

**25th world gas conference**  
“Gas: Sustaining Future Global Growth”

# Renew Your Energy System

## Gas & Renewables a Perfect Match

DNV KEMA Energy & Sustainability

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Global Director: Gas Consulting & Services

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Venue: Level 4 - Room 406/7



Patron



Host



Host Sponsor



# Introduction



## **Pierre M.G. Bartholomeus**

Global Director / Senior Vice President  
Gas Consulting & Services





- More than **2,300 experts**
- In over **30 countries** around the world
- Committed to **driving the global transition** toward a **safe, reliable, efficient, and clean energy** future.
- With a heritage of nearly **150 years**
- Specialized in providing **world-class, innovative solutions** in the fields of **business & technical consultancy, testing, inspections & certification, risk management, and verification.**
- As an **objective** and **impartial** knowledge-based company, we **advise** and **support organizations along the entire energy value chain**: producers, suppliers & end-users of energy, equipment manufacturers, as well as government bodies, corporations and non-governmental organizations.



## DNV KEMA Energy & Sustainability Gas Consulting & Services

- Gas Consulting & Services is one of KEMA's main global business lines, delivering both business and technical solutions.
- The Gas Consulting & Services Global Business Line consists of over 120 professionals dedicated to gas issues.
- Headquartered in our Groningen office (on top of the Dutch gas fields) we are active all around the globe. We have gas offices in Bonn (Germany), Dubai (UAE) and are planning one in Houston (USA) and Singapore.





## Scope of our Services

“DNV KEMA Gas Consulting & Services is an independent, leading authority and strategic partner on gas and energy market developments. At the forefront of developments which will shape the gas market of the future, GCS proactively adds value to the business of its customers by offering premium consulting, applied research and operational services”



# Our Service Lines

Our professionals are grouped in five Service Lines:

- **GIT:** Gas Infrastructure & Transport
- **SSE:** Sustainable & Smart Energy
- **GMS:** Gas Markets & Strategy
- **TCS:** Testing & Calibration Services
- **GQF:** Gas Quality & Flow



# Three important Developments that influence the Future of the Gas Industry

Market developments that are driven by policy, regulation, commercial opportunities and public needs can be important drivers for innovation for the gas industry

<i>Developments</i>	<i>Effect on natural gas (system)</i>	<i>Solutions</i>
Decarbonisation of Energy System	<ul style="list-style-type: none"> <li>• Declining share of gas in the built environment</li> <li>• Gas and CCS will be on the agenda</li> </ul>	<p>Development of technology, new business opportunities, new ways of collaboration, new positioning of gas &amp; the gas industry</p>
Increasing Share of Renewable Energy	<ul style="list-style-type: none"> <li>• Increased need for flexibility</li> <li>• Greening of natural gas supply</li> </ul>	
Stricter Emission Regulations	<ul style="list-style-type: none"> <li>• New opportunities, like transport (road, water)</li> <li>• Lower emissions in gas transport</li> </ul>	

