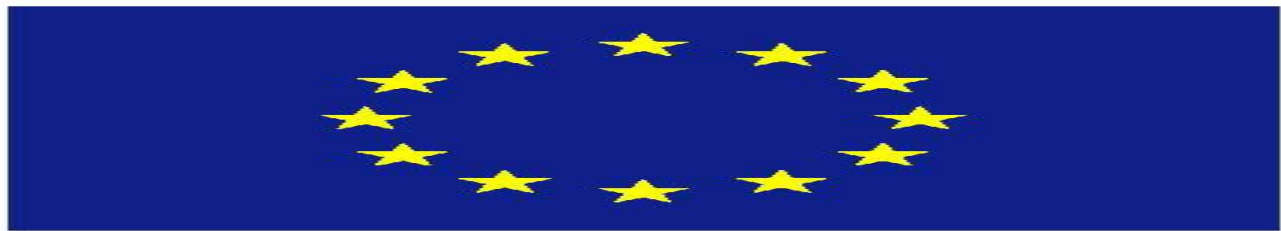




Delegation of the European
Union to Turkey



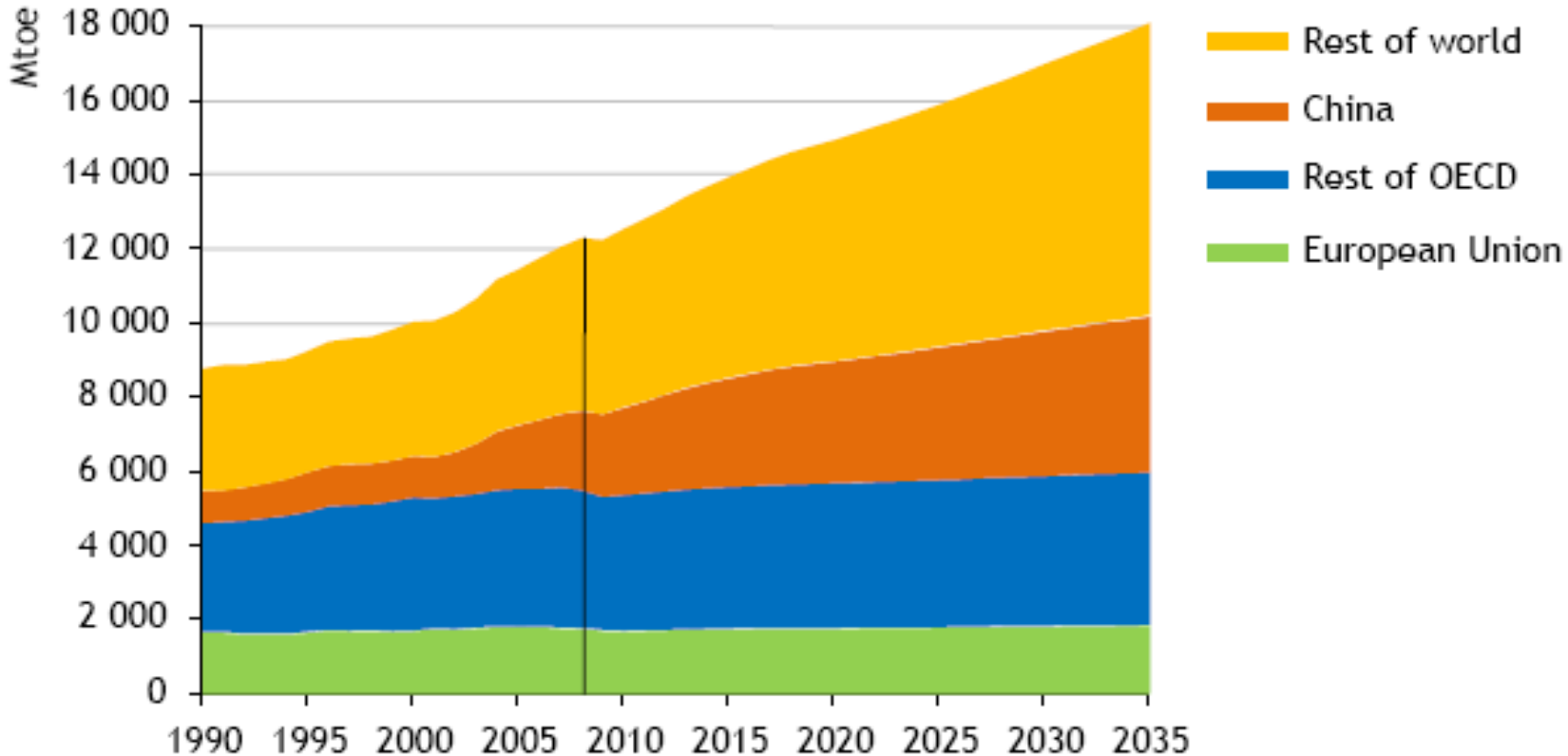
***“EU’s New Energy Views and
EU-Turkey Energy Dialogue”
EU-Turkey Joint
Consultative Committee***

***Hasan Özkoç
Sector Manager***

September 15, 2011 / Istanbul



World energy demand increases

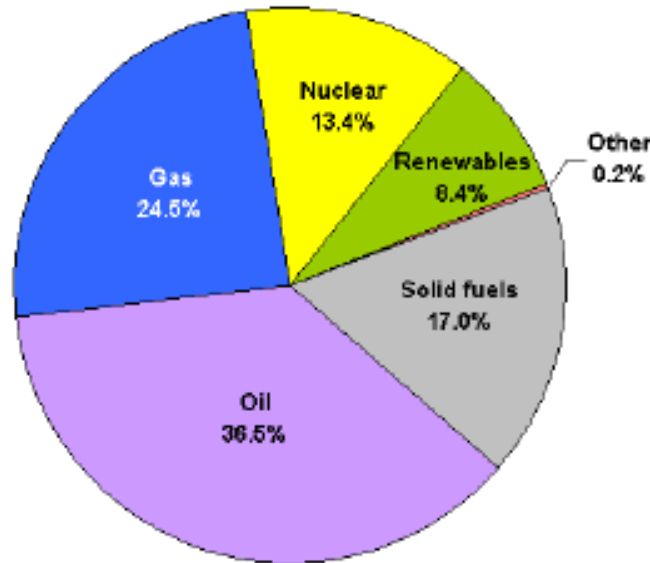


EU energy consumption is expected to level out in future but world energy consumption will continue to grow due to global population growth and economic catching up. Overall, world energy demand may grow by 45 % between 2006 and 2030. In China and India, demand will nearly double.



