

# THE ROLE OF THE MEDITERRANEAN REGION IN EUROPEAN ENERGY SECURITY *WITH A SPECIAL EMPHASIS ON TURKEY*

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26<sup>th</sup> Meeting of the EU-Turkey  
Joint Consultative Committee

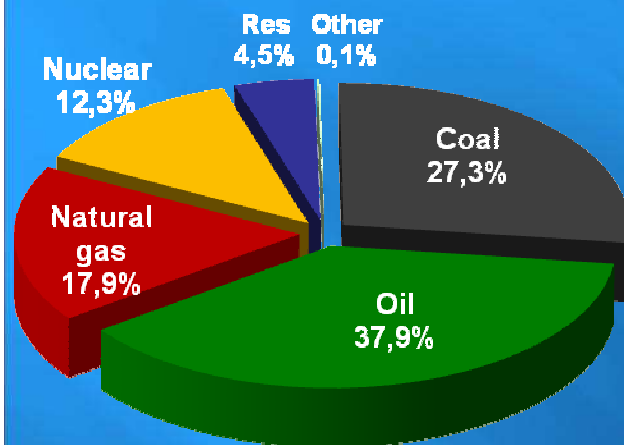
Istanbul, 27 April 2009



# *OUTLINE*

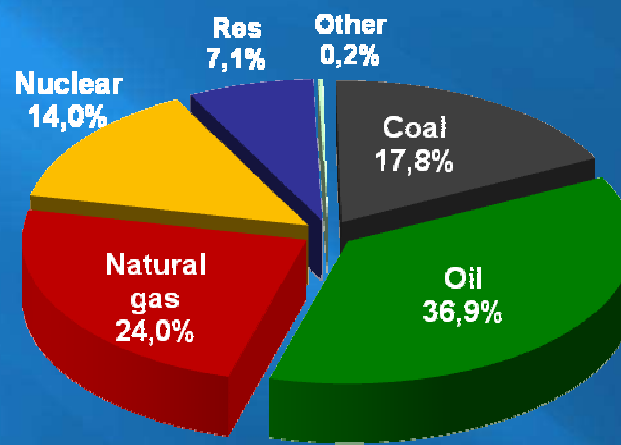
- The EU energy perspectives
- Mediterranean region and the EU energy security
- Importance of Turkey in Euro-Mediterranean energy future
- Is the EU serious about energy security ?

