



Gas Markets in Transition in SE Europe

IENE Webinar 8 June 2021

Andreas Guth
Policy Director



Key takeaways

Gas enables a cost-effective energy transition

All gases and technologies are needed to meet net zero by 2050

Gas is key for the decarbonisation of every sector



Key takeaways

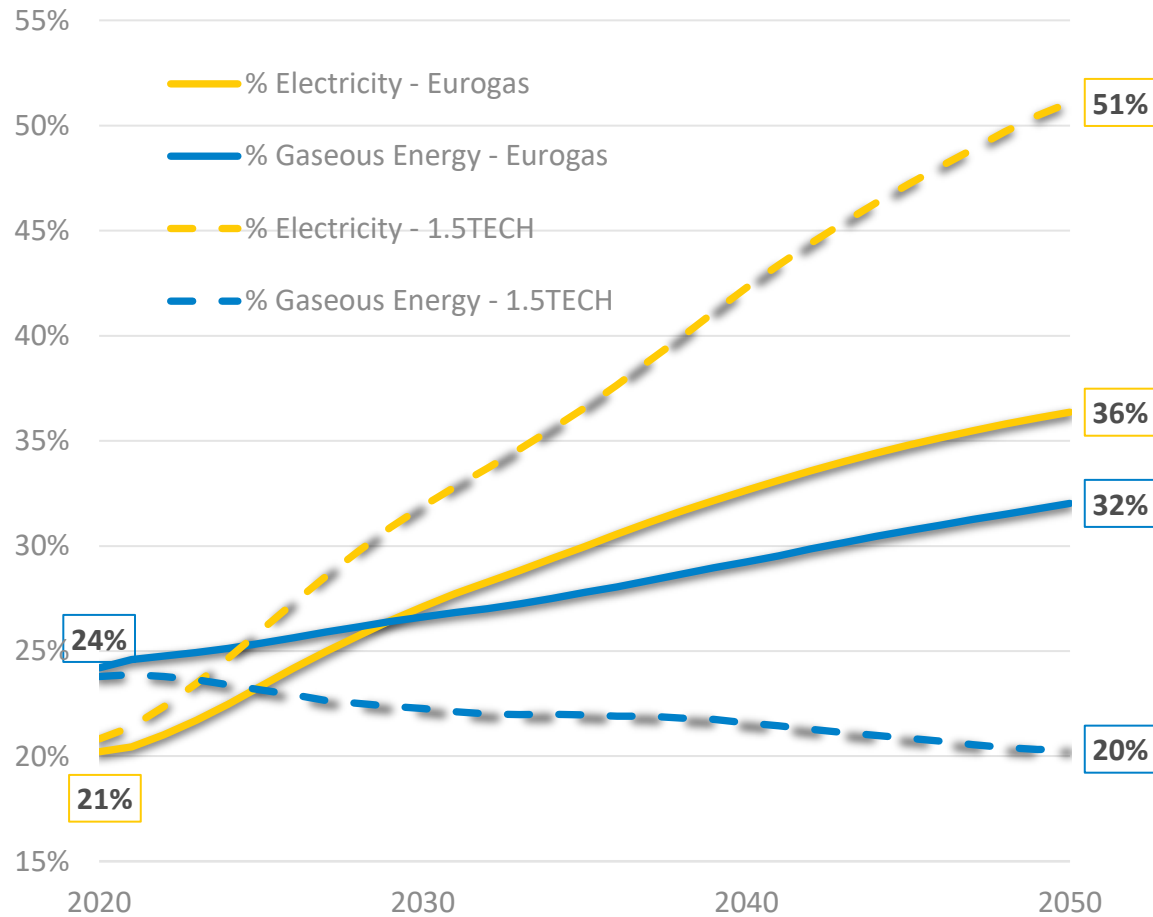
Gas enables a cost-effective energy transition

All gases and technologies are needed to meet net zero by 2050

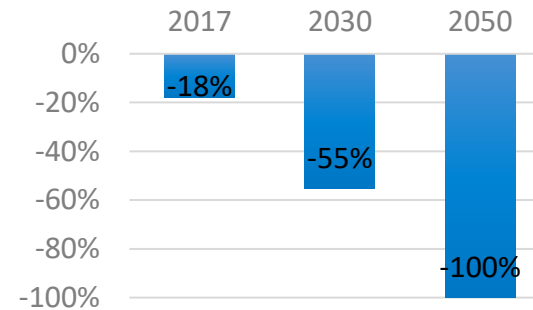
Gas is key for the decarbonisation of every sector

One objective. Two distinct pathways.