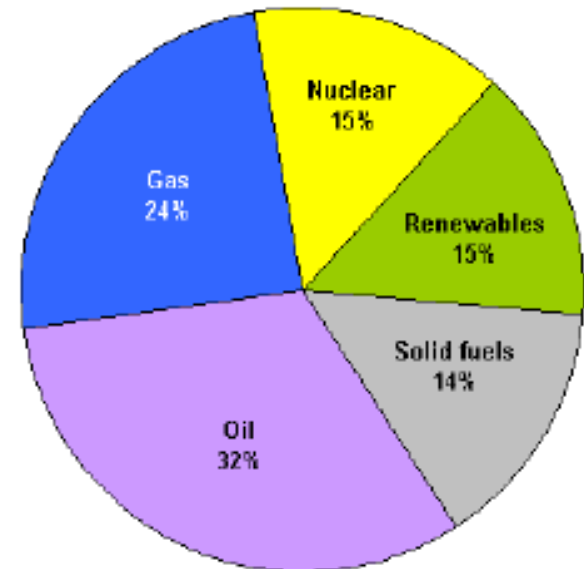
EU energy mix slowly changes

**EU Gross inland consumption
2008**



in % (1799 Mtoe; 2008)

**EU Gross inland consumption
2030**



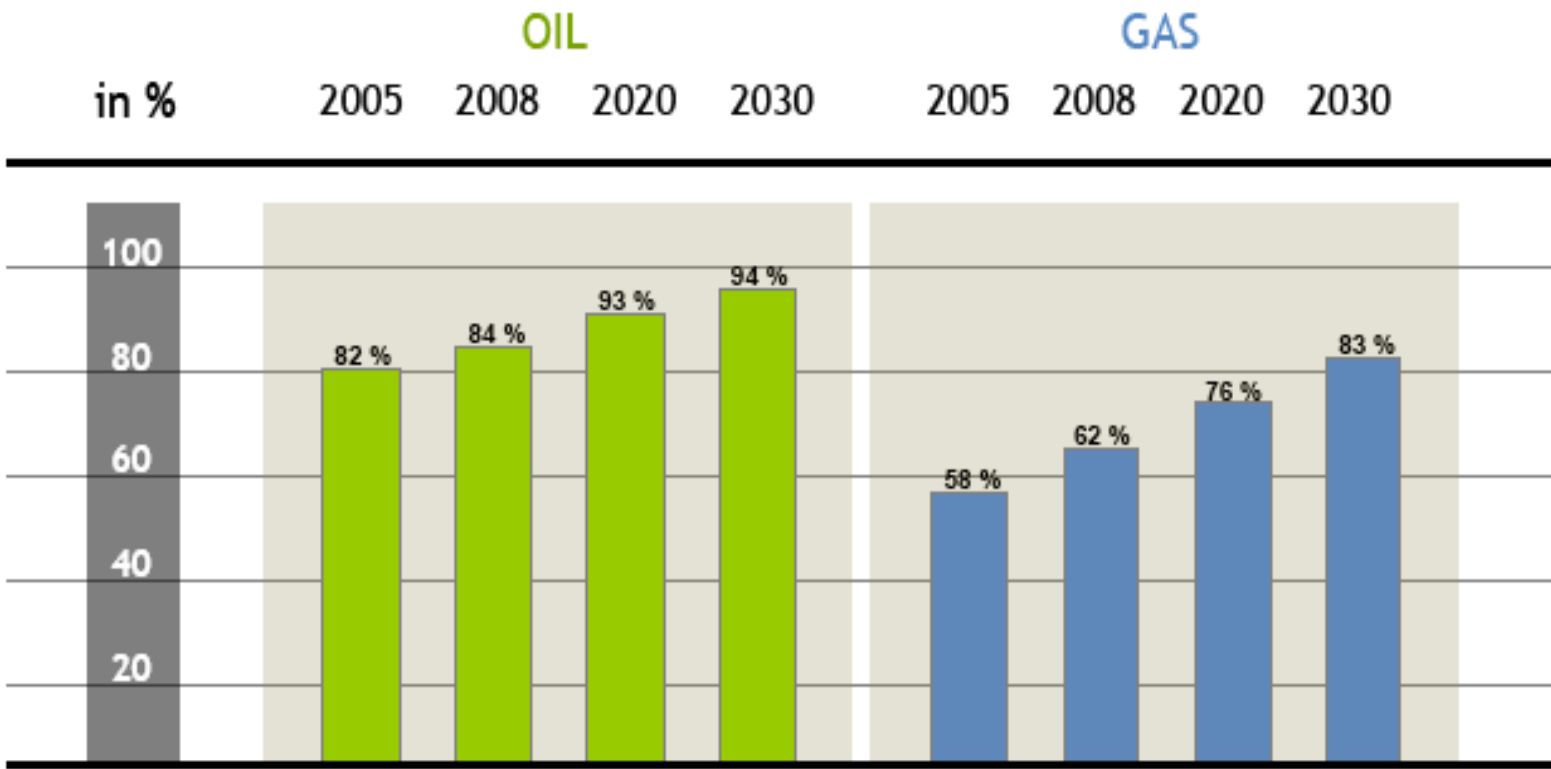
in % (1807 Mtoe; 2030 « business as usual »)

Fossil fuels represent up to 80% of our energy mix today. In a “business as usual” scenario, the share may still be 70% by 2030, but renewable sources are expected to account for an increasing proportion.



Dependence on import grows

« Business as usual » scenario based on 2009 figures

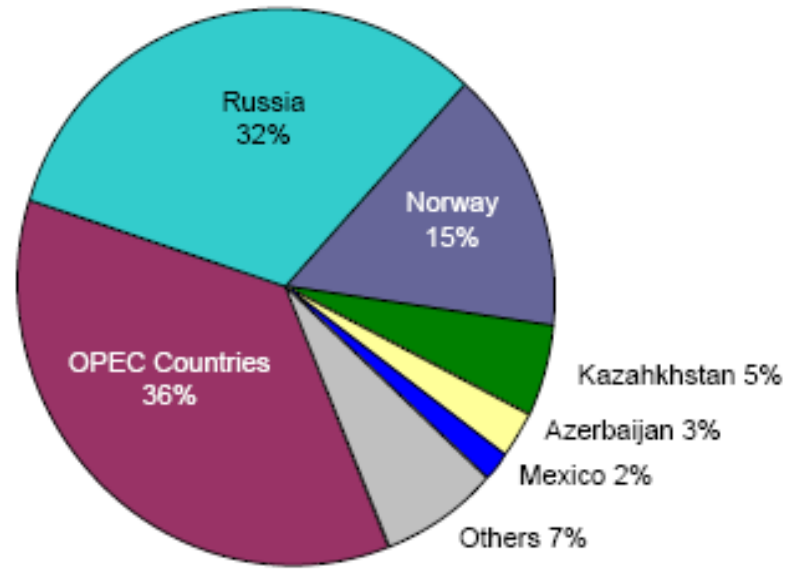


Today, Europe imports more than half of the energy it uses. If nothing changes, our dependence on fossil fuel imports will rise by 2030.