# EU ENERGY FUTURE



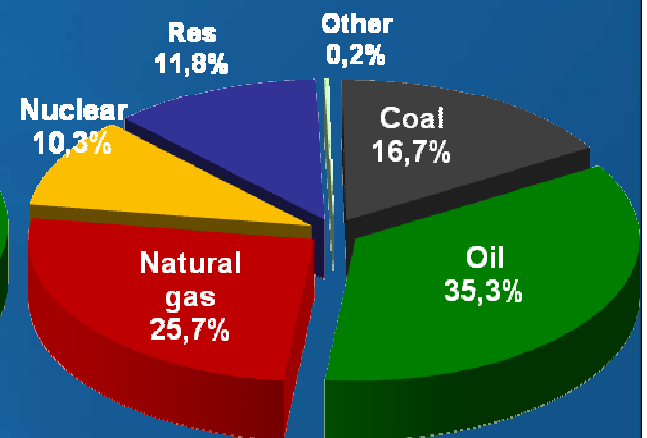
1650 Mtoe in 1990

**83% fossil fuel**



1825 Mtoe in 2006

**79% fossil fuel**

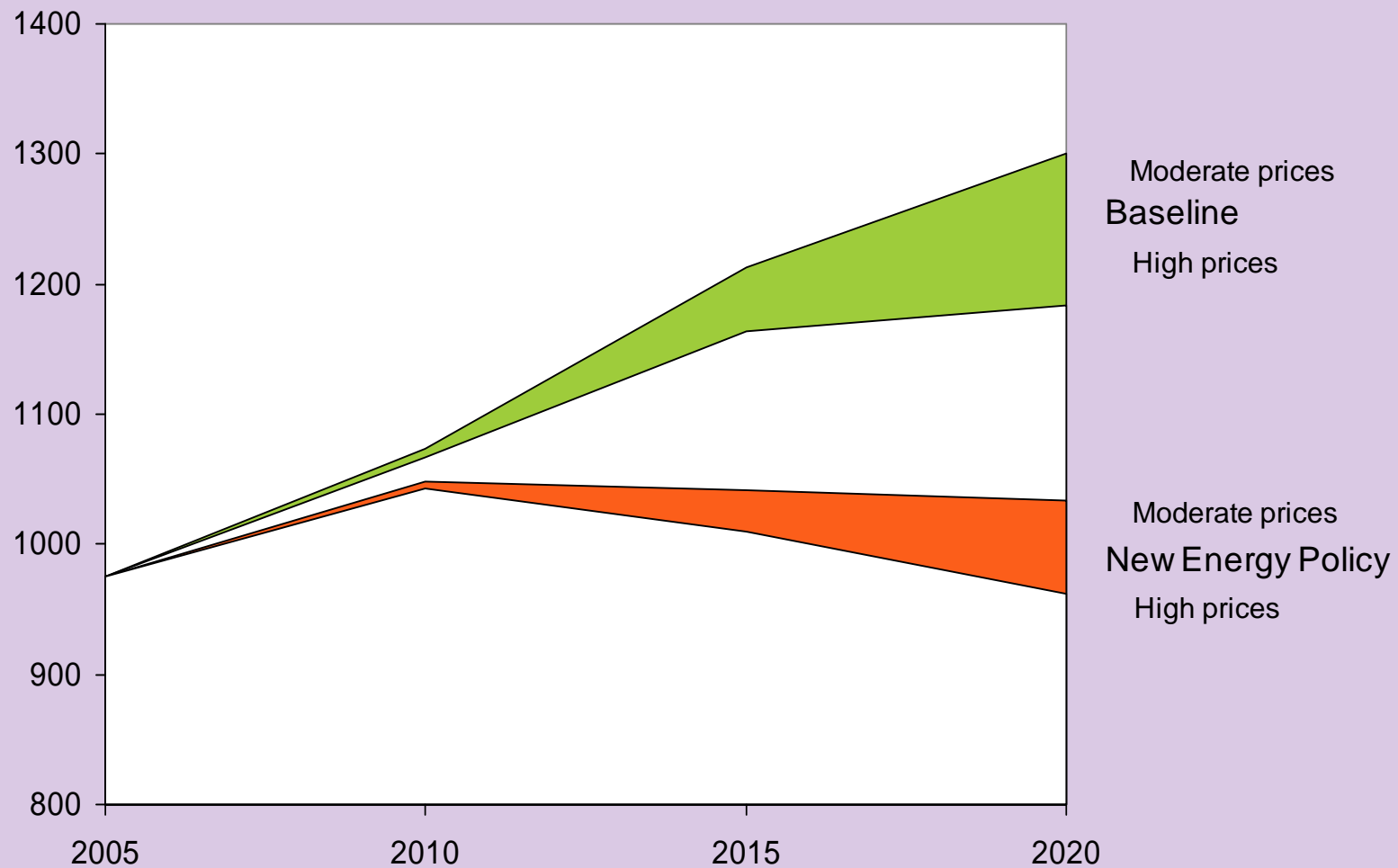


2005 Mtoe in 2030

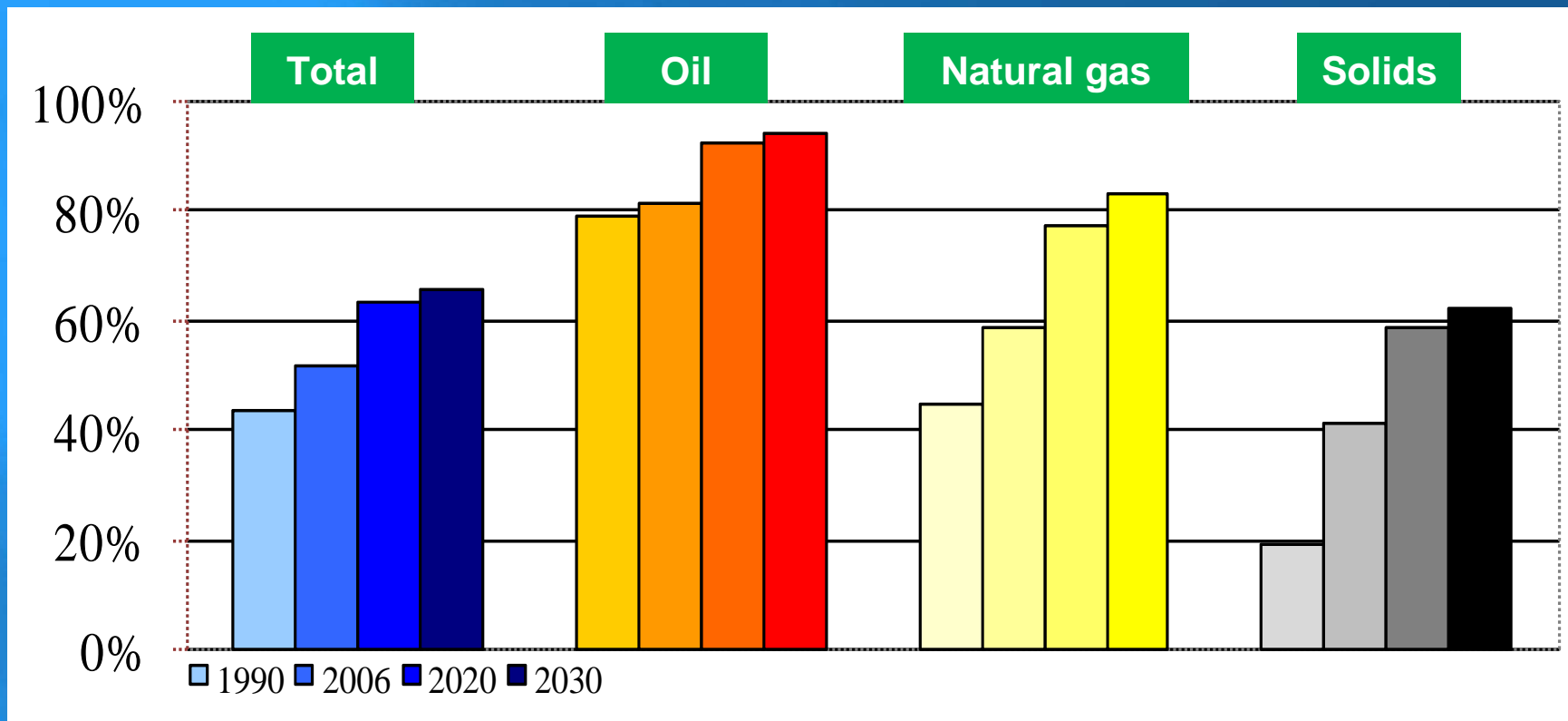
**78% fossil fuel**

**business as usual is not sustainable**

# EU 27 Net Energy Imports (Mtoe)



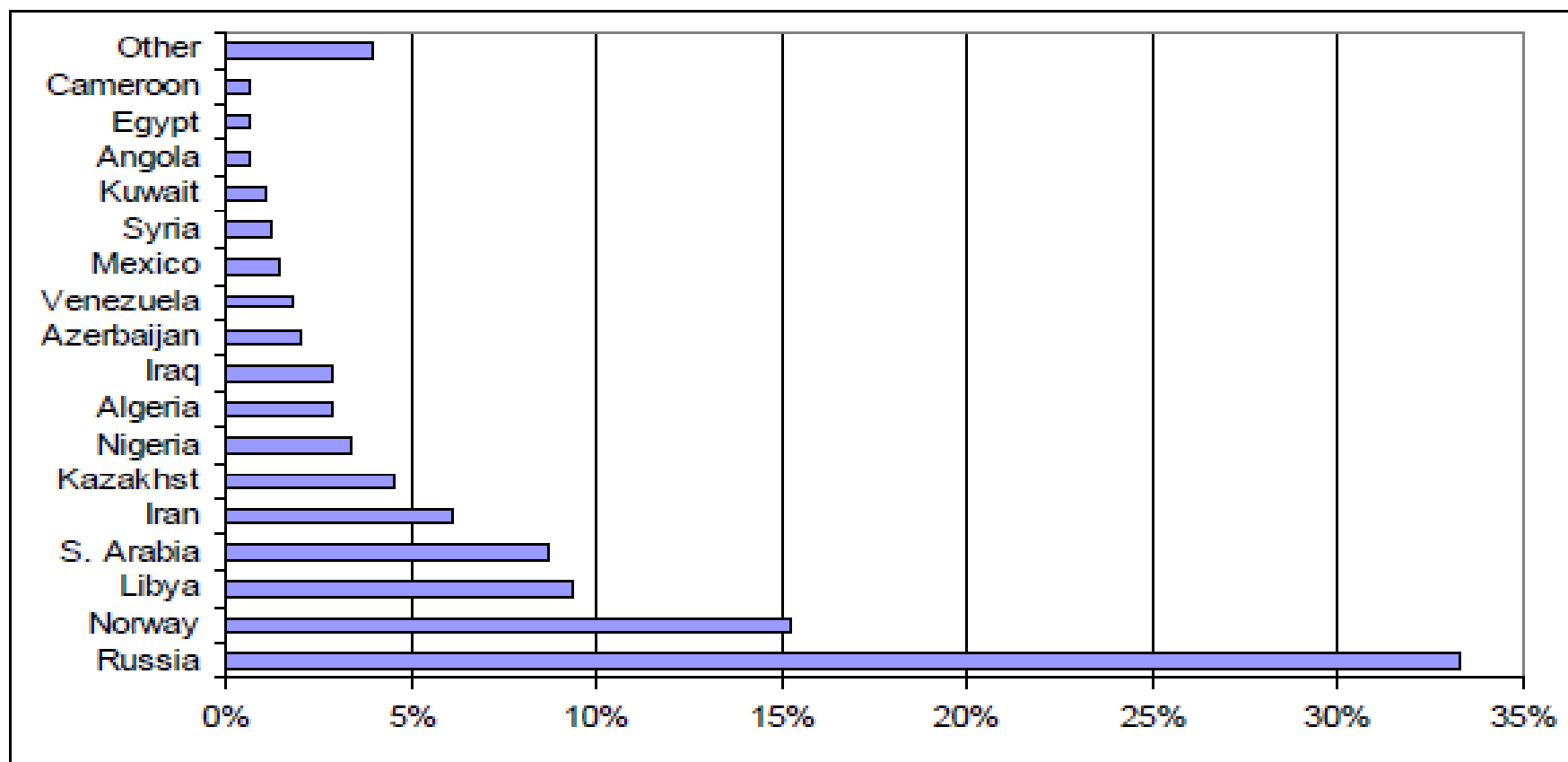
# EU energy import dependence



will increase



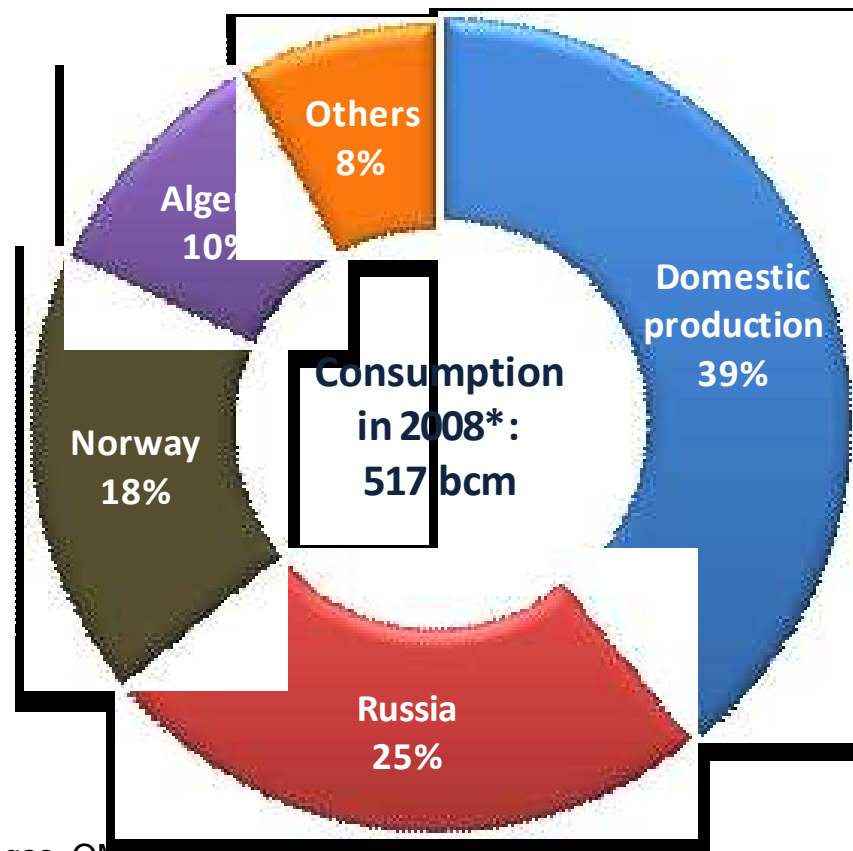
## *EU-27 imports of crude oil in 2006 (intra-EU27 trade excluded)*



*Source: Calculated from Eurostat data*

# EU Gas Supply

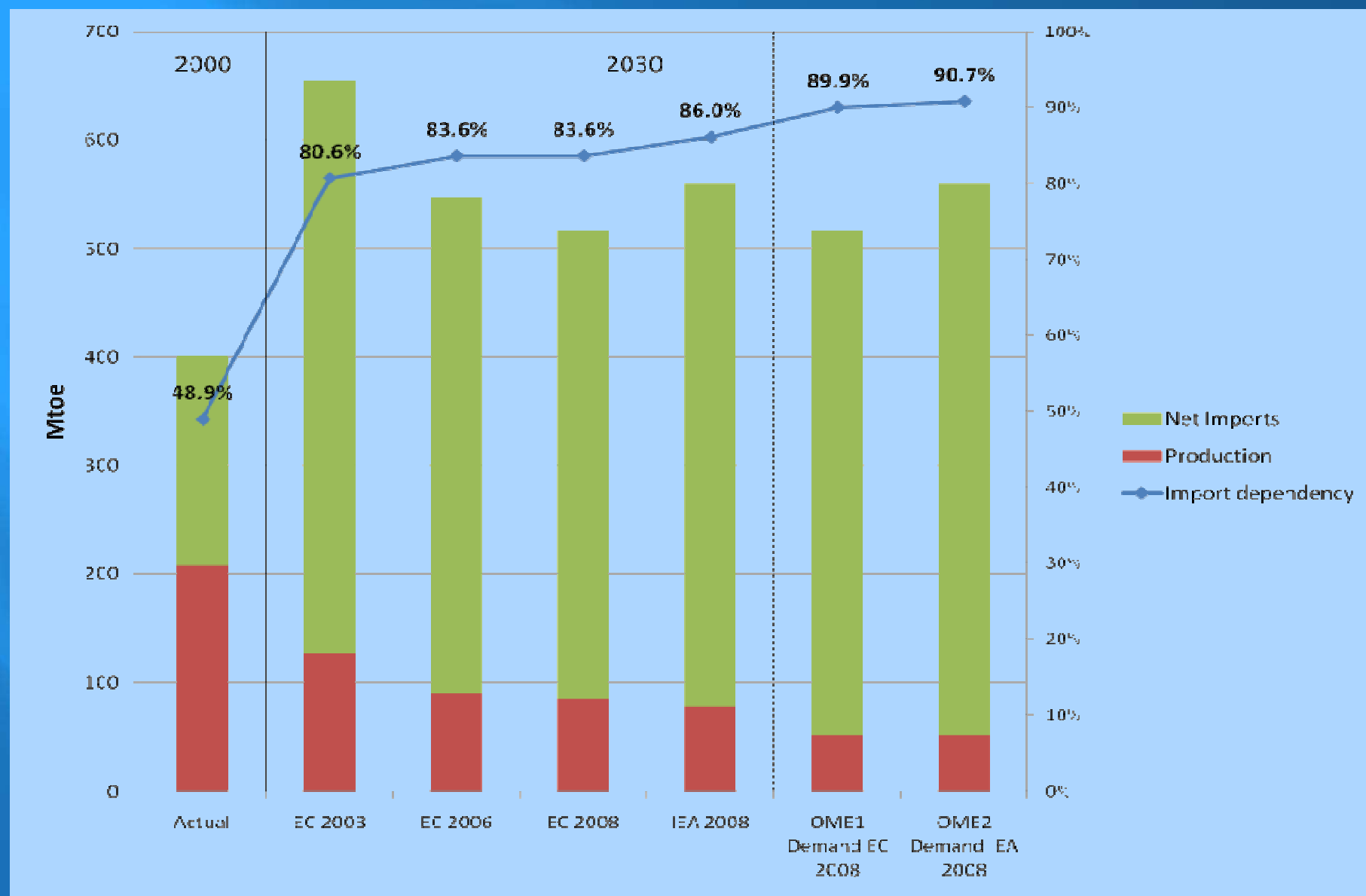
- Current/future suppliers of the EU hold ~80% of world's gas reserves
- In 2008 the EU consumed ~520 bcm of gas
  - ~ 40% come from domestic production



