# 26. Podzimní plynárenská conference - Strategická role plynů
# 26th Autumn Gas Conference - *The strategic role of gas*

## The Role of Gas after 2030
## (and what are we doing about it?)

**12 November 2019, Clarion Congress Hotel Prague**
**Barbara Jinks, Director Govt Relations, GIE**

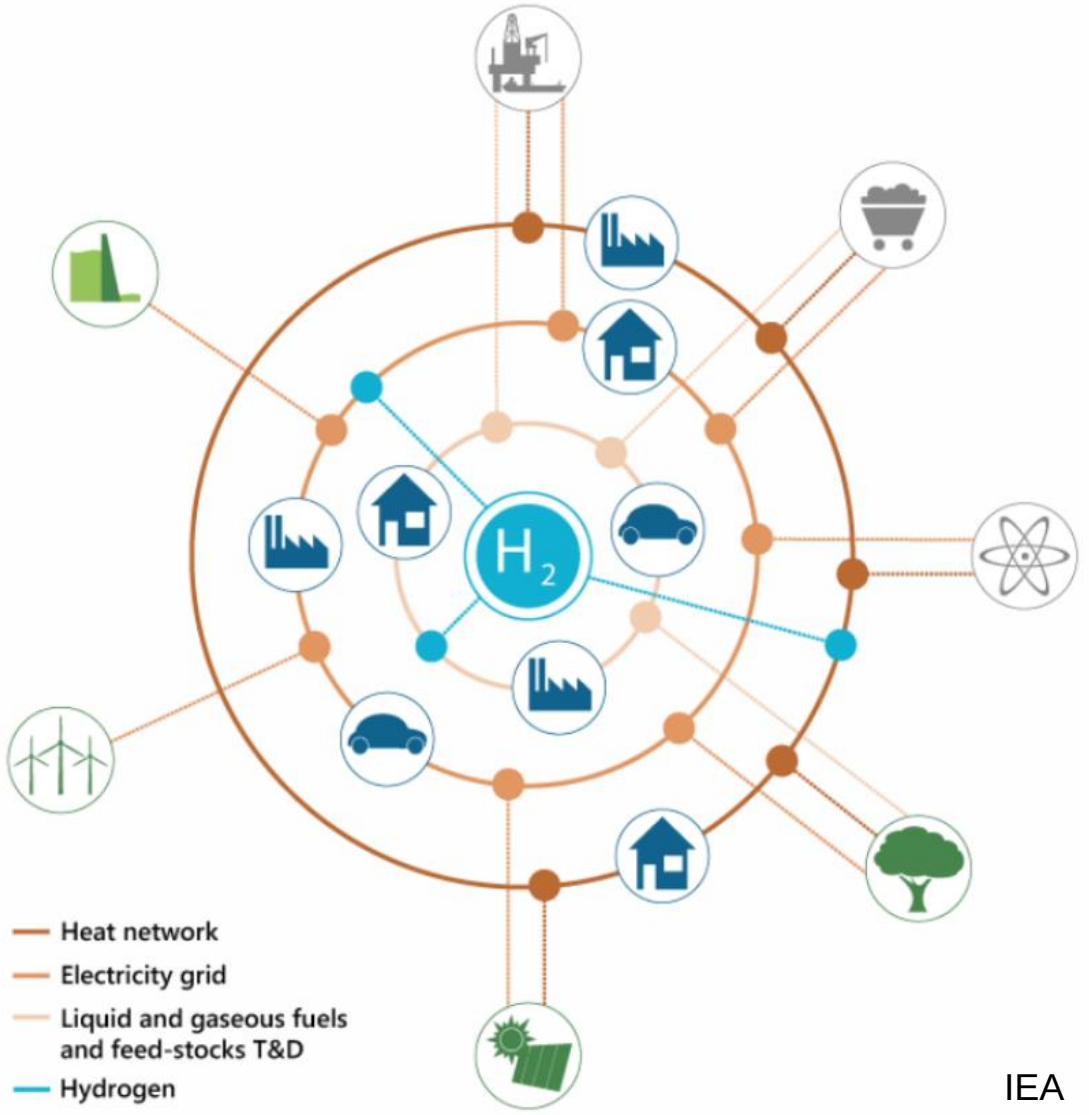
# Introduction

**Key issues**

1. New EP and EC (nearly) – uncertainties
2. Strong opposition to fossil gas
   - Increasingly emotional debate about energy
3. Gas industry needs to show value
   - under Energy Union pillars of sustainability, security & competitiveness

