entsog
european network
of transmission system operators
for gas

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FCH JU STAKEHOLDER FORUM

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SESSION I - BUILDING THE ROAD TO CONSUMERS

Strategic development of hydrogen infrastructure in Europe

ENTSOG View Points

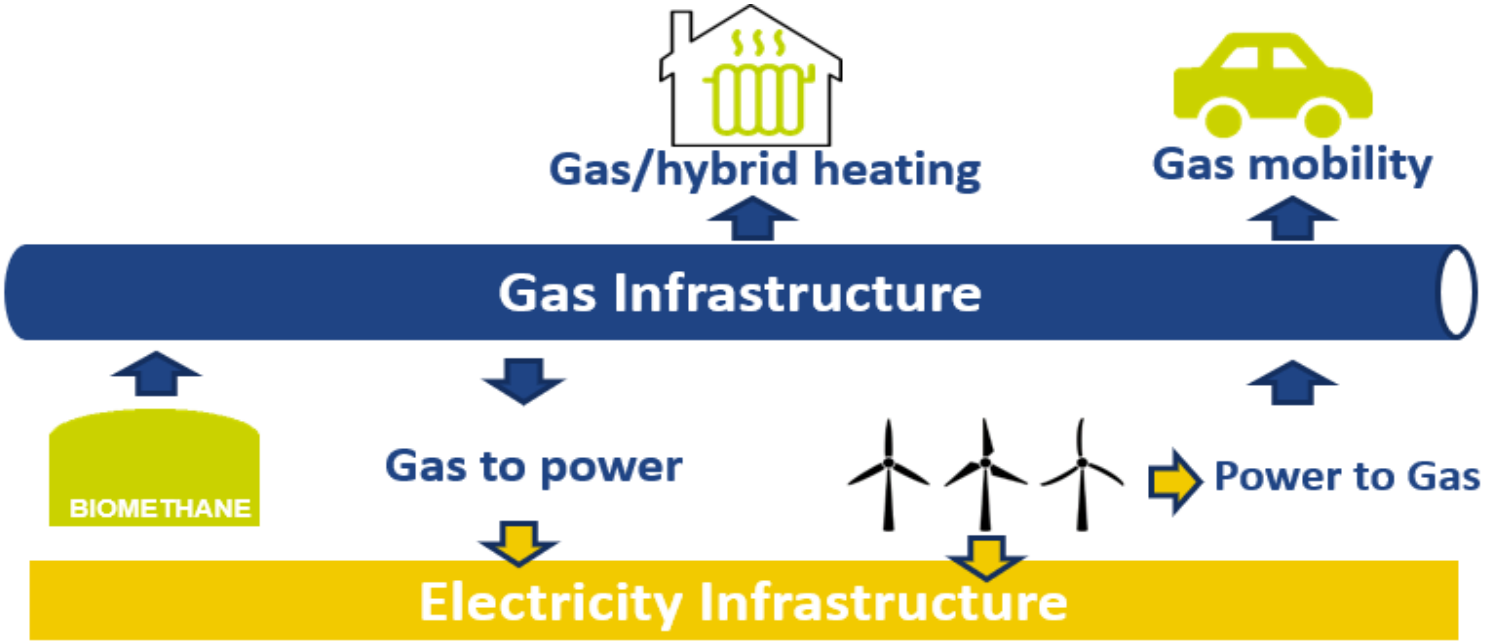
Jan Ingwersen

ENTSOG General Manager

Image Courtesy of Thyssengas

Gas Infrastructure & Decarbonization

- *Existing 1000 GW gas cross-border transmission capacity and 1100 TWh gas storage capacity providing flexibility and optionality*
- *Increasingly renewable and decarbonised gas – heating, industry and transport synergies to develop via power-to-gas*
- *Developing/integrating renewable gas (including H2) will be key for low-carbon future*



