



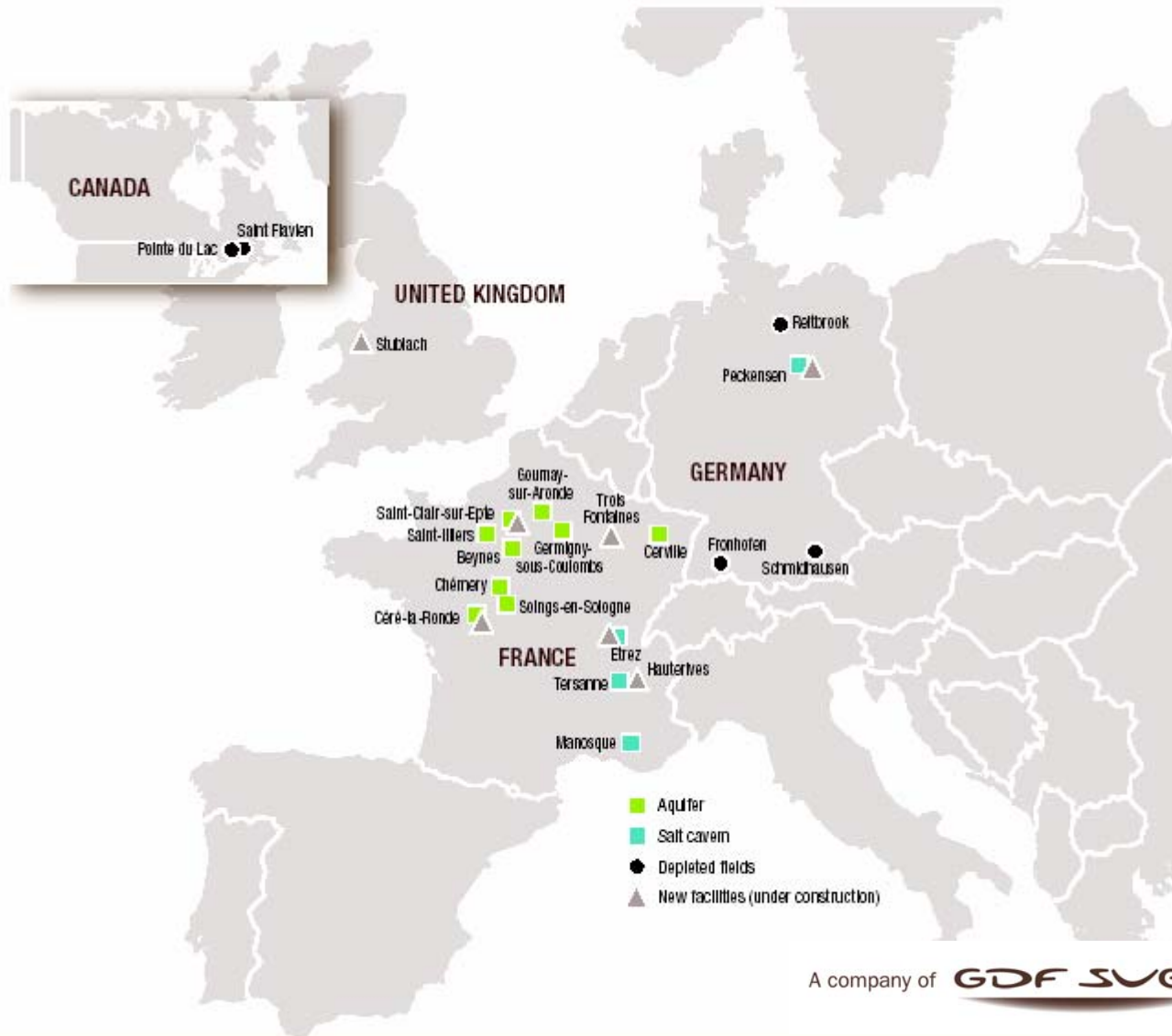
Gas Storage Europe

Encouraging investment in storage and the contribution of storage to Flexibility

Jean-Marc Leroy
GSE President

Global Gas Village
Milan, 16th April 2009

Our sites and current developments



Valuable tools on our website – www.gie.eu.com

- Aggregated Gas Storage Inventory



- Storage Investment Database



- and GSE Storage map

- GSE Position papers on strategic storage, on third energy Package, on capacity allocation mechanisms & congestion management methods

