



# Gas Natural Market in the UNECE Region

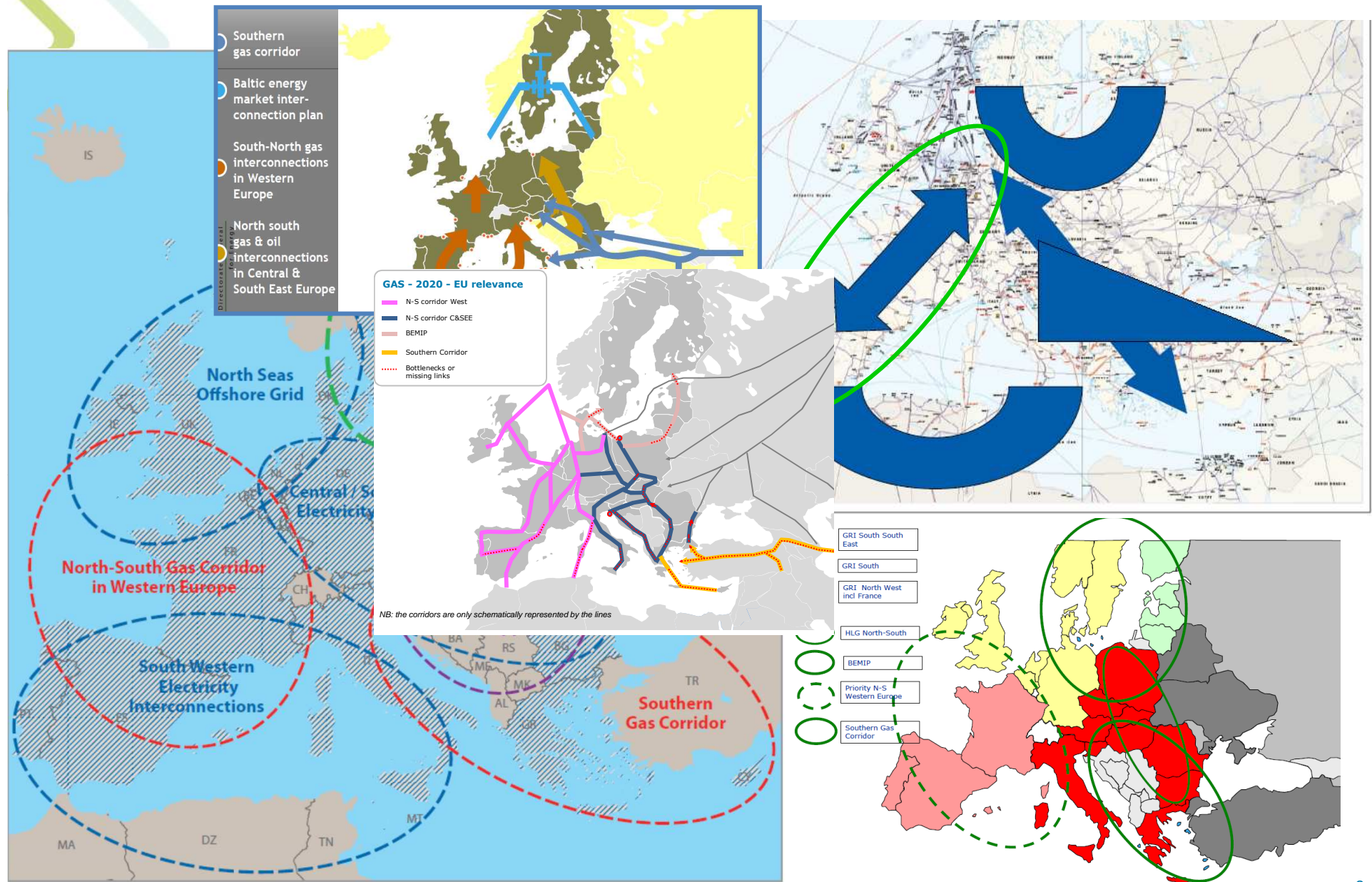
The Role of Basic Gas Infrastructure



Francisco P. de la Flor

22 January 2013

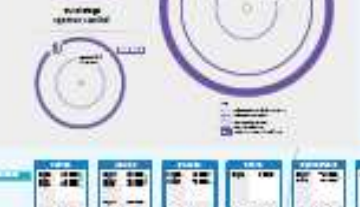
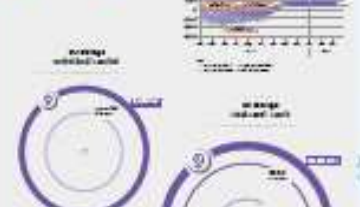
