



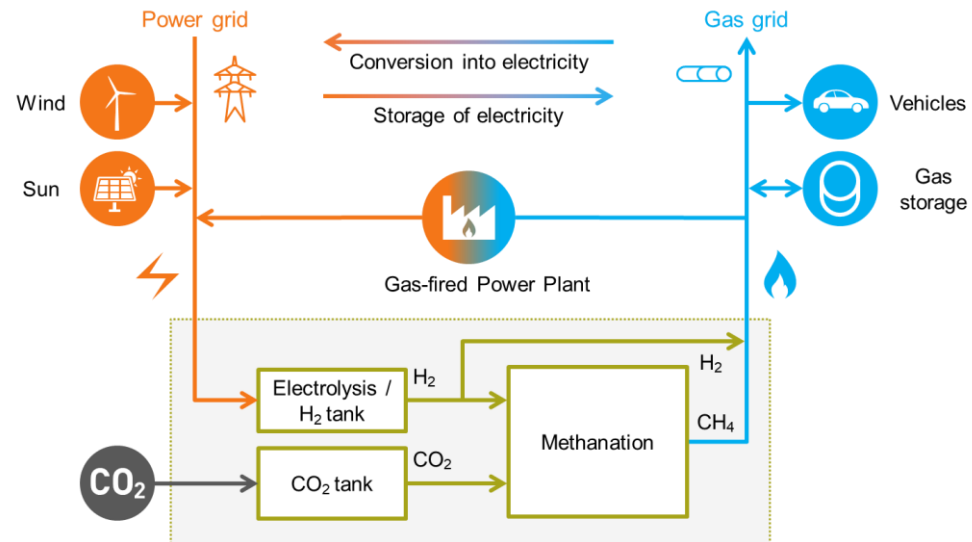
HYOFFWIND

Power-to-gas cluster meeting 18/09/2019

EXISTING PROJECTS AT FLUXYS

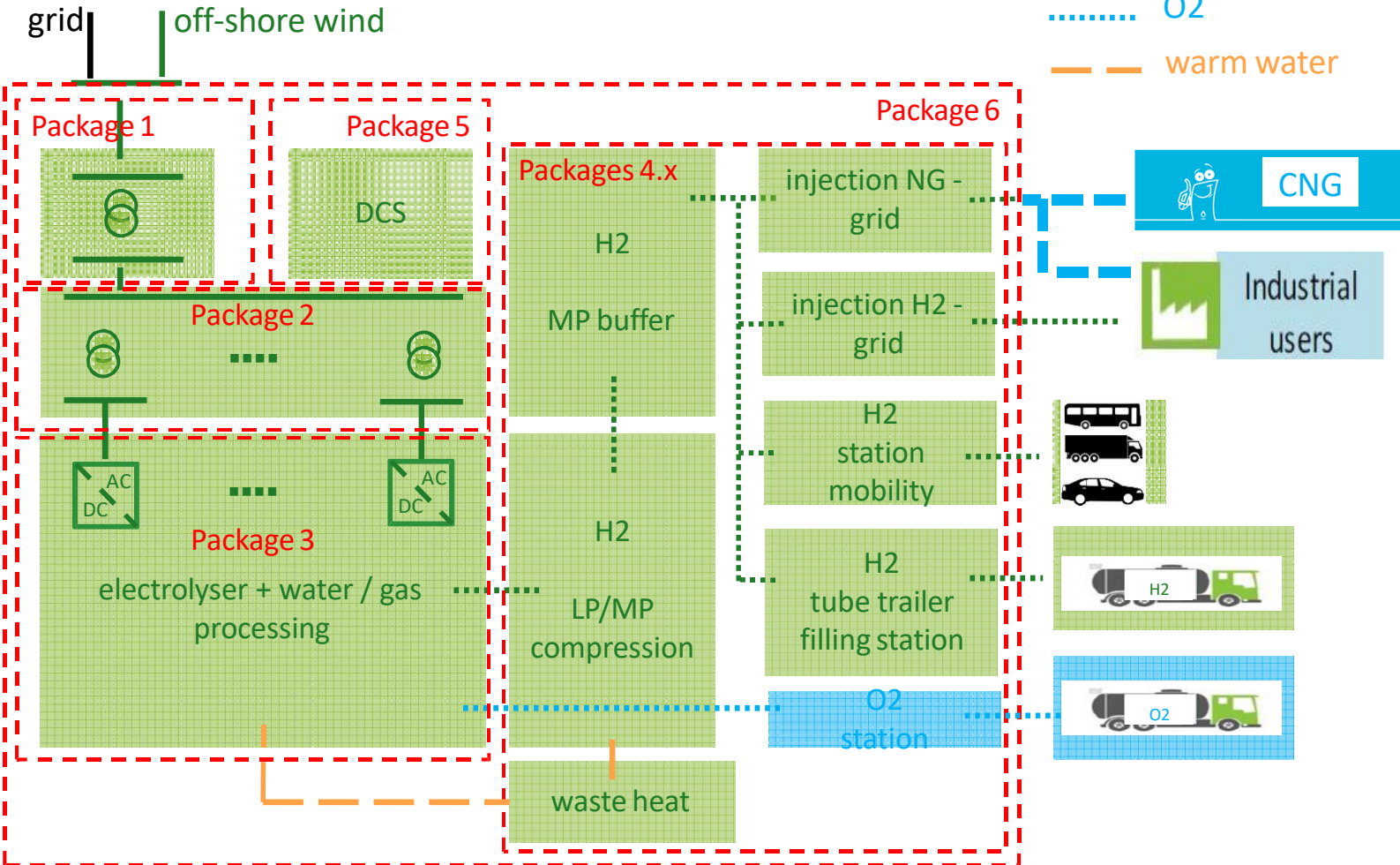
➤ HyOffWind: First large scale P2G installation in Belgium