- GSE observations on GGPSSO implementation, on Ramboll study

Agenda

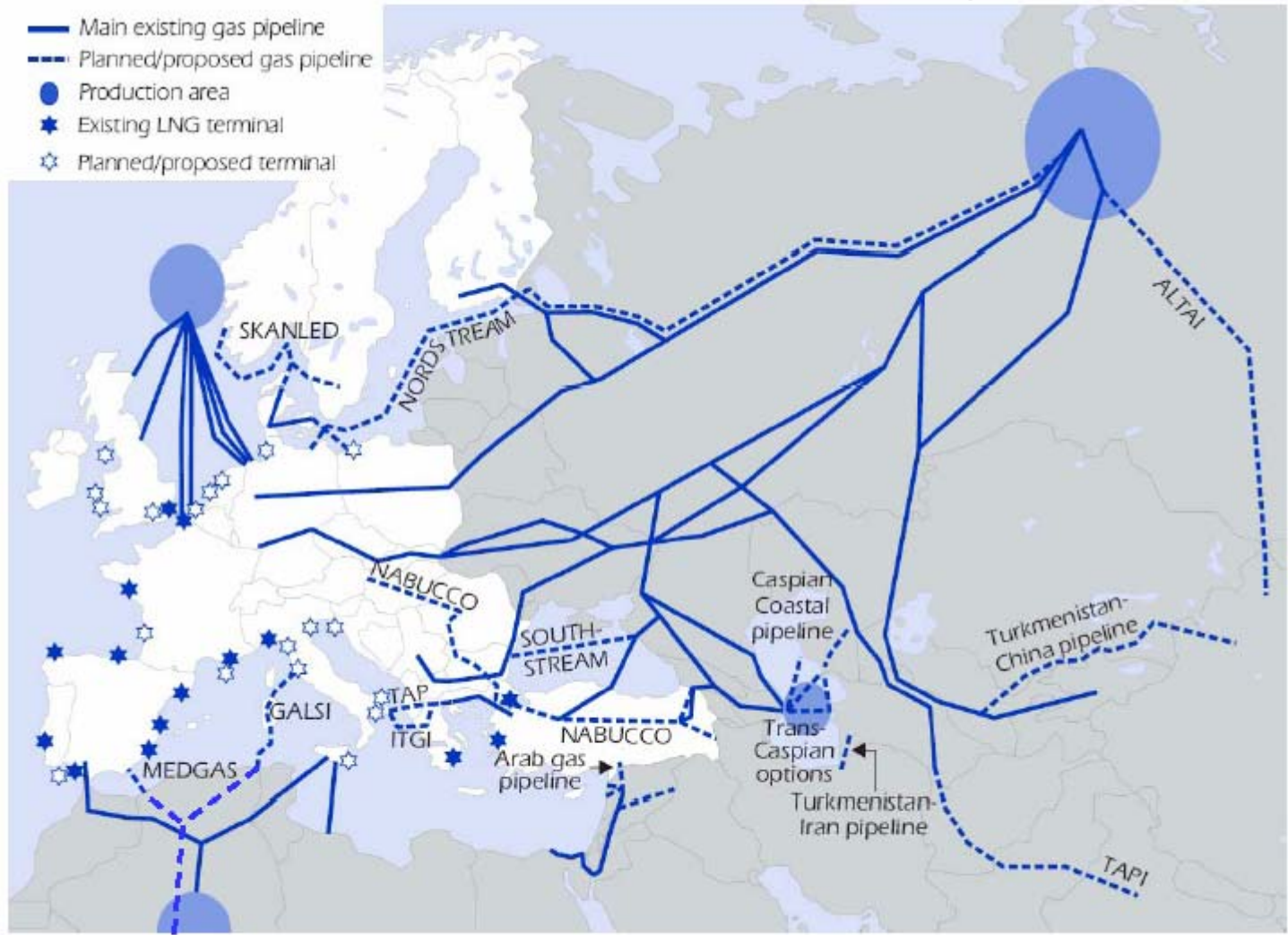
- 1. European gas storage market - Overview**
- 2. Gas Storage development and opportunities**
- 3. European legislative framework**
- 4. European gas storage market: main issues**

1. European gas storage market - Overview



European Gas Supply Transmission system

- Main existing gas pipeline
- - - Planned/proposed gas pipeline
- Production area
- ★ Existing LNG terminal
- ☆ Planned/proposed terminal

