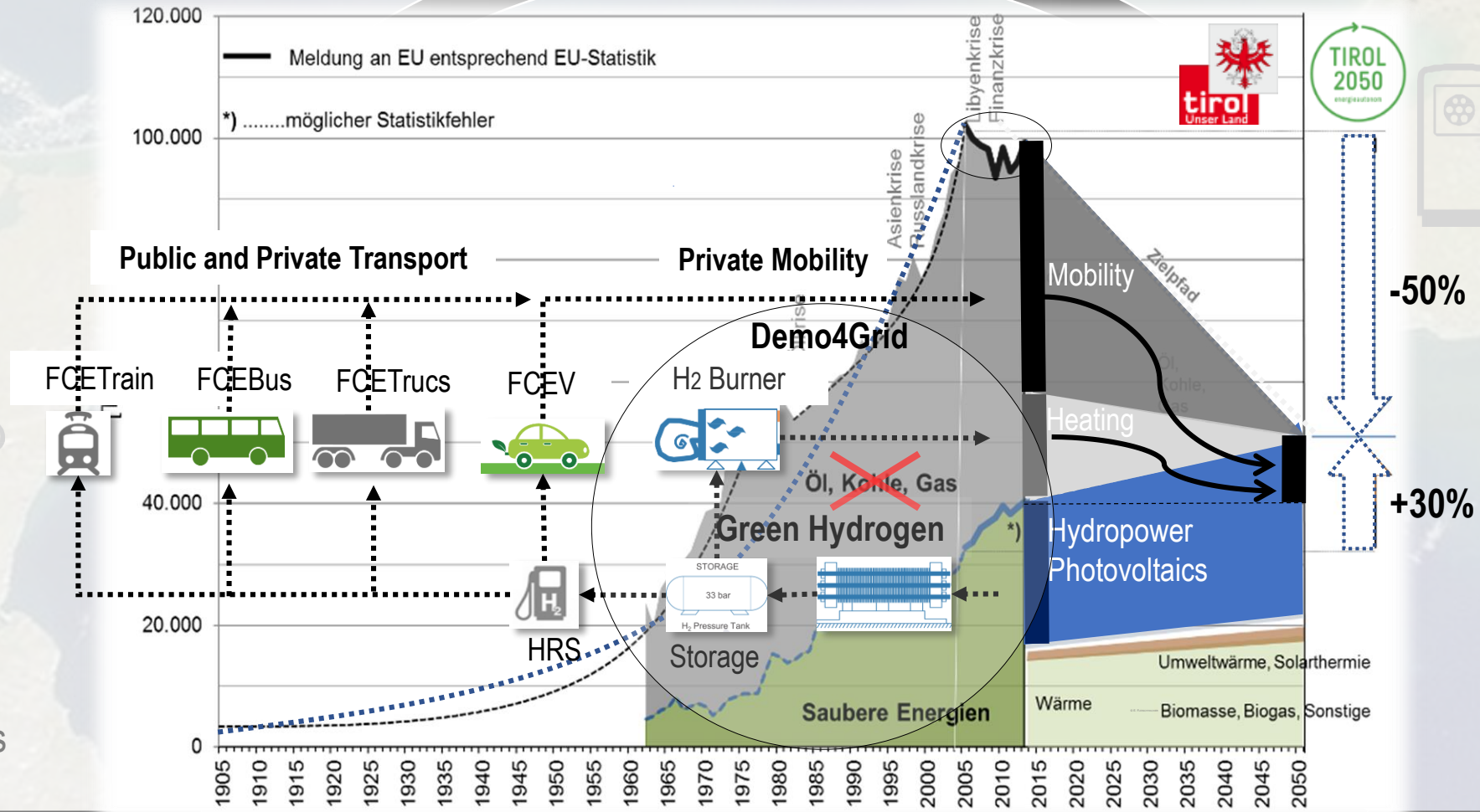
33 years < 400 months

2050

GREEN HYDROGEN


GREENING OF INDUSTRY

Conversion of the Tyrolian Energy System



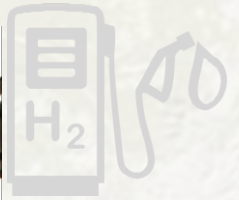
> 100 years

Grundlage: Statistik Austria, Energiemonitoringbericht 2014



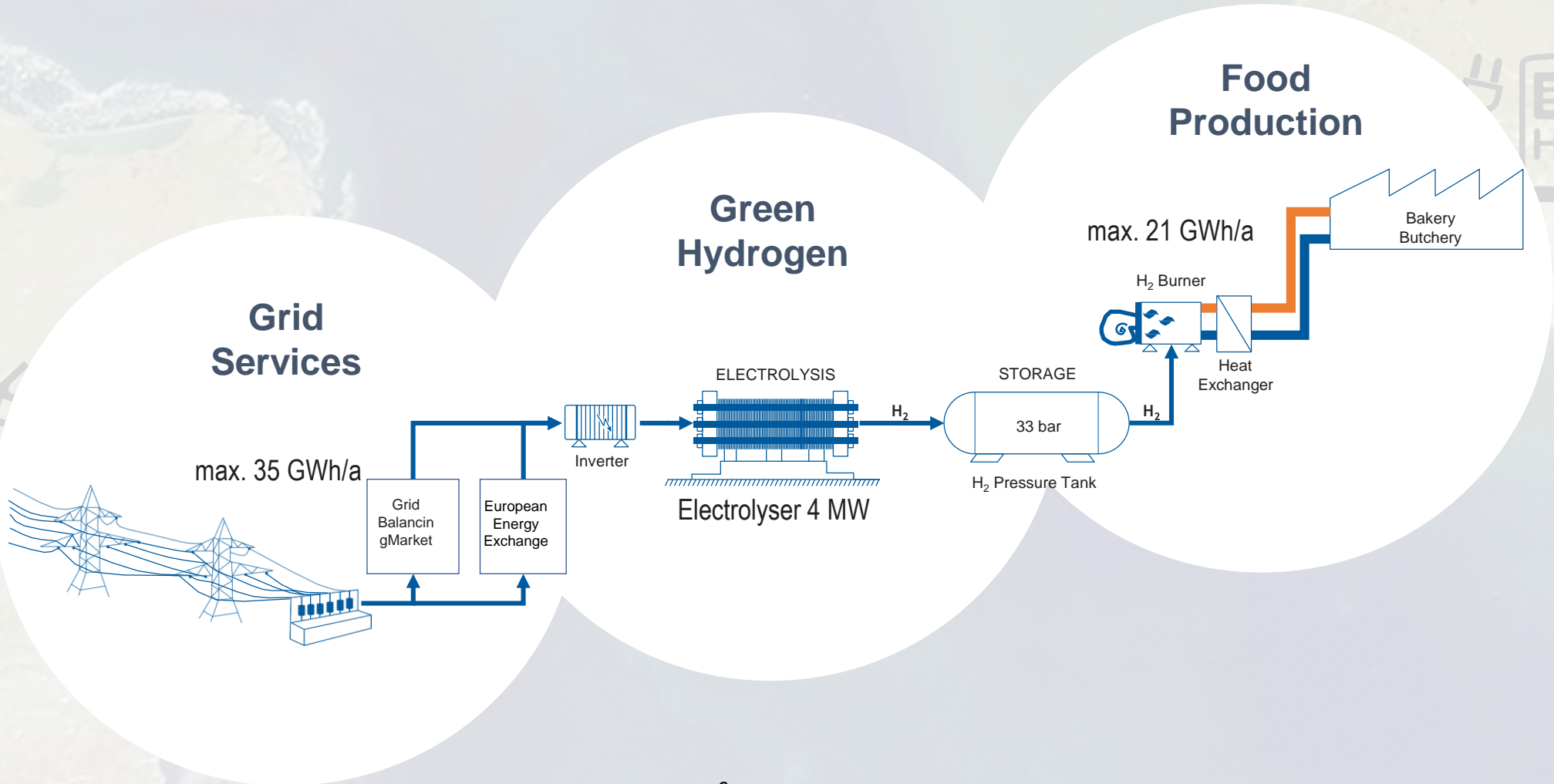
Large Scale Electrolyser

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- Participation in primary and secondary grid balancing market
- Rapid response time of 2 seconds
- Hydrogen purity should meet the application requirements
- Long term business model
- Expectation energy performance: 52 kWh/kgH₂ resp. 1 to 2 €/kgH₂
- Expectation CAPEX: 630 €/kW x 4 MW = 2.5 million €
- Progress in system development