- Collaboration between Fluxys, Parkwind and Eoly (Colruyt group)
- Outcome feasibility study expected in 2019
- Subsidies have been granted by the federal Fund for Energy Transition



Concept

PACKAGES, INTERFACES



LOCATION



**Zeebrugge area : throughput capacity of ~ 57 bcm/y
= over 12% of border capacity needed to supply Europe**



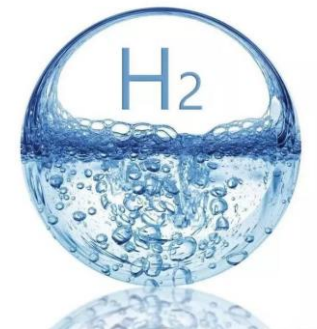
HYDROGEN INJECTION IN GAS GRID IS POSSIBLE, HOWEVER MULTIPLE CHALLENGES REMAIN

③ Injection in natural gas grid possible **up to 2%vol** without any impact

- Power-to-Gas could enable storage of intermittent renewable energy
- Gas grids represent the biggest batteries available today

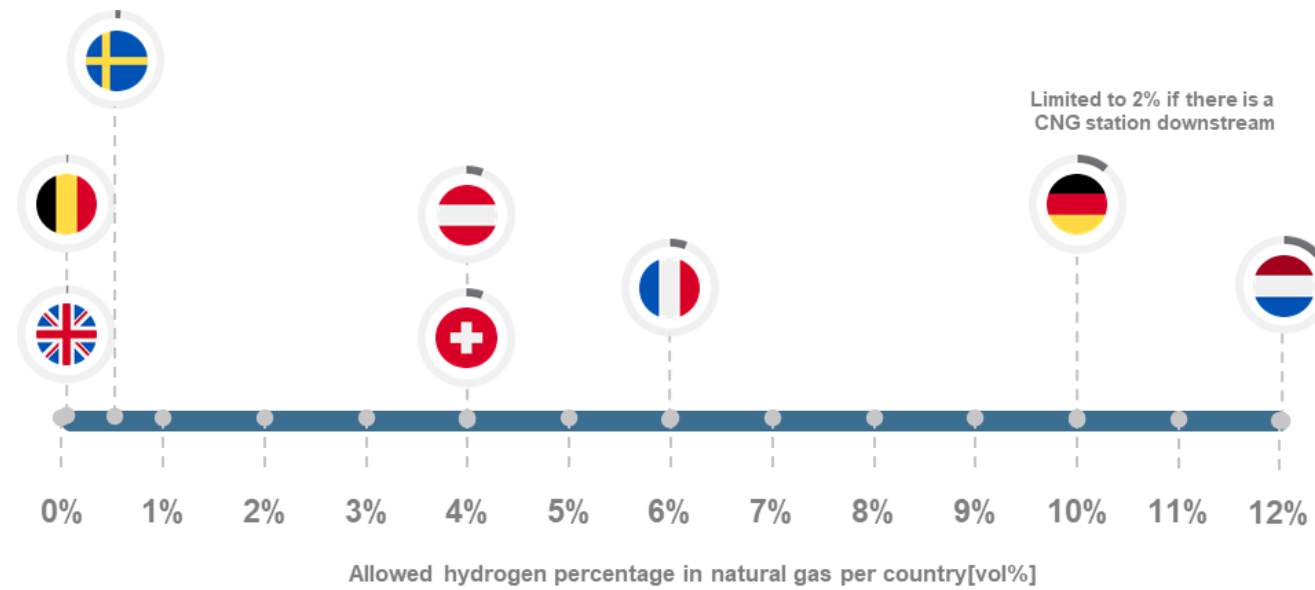
③ Larger volumes pose some challenges regarding