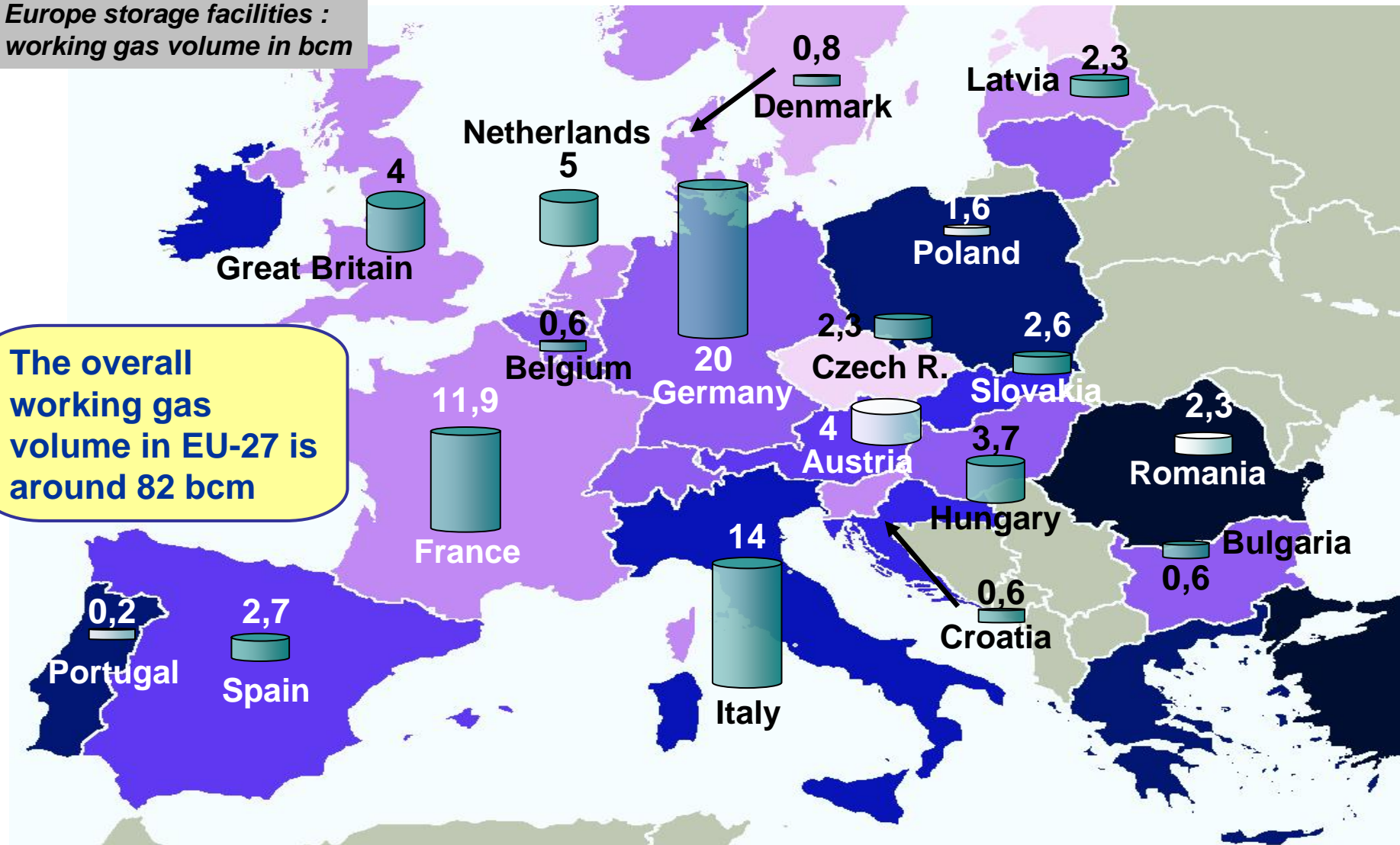


Trans Saharan Gas Pipeline

Storage volumes in EU-27 – current situation

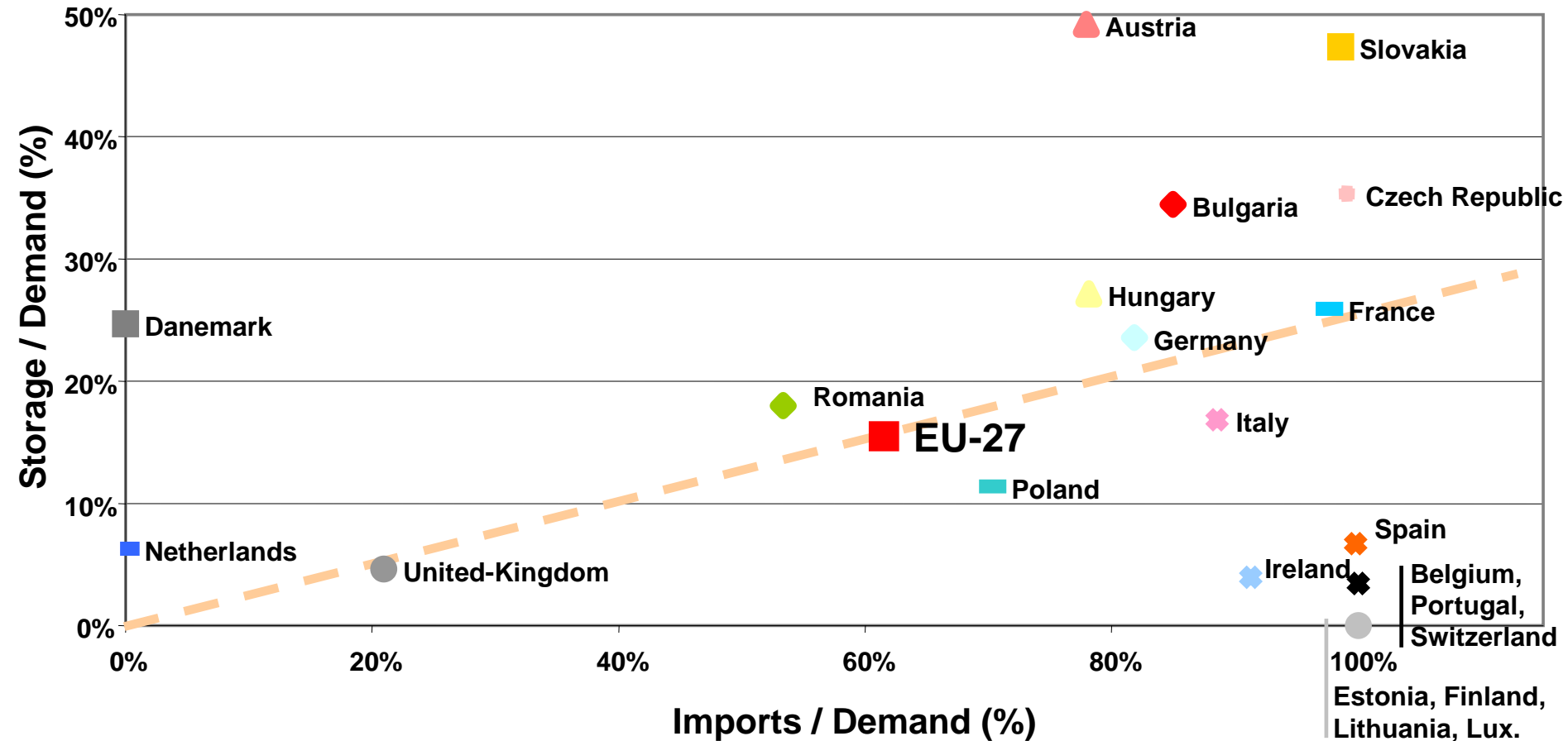
Europe storage facilities :
working gas volume in bcm