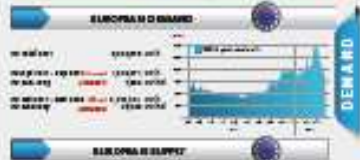
# Infrastructure development in Europe





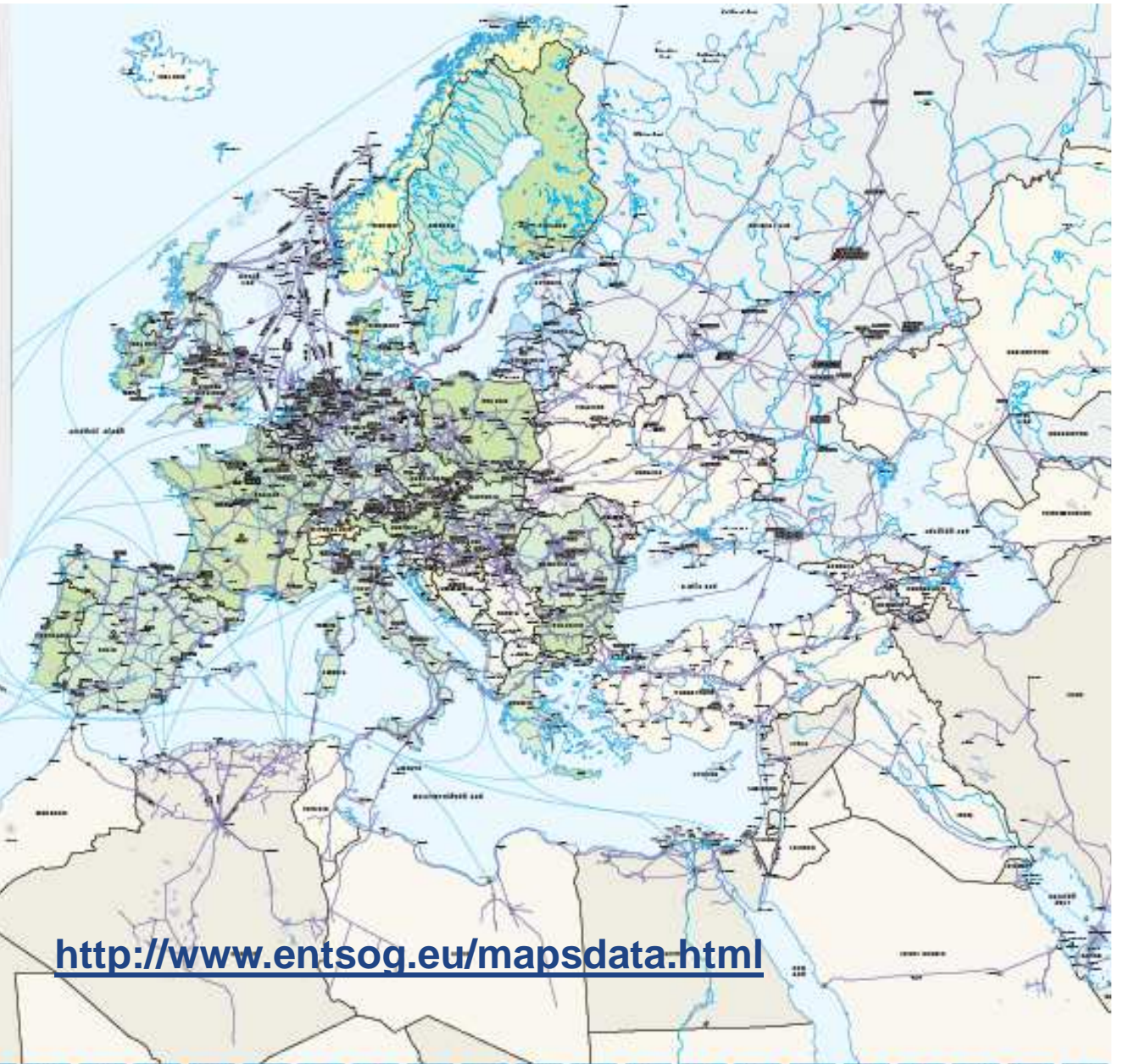


## SYSTEM DEVELOPMENT MAP 2011



Legend for the map, including symbols for different types of infrastructure and data series.

