

15 November 2011

# Roadmap for moving to a competitive low carbon economy in 2050



# Limiting climate change – a global challenge

- Keeping average global temperature increase below 2°C confirmed as global objective
- Concrete emission pledges made by countries responsible for > 80% of global GHG emissions
- Need to prepare long-term low-emission development strategies
- ...but current pledges are not sufficient to stay below 2°C



# EU policy framework

- Enacted legislation for **-20%** GHG by 2020
  - Conditional step-up to **-30%**
- Emission reduction objective of **80-95%** by 2050
- Binding national targets to increase share of renewables in EU's energy mix to **20%** by 2020
- Improve energy efficiency by **20%** by 2020



# Implementing agreed legislation

- EU Emission Trading System (as of 2013)
  - auctioning
  - harmonised free allocation using benchmarks
  - single registry
- Inclusion of aviation in the ETS
  - All incoming and departing flights
  - Support ICAO discussion on global regime
- CO2 standards for cars (and vans)
  - 2015: 130 g/km
  - 2020: 95 g/km



## 2050: European Council conclusions

- EU objective of reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990, in the context of necessary reductions by developed countries
- Need for a low carbon 2050 strategy as framework for the longer term action
- Need to fix intermediary stages towards reaching the 2050 objective
- Need to keep developments under review on a regular basis

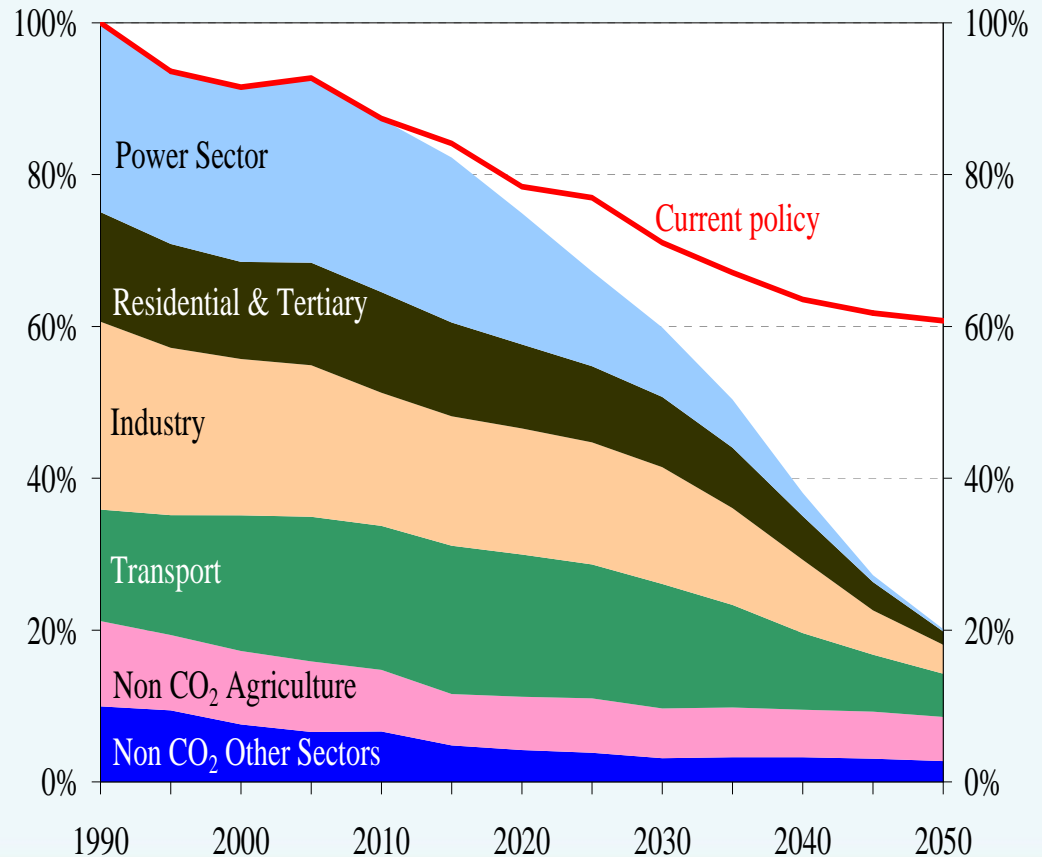
# Low carbon roadmap: A cost-efficient pathway towards 2050