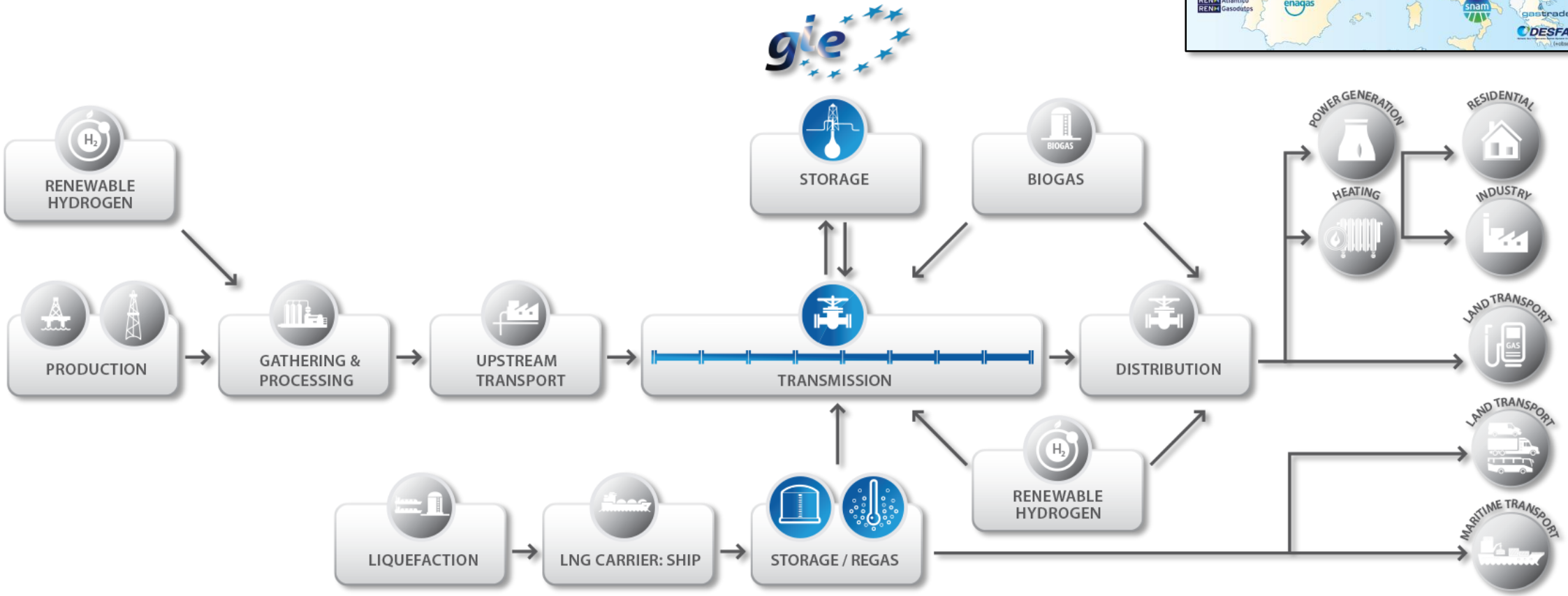
**Agenda**

1. Update on decarbonisation package 2020
   - *what EC is doing about it*
2. Scenarios for gas post-2030
   - *what others think will happen*
3. GIE focus areas and policy asks
   - *what are we doing about it*




IEA

# GIE - essential mid-stream gas infrastructure

# EU pathway to meeting Paris Targets - activities since 2018 CGA conference

2007 *EU Climate Target* - reduce GHG 20% by 2020
2015 Energy Union - security, sustainability, competitiveness

2016
- Paris Targets for 2030
  - reduce GHG 40%
  - Increase energy efficiency by 32.5%
  - Increase renewables to 32%
- *Gas Package 2020* regulatory reform - 3 pillars

2018
- Jun Madrid Forum - 8 new tasks
- **Nov *Clean Planet for All***
- **Dec *Clean Energy Package* revisions**
- **Dec NECPs 2021-30**

**2019**
- **Sep New Parliament**
- **In progress – new Commission**

Gas Package 2020

**Role of Gas Infrastructure in Energy Transition**
- **FRoG – CEER study**
- **Gas Infra 2050 – EC study**
- **Sector coupling – EC study**
- **Mid-century – EC study**
- **Sustainable finance – EP/EC report**

**Clean Energy package "Mirroring"**
- **ACER regulation**
- **Electricity regulation**
- **Electricity directive**

**Gas Market Design**
- **Quo Vadis – EC study**
- **Gas Target Model - rediscussed**

**Strengthening function of the market, Madrid Forum issued tasks 2018/19**

1. **GIE/Marcogaz** methane emissions
2. **GIE/GSE** value of gas storage
3. IFIEC cross-sector flexibility market
4. ENTSOG/E potential interlink, TYNDP gas/elec
5. CEER decommissioning gas infra/regulated v contestable roles
6. IOGP potential of CCS/CCU
7. Eurogas updated glossary
8. CEN gas quality standardisation

**Strategy for Long-Term Emissions Reductions**
- **Public consultations 2018**
- **10 Aug submission**
- **9 Oct questionnaire**
- **28 Nov draft strategy due**
- **Presented at COP24**
- **Final strategy due 2019**

# Decarbonisation package 2020 – a bundle of legislative amendments

***Green Deal***

- Deliver first *EU Climate Law* for carbon neutrality
- Instil a *climate culture* in Europe
- Higher emission cuts - 50% by 2030 (& lead int'l 55%)
- Commence *Just Transition Fund* in 1Q20
- 2030 strategies for Biodiversity and Zero Pollution
- Border carbon tax

**Now**

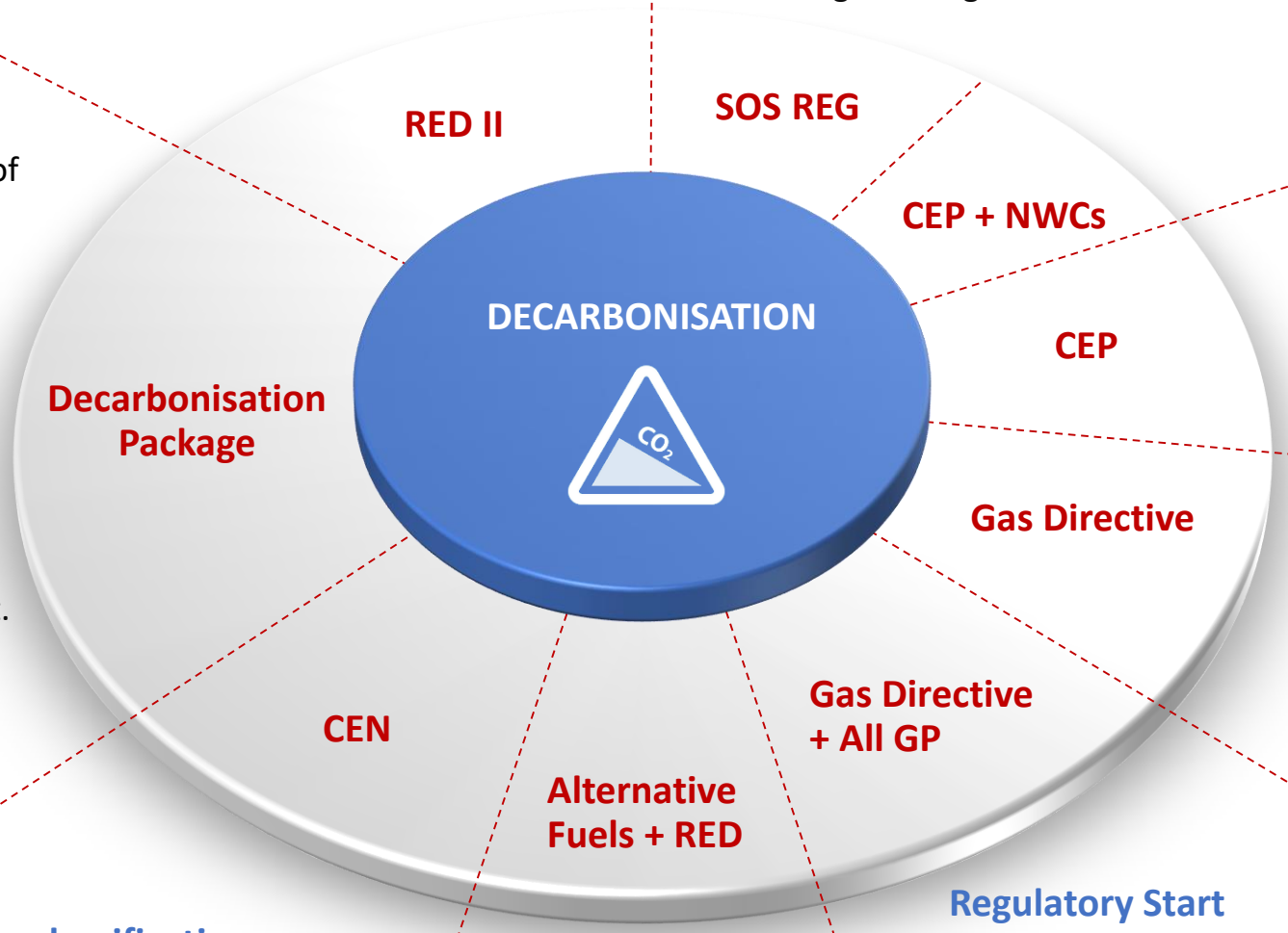
- 2018 and 2019 studies ongoing
- Await new EC and *Green Deal* (100 days after)
- New EC tasks
- Await *Decarbonisation Package 2020* (replace GP2020)
- €592 Bn allocated to decarbonisation

