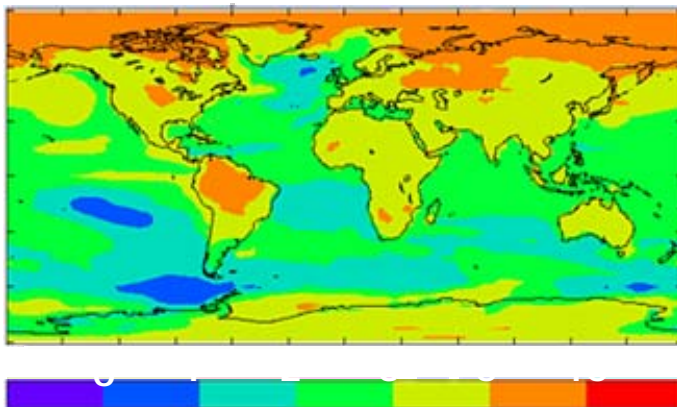




WINNING THE BATTLE AGAINST CLIMATE CHANGE



Source: Hadley Centre and UK Met Office

Artur Runge-Metzger
Head of Unit
DG Environment
'Climate, Ozone and Energy'

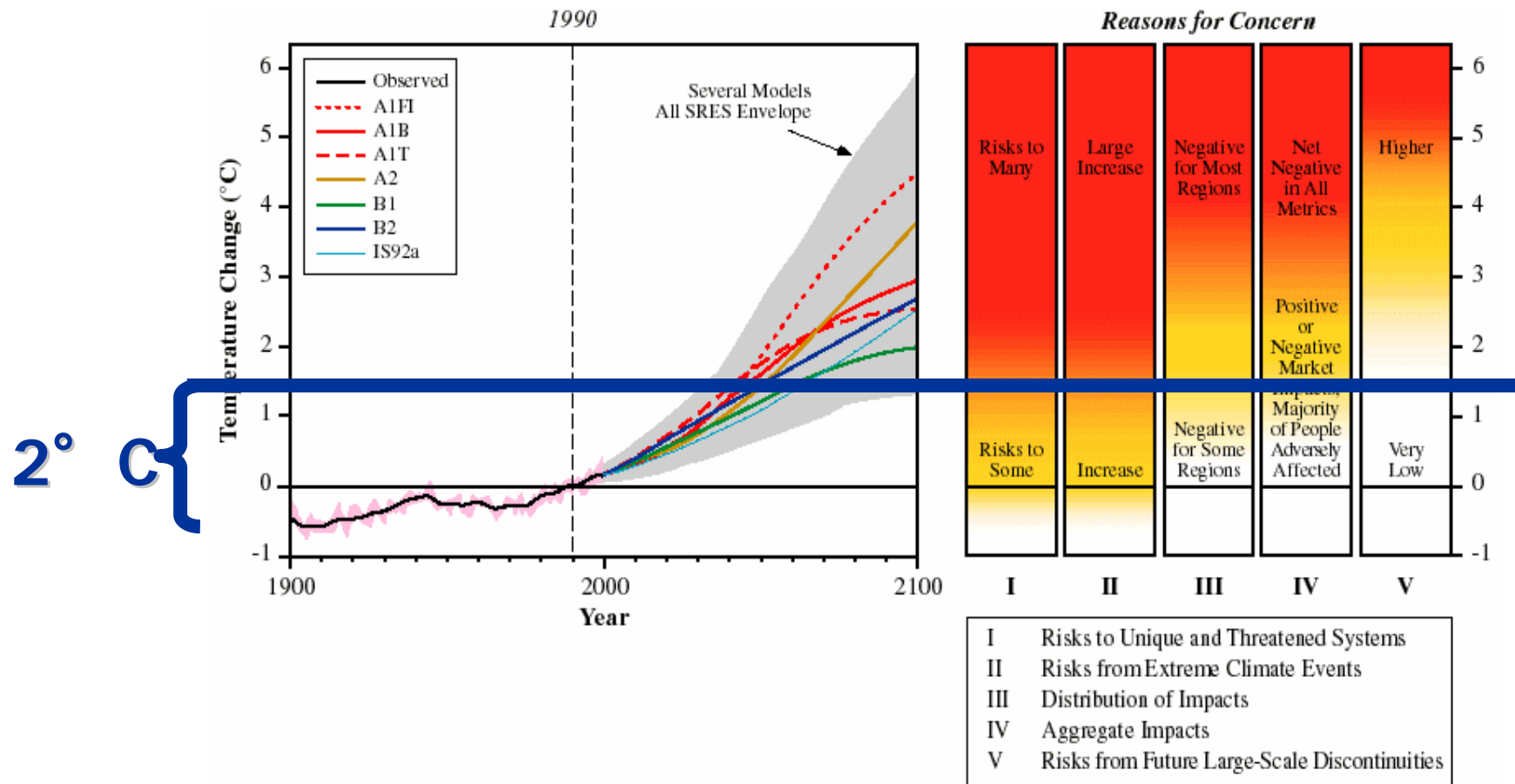


Overview

- **The climate challenge**
- **Five essential elements for a post-2012 climate strategy**
- **Next steps**



Climate challenge: The importance of the EU 2° C objective