Source: Eurogas, OML



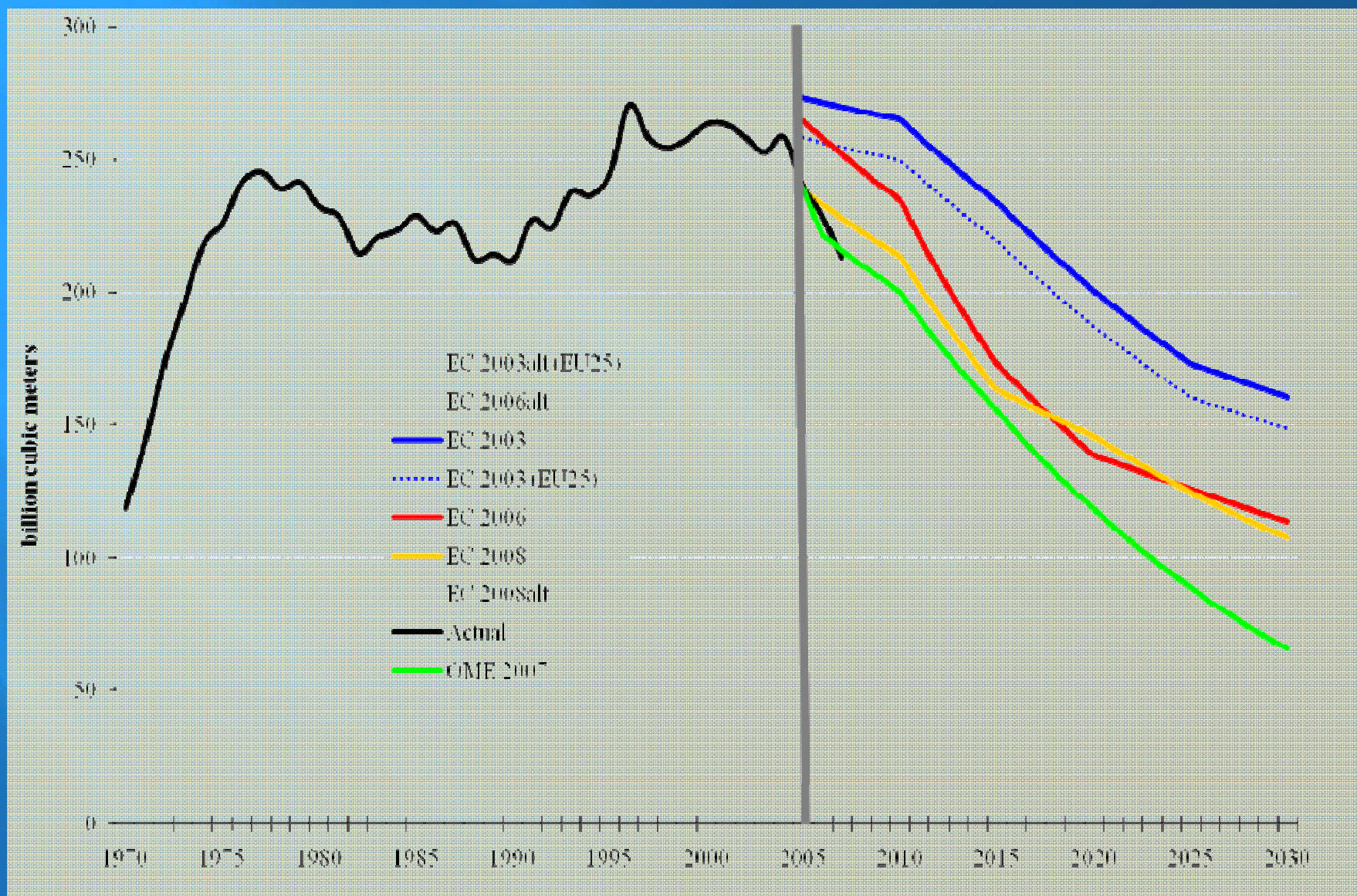
# EU Gas Import Dependency



**Between 81% and 91% in 2030, compared to 60% in 2008**



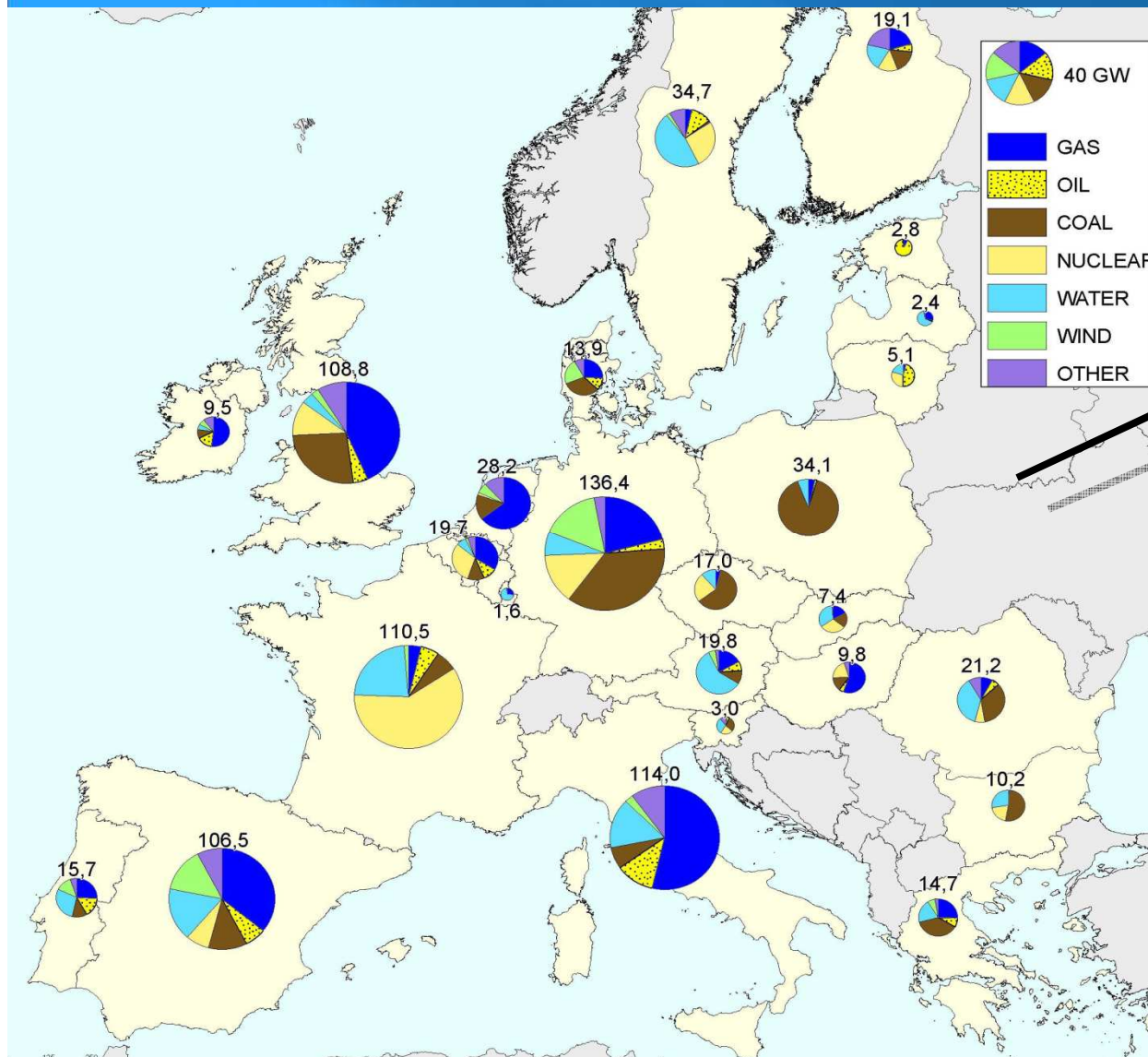
# Future EU Gas Production



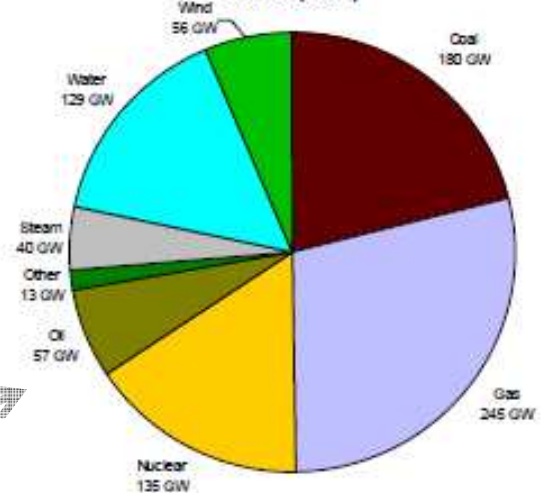
will continue declining *but* how fast and how far ?



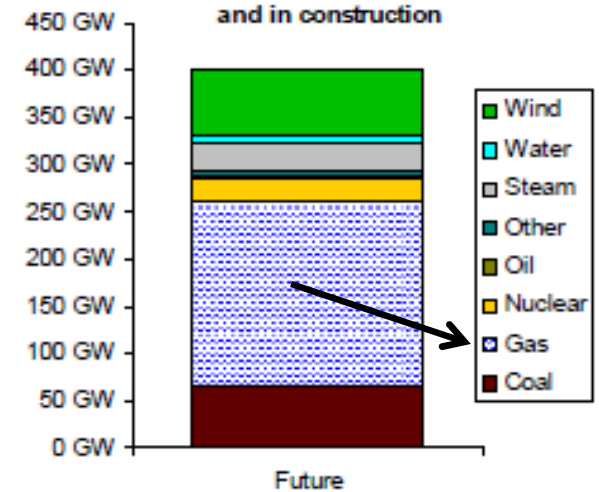
# EU-27 Electricity Generation Capacity



EU 27 electricity generation capacity by energy source (2007)



Generation Capacity planned, in development and in construction



Ele generated : 30% nuclear, 29% coal; 21% gas, ...