The overall working gas volume in EU-27 is around 82 bcm



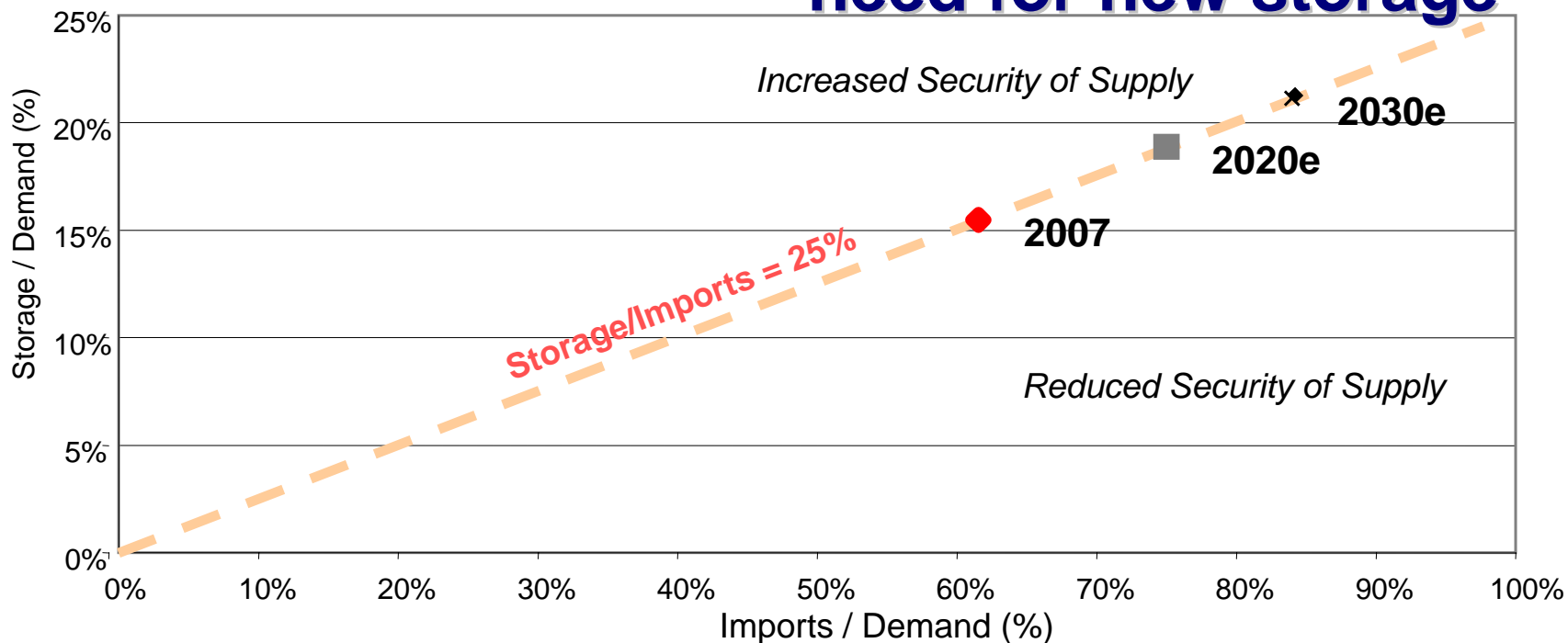
Source: GSE 2008, CEDIGAZ 2007

Another way to look at storage in Europe...



