

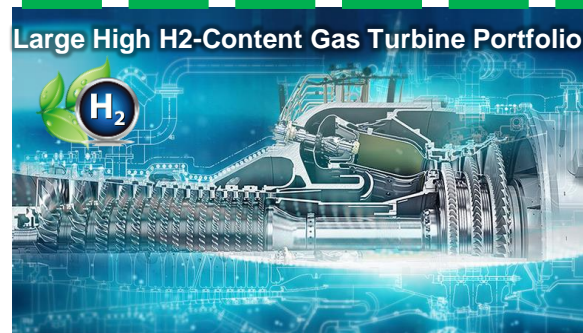
Technologies for a Low Carbon Society

IGTC 2018, Brussels

Dr. Arnd Reichert, Siemens Power & Gas

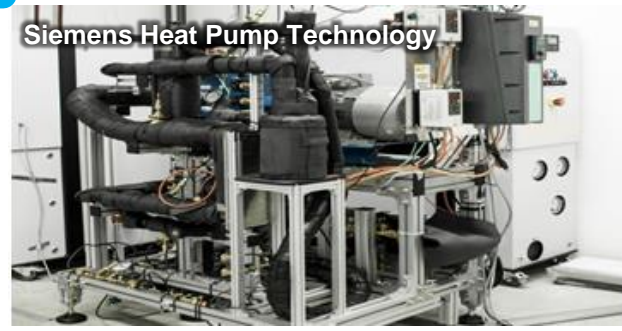
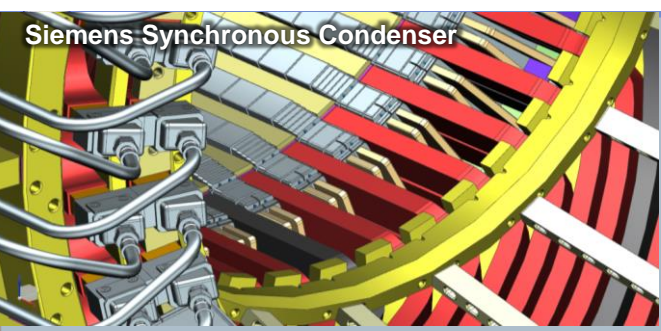
Siemens Provides a Large Portfolio of Products & Technologies as Enabler for a Low Carbon Society