Sources: Platts, EC

# EU's Core Energy Objectives

## Competitiveness

- Internal Market
- Interconnections (Trans-European networks)
- European electricity and gas network
- Research and innovation
  - CC&S
  - Alternative fuels
  - Energy efficiency
  - Nuclear

## Sustainability

- Renewable energy
- Energy efficiency
- Nuclear
- Research and innovation
- Emission trading

## Security of supply

- International Dialogue
- European (oil/gas) stock management
- Refining capacity and energy storage
- Diversification

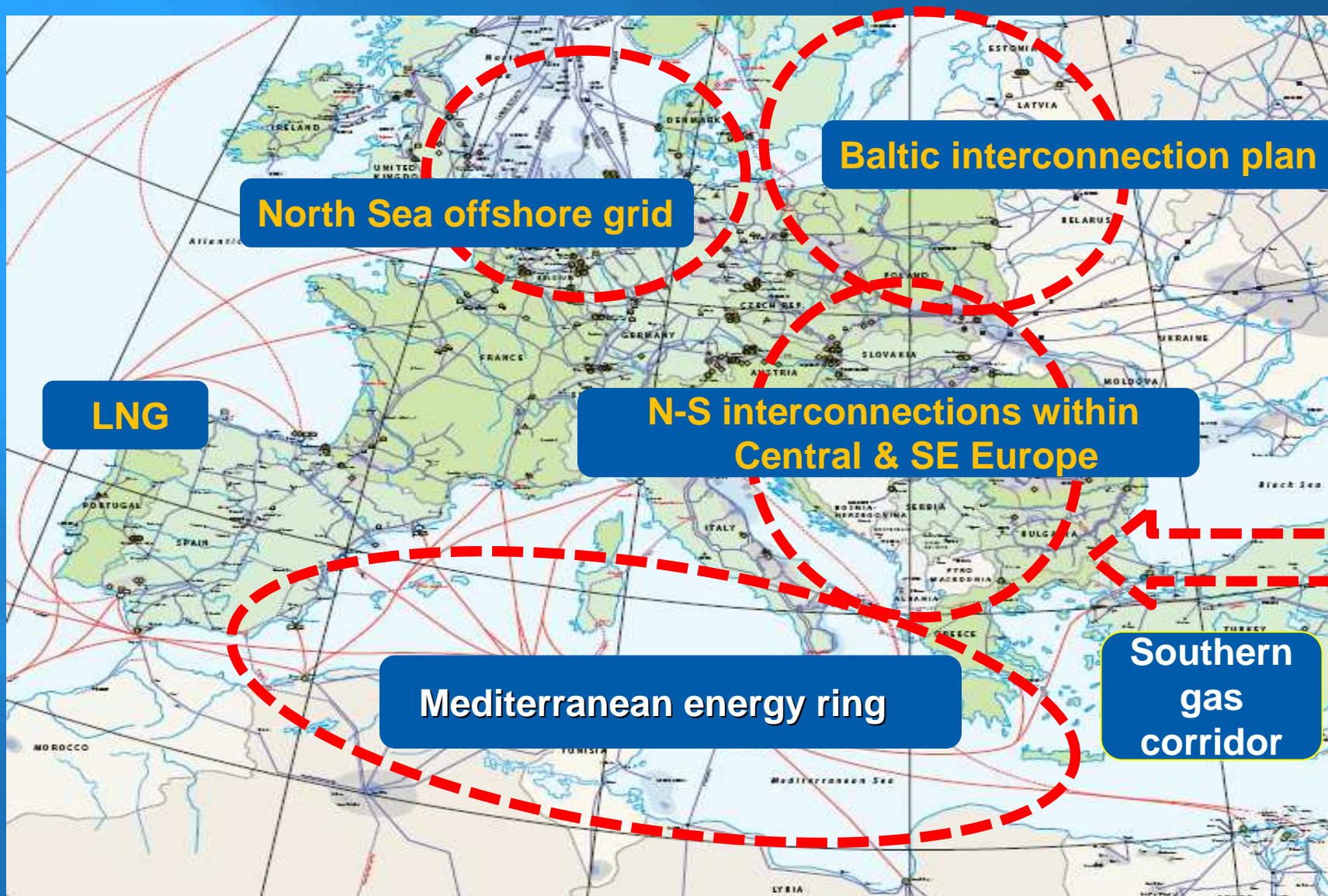




# EU 2<sup>ND</sup> STRATEGIC ENERGY REVIEW

- November 2008: Securing our Energy Future
  - Energy solidarity
  - New policy on energy networks
  - Package of energy efficiency proposals
  - International cooperation
- Key energy drivers: 20/20/20 strategy
- EU Energy Security and Solidarity Action Plan
  - Infrastructure needs and diversification of supplies
  - External energy relations
  - Oil & gas stocks and crisis response mechanisms
  - Best use of indigenous resources
  - Energy efficiency

# Infrastructure priority projects



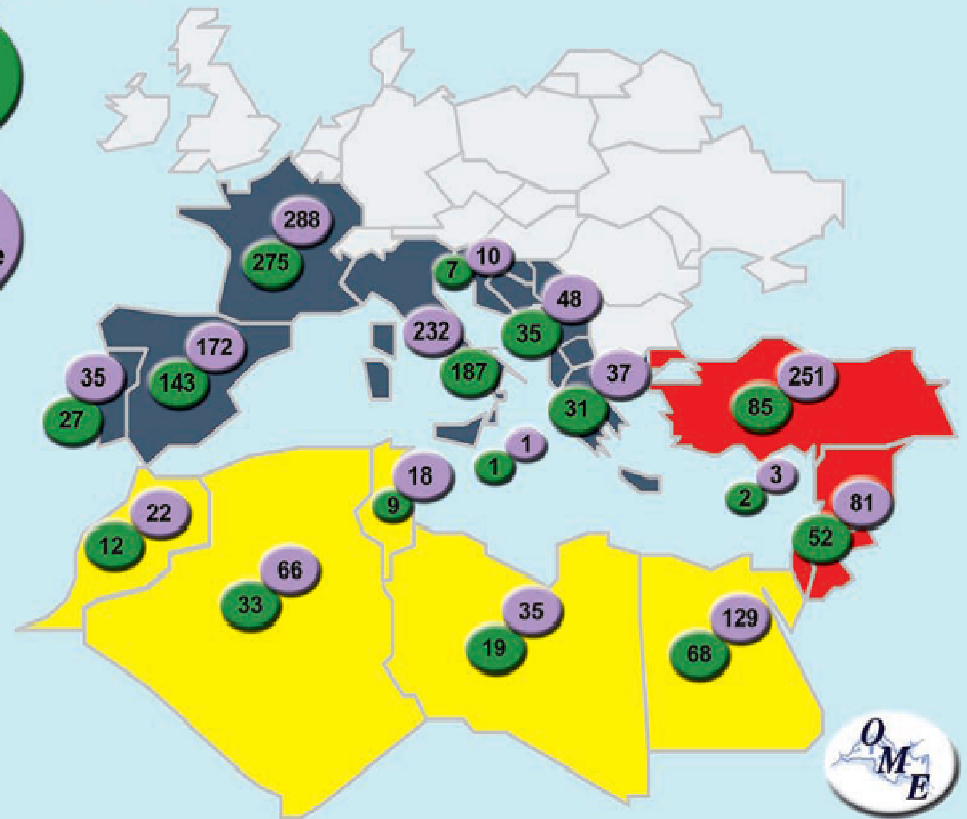
# THE ROLE OF MEDITERRANEAN REGION IN EUROPEAN ENERGY SECURITY



Total energy demand :

2005:  
990 Mtoe

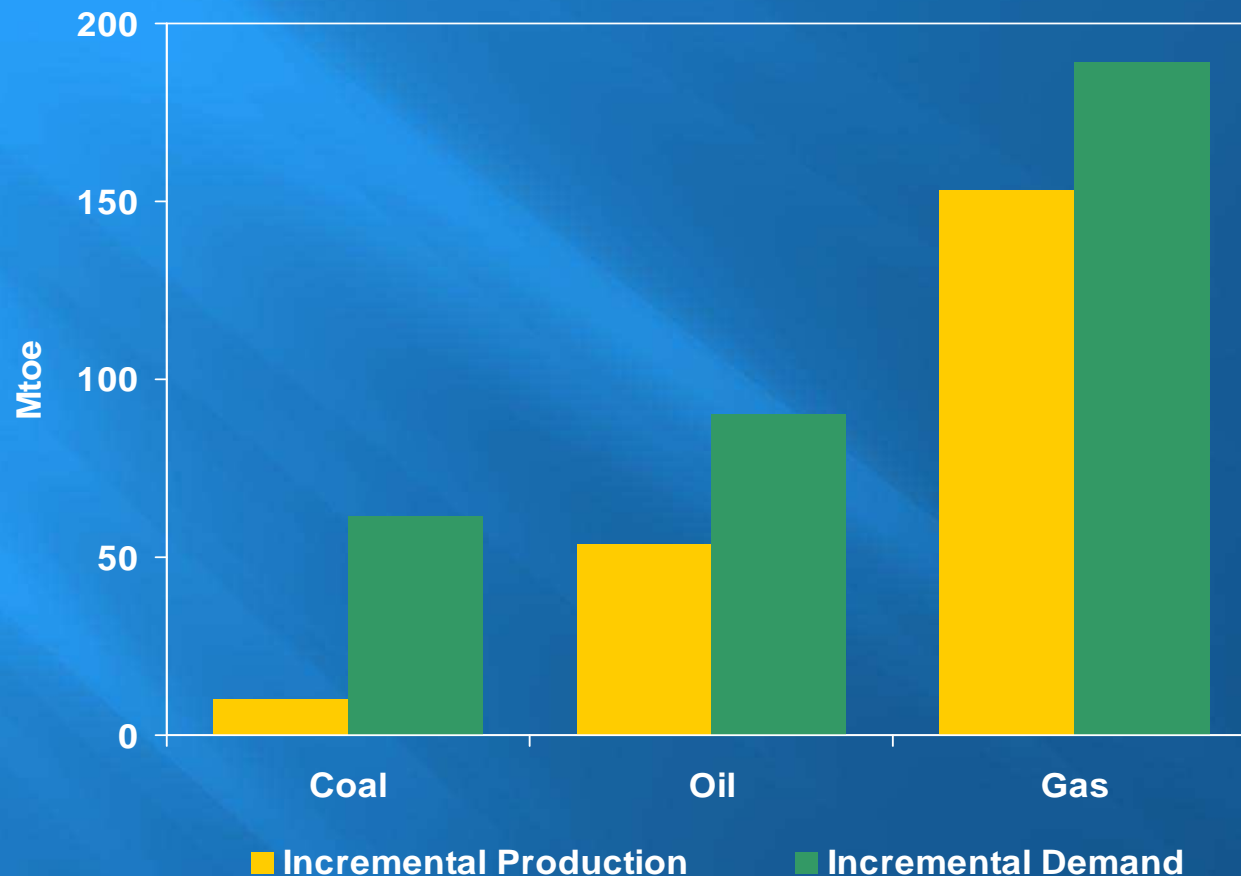
2030:  
1 426 Mtoe



The share of Mediterranean in world energy demand was 9% in 2005  
This share will remain more or less the same in 2030.