**Impact assessment studies 2018/19**

1. Sector coupling
2. LNG market
3. Capacity & Commodity release
4. Non-harmonised tariffs
5. Methane leakage
6. Barriers to entry
7. Tailor-made regulation
8. Biogas & H2 impact

***"The Green Deal represents an unprecedented opportunity for Europe to move away from fragmented policymaking."***

*EC President, Ursula von der Leyens*




### Defines hydrogen from REN elec as grey

Goal: REN hydrogen from REN elec

Need: MS implementation and possible amendment

### Gas storages not remunerated for their system value

Goal: Recognition & renumeration for system value

Need: possible amendments for gas/elec (balancing?) and flex demand re gas storage

### Gas quality solutions

Goal: Cheapest tech solutions.

Need: Socio-economic analyses used to guide implementation of new technologies.

### Digitalisation

Goal: End-user interface.

Need: Higher system efficiency.

### Technology-neutral R&D

Goal: Major R&D investment.

Need: Options for infra owners to invest in R&D. Transparency in findings. Funding to kick start.

### Gas imports

Currently Norway, Russia, N Africa LNG.

Goal: Maintain core import options thru existing infra.

### P2G associated with power sector

Goal: Develop concept for P2G that matches the "flexible demand" in CEP

Need: "interruptible system service" & tariffs in power system

### Biomethane and hydrogen

Goal: all green gases included as "general" gases and ruled under access conditions

### Island networks

Goal: include island networks in overall market model

### P2G

Goal: P2G concept matches "flexible demand" in CEP

### Gas quality classifications

Goal: New stds to allow biomethane & hydrogen blend. Incl fast tech devts.

Need: Flexibility.

### LNG / LBG

Goal: LNG/CNG intro in AF and RED for blending. Grey/blue/green gases allow GHG reductions.

### Regulatory Start

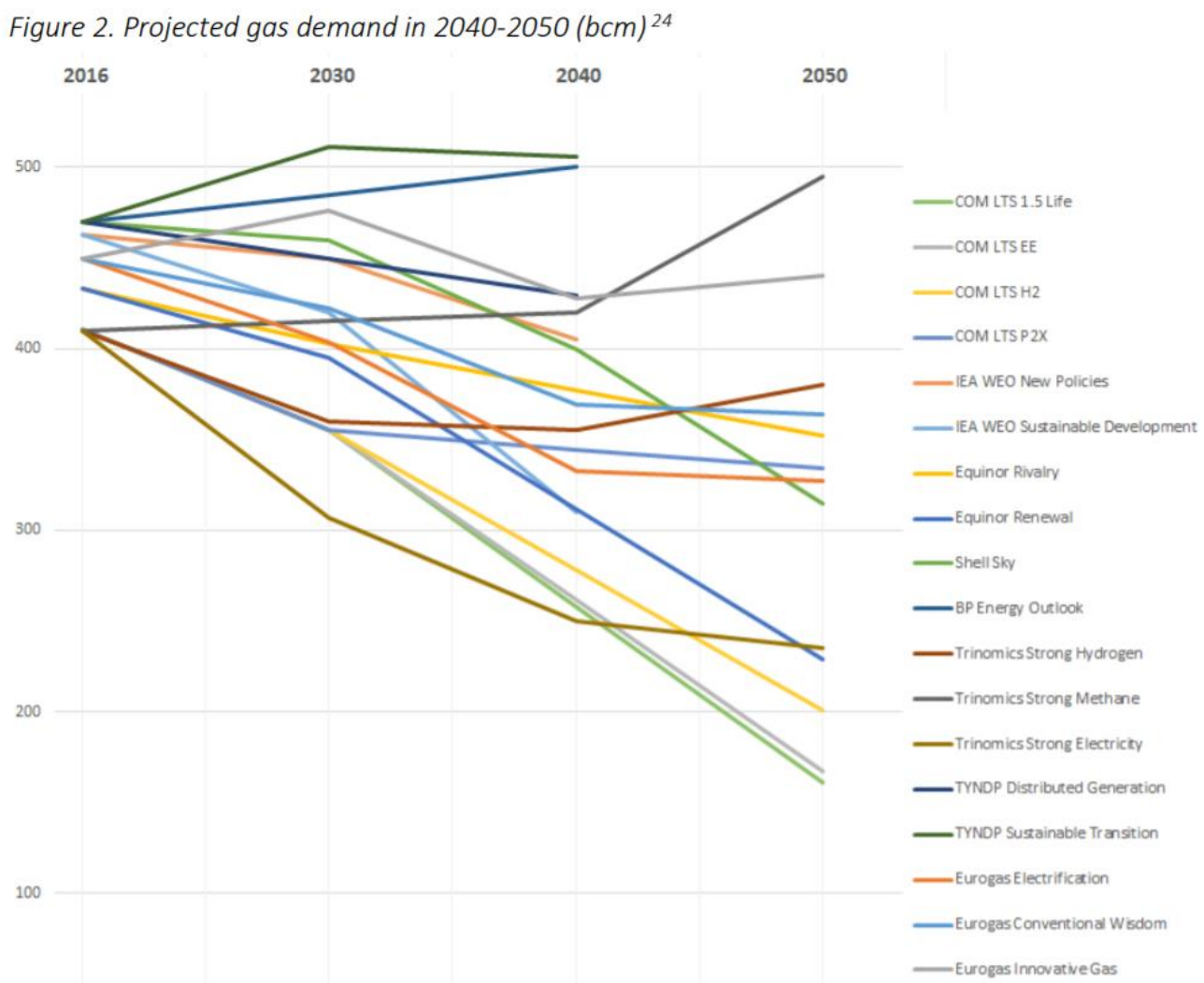
Goal: Decarb not equal to liberalisation