SIEMENS
Ingenuity for life

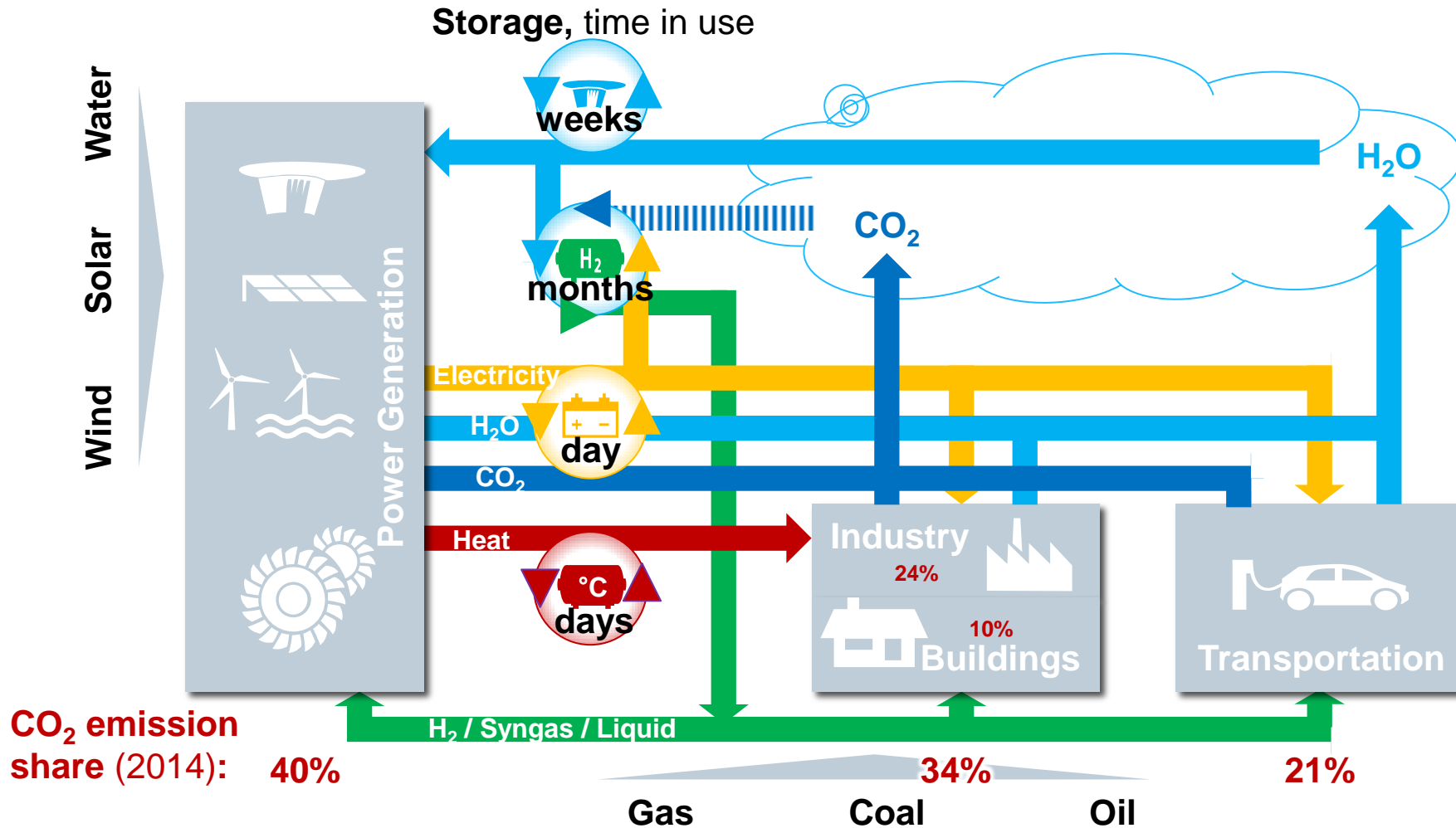


EnergyIP MDM Meter Data Management	EnergyIP Analytics Suite	EnergyIP Prepay Prepaid Energy Solution	EnergyIP DEMS Demand Response & Virtual Power Plants
EnergyIP DEOP Distributed Energy Optimization	EnergyIP EEA Energy Efficiency Analytics	EnergyIP MTM Market Transaction Management	New applications in development

EnergyIP Platform



Enabler for Low Carbon Society – Storage Technologies and Sector Coupling



Sector Coupling

Definition

- Link between power sector and energy-consuming sectors
- Crucial to reach deep decarbonization of the energy sector (-80 ... 95%)

Drivers

- Reduction of GHG emissions
- Integration of volatile Renewables
- Energy efficiency improvement
- Reduction of energy import dependency
- Technology development (e.g. e-mobility, battery, hydrolyzer, synthetic fuels)

Source: BP statistical review; IEA ETP

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Siemens Hydrogen Gas Turbines for our sustainable future – The mission is to burn 100% hydrogen