# Mediterranean Incremental Fossil Fuel Production & Demand, 2005-2030



*Oil production in the Med to increase only 20% by 2030, whereas gas will double.  
By then, only Algeria and Libya will remain net oil exporter.*

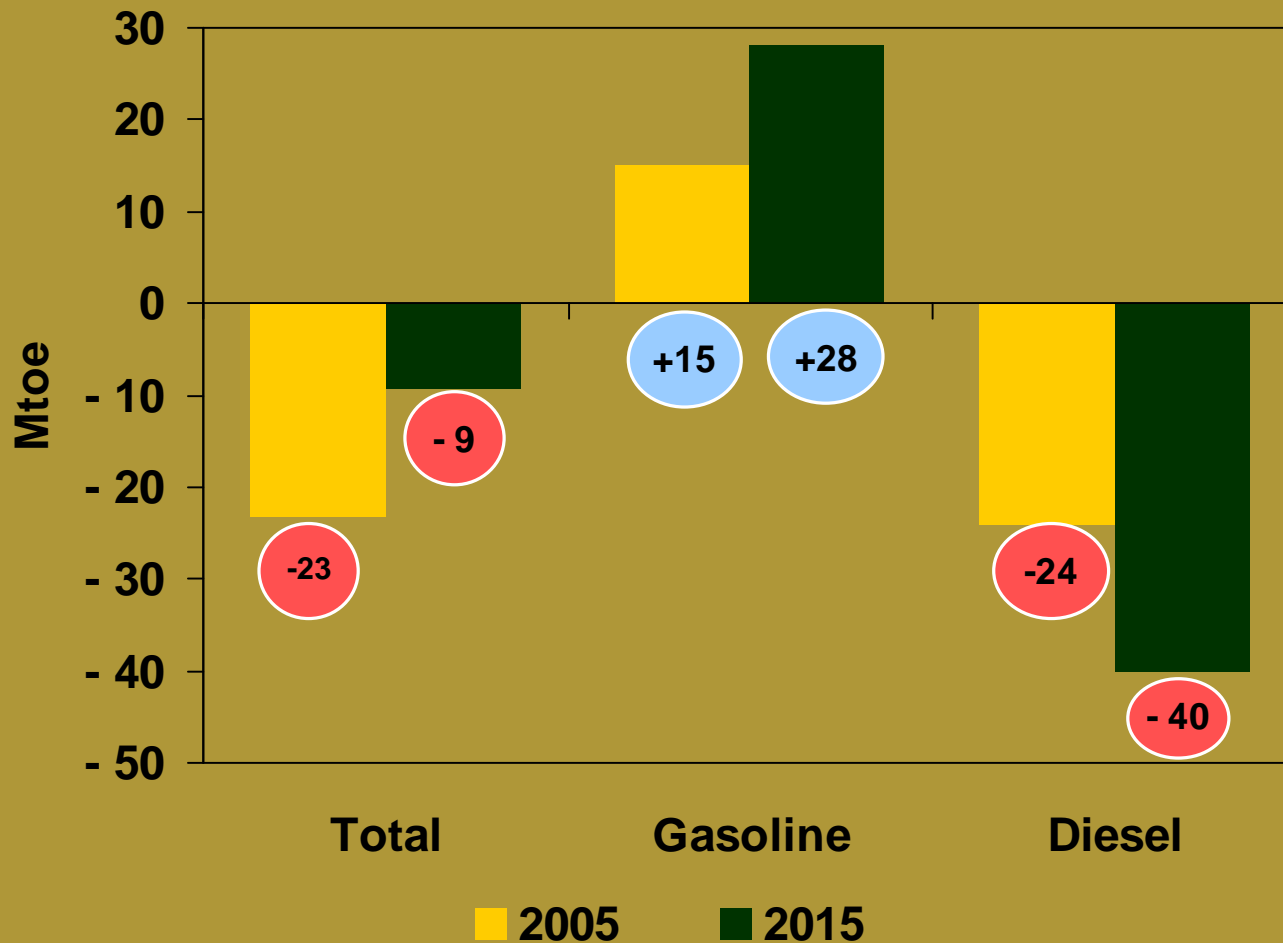


# Mediterranean Oil Product Balance

Total oil demand

2005:  
432 Mtoe

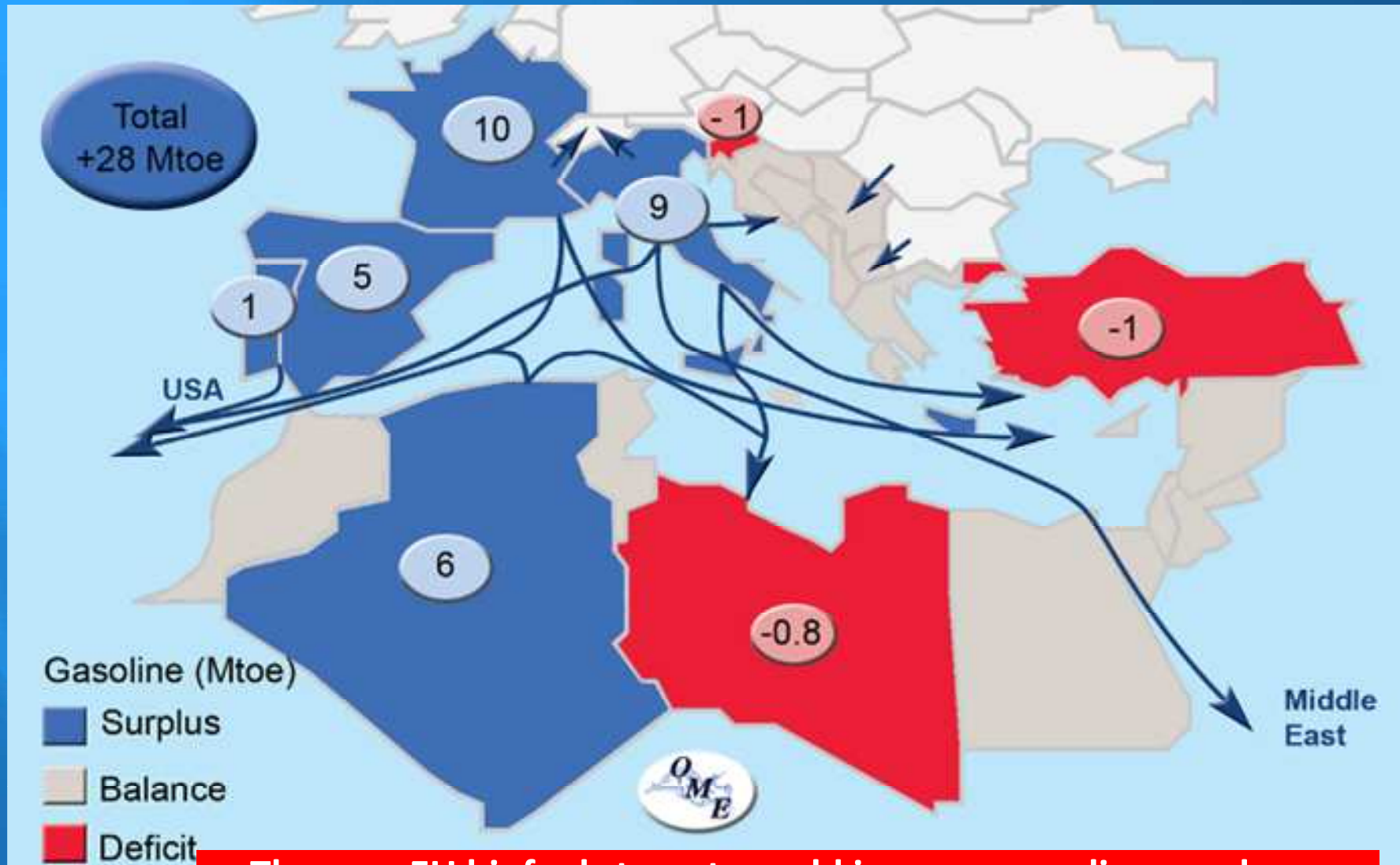
2030:  
522 Mtoe



*further gasoline surplus and a worrying diesel deficit*  
*Challenge: where to sell gasoline, and from where to get diesel*  
*?*