Requires a holistic approach to the energy system

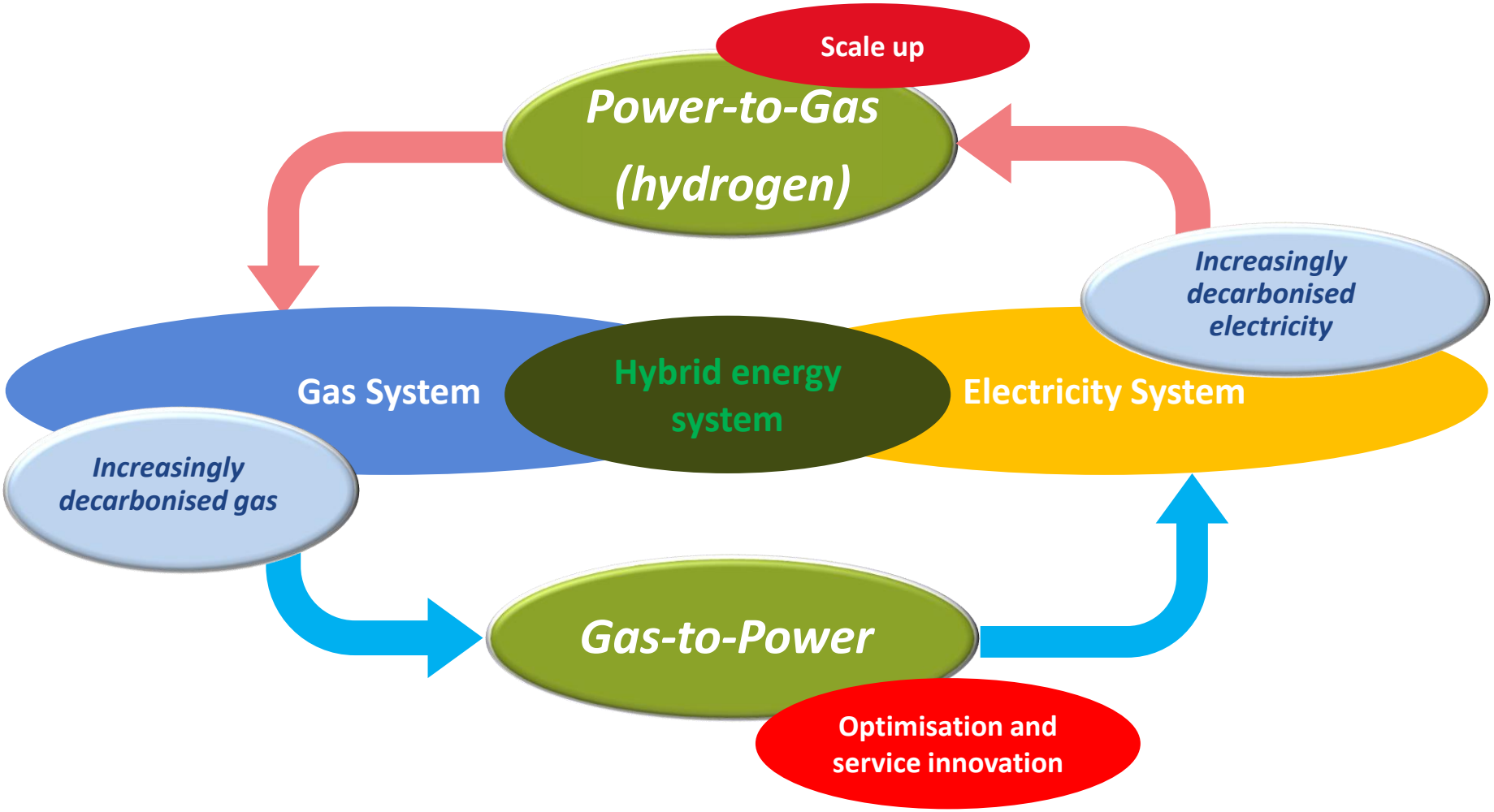
Why use existing gas infrastructure?

- *Flexibility and optionality needed for electricity i.e. seasonal demand, supply fluctuations and emergencies - i.e. in no-wind/no-sun & high-demand*
- *To address need for long term energy storage e.g. via P2G*
- *When heating/mobility demand cannot be met from renewable electricity*
- *As carrier for renewable/low carbon energy – hydrogen, biogas etc.*
- *As efficient long-distance energy transport – optimizing infrastructure development*