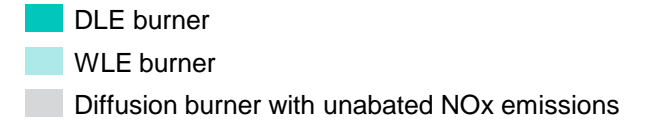
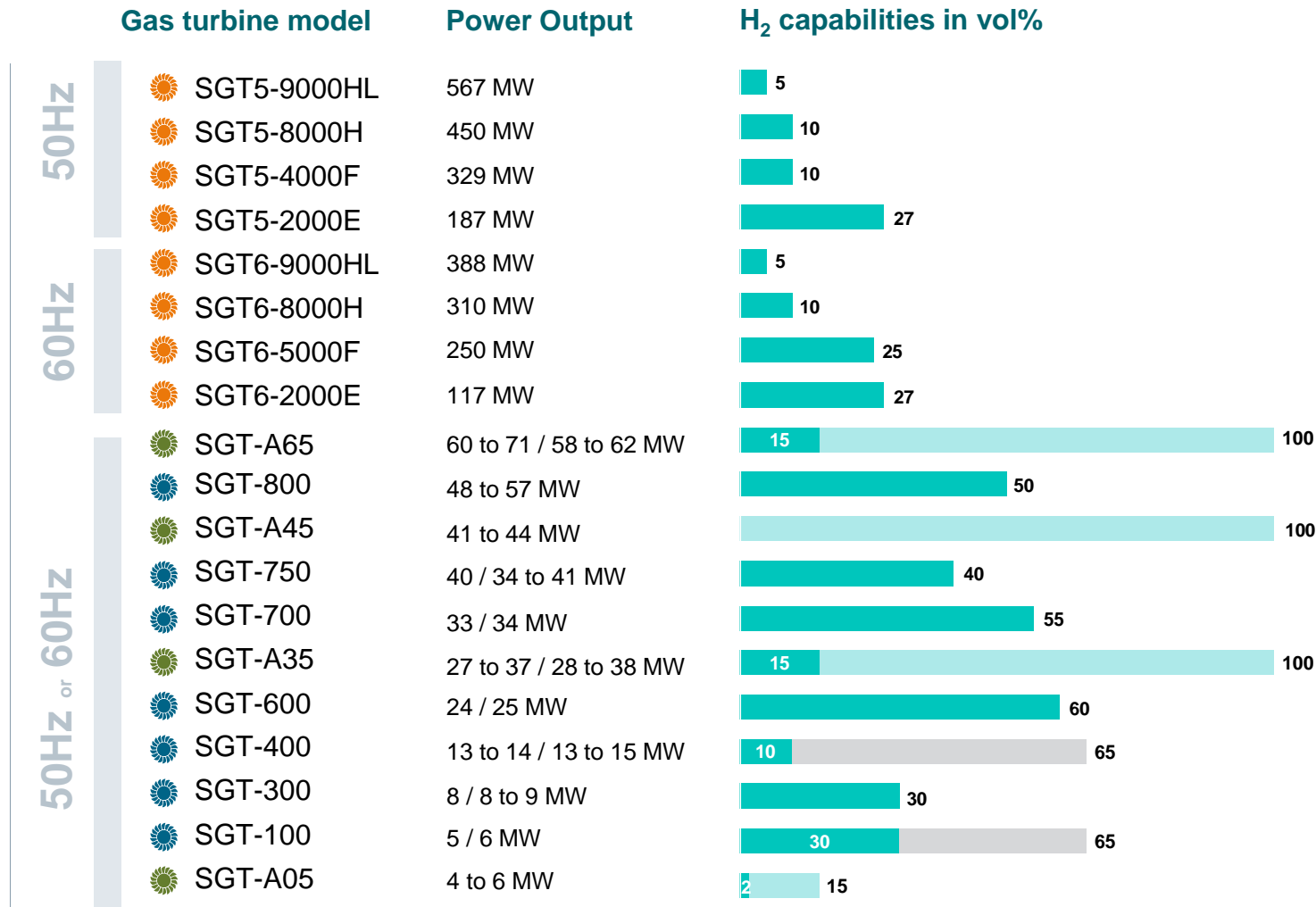
Heavy-duty
gas turbines



Industrial
gas turbines



Aeroderivative
gas turbines



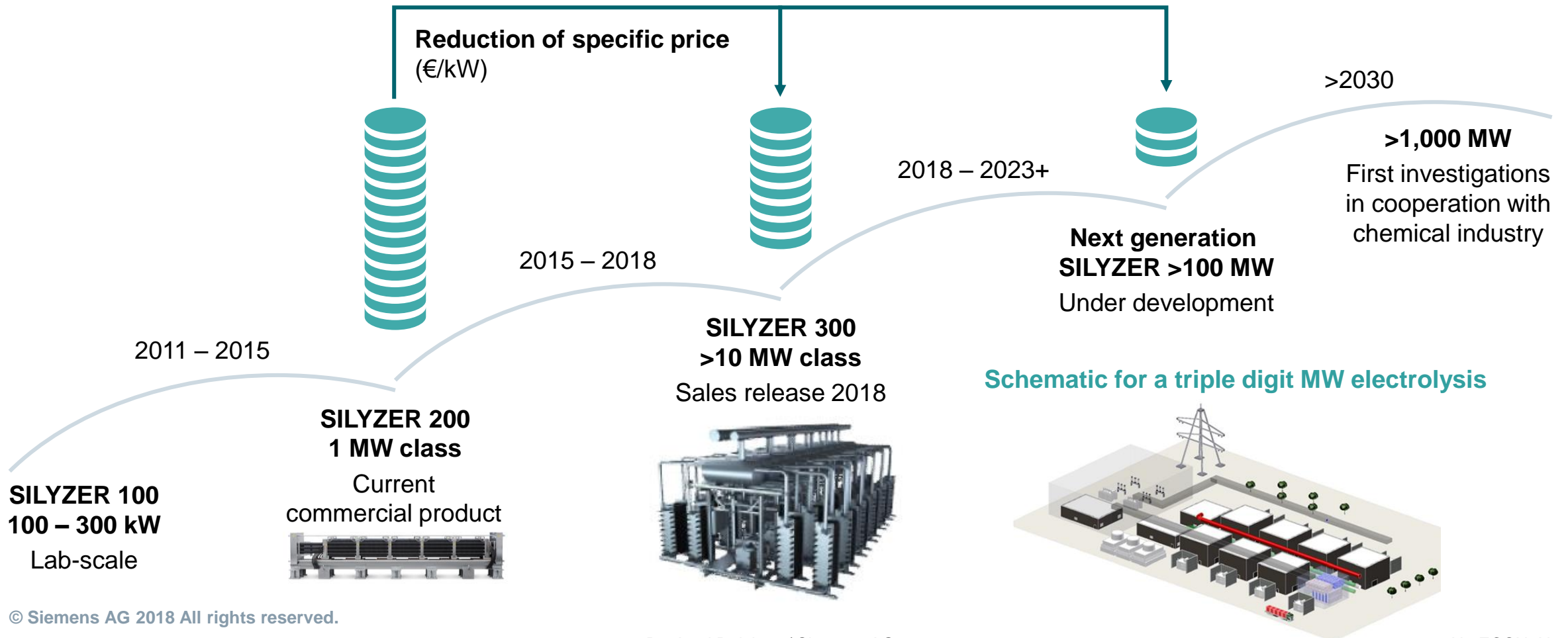
Values shown are indicative for new unit applications and depend on local conditions and requirements. Some operating restrictions / special hardware and package modifications may apply. Any project >25% requires dedicated engineering for package certification.