- Gas quality
- Existing infrastructure and end-users
- Gas grid operations
- Legislation

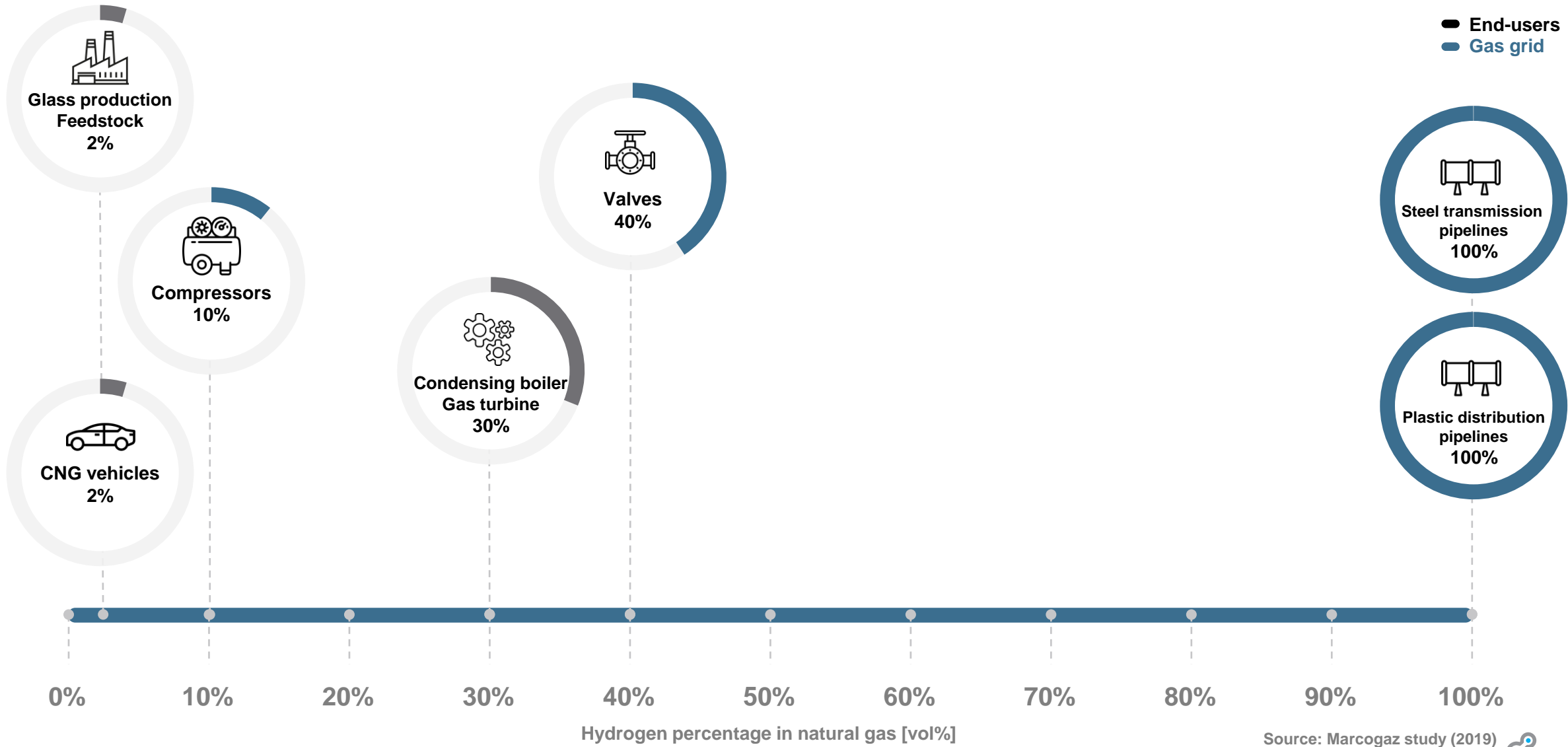


NEED FOR STANDARDIZATION IN EUROPE REGARDING HYDROGEN INJECTION

- Today 2%vol is largely accepted but not yet official
- Countries in Europe are not aligned, need for standardization to enable cross-border transport



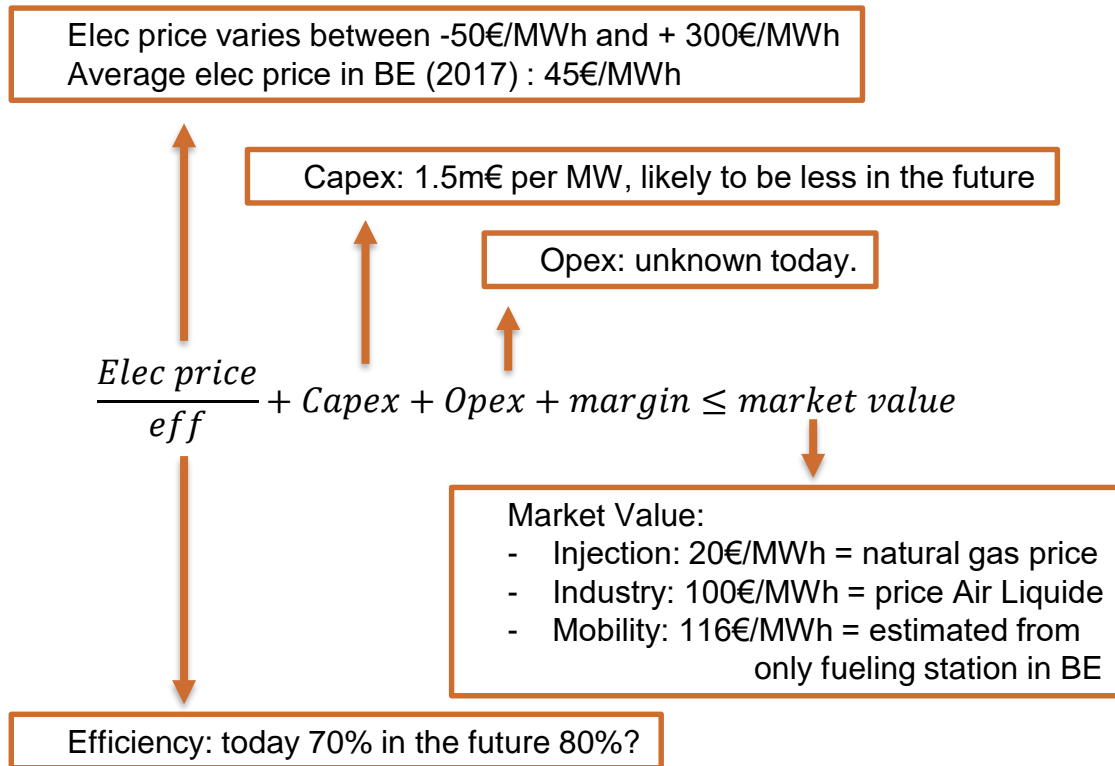
CHALLENGES FOR INFRASTRUCTURE AND END-USAGE



Source: Marcogaz study (2019)



Business case – the impossible equation



Need for

- Cheap electricity
- Lower investment cost
- Higher efficiency
- Market for green hydrogen

Without government incentives, Project will not be economical

IN A NUTSHELL

- ③ 25 MW electrolysis plant is technically feasible. Technology is ready although still expensive
- ③ Market for green hydrogen is not existing making the business case as good as impossible without additional revenues
- ③ Support scheme is necessary to develop power-to-gas

FLUXYS