Need: review some concepts eg unbundling

### Regulatory flexibility

Goal: Reg flexibility, allow later EC/ACER iterations

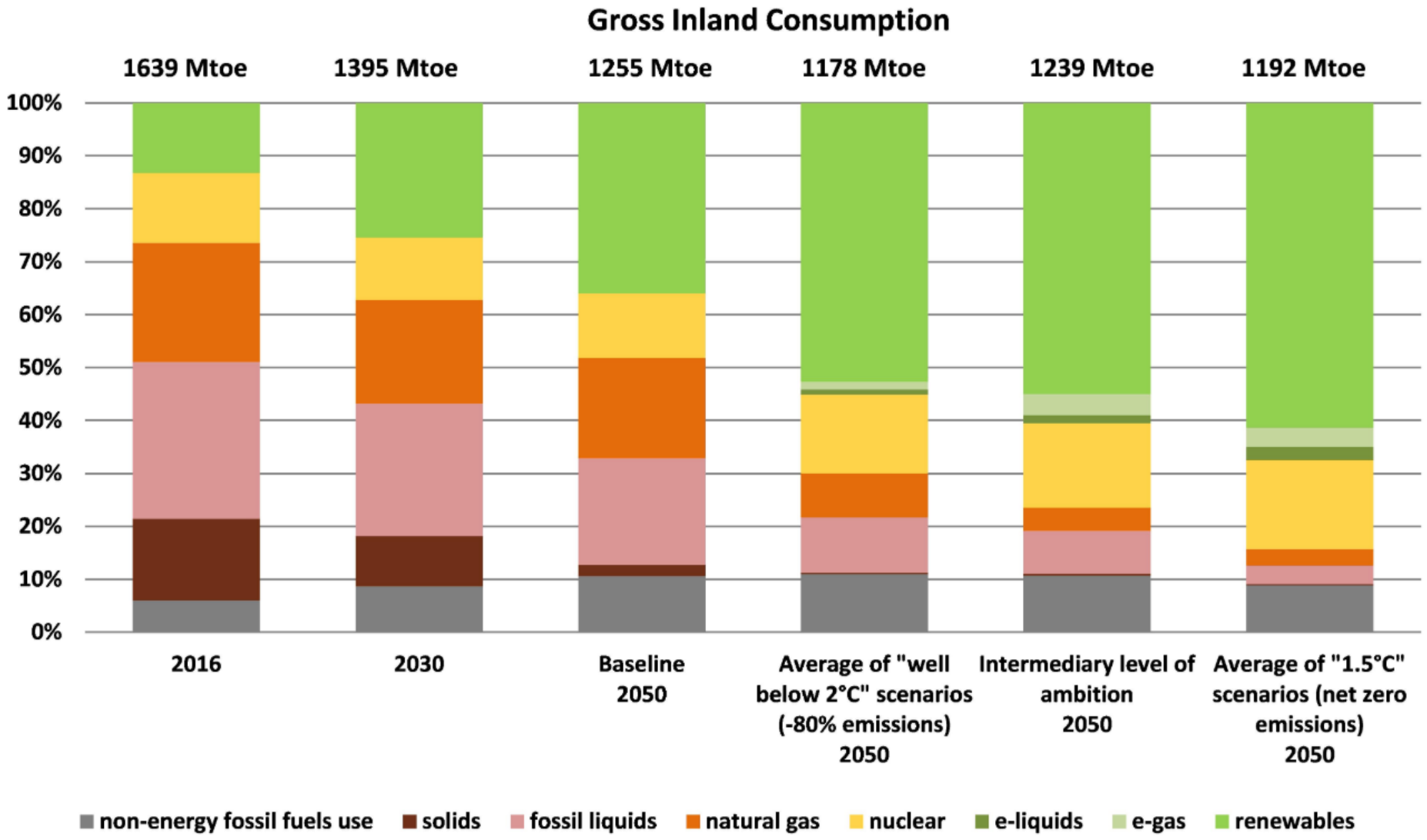
# Survey of scenarios for gas 2040-2050




**CEPS** Aug 2019 using info from:

- BP (2019)
- EC (2018)
- IEA (2018)
- ENTSOG TYNDP (2018)
- Trinomics (2018)
- Shell (2018)
- Equinor (2018)
- Eurogas (2018)

