

"Gas: Sustaining Future Global Growth"

# Innovation is the key to a sustainable future

#### **Major Findings from IGRC2011**

By: Marc FLORETTE,

Member of GDF SUEZ Executive Committee Chairman of IGRC2011 Technical Program Committee Date: 7 June

Venue: Emerald room





Host Sponsor









#### Facts: IGRC2011 Seoul





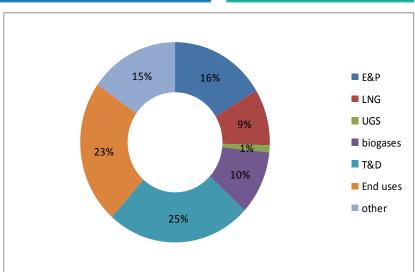
- 500 registered delegates from 39 countries
- 47 speakers in parallel oral sessions
- A CEO's round table
- 6 workshops
- 40 exhibitors
- 210 posters presented

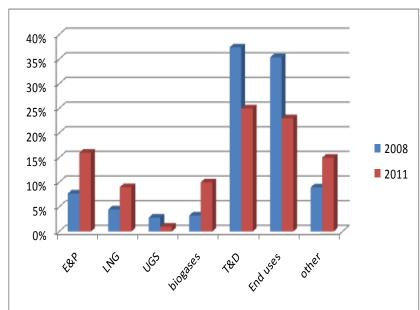
### **Major findings IGRC 2011**



#### Core business

- A very active agenda in upstream topics :
  - Unconventional gases
  - **♥** LNG
  - ➡ Biogas/SNG production
- Safety and integrity management, a continuing commitment for the gas networks





# **Major findings IGRC 2011**



#### Core business

- New equipment for the residential and commercial market:
  - Development of micro-CHPs (fuels cells & engines)
  - Integration of renewable energy: gas heat pumps
  - Hybrid systems: electric heat pumps + condensing boiler
- CNG for the transportation market







## **Major findings IGRC 2011**



#### Emerging technologies / new business

- Gas sustainability assessment
  - The 1st LCA study on the whole European Gas chain
  - The biogas production LCA (awarded paper)
- CCS
- LNG as a fuel
  - UNG for trucks: fluvial and maritime sector



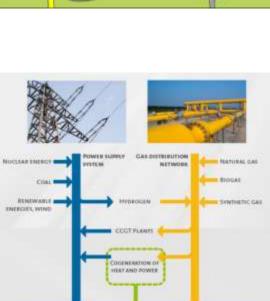






### Emerging technologies / new business

- Moving from smart grids (electric) towards smart energy grids (gas + electric)
- Gas infrastructures for green electricity storage and transportation "PowerToGas"
  - Addresses the supply & demand issue in combination with new gas technologies
  - Creates flexibility to accommodate the electricity surplus from renewable sources



# **Concluding remark IGRC 2011**



Continuous developments, improvements and efforts to make innovations to happen are the key to strengthen competitiveness of natural gas and establish its winner position.

Next IGRC 17-19 September 2014 Copenhagen,
Denmark, will be prepared by the incoming PGC F
Gas Innovations Inspiring Clean Energy