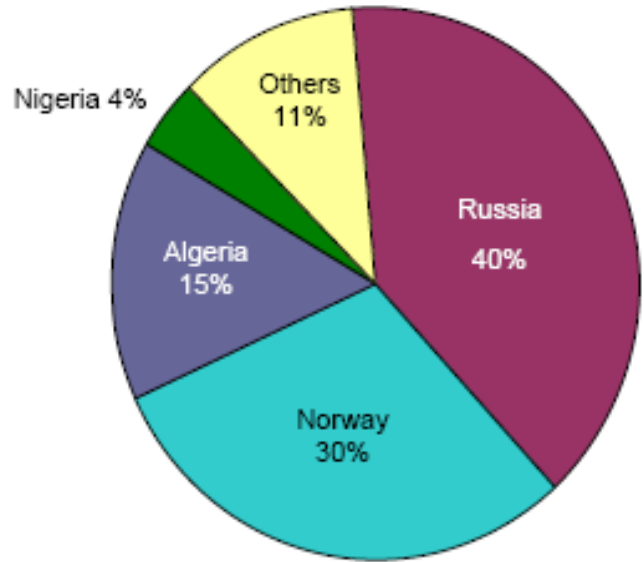
Dependence on few suppliers

EU imports of crude oil



in % (2008, total = 561,46 Mt)

EU imports of natural gas

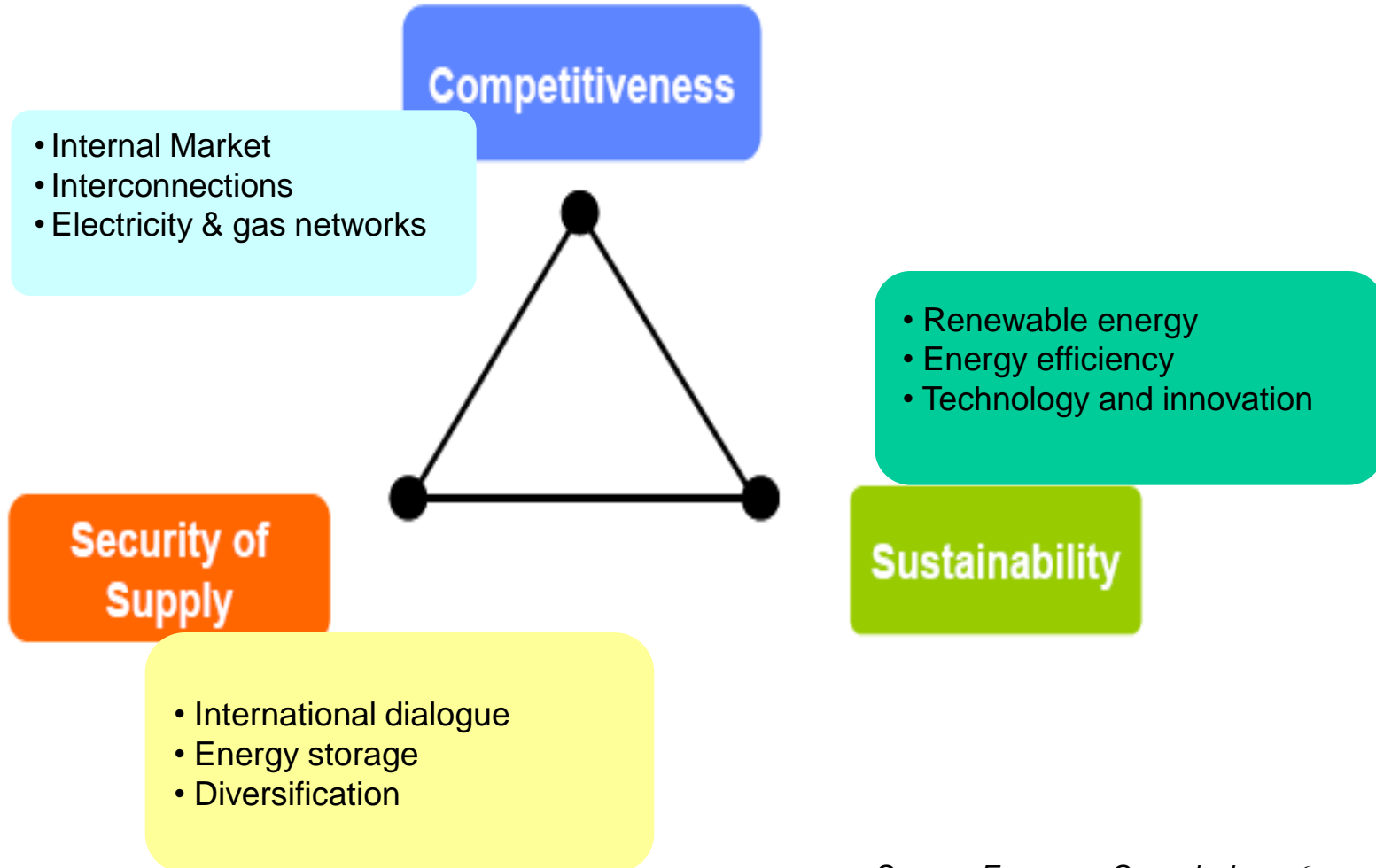


in % (2008, total = 12,958,133 TJ)

Today, the EU is very reliant on a few partners for its oil and gas supplies. Diversification of routes and sources is a strategic priority for the EU.