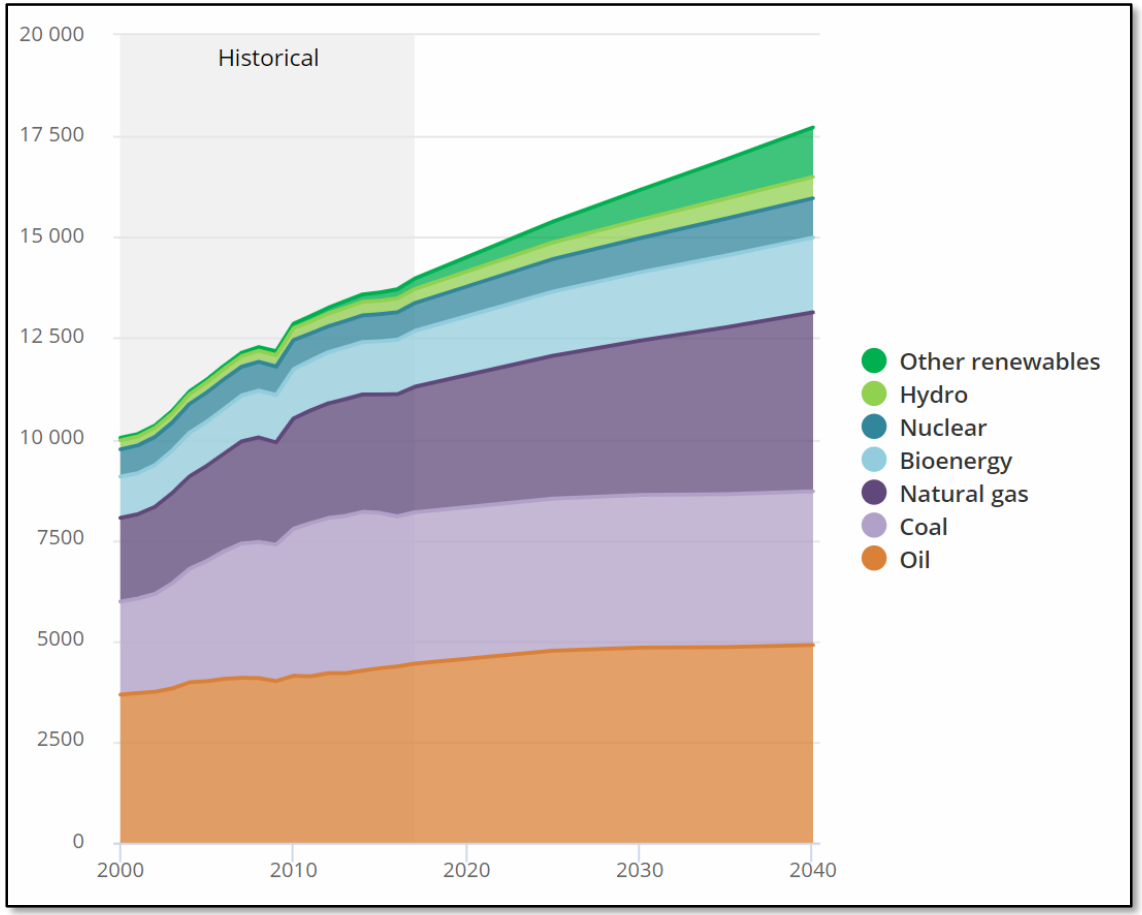
# EC scenarios for gas after 2030
# - *Clean Planet for All* Strategy

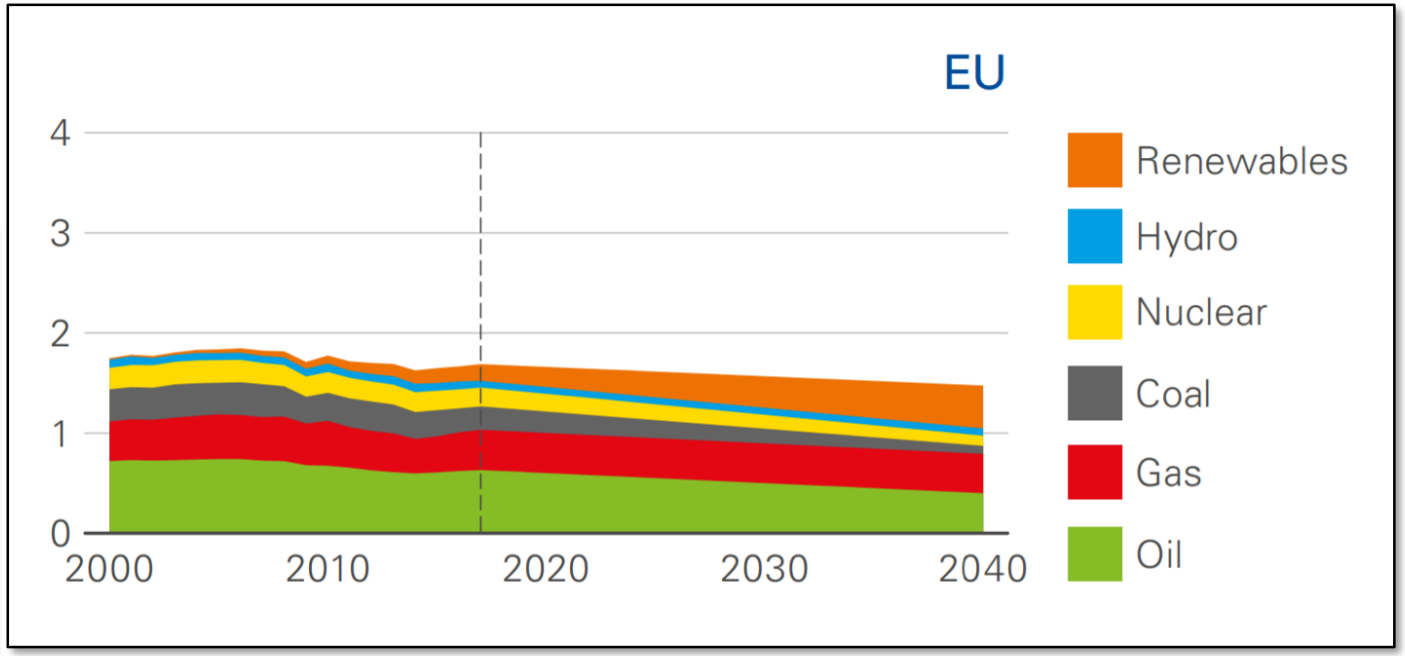



***"We are convinced that natural gas will play an important role"***
*Ermacora Sep 2019*

***"First assessments show we need to double the share of electricity in energy consumption by 2050"***
*Juul-Jurgensen Nov 2019*

# Scenarios for gas in 2040




**BP** Energy Outlook 2019

**IEA** WEO, 2018

# What are we doing about it?
# - vision for role of gases in EU after 2030

*"Affordable decarbonisation cannot be achieved without using the gas infrastructure"*
GIE Vision 2050

- **Security of supply**
- **Affordability**
- **Grid balancing**
- **Ability for gas to be greened**
- Storage of energy (insurance)
- Flexibility and balancing the grid
- LNG replaces HSFO (competition with scrubbers)
- Application for trains, heavy-duty vehicles
- Most efficient in some energy transportation and usea
- Minimal disturbance to people and land use
- Minimal disruption to gas customers
- Delivers to processes that cannot decarbonise

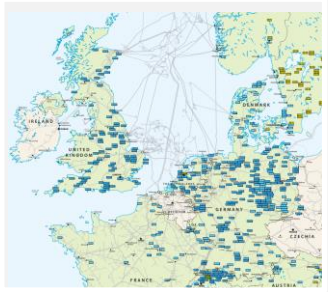
**Influence with facts, vision and projects on the ground**