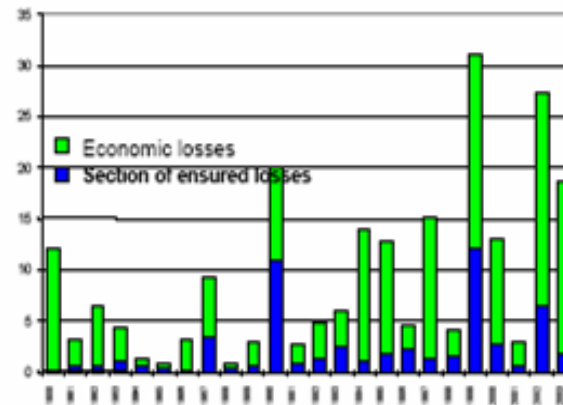
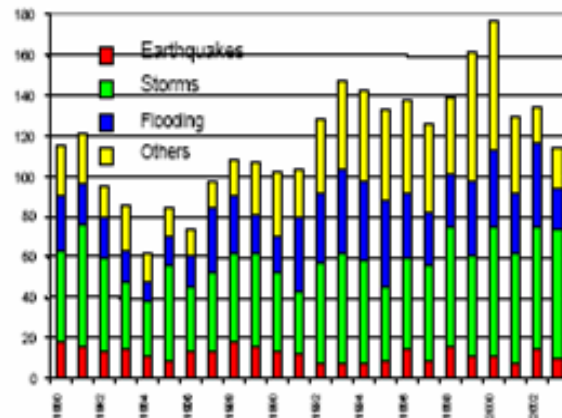




Extreme climate events cause economic losses

- 64% of all catastrophic events and 79 % of economic losses since 1980 attributable to weather and climate extremes
- Doubling of annual disastrous weather climate related events over 1990s
- Economic losses increased from decadal average less than 5 in the 1980s to about more than 11 billion US\$ in 1990s)