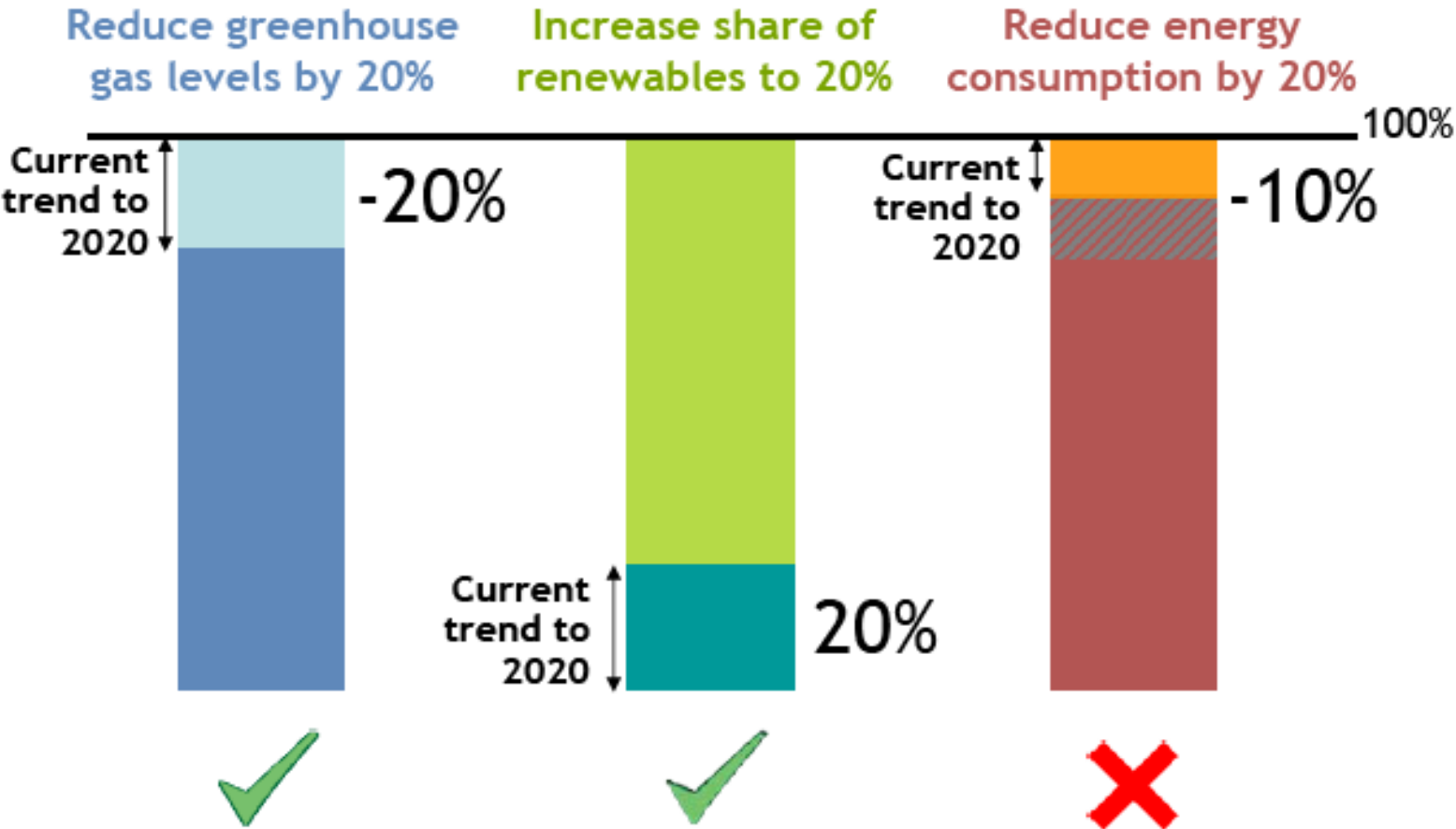
EU energy goals





Delegation of the European Union to Turkey

EU 20-20-20 targets by 2020





Infrastructure priorities by 2020



- - - - Gas
- - - - Electricity
- - - - Electricity and Gas
- - - - Oil and Gas
- Smart Grids for Electricity in the EU

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The Commission has identified priority infrastructures of European interest to be delivered by 2020. See: http://ec.europa.eu/energy/infrastructure/strategy/2020_en.htm

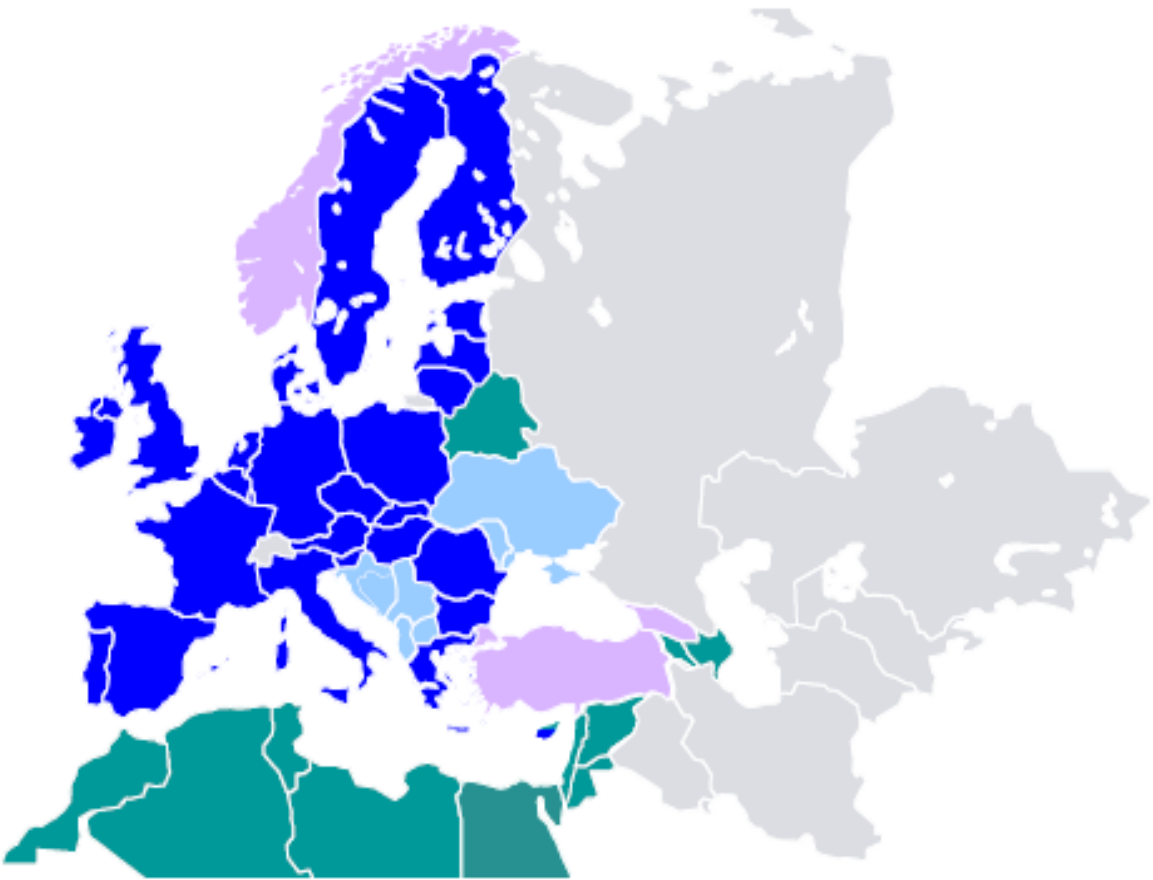


Delegation of the European Union to Turkey

Extension of the EU energy market





- EU
- Energy Community Parties
- Energy Community Observers
- Other Neighbourhood Policy Countries