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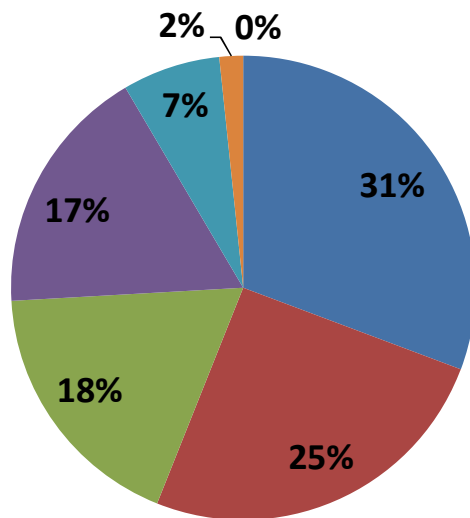
<http://www.entsog.eu/mapsdata.html>

Country	Area	Population	GDP	Energy Consumption	Gas Consumption	Storage Capacity	Interconnector Capacity	Notes
Albania	28,748	2,875,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Andorra	468	78,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Austria	83,858	8,500,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	
Belarus	207,600	9,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Belgium	30,528	10,500,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	
Bulgaria	74,844	7,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Croatia	56,538	4,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Cyprus	9,251	800,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Czechia	78,867	10,500,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	
Denmark	43,094	5,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Estonia	45,226	1,300,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Finland	143,903	5,300,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
France	643,801	65,000,000	2,800,000,000	2,800,000,000	2,800,000,000	2,800,000,000	2,800,000,000	
Germany	357,021	82,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	
Greece	113,512	11,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Hungary	93,028	10,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Ireland	70,273	4,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Italy	301,330	60,000,000	2,800,000,000	2,800,000,000	2,800,000,000	2,800,000,000	2,800,000,000	
Latvia	64,589	1,300,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Lithuania	62,696	3,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Luxembourg	2,586	500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Malta	316	400,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Netherlands	42,774	16,500,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	
Poland	312,685	38,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Portugal	92,212	10,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Romania	237,500	21,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Slovakia	48,846	5,500,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Slovenia	20,271	2,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Spain	505,992	45,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Sweden	450,295	9,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Switzerland	41,284	7,500,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	3,800,000,000	
Turkey	783,562	72,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
Ukraine	603,500	46,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	1,100,000,000	
United Kingdom	242,490	61,000,000	2,800,000,000	2,800,000,000	2,800,000,000	2,800,000,000	2,800,000,000	