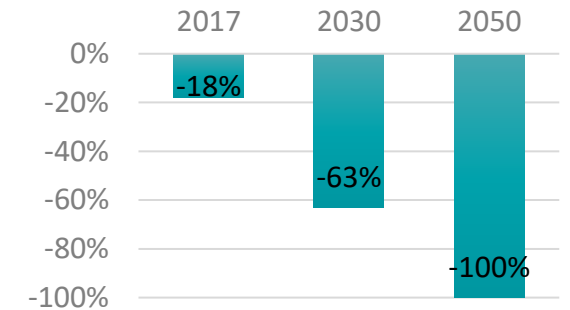
Share in final energy demand



CO₂ reduction - Eurogas



CO₂ reduction - 1.5TECH



Eurogas scenario delivers decarbonisation at lower cost

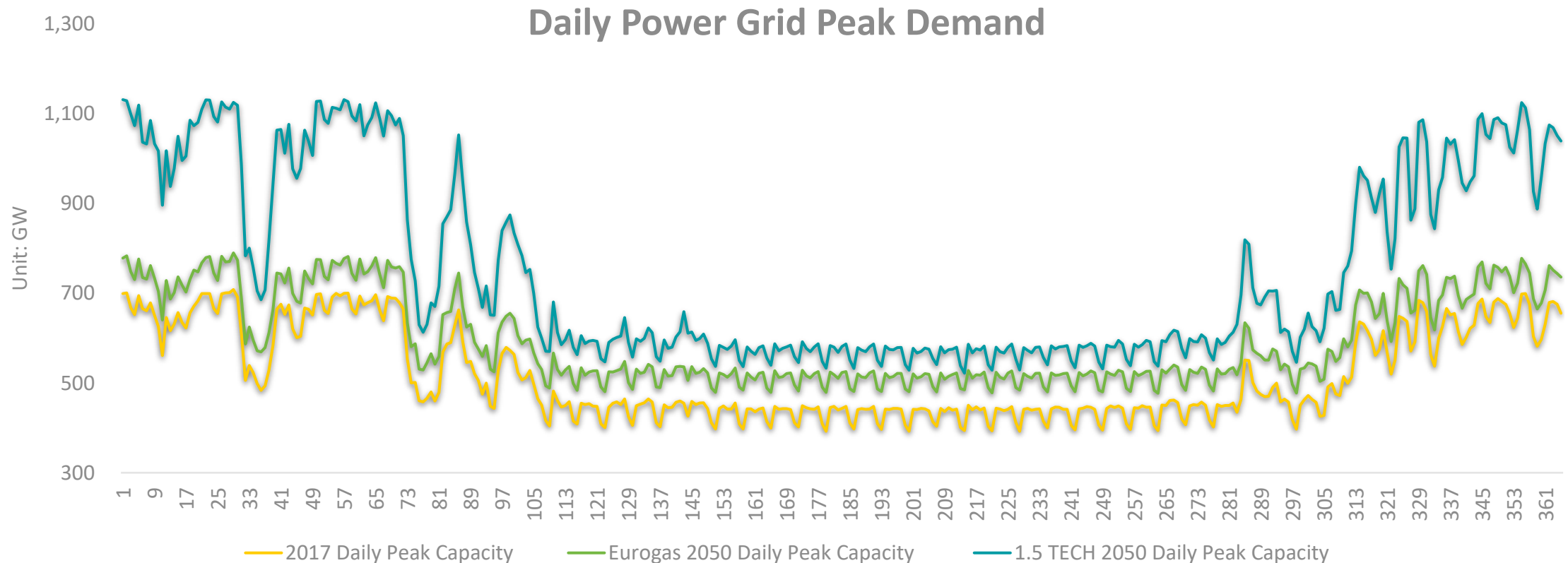
130 billion per year → 4.1 trillion by 2050

Lower risk in case renovation rates do not significantly increase

More efficient use of gas and electricity infrastructure

Electrifying heat drives peak power demand

Decarbonising heating with **gas saves €1.3 trillion** - otherwise needed to expand power networks that would be underutilised most of the time