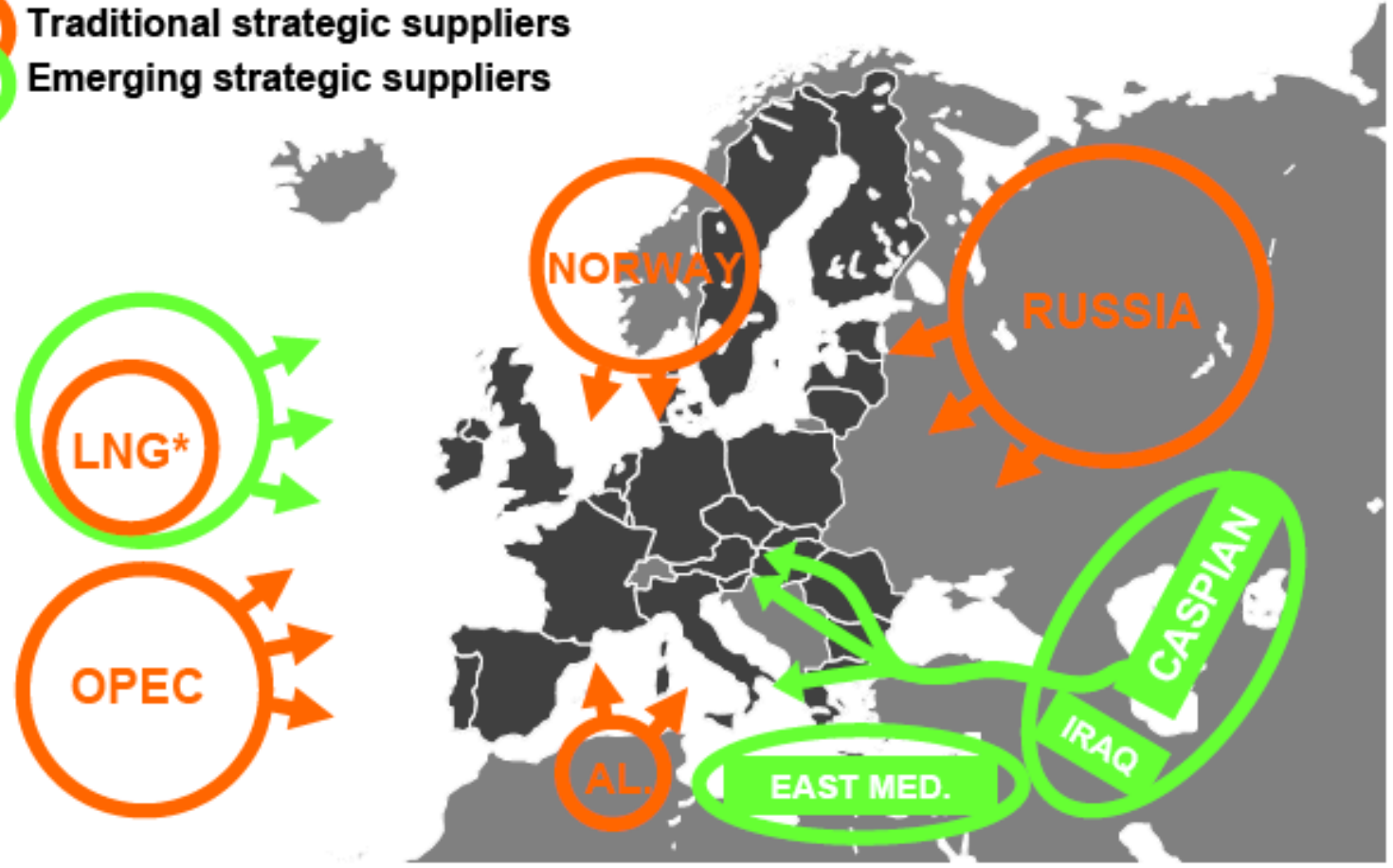


The EU is projecting its energy market model as well as political and economic stability in neighbouring countries including through the Energy Community Treaty. See: <http://www.energy-community.org>



Hydrocarbon suppliers

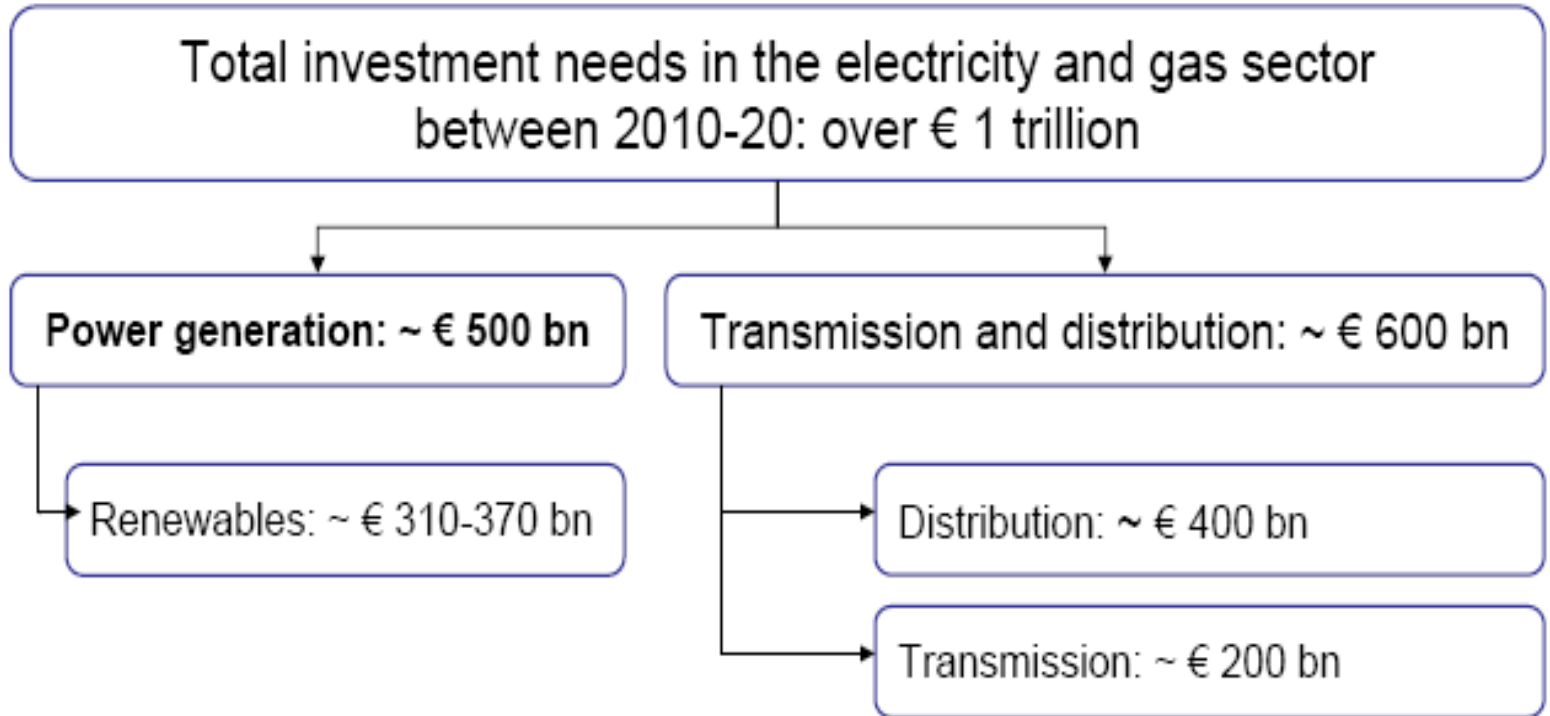
 Traditional strategic suppliers
 Emerging strategic suppliers



* LNG: Liquefied natural gas (Qatar, Algeria, Nigeria, etc.)