# Import Dependency in Europe

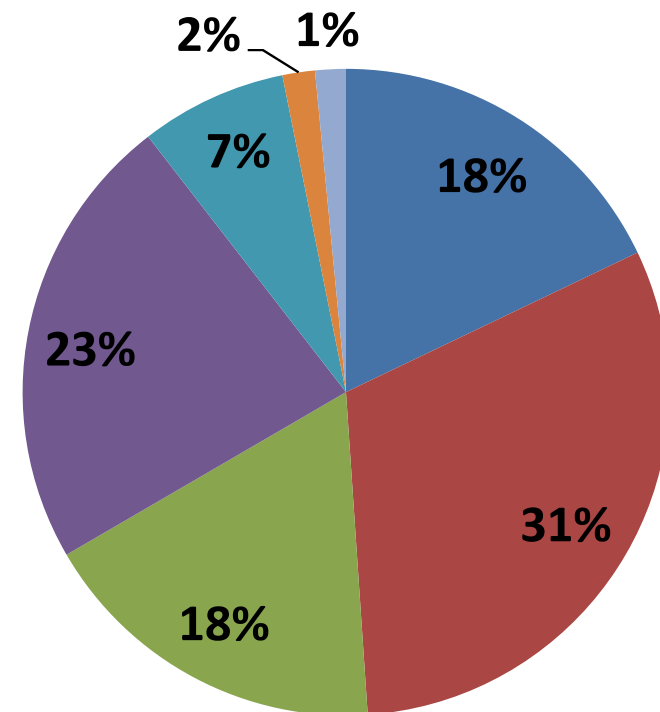


**Potential SUPPLY 2011**



- Indigenous Production
- Russian
- Norwegian
- LNG
- Algerian