1

Gas enables a cost-effective energy transition



Key takeaways

Gas enables a cost-effective energy transition

All gases and technologies are needed to meet net zero by 2050

Gas is key for the decarbonisation of every sector

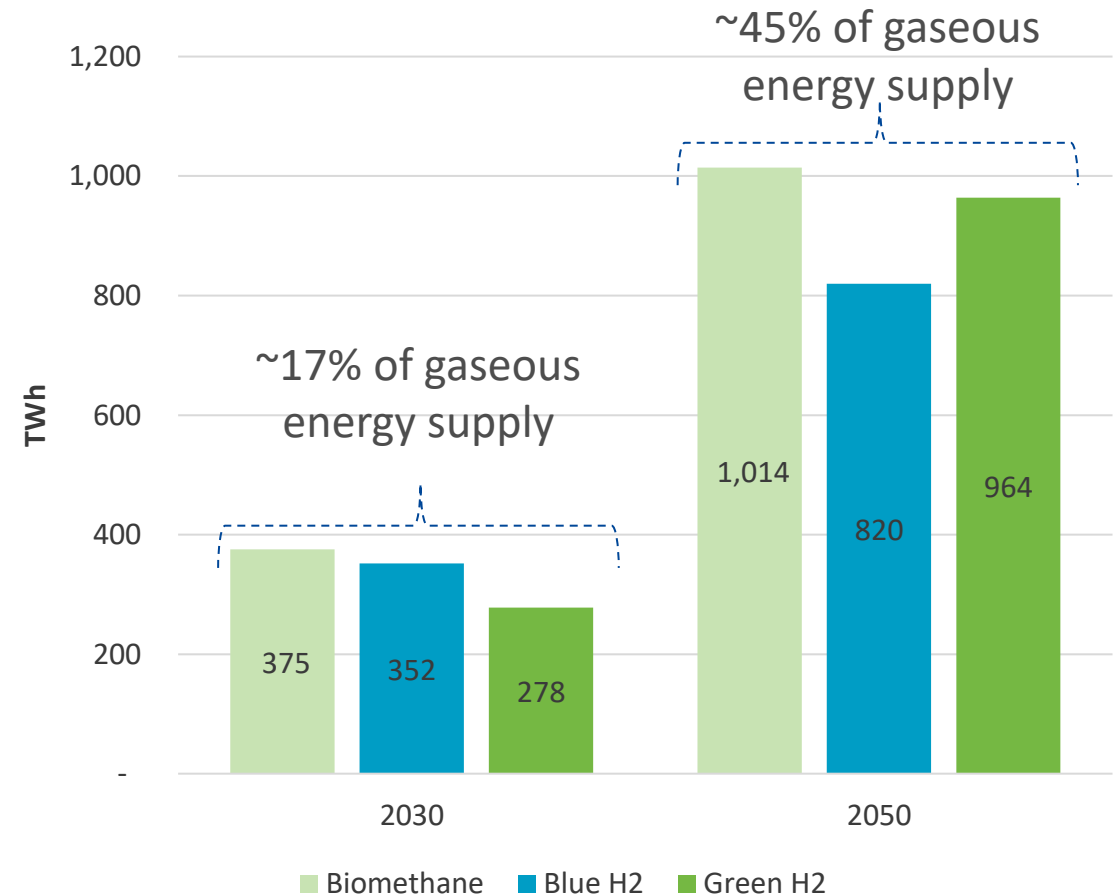
How much can we produce and what do we need to meet net zero?

Gaseous energy supply in 2050 in the Eurogas scenario increases by 18% over 2017 levels natural gas supply declines by 35%

Both scenarios show an important role for hydrogen from reformed natural gas as an early driver to provide scale by 2030

The share of hydrogen from electrolysis overtakes hydrogen from reformed natural gas by 2050