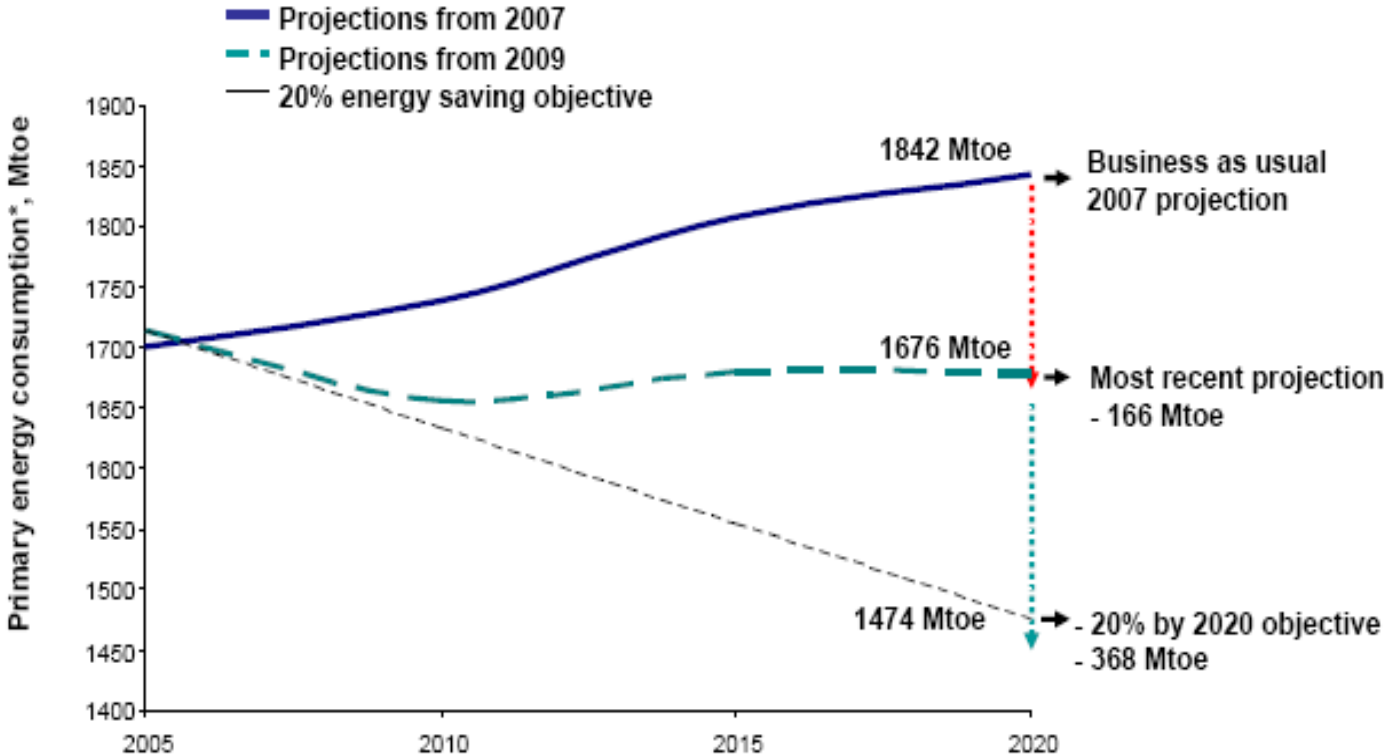
Total investment for infrastructure



Investments of over € 1 trillion will be needed by 2020 to replace obsolete power plants, to modernise and adapt infrastructure to the latest technologies and to cater for demand for low carbon energy.



Energy Efficiency (EF) targets



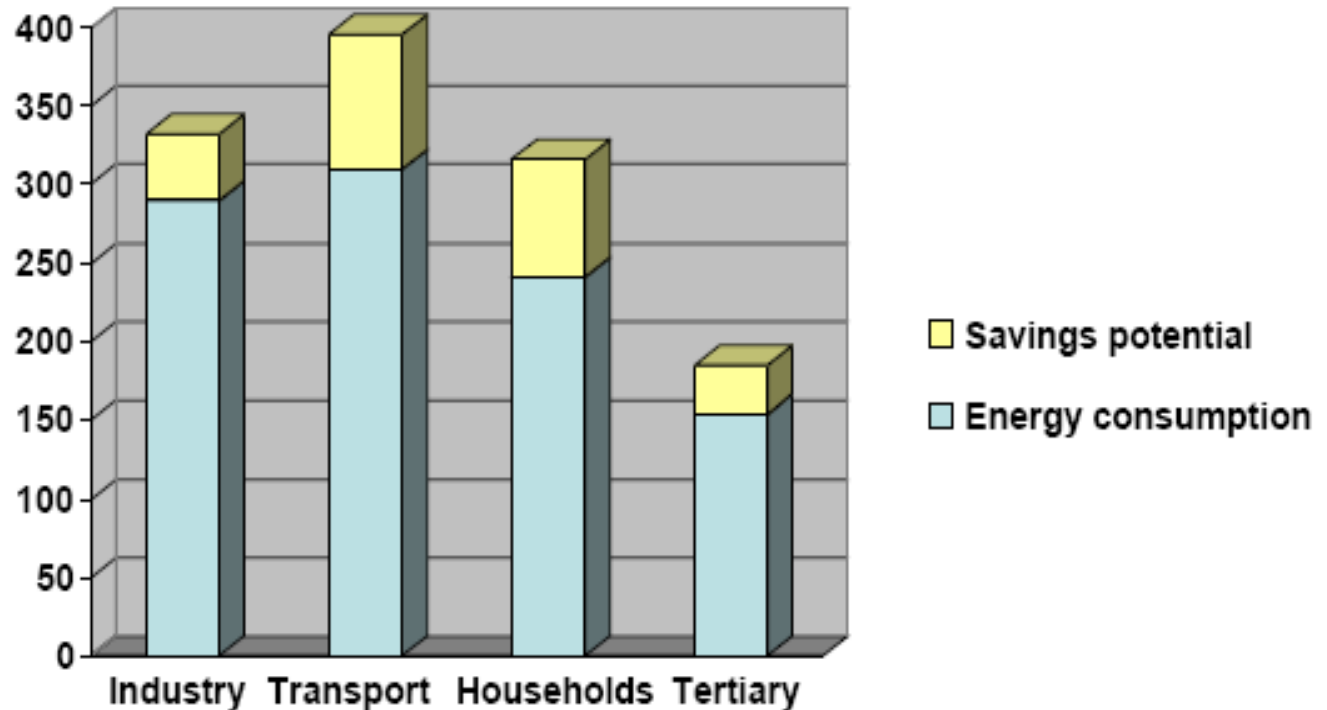
* Gross inland consumption minus non-energy uses

In spite of progress, significant additional efforts are needed to achieve the - 20% energy consumption target. Most recent projections show that with current policies we will only achieve a 10% cut.



Energy savings potential

Final energy in 2020 (in Mtoe)



Transport and households, in particular buildings, are two sectors with great potential for energy efficiency gains. Measures to save energy in transport and accelerate the renovation rate of buildings are crucial.

