

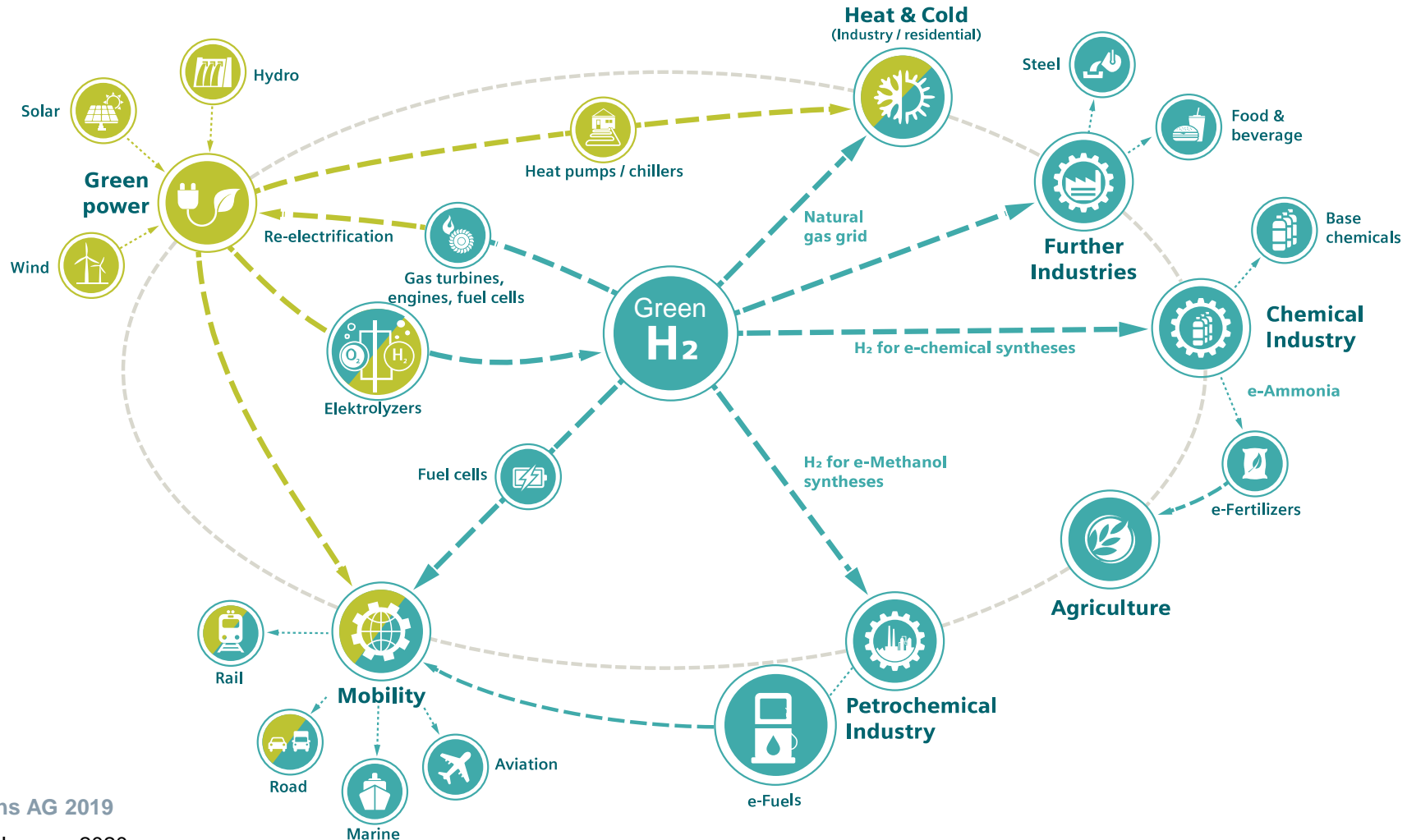


Sector Coupling and Greening the Gas