# Mediterranean Gasoline Trade Flows, 2015

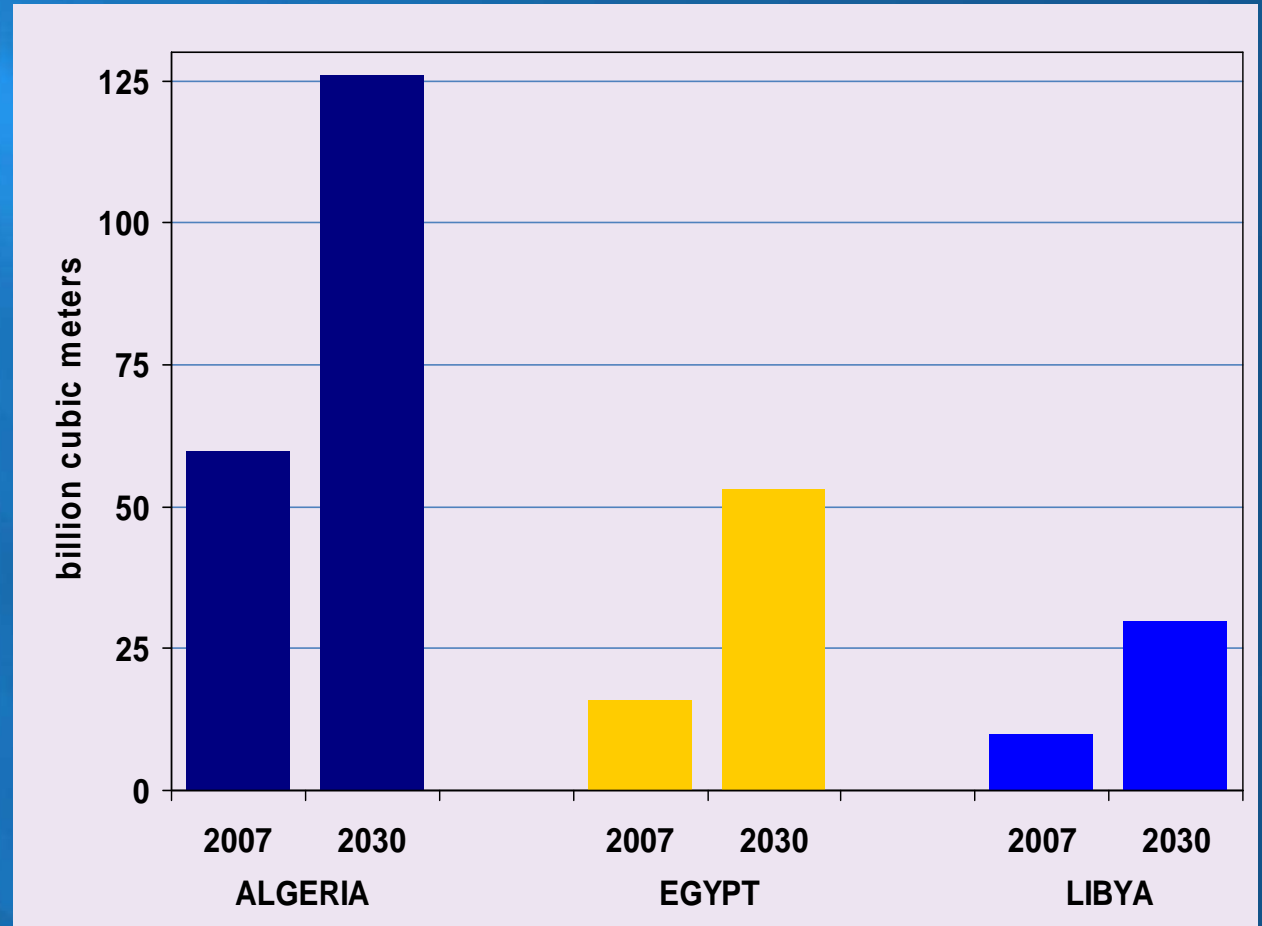


- The new EU biofuels targets could increase gasoline surpluses;
- US ethanol alternative trends would further the issue.

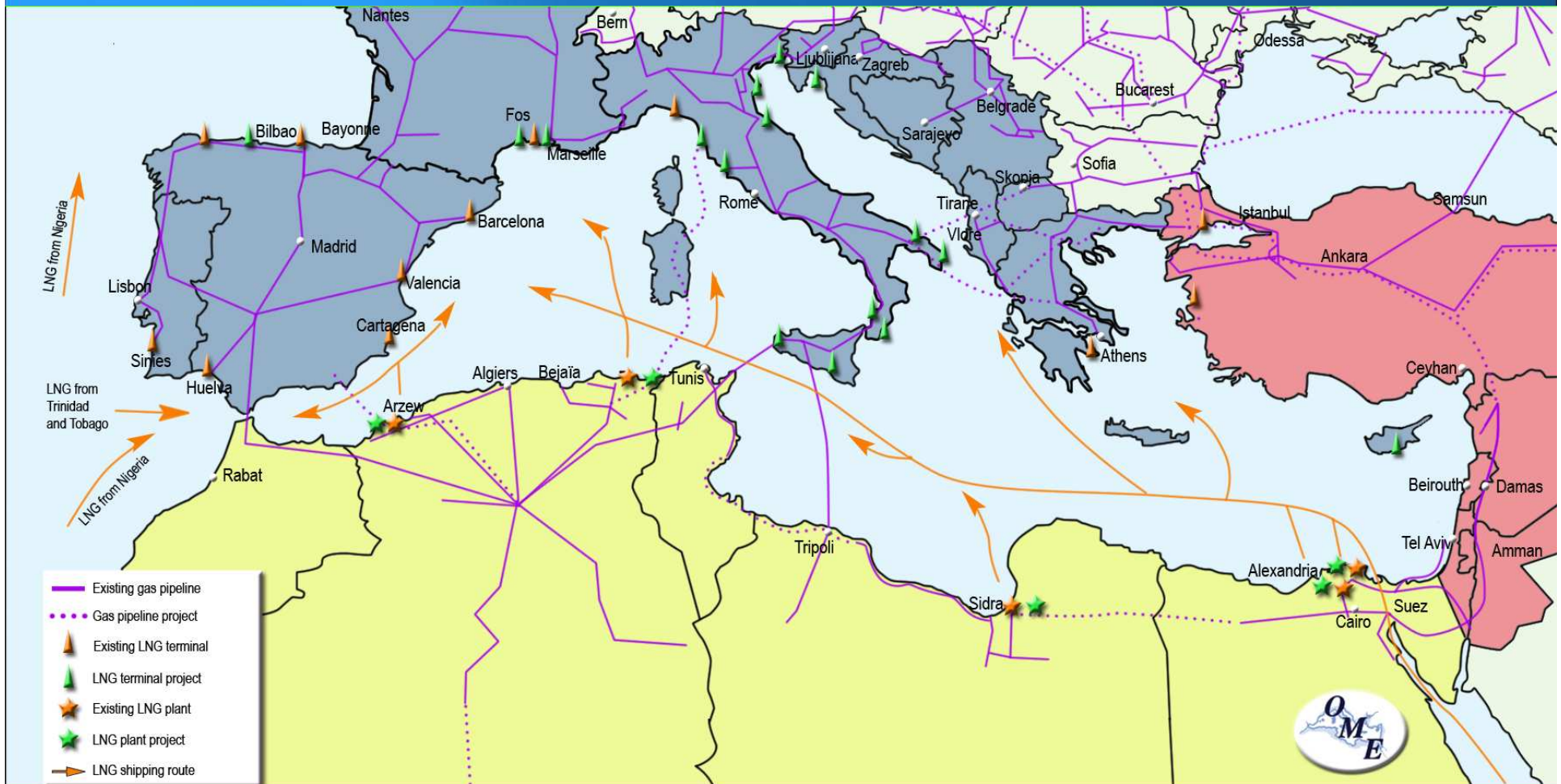


# Gas Exporters of the Med

They have supplied Europe with oil and gas, and, as a source, they are becoming even more important, thanks also to their geographic proximity to Europe

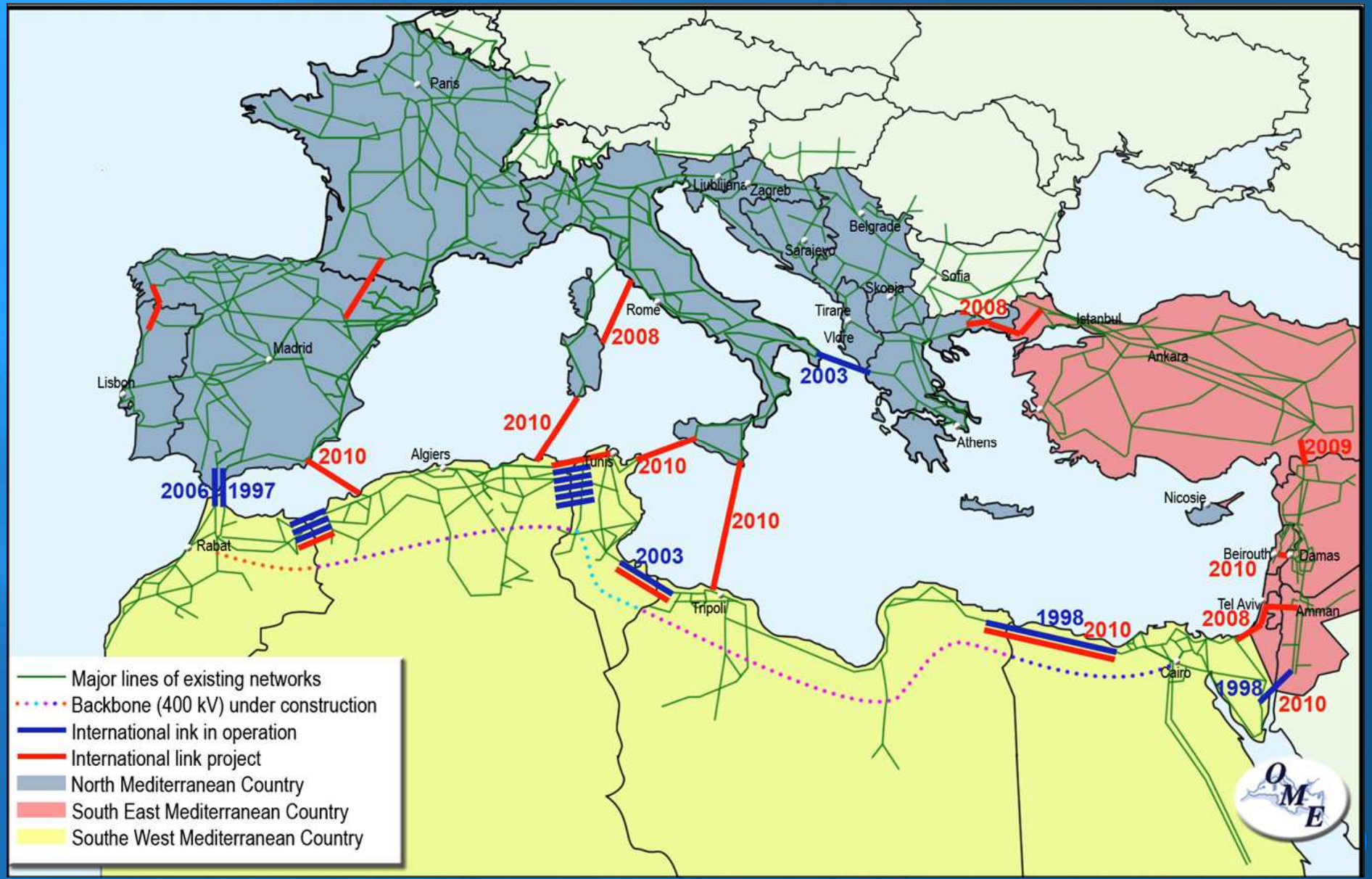


# Gas Infrastructure in the Mediterranean





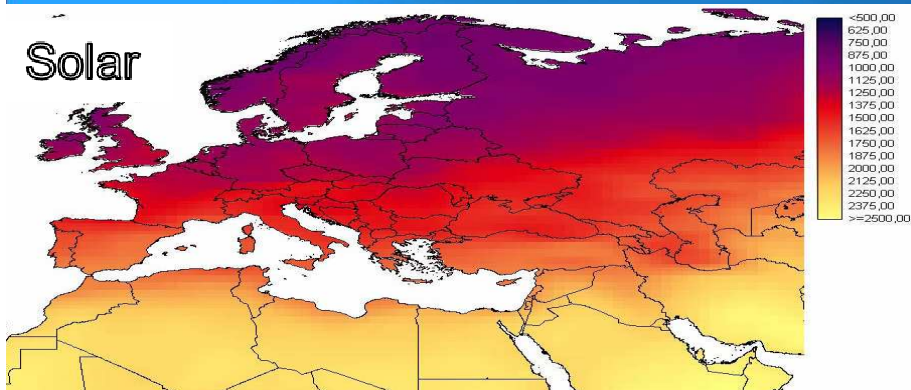
# Mediterranean Electricity Interconnections