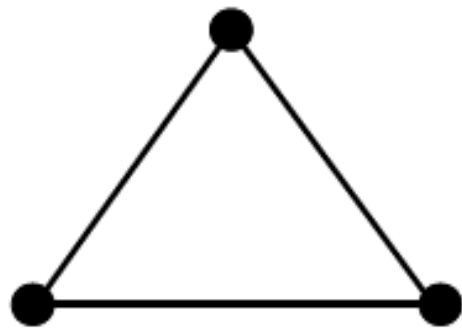


Benefits of EF in EU



COMPETITIVENESS

- cut Europe's energy bill by about € 200 billion / year in 2020
- lower households' bills by about €1000 per household / year
- create up to 2 million jobs by 2020
- boost R&D and create markets where EU can become a global leader



SECURITY OF SUPPLY

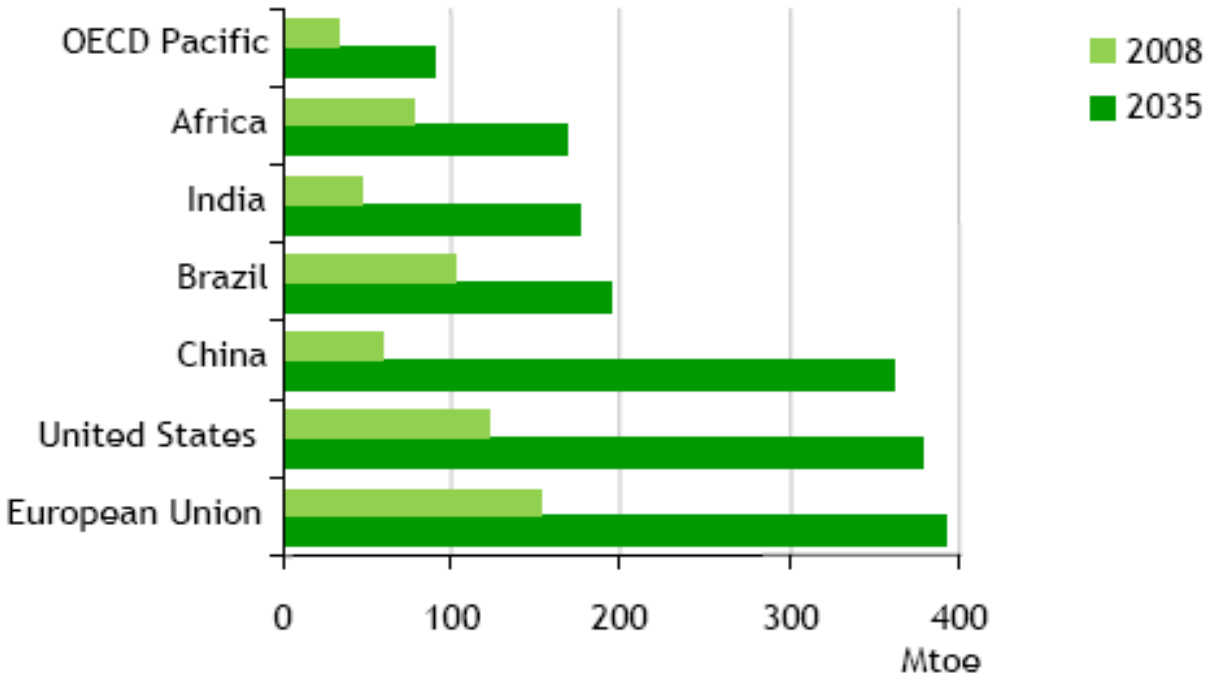
- decrease our energy dependence
- help balance our trade
- alleviate the need for gas pipelines and grid investments

SUSTAINABILITY

- help fight climate change:
 - 740 Mt CO2 / year in 2020
- limit environmental degradation



Global renewable energy demand

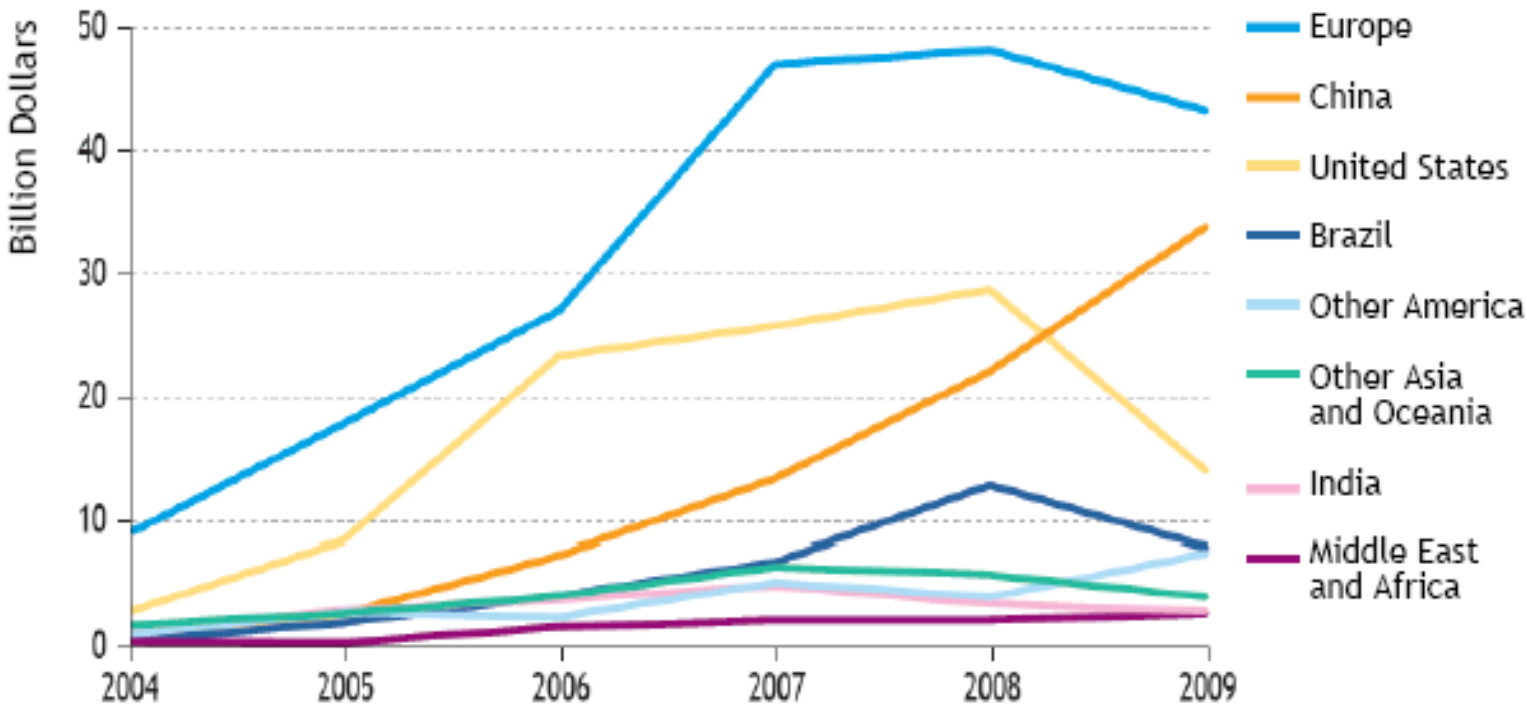


Demand for renewable energy is expected to triple, creating new market opportunities. The EU, the US and China will be the largest global markets.