3 infrastructure
integration
innovation
*delivering energy into the future*

# GIE members create many voluntary solutions for the entire EU energy sector

## Transmission (TSO)

**TSO work on organisations:**
analyses, systems, …



+ **Market Coupling**

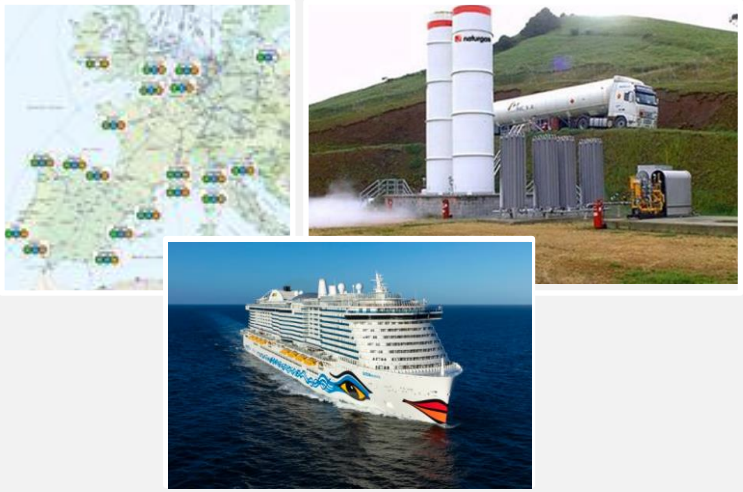
EE + LT + FI | LU + BE | DK + SE

## Storage (SSO)

**SSO work on data:**
transparency, projects, …


## LNG (LSO)

**LSO work on data:**
transparency, mobility, …



# Study on potential of renewable gases and integrated energy solutions for competitive energy market

*Gas For Climate study* ***March 2019***

Integrated energy system can be fully renewable and save €217 Bn pa

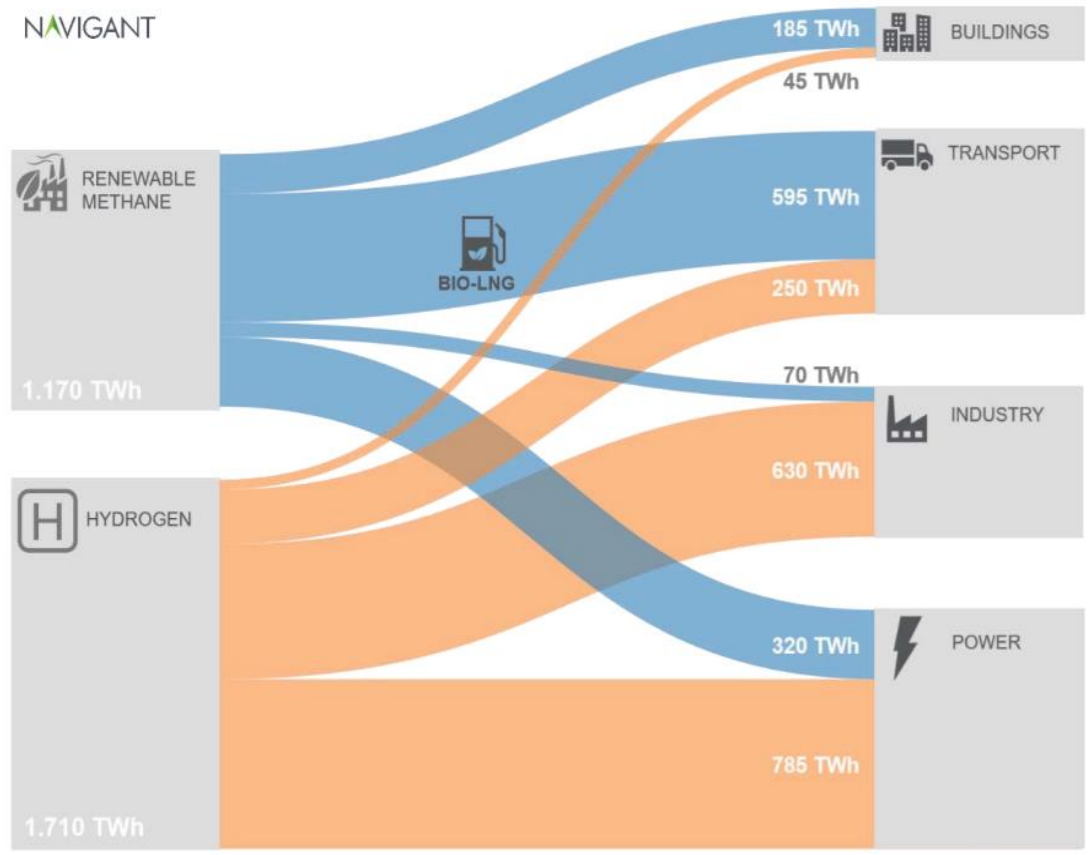
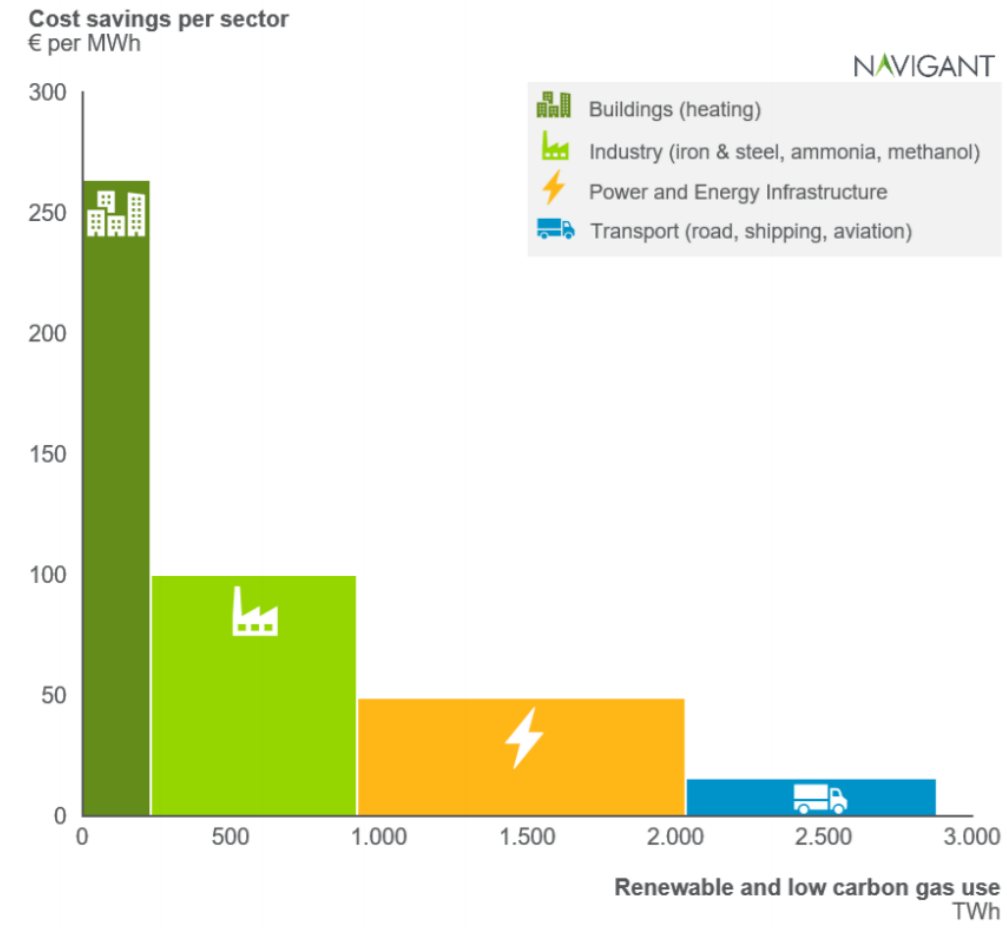