Past trends



Future projections

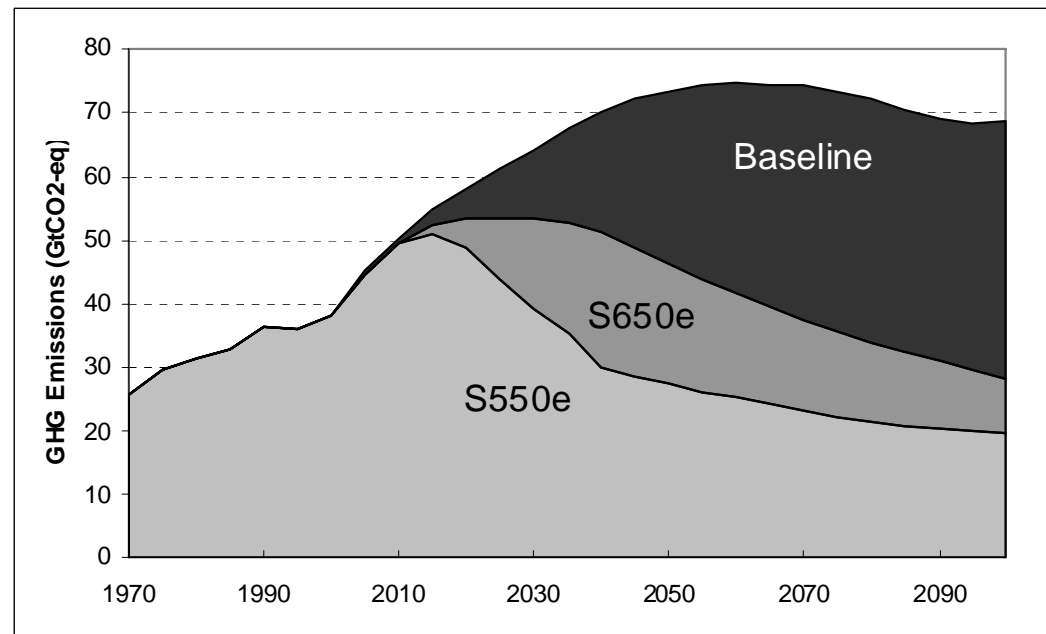
- Increasing likelihood of extreme events \Rightarrow higher losses

Data sources: Munich Re, Swiss Re, EMDAT, (CRED)



The Climate Challenge: Reducing global emissions

- **Non-action is not a feasible option**
- **The more action is postponed, the greater the risk of irreversible change**
- **Global emissions likely to grow within next two decades and then reduce by at least 15 % by 2050 compared to 1990**
- **“Keeping the door open” strategy**



Source: GCNRS/LEPII-EPE/RIVM/MNP/ICCS-NTUA/CES-KUL study



The cost of post-2012 climate policy is manageable by

- **Building on Kyoto**
- **Broadening participation**
- **Including more sectors and all gases**
- **Deploying and developing technologies**
- **Adapting to the effects of residual climate change**



Build on Kyoto: Reduce compliance costs, increase flexibility!

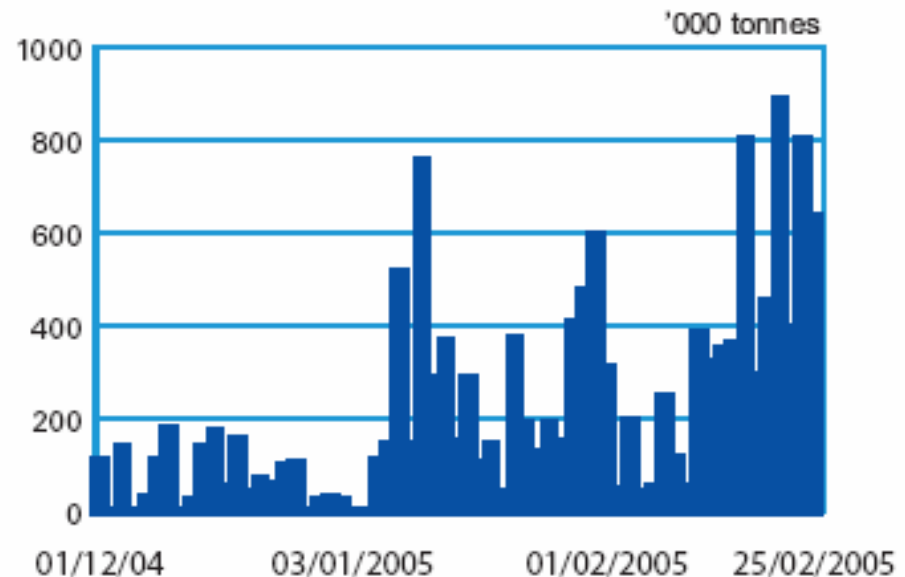
- **Build a truly global carbon market**
 - Emissions trading
 - Joint Implementation
 - Clean Development Mechanism
- **Clear rules for monitoring and reporting**
- **Multi-lateral compliance regime**