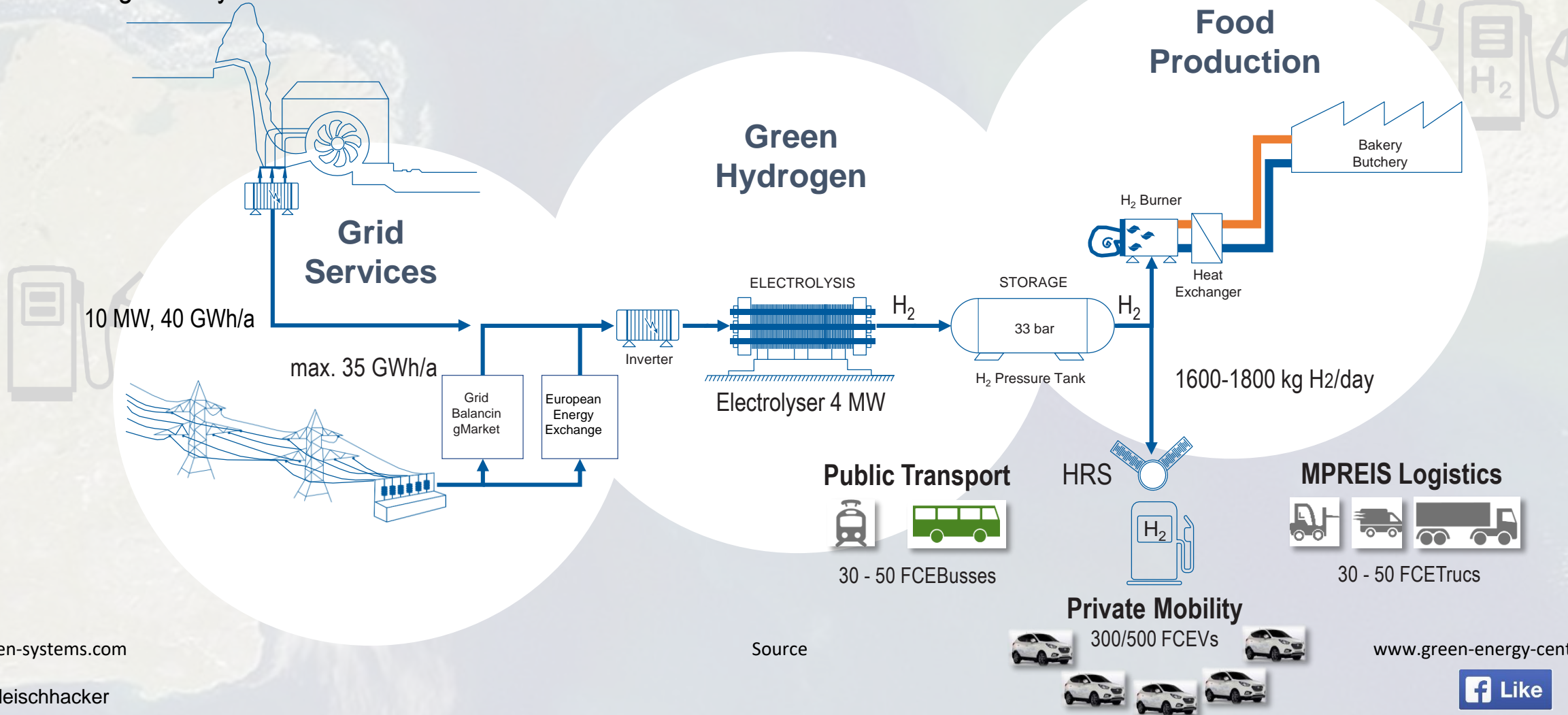




Next Steps

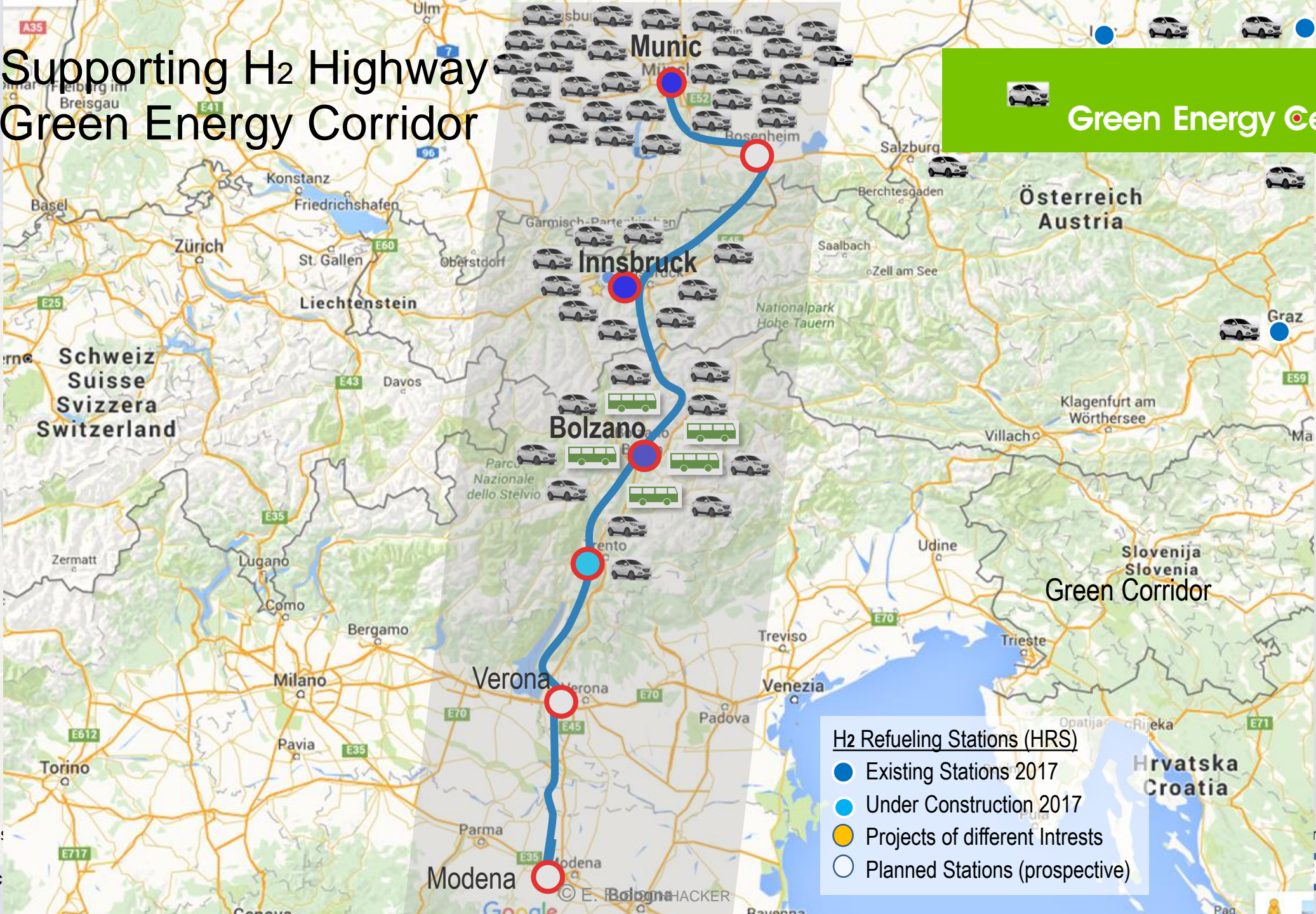
**DEMO
4GRID**

KW Sellrain
Regional Hydro Power Plant





Supporting H2 Highway Green Energy Corridor



H2 Refueling Stations (HRS)

- Existing Stations 2017
- Under Construction 2017
- Projects of different Intrests
- Planned Stations (prospective)

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Demo4Grid
Demonstration for Grid Services - Green H₂ for Tyrol



WAT



Thank you for attention!

Green Energy Center