**Figure 4** Renewable and low-carbon gas supply and demand in the "optimised gas" scenario



# Hydrogen uptake in gas chain is technically feasible

Major elements in TSO, DSO, residential appliances – 10% moving to **20%**.

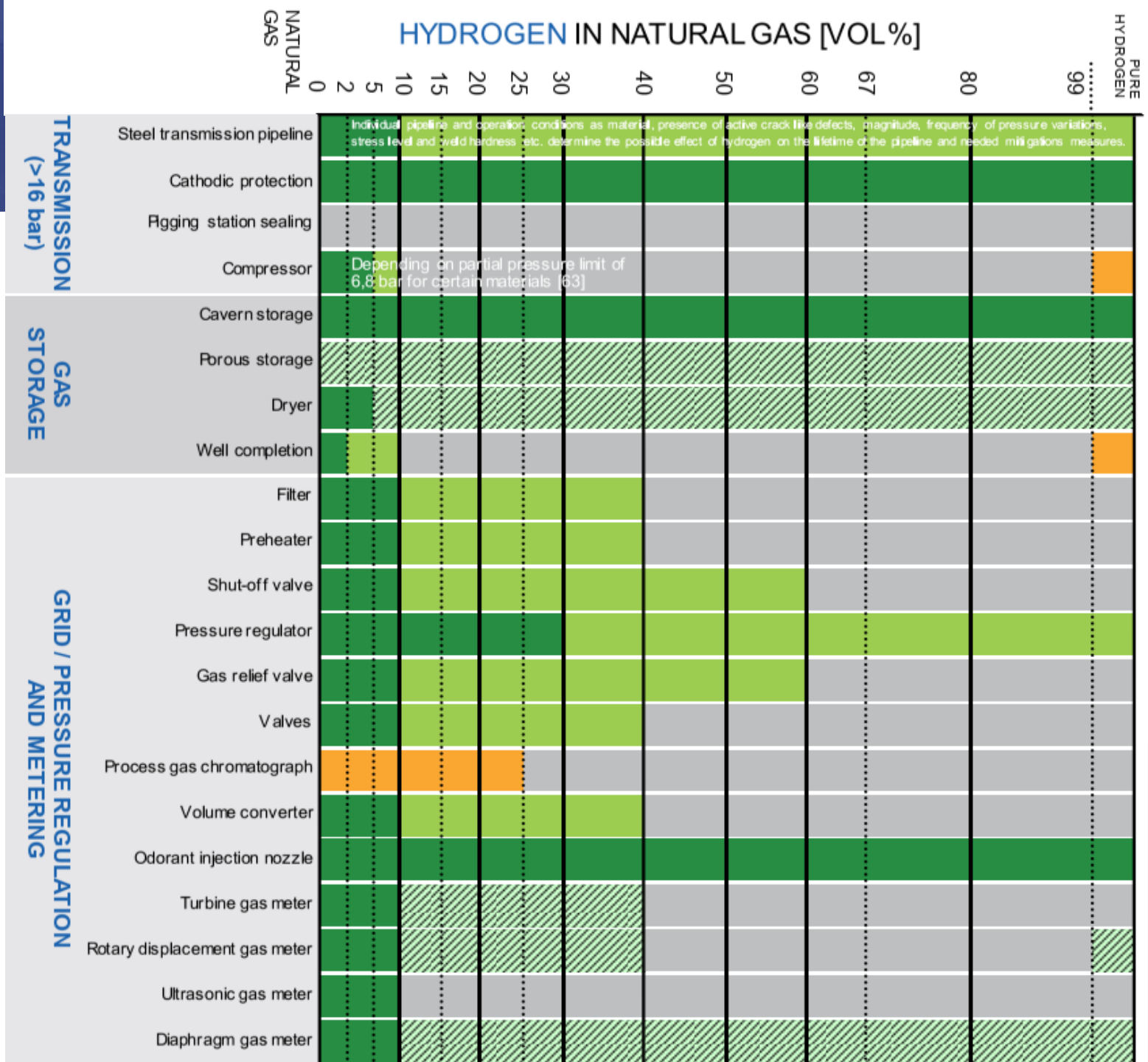
Many industrial processes expected to accept **5%** without modification.

Higher concentrations feasible with R&D/replacement.

Max allowable in EU is 10% in Germany, moving to **20%**.