Source: SG Equity Research / Eurogas / GSE 2008

... and to assess the need for new storage

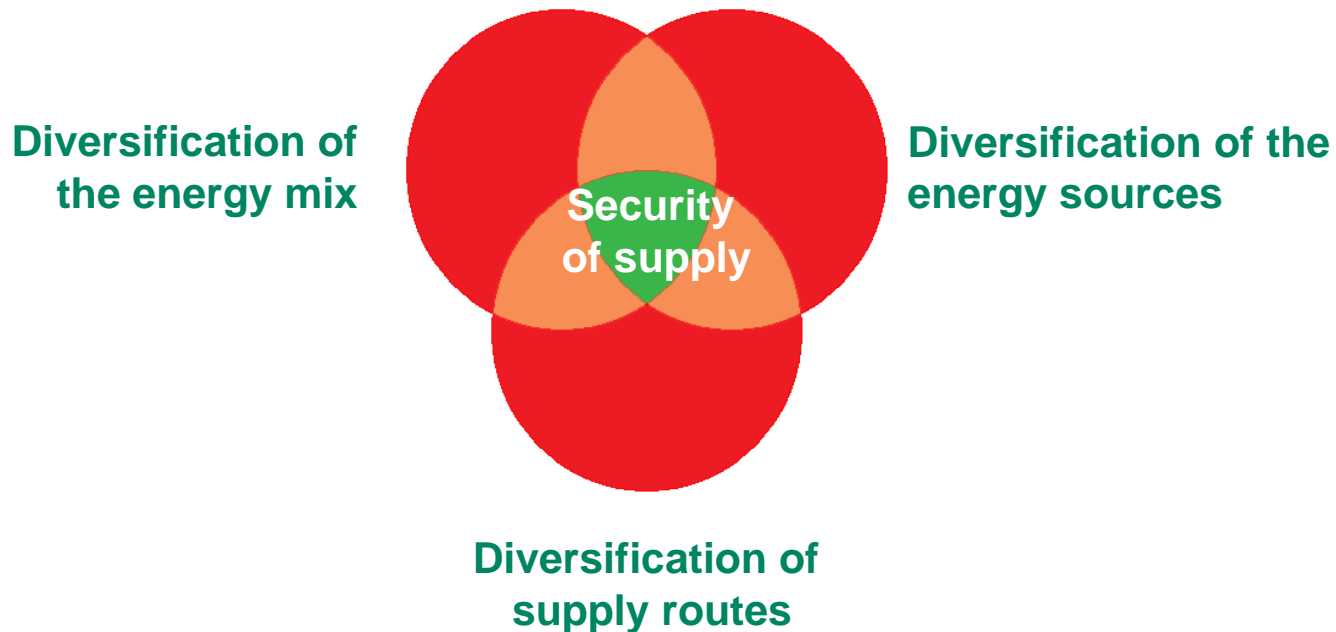


Gas demand CAGR up to 2025: 1.5%
Storage needs CAGR up to 2025: 2.8%

EU storage volumes need to be expanded by 50 bcm until 2025!

Russia-Ukraine gas crisis : lessons to be learned (1/2)

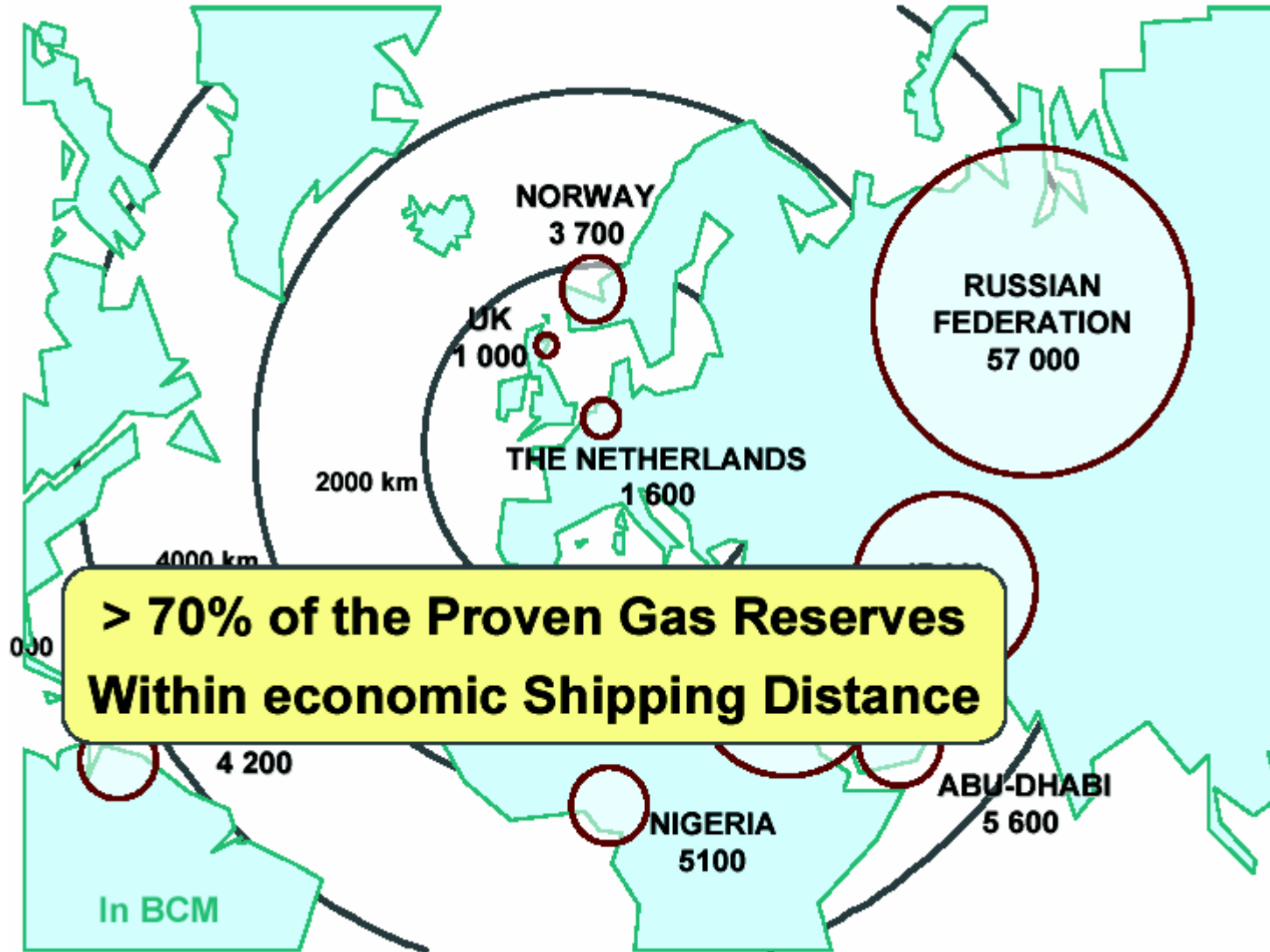
- European commercial storage facilities have played a key role in ensuring security of supply.
- The real issues in this crisis are due to a lack of diversification in supply sources and supply routes for some countries.