Eurogas projection for renewable and low-carbon gas supply potential



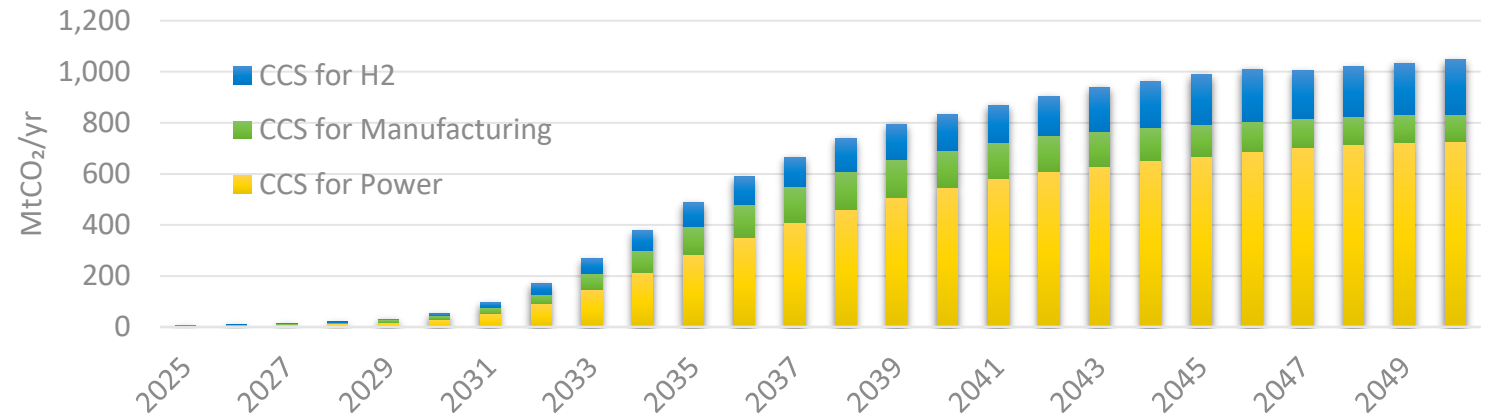
Whatever the scenario we choose. CCS is not an option. It is a necessity.

Both scenarios rely on CCS, especially to decarbonize the power and manufacturing sector to fully decarbonise gas consumption

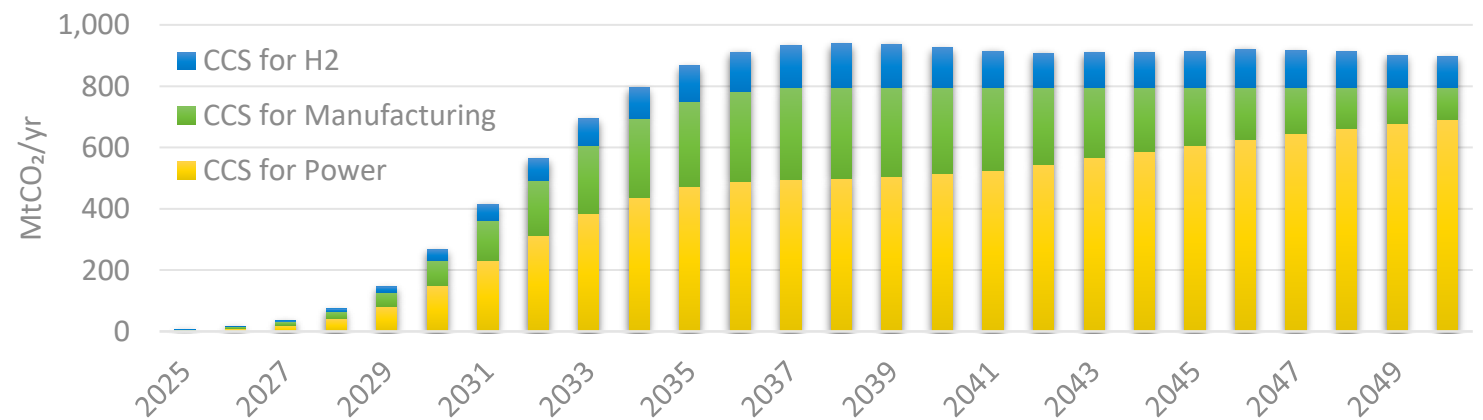
Eurogas decarbonizes the energy system with **15% lower cumulative CCS** deployment towards 2050 than 1.5TECH

Both scenario's use **11%-13% of available storage capacity**, and have 114-130 years of storage left in 2050