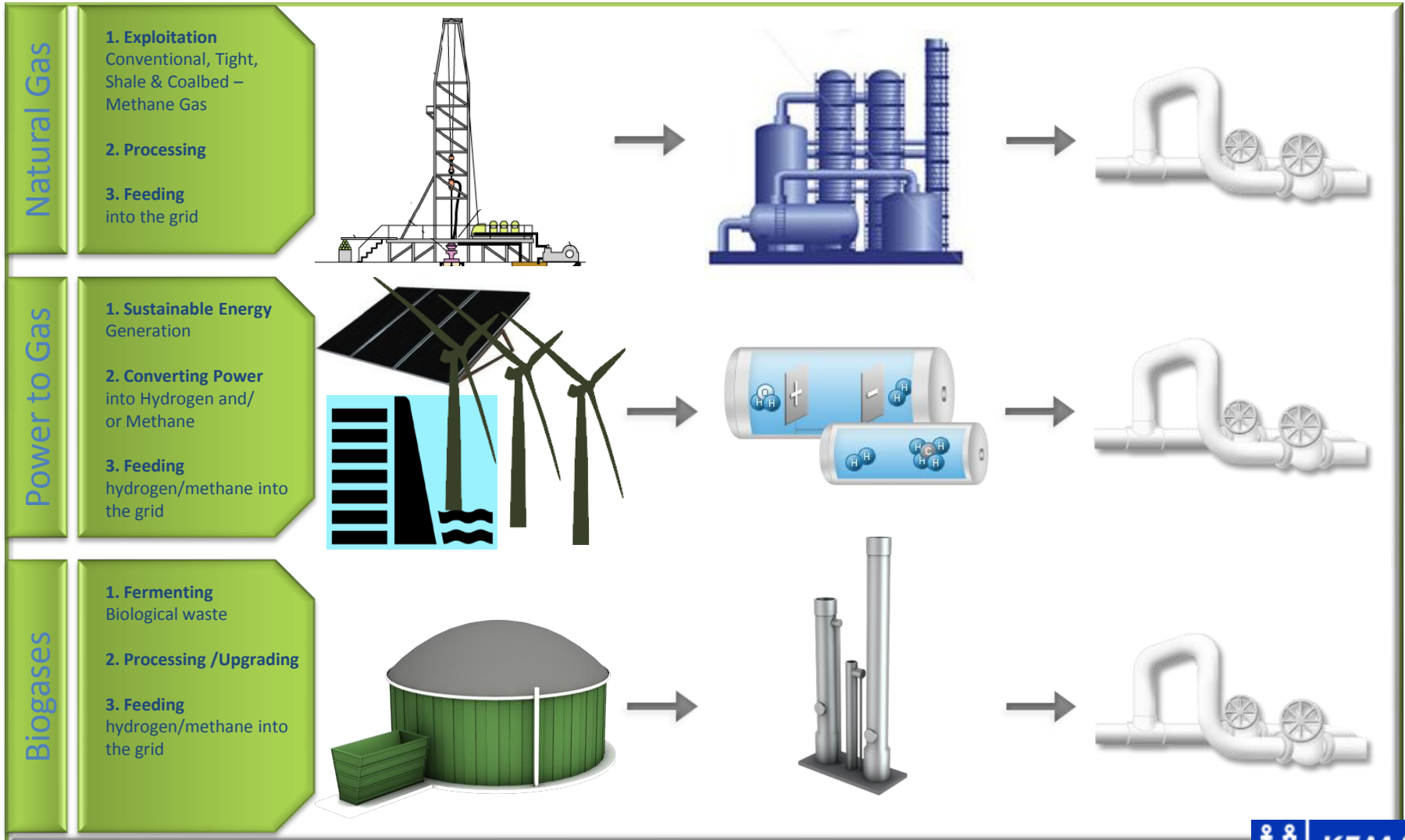


# There are many Potential Opportunities for the Gas Industry

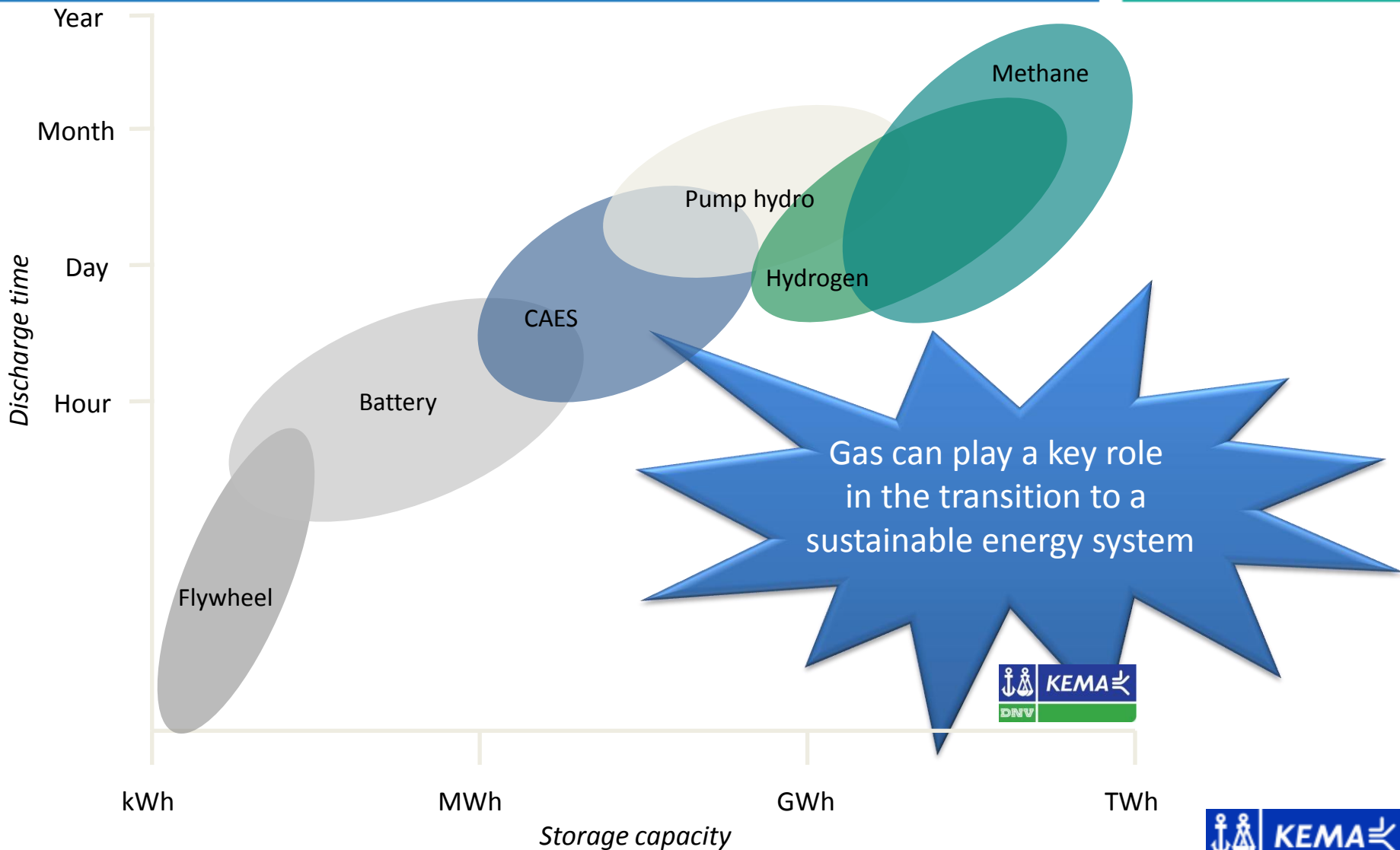
Possible solutions should fit into the strategy, culture, position in the market etc of companies involved. It is relevant to focus on long term developments and relations with stakeholders.

<i>Developments</i>	<i>Content: Gas themes matching developments</i>	<i>Relations: Stakeholder management</i>
Decarbonisation of Energy System	<ul style="list-style-type: none"> <li>• Clean gas technology</li> <li>• Smart energy</li> <li>• CCS, CO2 Transport</li> </ul>	<p>Building alliances with stakeholders like DSOs, governments, non governmental organisations, project developers, gas industry stakeholders, the public, and others</p>
Increasing Share of Renewable Energy	<ul style="list-style-type: none"> <li>• Sustainable gases</li> <li>• Smart grids</li> <li>• Flexibility, Power to Gas</li> </ul>	
Strict Emission Regulations	<ul style="list-style-type: none"> <li>• CNG &amp; LNG</li> <li>• Footprint reduction</li> </ul>	

# Some examples: Gas from different Sources, used in the same Infrastructure



# Energy Storage Possibilities: Key Role of Gas providing flexibility to Renewables!



## Gas & Renewables a Perfect Match

Thank You for your Attention