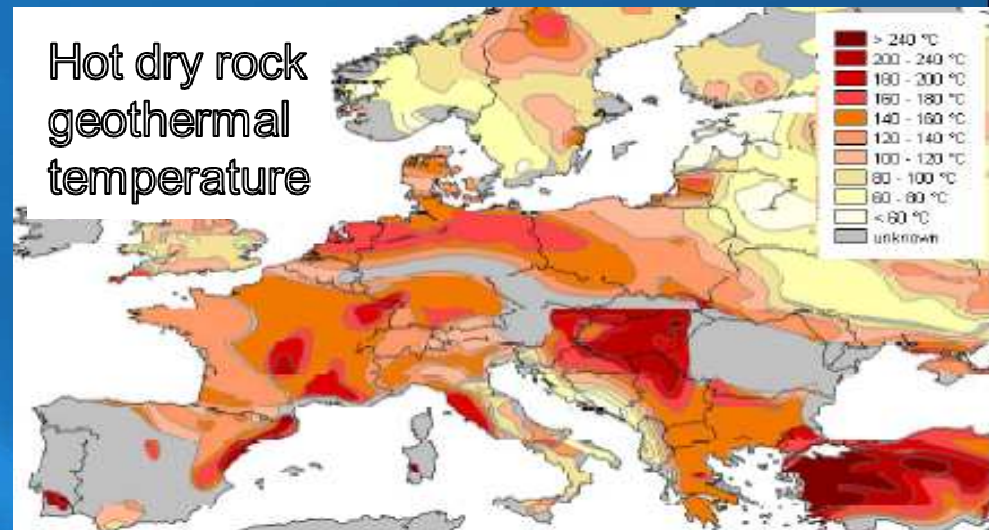


# RENEWABLE ELECTRICITY POTENTIAL

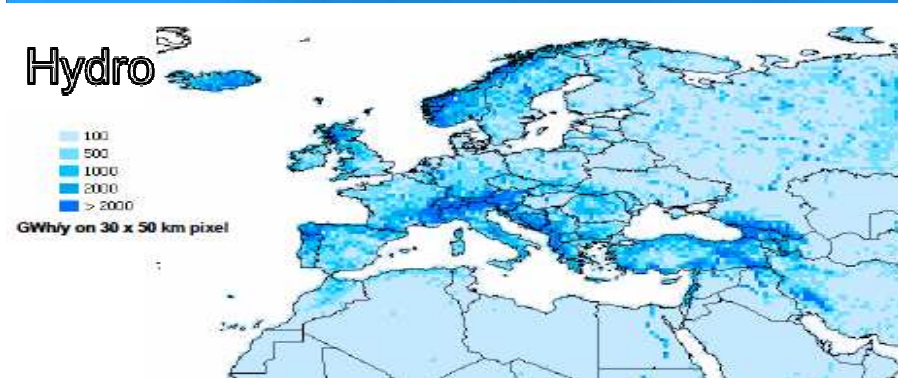
Solar



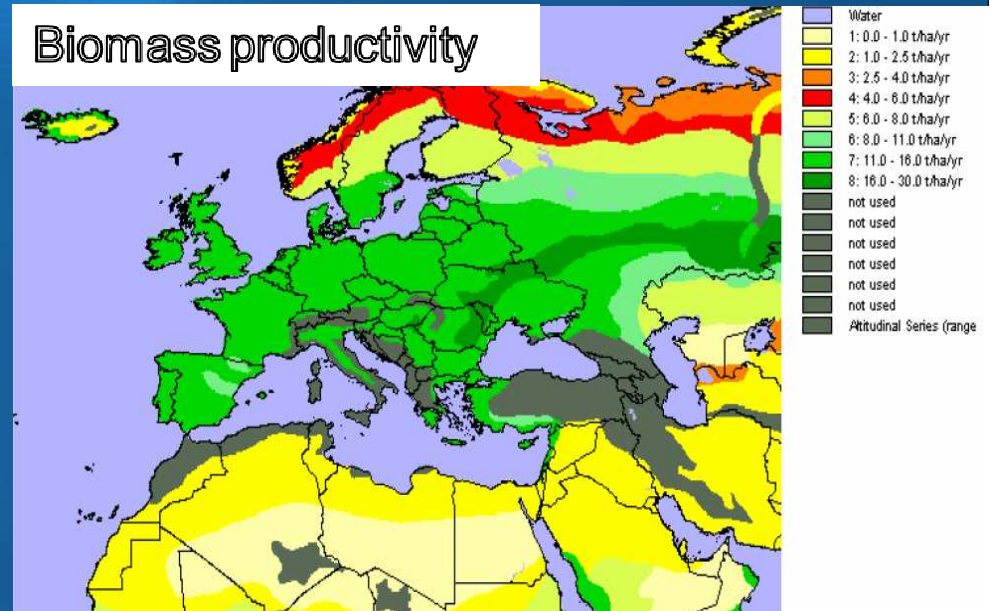
Hot dry rock  
geothermal  
temperature



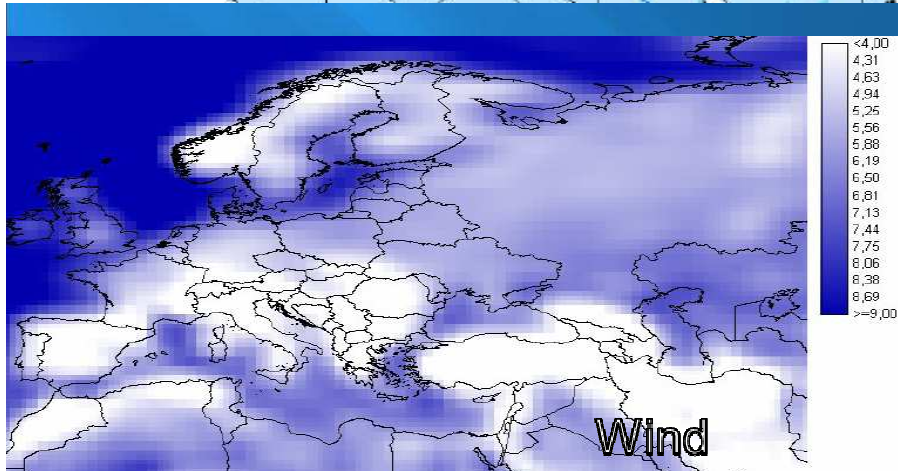
Hydro



Biomass productivity



Wind



Source: MED-CSP



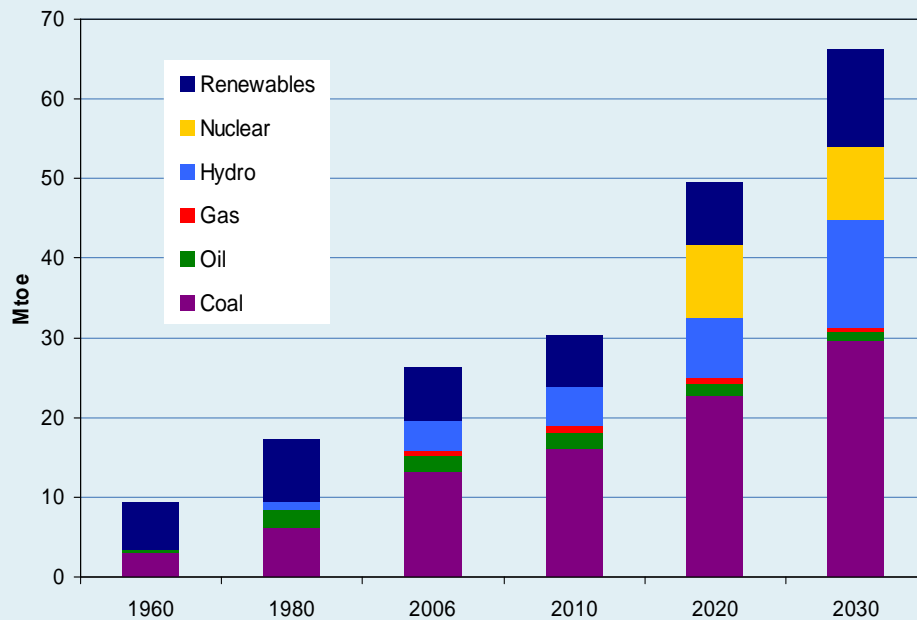
# RENEWABLE ELECTRICITY POTENTIAL



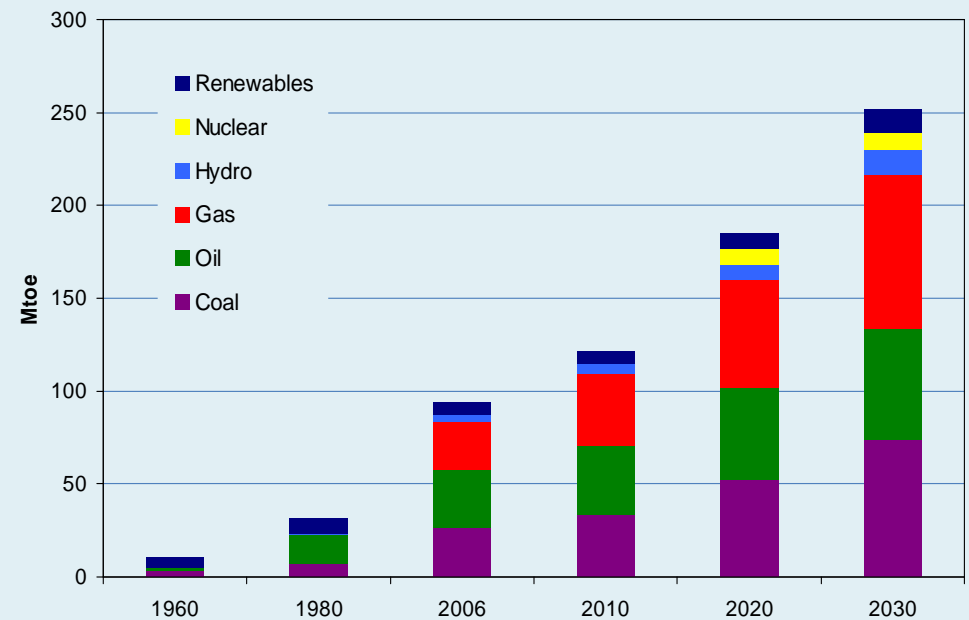
Trans-Med Renewable Energy Cooperation : to build a super grid with the electricity to be carried by HV, DC, long distance lines to Europe