CCS uptake Eurogas scenario



CCS uptake 1.5TECH scenario



2

All gases and technologies are needed to meet net zero by 2050



Key takeaways

Gas enables a cost-effective energy transition

All gases and technologies are needed to meet net zero by 2050

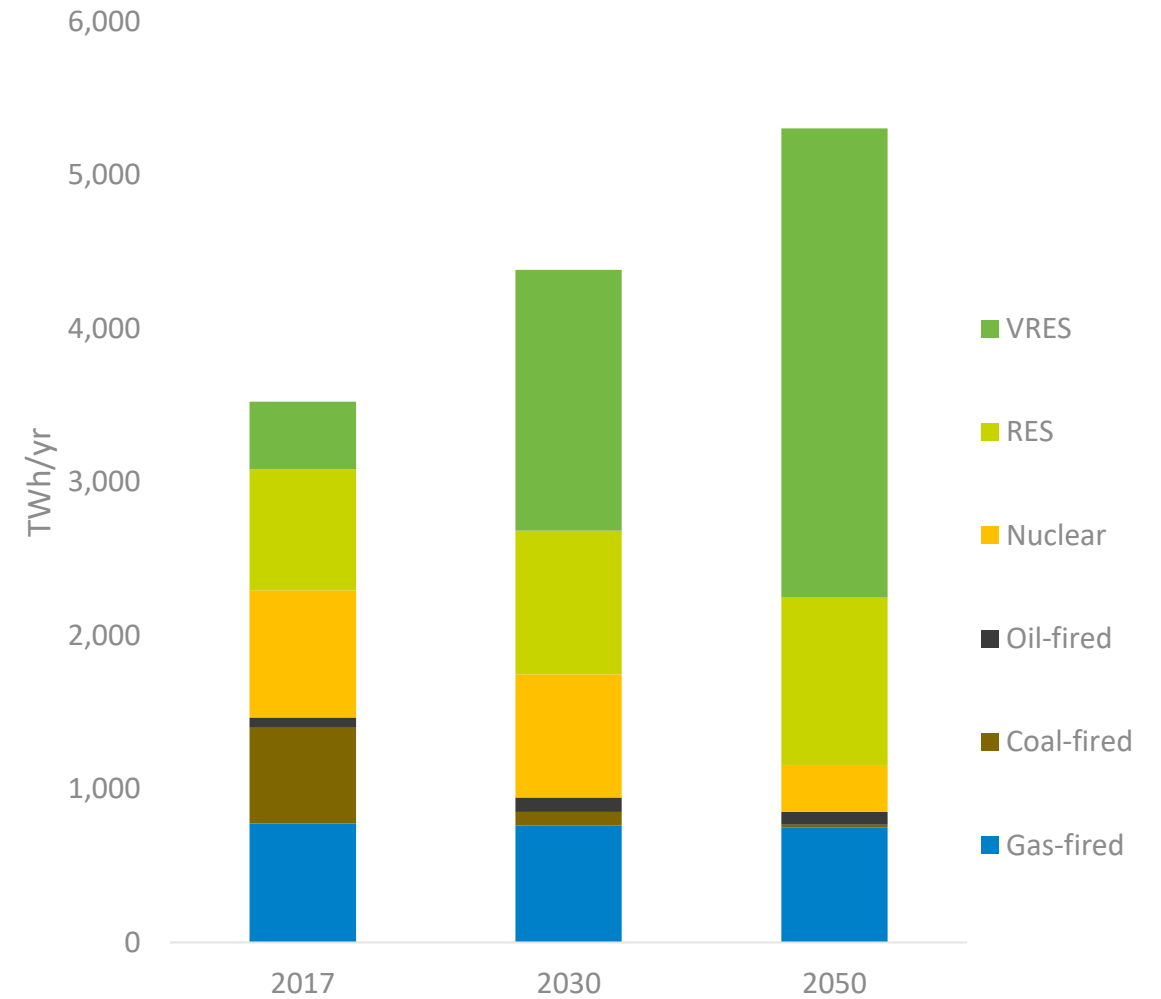
Gas is key for the decarbonisation of every sector

Gas provides system flexibility, back up and security of supply

Massive expansion of variable renewable electricity generation needed to meet EU climate targets

The more you electrify end uses, the bigger the challenge to deploy and integrate variable renewable power