Russia-Ukraine gas crisis : lessons to be learned (2/2)

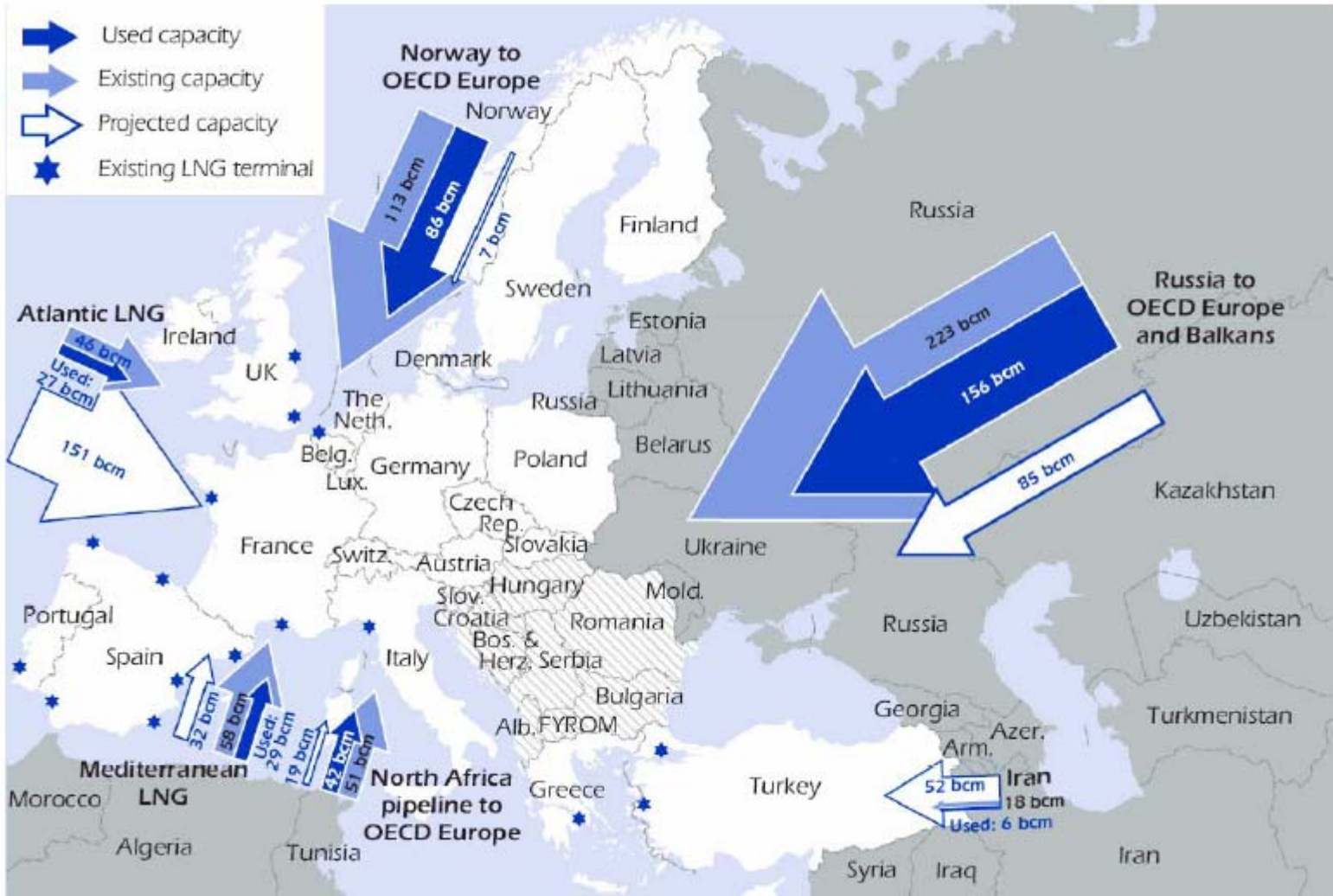
- ➔ The good functioning of the commercial storage facilities has shown that the development of commercial storage in a more interconnected market must be fostered in order to reinforce security of supply in Europe.
- ➔ Strategic stocks should not be deemed as a solution for the security of supply problem.
- ➔ There should not be a confusion between strategic storage facilities and stock obligations in commercial storage facilities (Strategic stock management) in order to ensure security of supply for the customers.