- Libyan
- Azeri

**Potential SUPPLY 2020**

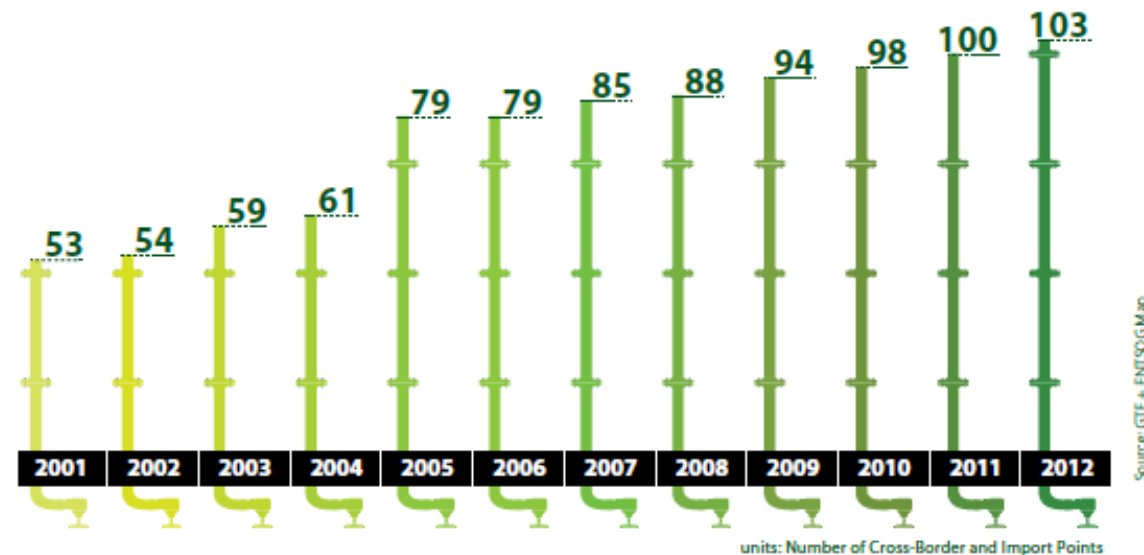




# Cross border interconnections and trade

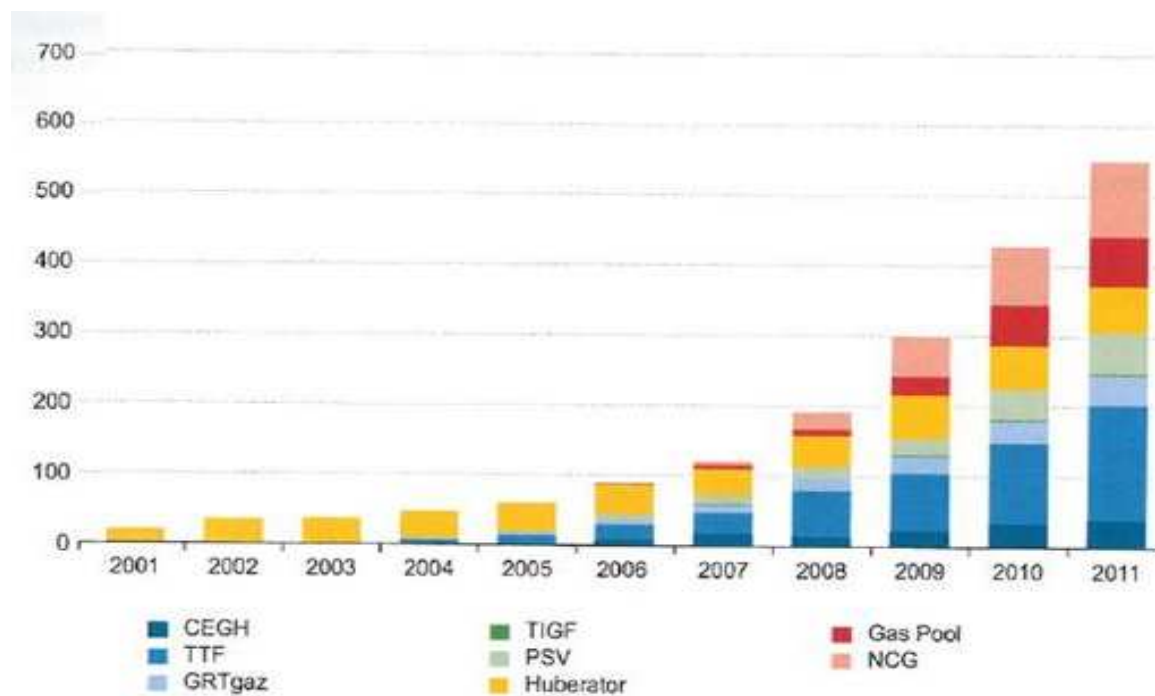