**80% domestic reduction in 2050 is feasible**

- with currently available technologies
- If all economic sectors contribute

**Efficient pathway:**

- 25% in 2020
- 40% in 2030
- 60% in 2040



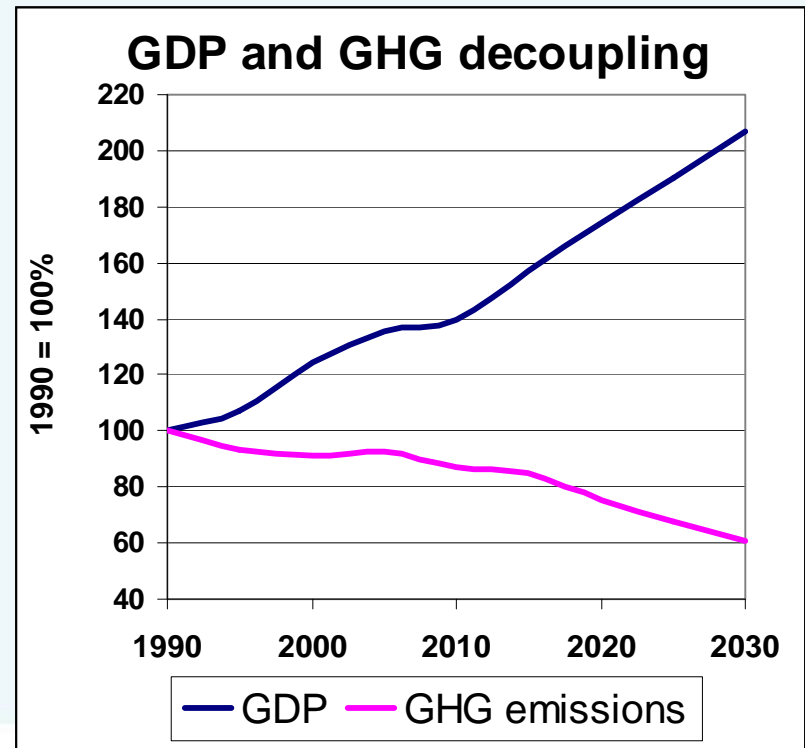


# Benefits for EU energy security and air quality

- Primary energy consumption about 30% below 2005 without negatively affecting energy services
- Saving **€ 400 billion** of EU oil and gas import bill in 2050, equivalent to > 3% of today's GDP
- Safeguard against macro-economic impacts of future energy price hikes
- Air quality and health benefits: **€ 27 billion** in 2030 and **€ 88 billion** in 2050

# Benefits for growth and jobs

- Shift from fuel costs to investment expenditure → money stays in EU
  - Innovation in key growth sectors crucial for future competitiveness
  - Potential net job creation **up to 1.5 million** by 2020
  - GDP more secure from energy price shocks





# Policy challenges and future work (1)

- Mainstreaming of climate aspects into other policies
  - Commission proposal next multiannual financial framework:  $\geq 20\%$  climate related ( $> \text{€}200$  billion 2014-2020)
  - Implement Strategic Energy Technology Plan
  - Cohesion policy: support energy efficiency, renewables, smart grids etc, develop innovative financing instruments
  - Greening of Common Agricultural Policy
  - Support low carbon energy and transport infrastructures



# Further steps

- Consistent sectoral roadmaps:
  - Transport 2050 White Paper (March 2011),
  - Energy Roadmap 2050 (December 2011),
  - Possible industry-specific initiatives
- Council conclusions and European Parliament response
- Member States to develop long-term low emission development strategies
- For further information:

<http://ec.europa.eu/clima/roadmap2050>