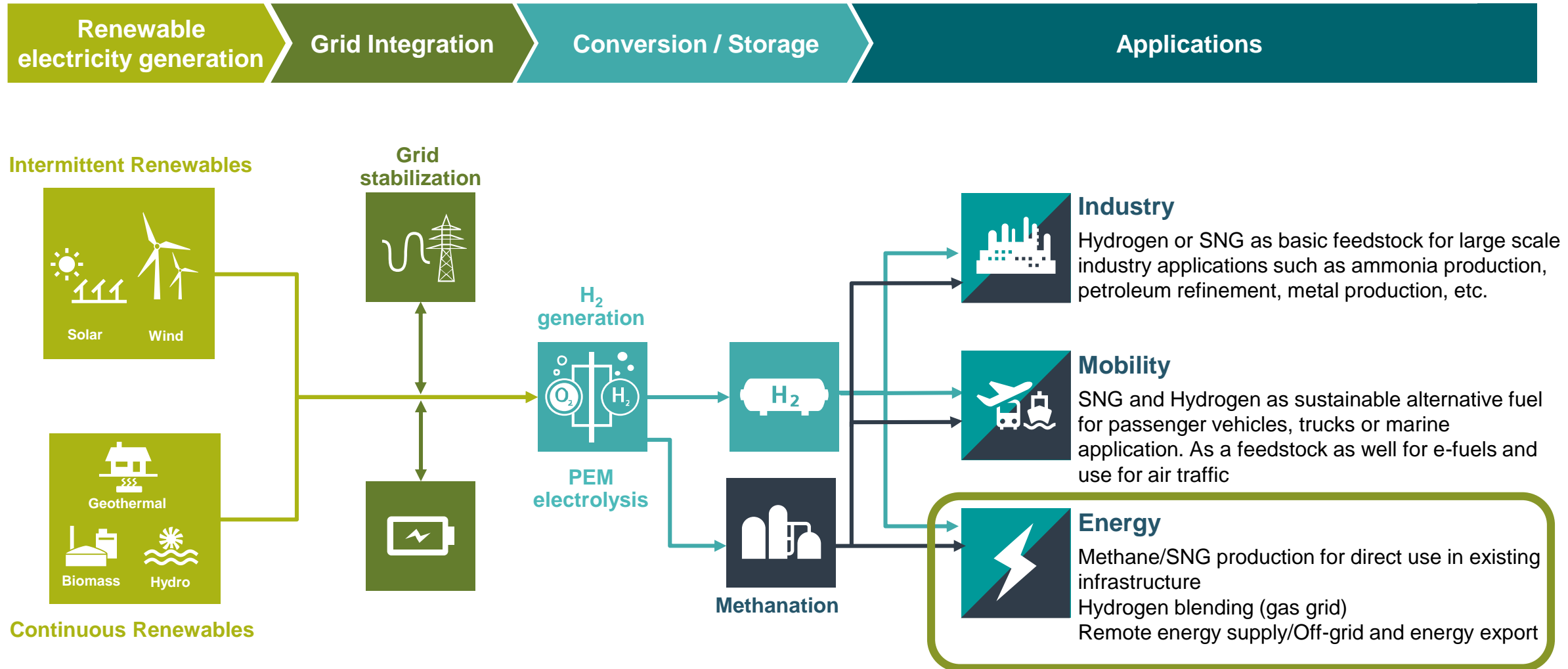
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January 21st, 2020