2. Gas Storage development and opportunities





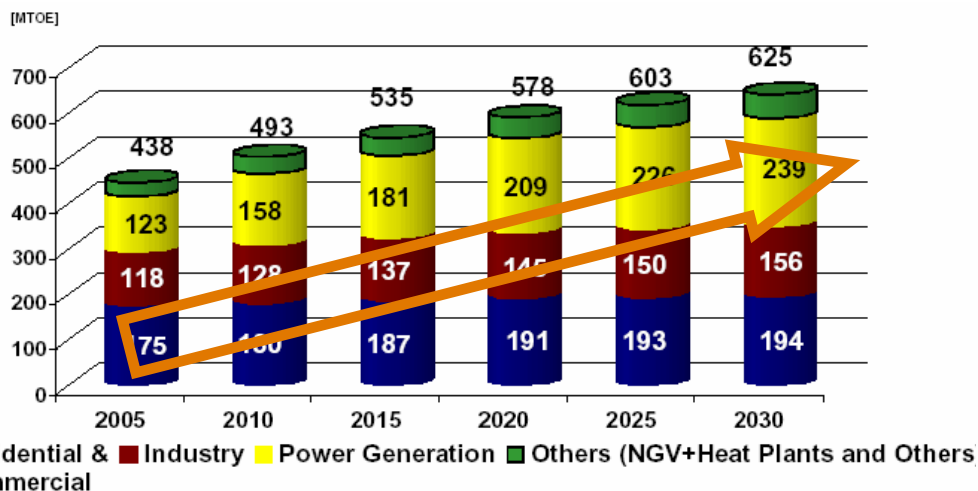
EU : Supply Capacities in 2006 & 2015



Why are gas storage needs increasing in Europe?

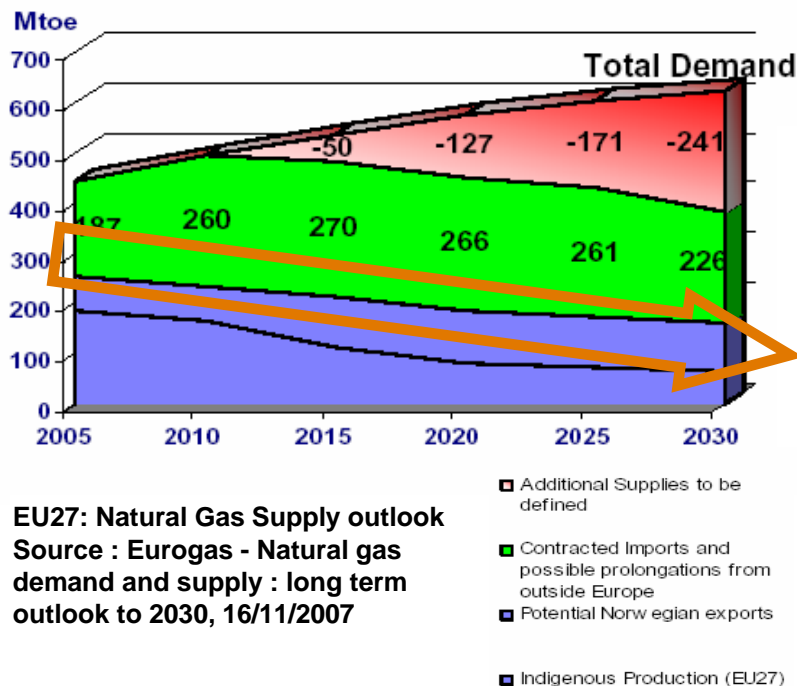


Increasing gas demand in EU-27



EU27: Natural Gas Demand outlook by sector
 Source : Eurogas - Natural gas demand and supply : long term outlook to 2030, 16/11/2007

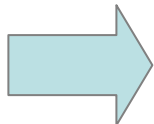
Decreasing EU gas production



EU27: Natural Gas Supply outlook
 Source : Eurogas - Natural gas demand and supply : long term outlook to 2030, 16/11/2007