Higher H₂ contents to be discussed on a project-specific basis.

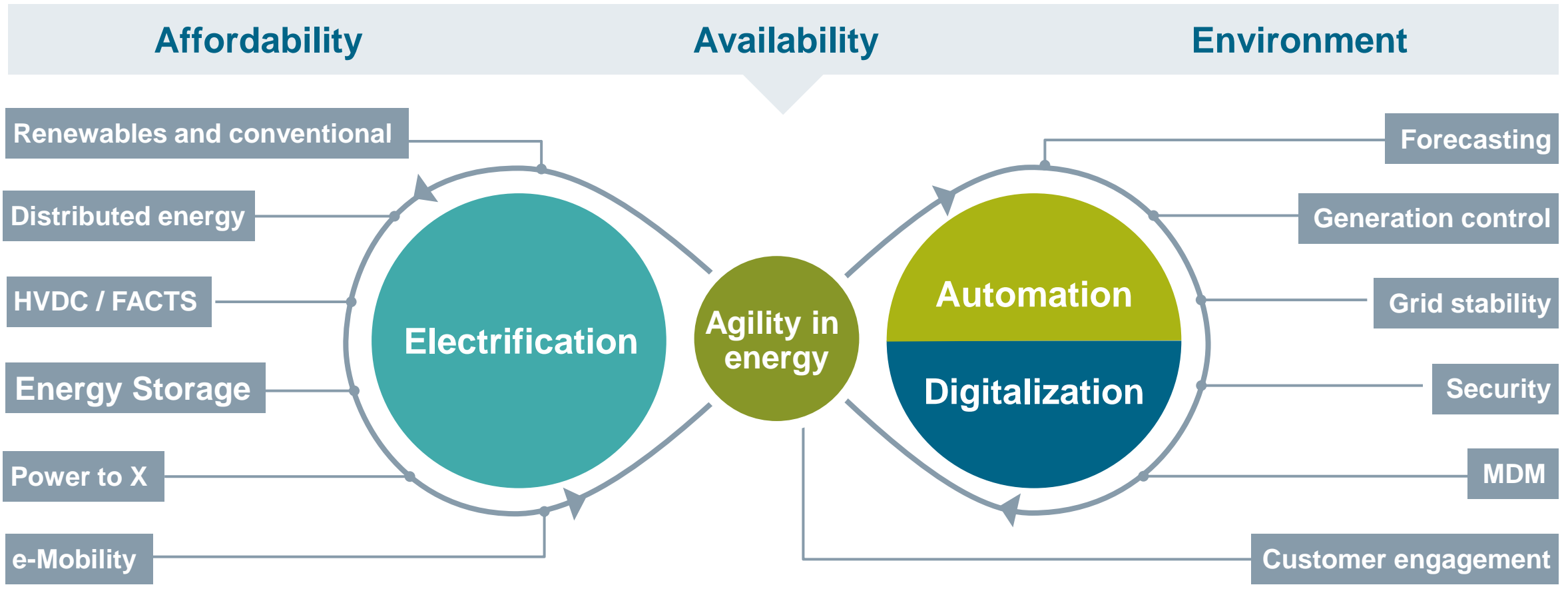
DLE: Dry Low Emission
WLE: Wet Low Emission

One of key enablers for e-fuels: Siemens PEM electrolysis SILYZER portfolio scales up by factor 10 every 4 – 5 years

Water Electrolysis: SILYZER portfolio roadmap



Digitalization Drives Dramatic Change in Energy Systems



HVDC/FACTS = High Voltage Direct Current/Flexible AC Transmission Systems

MDM = Meter Data Management



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