Many projects in EU incl:

- EoN (Germany) full-scale tests with **20%** for 500 dwellings
- H21 (UK), **100%** in Leeds city




Source: Marcogaz 2019

# Conclusions

**Uncertainties with new EP and EC**

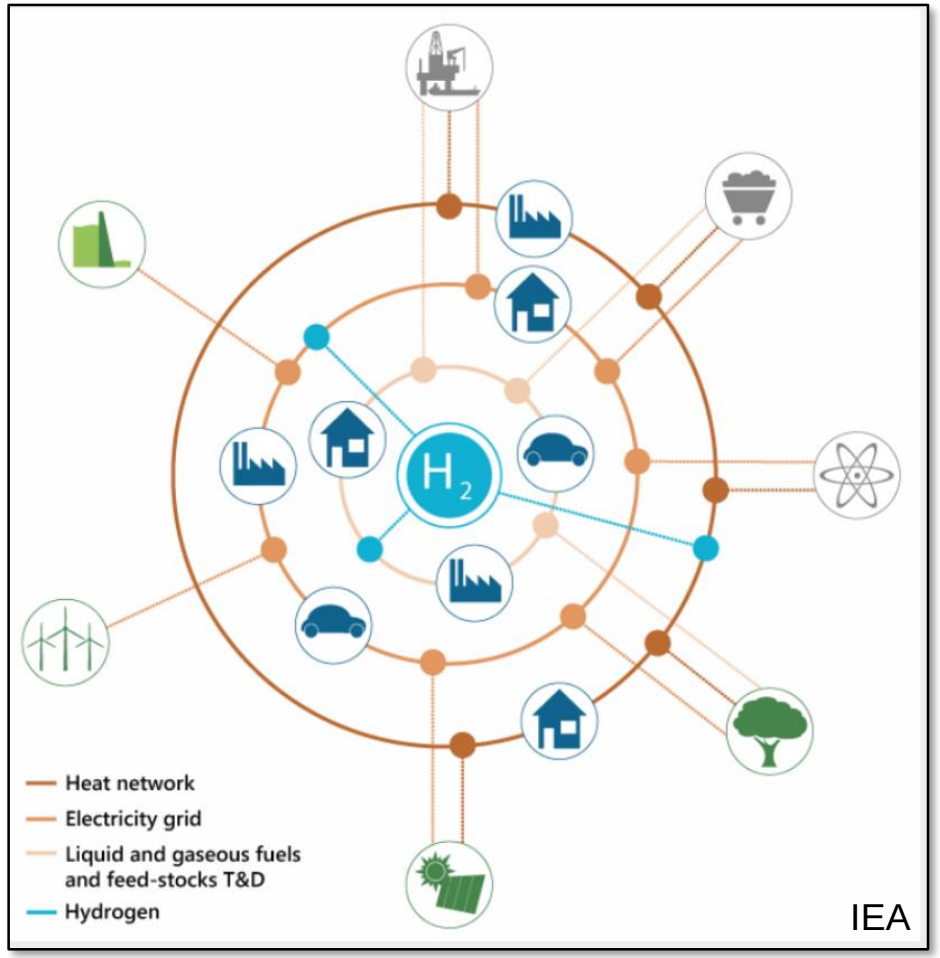
Green Deal likely put more pressure on decarb

**Strong opposition to fossil gas**

Debate is very emotional

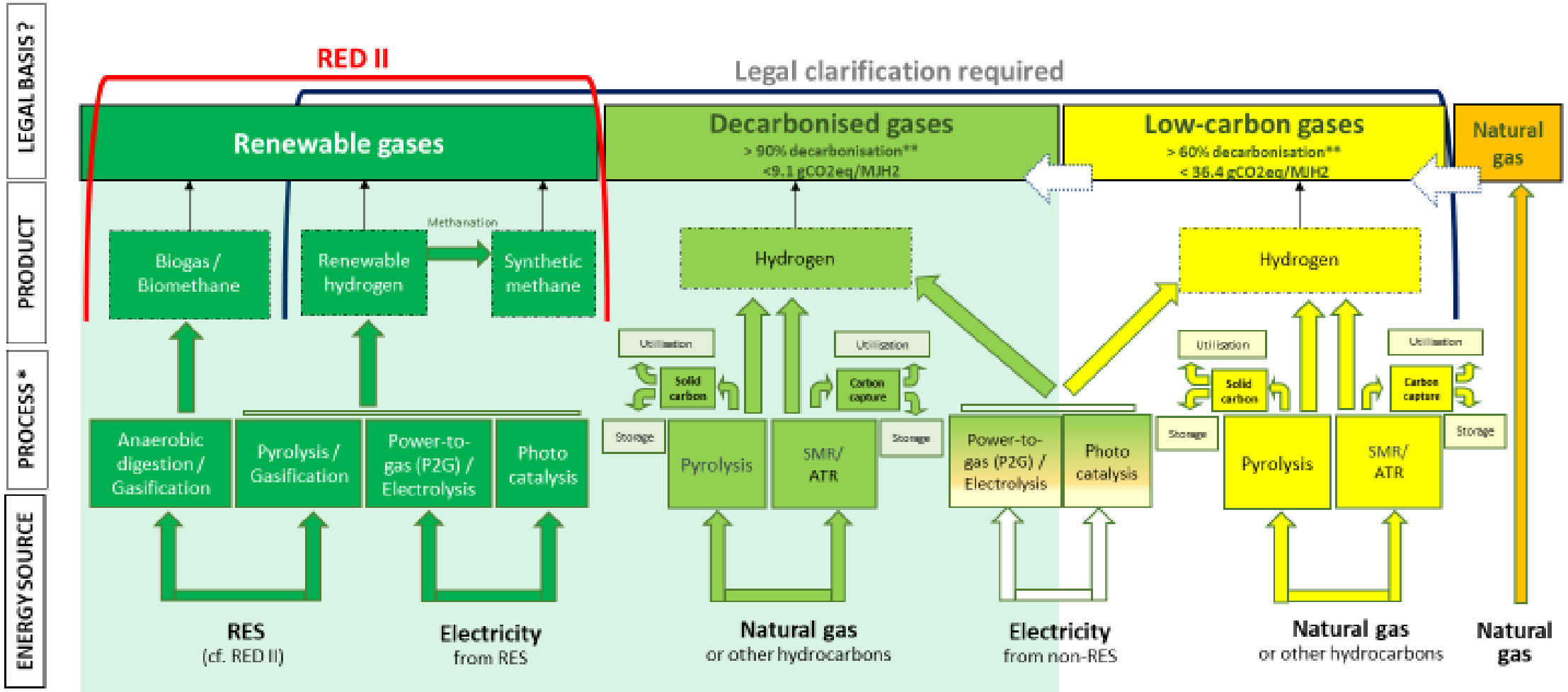
**Gas industry needs fact-based advocacy**

Show value under pillars of sustainability, security & competitiveness



# Thank you

# Need for New Terminology




Disclaimer:

* This overview is based on existing processes and known technologies and evidently does not preclude any other existing process or new technological developments.

** The GHG reduction is calculated on the BAT 91 gCO2/MJH2 derived from CertifHy and could be replaced by a comparable threshold pending confirmation of the methodological basis for CertifHy.