Global investments in renewables

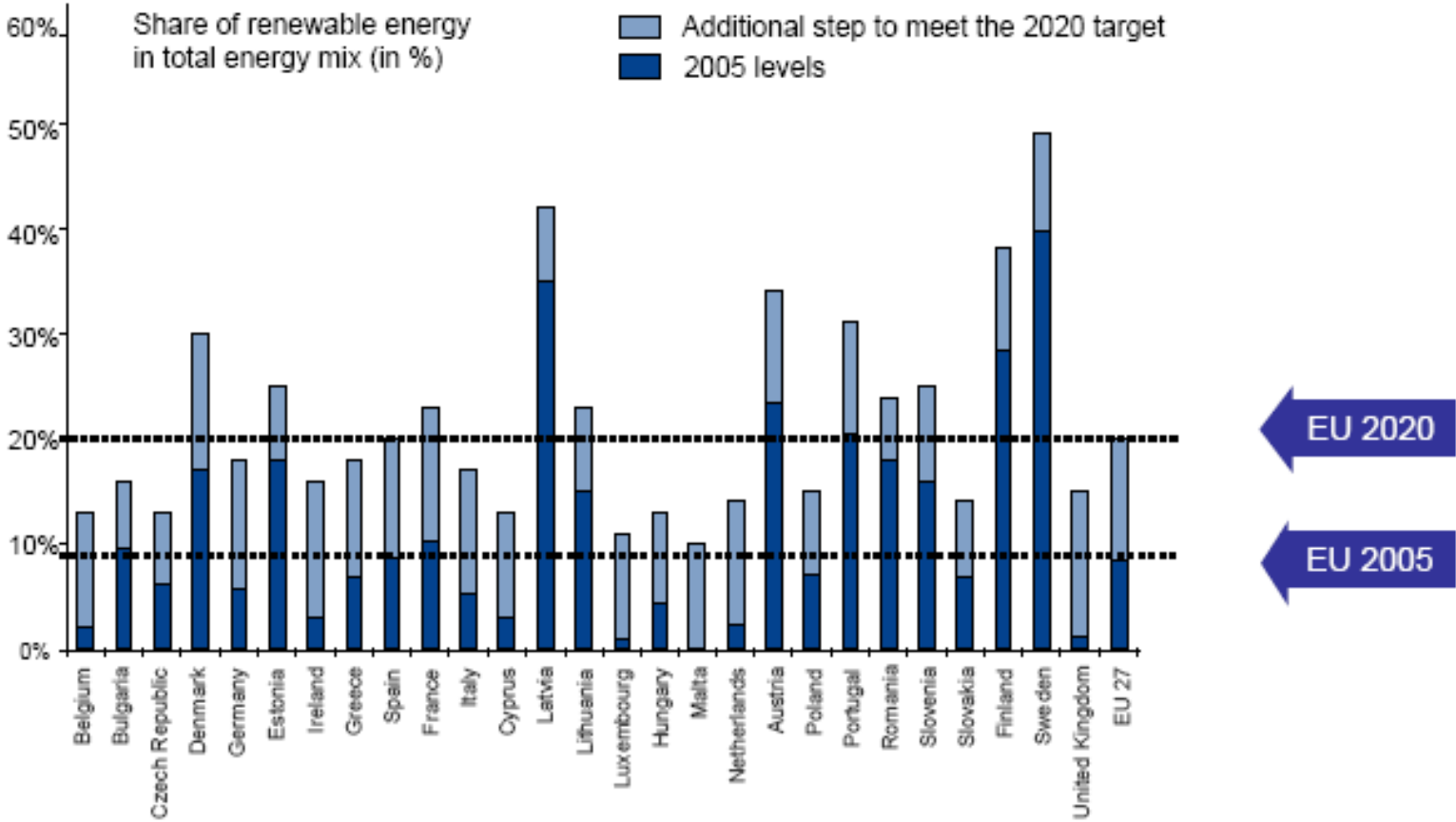
Investments in renewable energy at global level



In 2009, investment in renewable energy fell in the EU by 10% in the context of the economic crisis, while it increased by more than 50% in China.



EU renewable targets



Each Member State has a binding target - set as a combination of renewable potential and GDP - to increase its share of renewable energy by 2020.



EU: State of Play

- Internal energy market has not yet completed
- Energy represents ~80% of EU GHG emissions
- Dependence on few suppliers
- Import dependency ~70% by 2030 (above 50% today)
- Investment challenge around € 1 trillion by 2020

➔ More than 70% of world oil and gas reserves are within the European market's economic reach



Five priorities

- 1) Achieving an energy efficient Europe
- 2) Building a truly pan-European integrated energy market
- 3) Empowering consumers and achieving the highest level of safety and security
- 4) Extending Europe's leadership in energy technology and innovation
- 5) Strengthening the external dimension of the EU energy market



Four commitments

- Complete the internal energy market by 2014
- No Member State an energy island after 2015
- Boost energy efficiency
- Greater coordination of EU external energy policy



New Communication published on 7 September 2011

- Building up the external dimension of EU internal energy market
- Strengthening partnership for secure, sustainable and competitive energy
- Improving access to sustainable energy for developing countries
- Better promoting EU policies beyond its borders



Delegation of the European
Union to Turkey

Turkey: State of Play

- Significant increase in demand
- Dependence on imports
- Investment needs
- Potential for renewables
- Potential for energy efficiency



Turkish energy policy

- Liberalising energy markets
- Discouraging import dependency
- Securing energy supply
- Diversifying resources, routes and technologies
- Ensuring maximum use of renewable energy
- Increasing energy efficiency
- Minimising negative environmental impact



East-West corridor: Turkey

East

- Large resources
- Weak economies
- Non-payment
- Lack of investment

West

- High demand
- Import dependence
- Strong economies
- Capital to invest



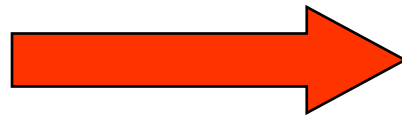
East-West corridor: Synergy

East

- Export/transit energy
- Attract investment
- Market reforms
- Improved technology

West

- Security of supply
- Investment opportunities
- Energy trade
- Access to resources



Energy flows



Investment flows



EU-Turkey energy cooperation

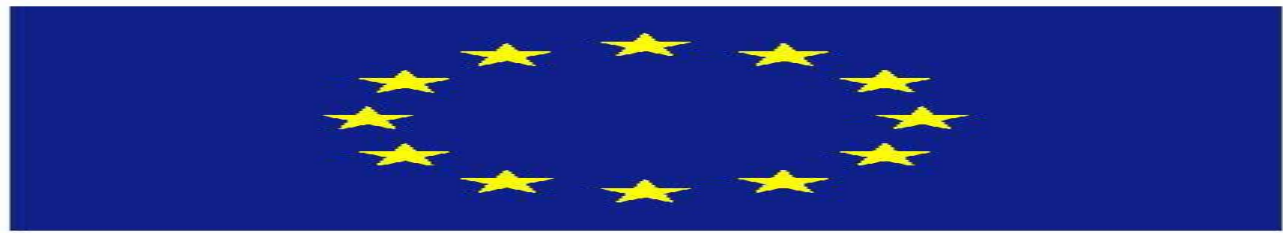
Cooperation on a common energy policy & practices;

- Enhance energy security both for EU & Turkey
- Intensify technological cooperation
- Promote & finance new infrastructures
- Develop Turkey's transit position
- Create good investment opportunities
- Establish solid regulatory framework for Turkey
- Enhance energy trade between EU & Turkey

✓ EU-Turkey energy partnership → Win-Win....



Delegation of the European
Union to Turkey



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