Number of  
cross-border  
and import  
points to the  
EU

Source: GIE

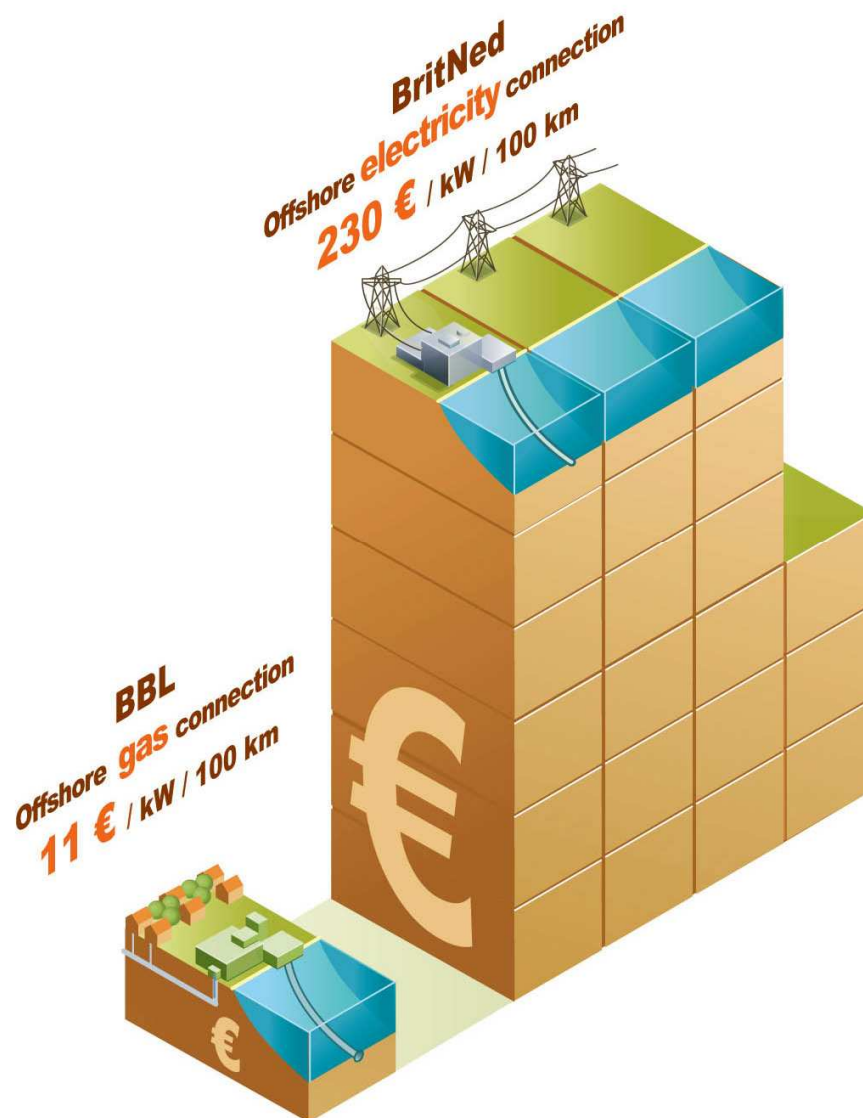
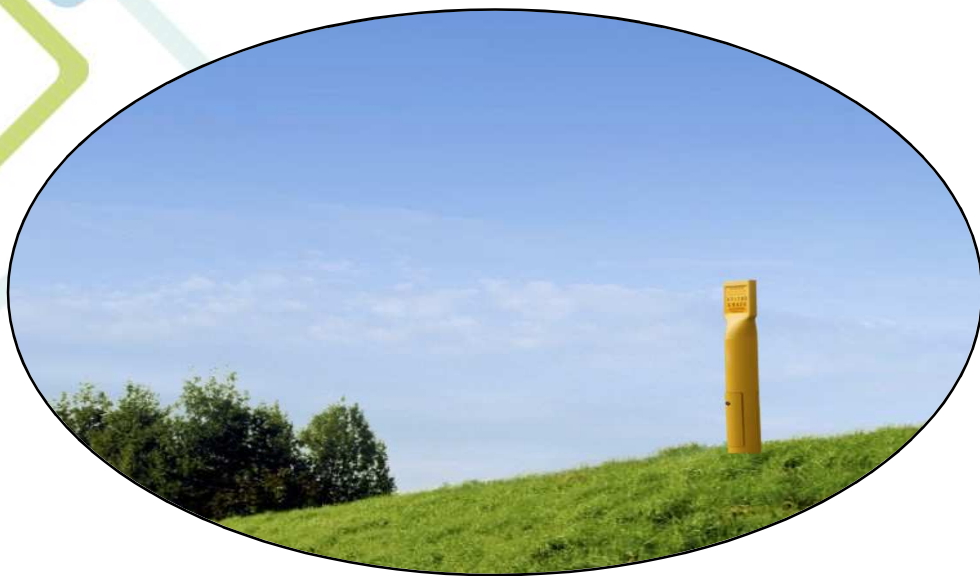