# Turkey's Energy Future

Primary Energy Production in Turkey



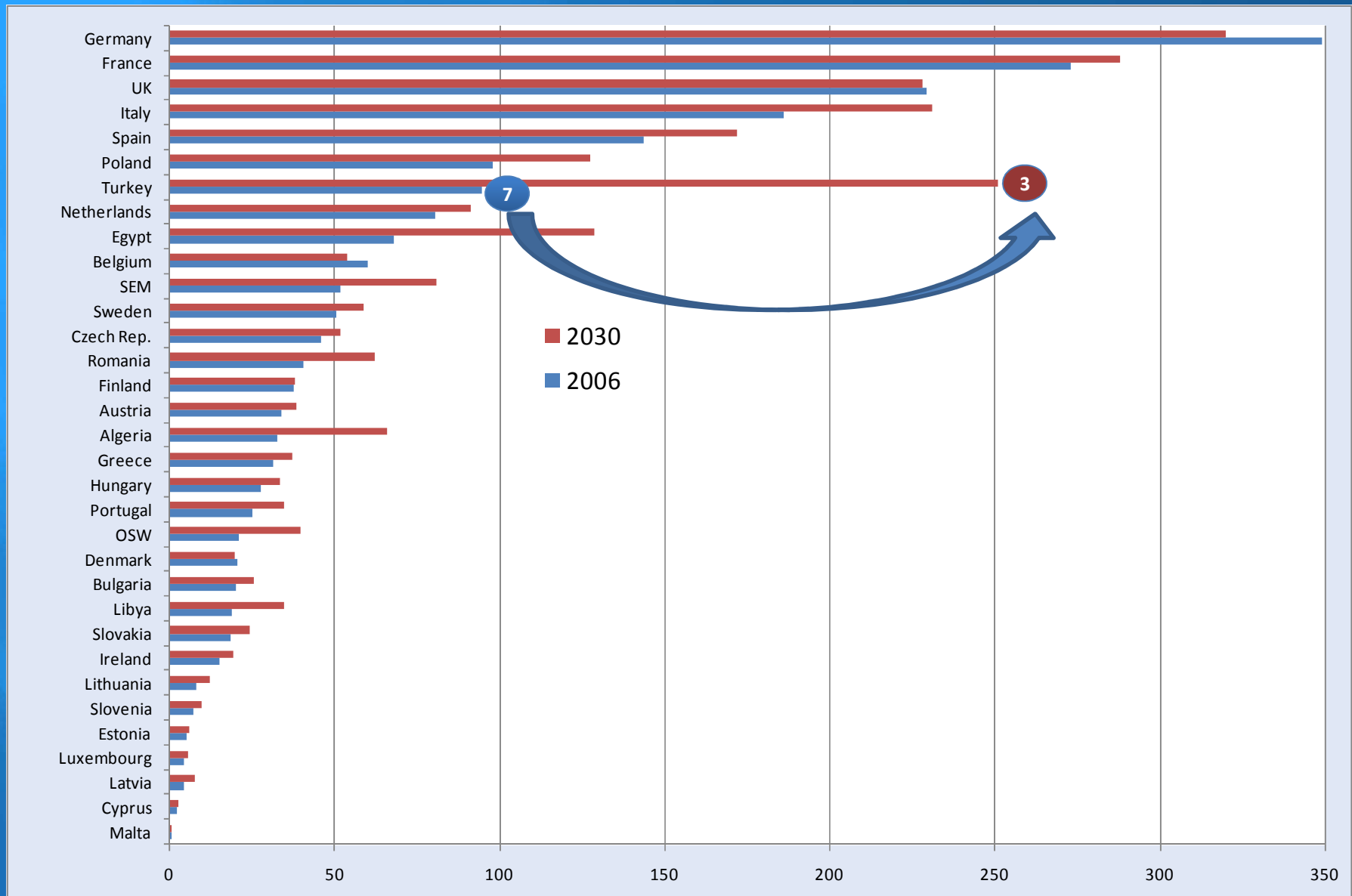
Primary Energy Demand in Turkey



Turkey is an emerging regional and global energy player  
(but lacks a comprehensive energy strategy)



# PRIMARY ENERGY DEMAND EURO-MED (MTOE, 2006 VS 2030)



Coal: #4 → #2

Oil: #8 → #6

Gas: #8 → #3

Ele: #7 → #1,2



# Is the EU serious about gas supply security?

## *Misperceptions or reality?*

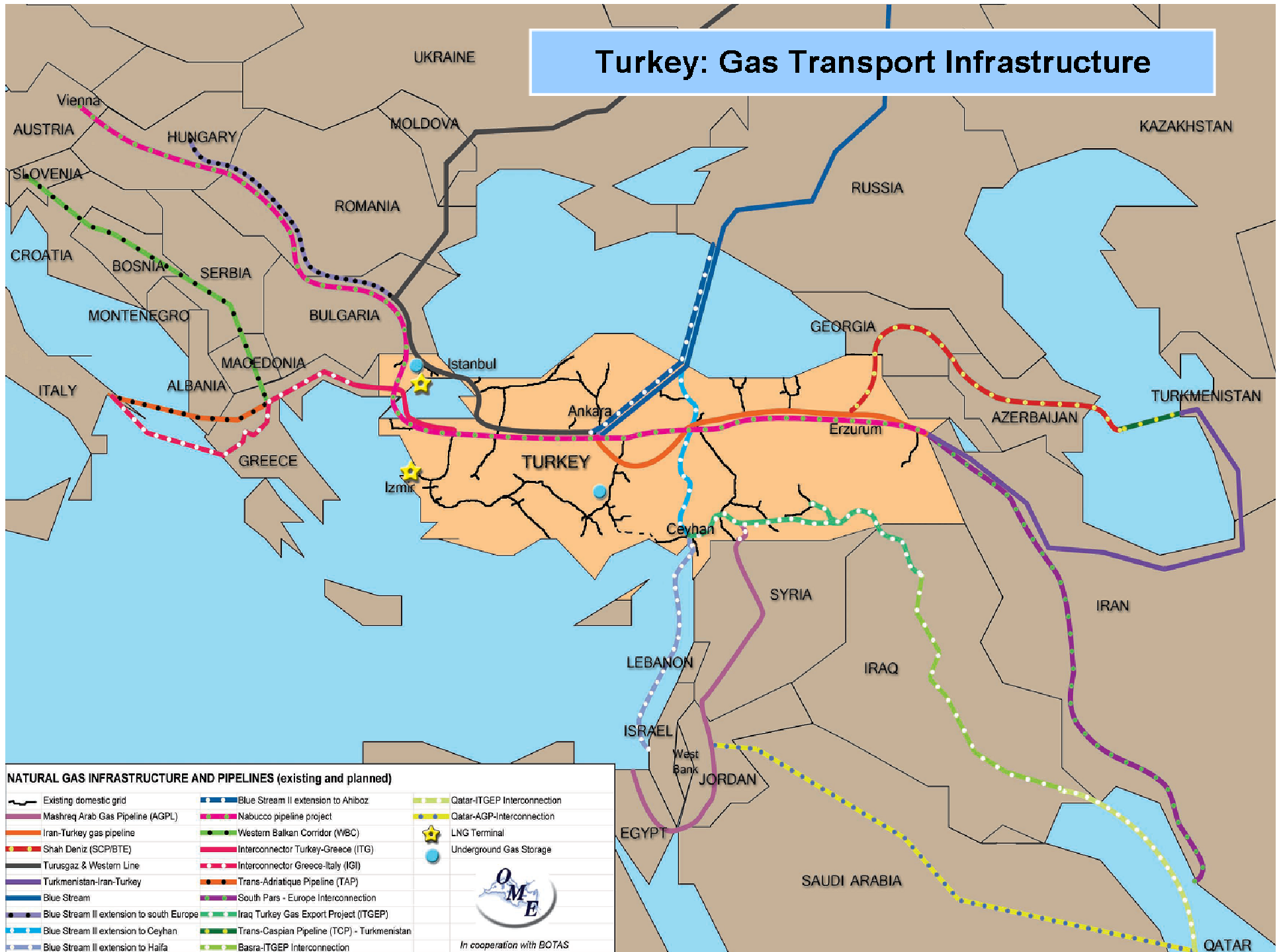
- EU needs additional gas import infrastructure
  - Ukraine is the major transit for Russian gas (so far)
  - Nord Stream and S. Stream will compete more with the current transport system
  - LNG will compete only to certain extent (price, competition, regas overcap)
- Risk mitigation possible only with source AND route diversification. Nabucco offers both

BUT

- ! Lacks far sighted coherent policies and priorities
- ! supports politically motivated sanctions against ...



# Turkey: Gas Transport Infrastructure



# Is the EU serious about gas supply security? *Misperceptions or reality?*

- ! EU pledged €1.85 bn for modernization of Ukraine's gas transit pipeline

Note: The European Energy Programme for Recovery allocation for Gas Infrastructure is €1440 M, of which Nabucco €200 M ?

- Turkey, if it has a role, should act as a bridge, not a hub.... Develop 4 hubs (in Baku, Romania, Greece, Italy).... explore alternatives (White Stream) “even if an acceptable Corridor Agreement would (or would not) be found with Turkey” .... include LNG development in Romania and perhaps Bulgaria!

*Jozias Van Aartsen, European Coordinator for Southern Corridor (also known as Nabucco co-ordinator), Activity Report: September 2007-February 2009.*

# Conclusions

- ▣ To diversify, the EU must fully engage South and East Mediterranean countries, which offer enormous potential for European energy security
- ▣ Perfect example of cooperation and partnership
- ▣ The Barcelona Process has laid the ground work for greater dialogue and cooperation
  - Must evolve further to achieve full integration, particularly in the energy sector
  - The Union for the Mediterranean is seeking to provide new impetus



# Conclusions

- ▣ Turkey is a geostrategic energy hub and corridor for producers & consumers; IOCs & NOCs; and investors
- ▣ Political decisions should not be formulated by looking through the pipelines
- ▣ Energy should not become the currency of power in EU-Turkey relations





# The way towards a secure Euro-Med energy future

- ▣ Have desire and willingness for a well balanced cooperation, open frank dialogue, true partnership
  - based on the principles of
    - transparency,
    - common responsibility,
    - mutual confidence, respect, and benefit,
    - fair competition and non-discrimination
  - with commitments and actions, especially where geostrategic interests are concentrated (such as the Med and Turkey)
- ▣ After that it must be developed and intensified offering security and predictability, which would pave the way for the necessary long-term investments



**Thank you for your attention.**

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