“Sector Coupling” is the key lever for decarbonization of all end-user sectors

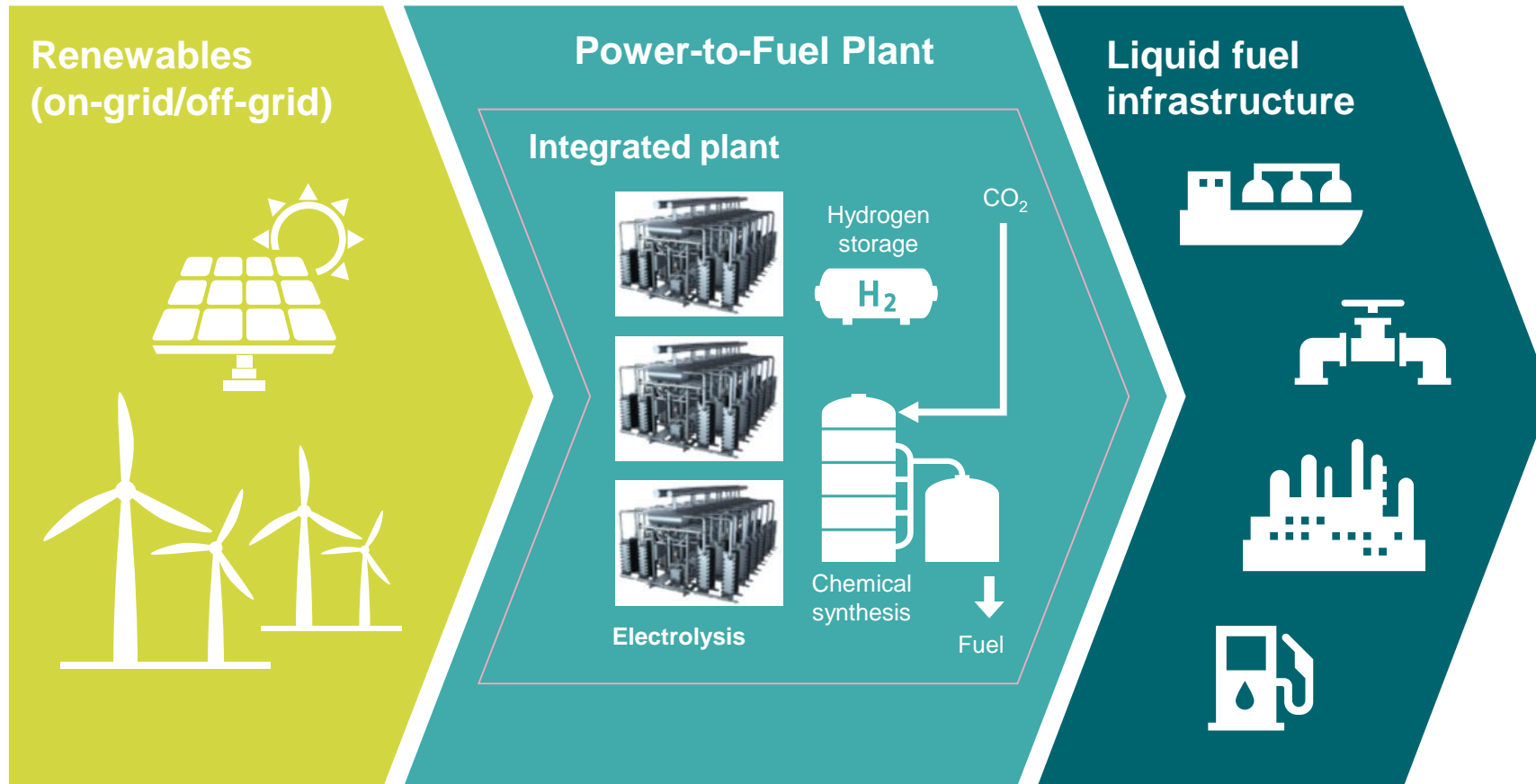
Sector Coupling – Links and Interactions



Hydrogen from renewables enables large scale long term storage and sector coupling



Power-to-Fuel plants as missing link for electricity-based fuels and utilization of existing liquid fuel infrastructure