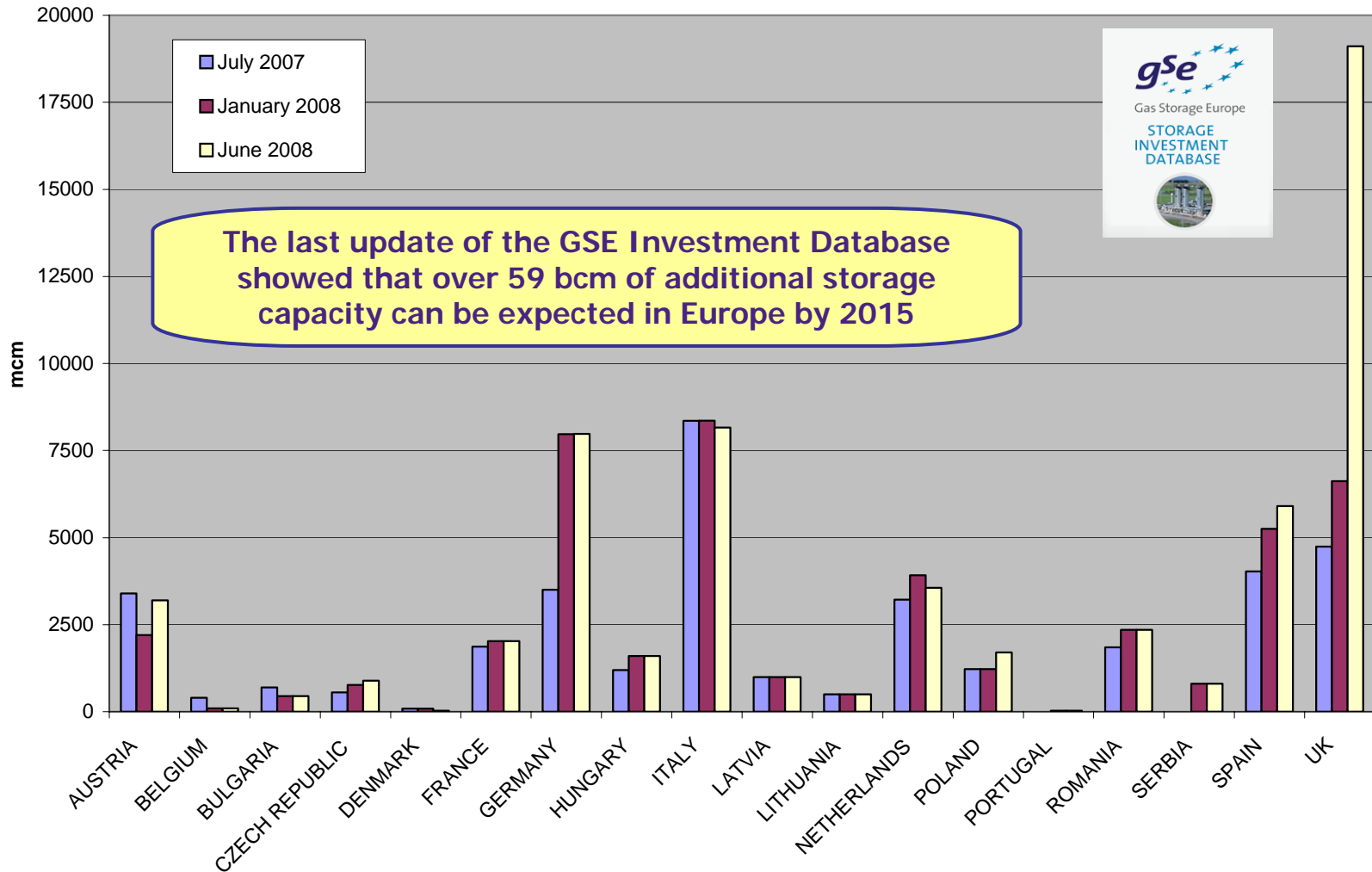
Investment : SSOs are responding to market needs

- Database of EU storage investments was launched in July 2007:
 - Publicly available information
 - Projects divided into 3 categories: planned, committed and under construction
 - Updated regularly
 - From an initial 30 bcm WG capacity increase to 2015 (July 2007) to around 63 bcm (February 2009)
 - Grand total of around 110 projects
- A powerful and transparent instrument to evaluate storage supply perspectives.



http://www.gie.eu.com/maps_data/database/index.html

Investment : SSOs are responding to market needs



3. European legislative framework

3. European legislative framework

2 directives
for 2 objectives

- European legal framework:
 - Security of supply (2004)
 - Internal market liberalisation (2003)
 - Ensure 3rd party access to storage
 - Give alternatives for Member states:
 - Regulated
 - Negotiated
- European voluntary guidelines: Guidelines for Good Practices for Storage System Operators (GGPSSO)
 - Compliance with GGPSSO shows a transparent and non-discriminatory access to storage

3rd directive

- 3rd Directive called Third Package
 - Still under discussion

TPA to storage access regimes



4. European gas storage market : main issues

European gas storage market : main issues

- European gas storage development : we will have to develop as much capacity over the next 20 years as we have developed over the last 60 years.
- Competition with other flexibility tools : indigenous gas production swing, imported pipeline gas contract flexibility, peak shaving, spot markets, imported LNG, new transmission lines, interruptible gas, ...
- Attracting funding : we have to invest up to 60 billion euros over the next 20 years to face this development in the context of the current economic crisis.
- A stable European Regulatory framework that encourages new storage developments as well as the optimal use of existing storage facilities is essential.



Gas Storage Europe

Thank you for your attention!

www.gie.eu.com