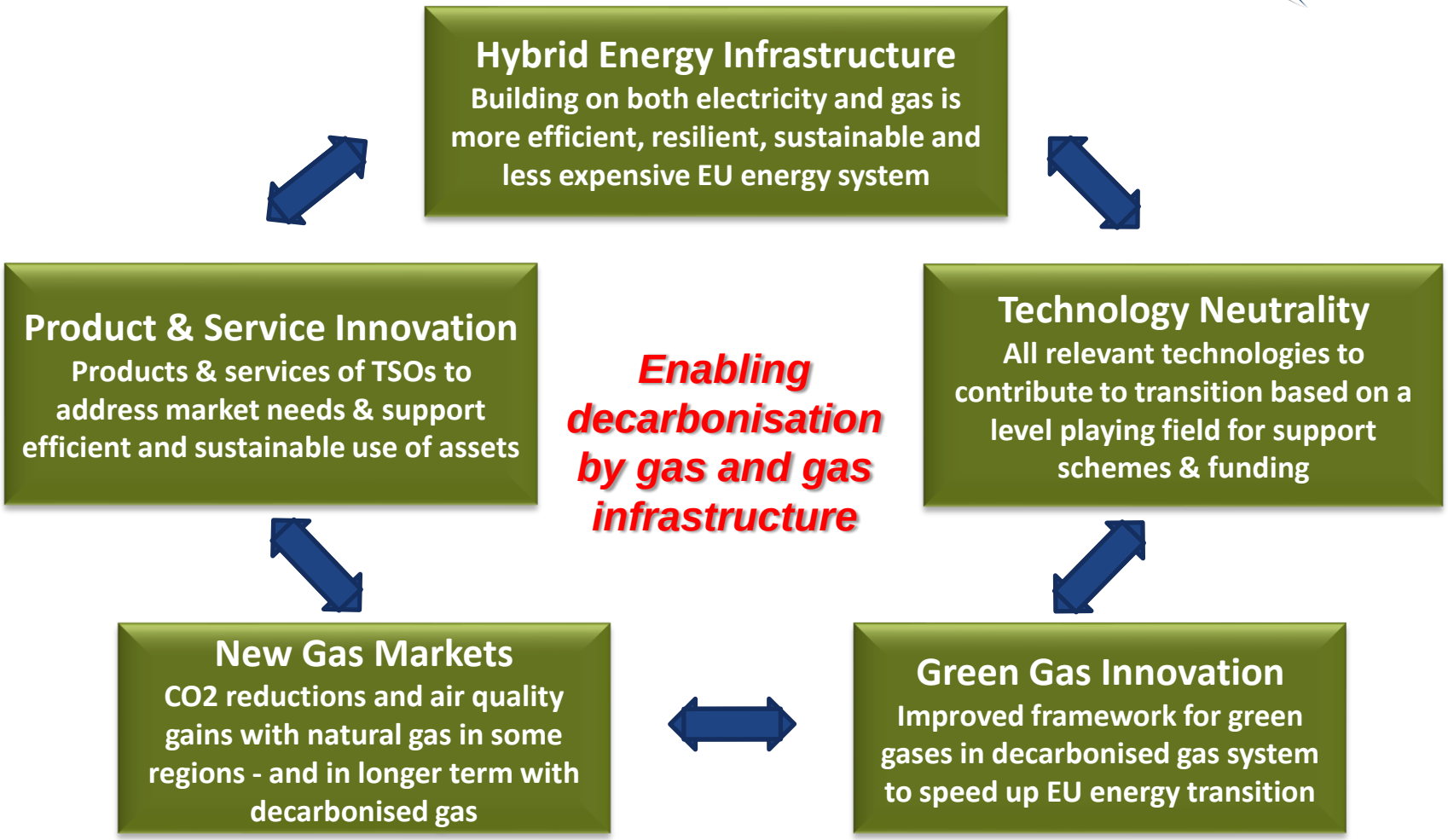
- *=> Lower energy transition costs for the EU consumers*

EU framework to enable interaction/synergies between electricity and gas as well as Development/deployment of renewable/decarbonized gases

Electricity and gas sector integration



ENTSOGs Themes for Gas Package 2020



Solutions to be driven by need for & contributions to decarbonisation - and should include sector coupling, energy efficiency and digitalisation

ENTSOG Messages for Gas Package 2020

- *Energy policy building on an EU hybrid energy carrier system - utilizing electricity and gas assets efficiently and obtaining improved flexibility and security of supply => lower consumer costs*
- *Improve sector integration between electricity and gas, including transport and heat*
- *Obtain better regulatory coordination of electricity and gas on both EU and MS level*
- *Ensure level playing field for clean energy technologies, including support schemes and EU-wide certification system for renewable and decarbonized gases – both including H2*
- *Incentivize TSO product/service innovation - meeting needs to decarbonize EU energy system and to facilitate sector integration*
- *Clarify role of grid operators in facilitating decarbonizing of EU energy system – including scaling up R&D/pilot projects, investing & operating P2G and biogas facilities etc.*

ENTSOG suggests, in the upcoming Gas Package 2020 process, to give high priority to enabling sector integration in practice.

Thank You for Your Attention

Jan Ingwersen
ENTSOG General Manager

ENTSOG -- European Network of Transmission System Operators for Gas
Avenue de Cortenbergh 100, B-1000 Brussels

EML: Jan.Ingwersen@entsog.eu
WWW: www.entsog.eu