200 MW wind farm
560 GWh_{el}

280 GWh green fuel



Air traffic
App. 9 Mio. Km air mileage = fleet with 6 planes for one year

OR



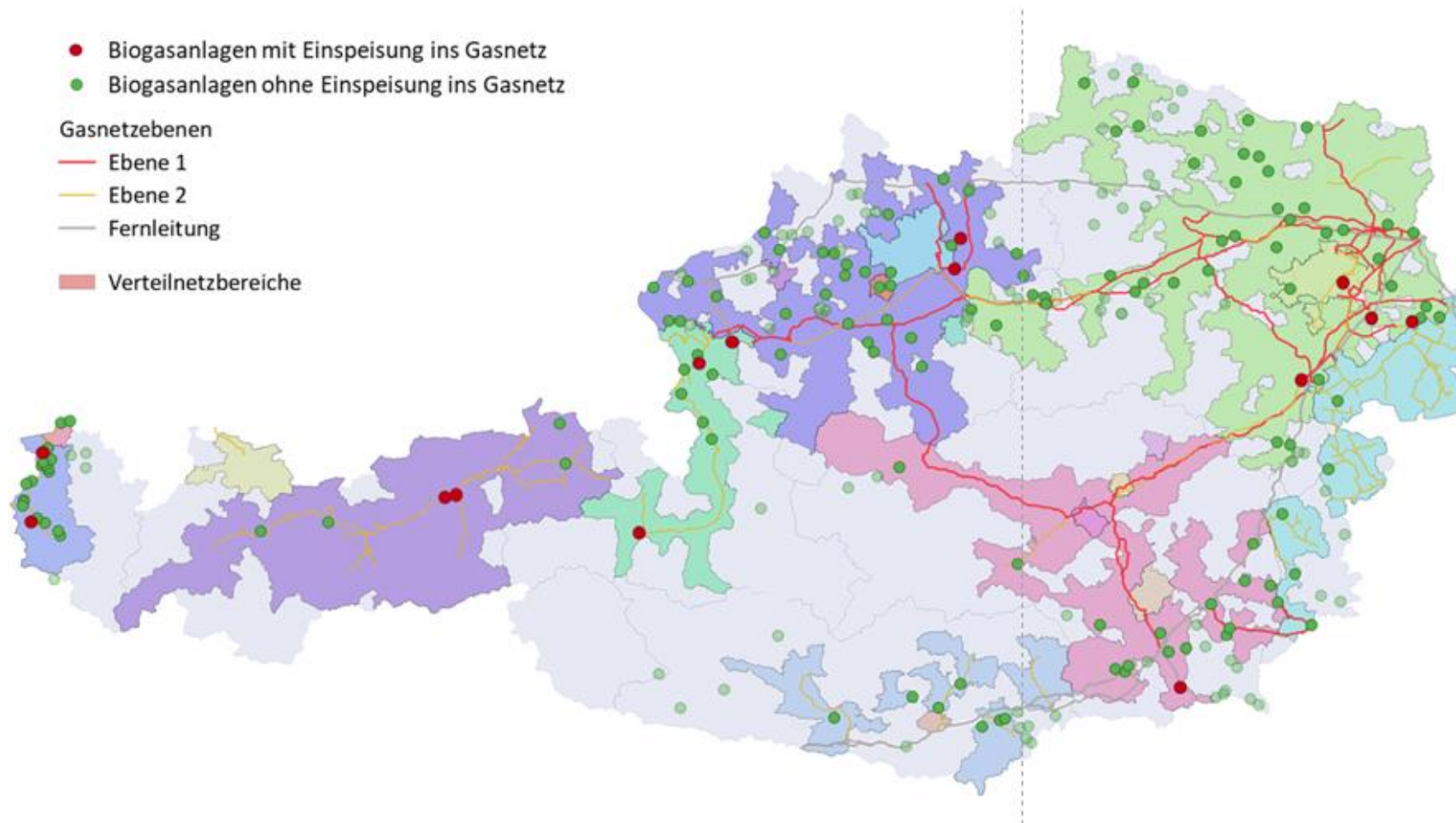
Road transport
App. 85 Mio. km road mileage = fleet with 2,000 trucks for one year