Natural Gas  
Traded  
volumes in  
reported  
European  
Hubs (bcm/y)

Source: ACER



# Transmission Gas and Electricity Infrastructures

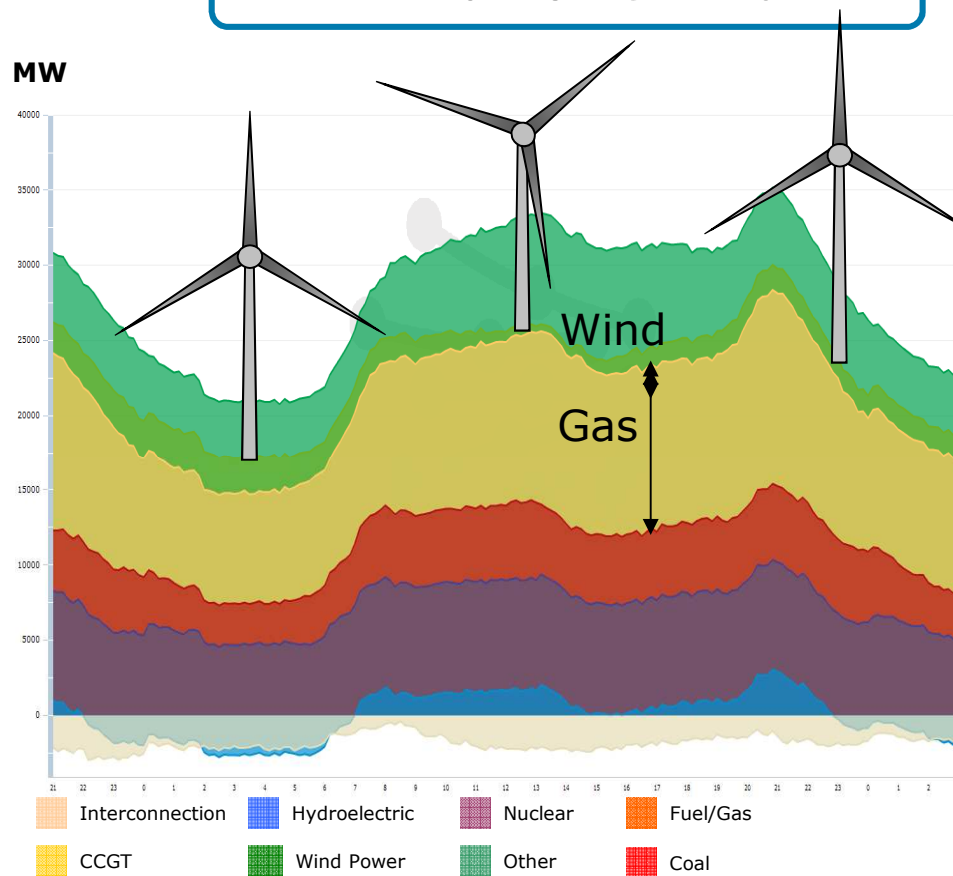


# Correlation between wind and power generation

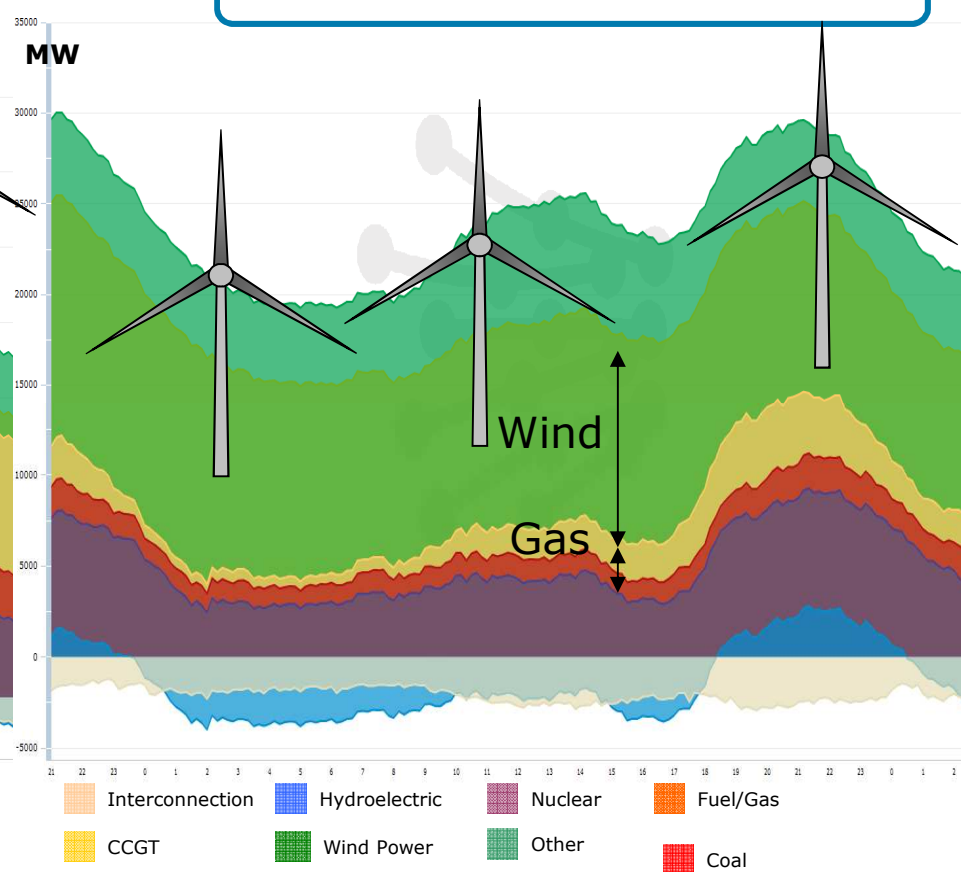
30-September-2010

24-September-2012

Wind Power 1%



Wind Power 60%



Source: REE and Enagás



# To Recap...



- DoS & SoS
- Market Integration
- Efficiency in energy transportation
- Renewable Integration





22 January 2013