Electricity generation by power station type

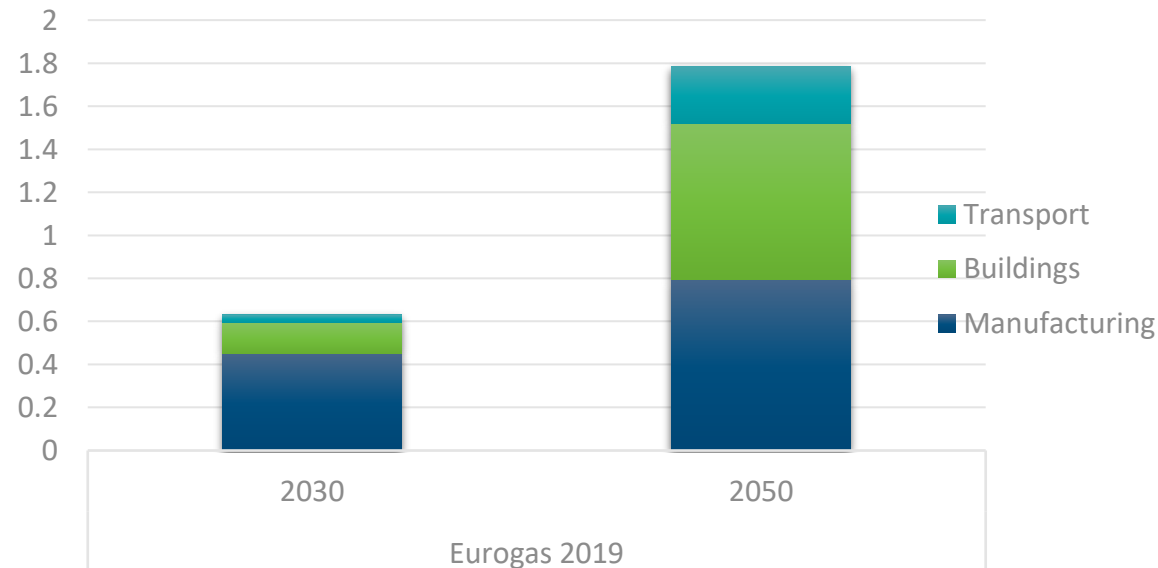


What are the end-uses for hydrogen?

Manufacturing leads dedicated hydrogen uptake until 2030 and together with the **heating sector** are the main demand centers towards 2050

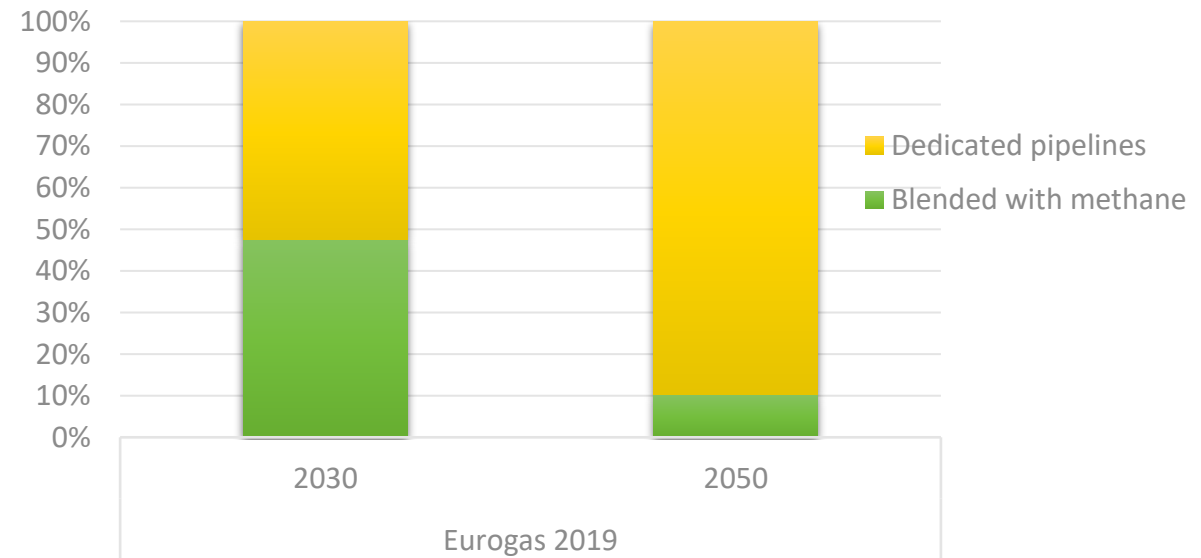
Hydrogen demand by sector

Units: PWh/yr



Blending hydrogen into the existing gas network is a **market development** tool but pure hydrogen eventually takes over

Hydrogen supply - blended or dedicated?



3

Gas is key for the
decarbonisation of every
sector



Andreas Guth
Policy Director

www.linkedin.com/in/andreasguth

andreas.guth@eurogas.org



Rue d'Arlon 80
1040 - Brussels



+32 2 894 48 48



www.eurogas.org



@Eurogas_Eu