OR



Heating
25,000 flats in existing buildings (150 kWh/m²/a, 80 m²) for one year

Gas grid assets in Austria can be further utilized – Greening the Gas

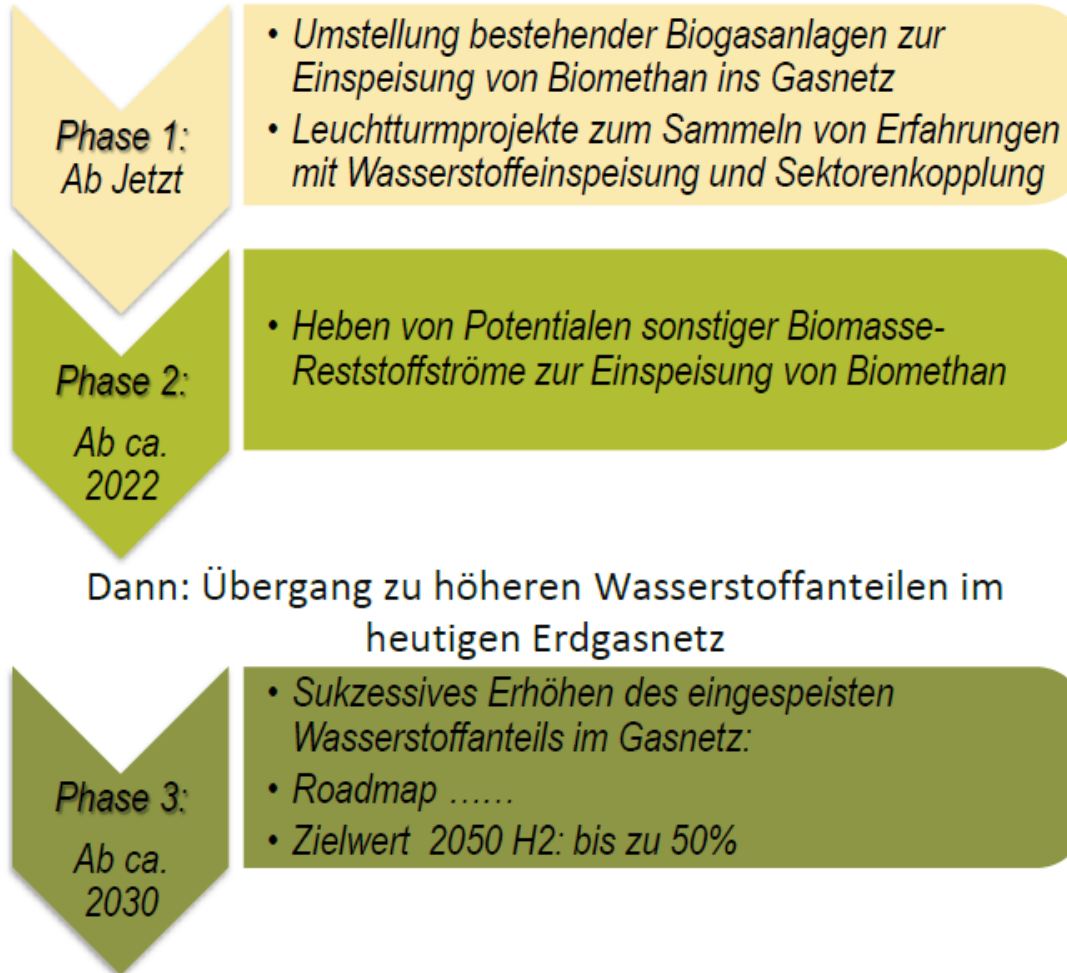


- Infeed of existing biogas
- Identification of optimal suited locations for Methanation and gas grid injection
- Additional utilization of waste heat
- Local demand to be supplied locally

Source: Austrian Gas Grid Management AG

Unrestricted © Siemens AG 2019

Adaptation of existing gas infrastructure in Austria step-by-step



Source: ÖVGW

Future of Energy in Europe is about Decarbonization through Sector Coupling and a new Market Design

Cornerstones of a Future Energy System



Decarbonization of Energy

Transforming the conventional generation capacity into low-carbon assets



Sector Coupling

Leveraging renewables in power sector to decarbonize heat, mobility, industry



Power-to-X

Key technology for sector coupling and fuel for decarbonization of energy



Regulatory Framework

Has to value CO₂ reduction and needs to be technology open – necessary now!

Contact

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