For example: Company-based Emissions Trading

- CO₂ emissions must be covered by allowances
- Community-wide trading of allowances
- *open*: might be linked to other schemes in the future & JI/CDM
- *results-oriented*: companies decide how to reduce
- *scarcity*: determined by total target across the EU

EUA 2005 historical volumes





Benefits of putting a price on carbon

FOREIGN AFFAIRS

JULY/AUGUST 2004



Beyond Kyoto

John Browne

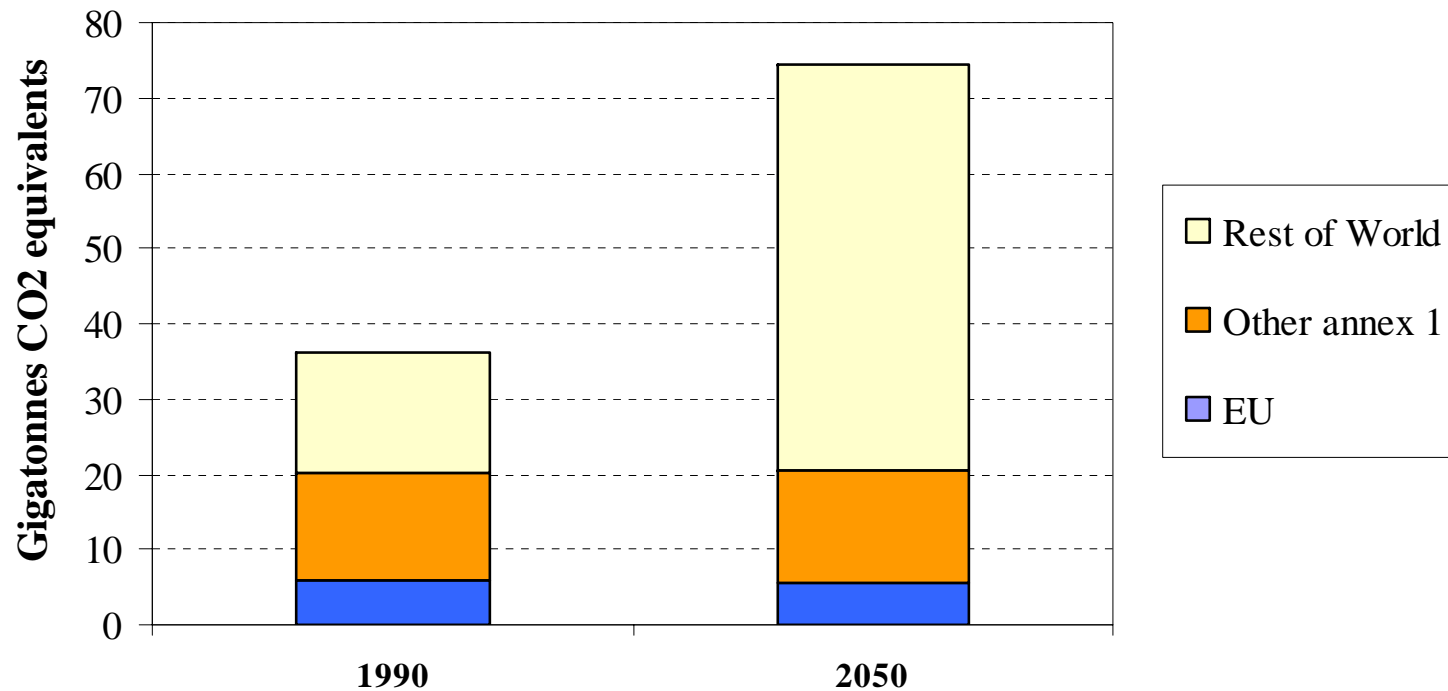
Business has already found that it is possible to reduce emissions from its operations. Counterintuitively, BP found that it was able to reach its initial target of reducing emissions by 10 percent below its 1990 levels without cost. Indeed, the company added around \$650 million of shareholder value, because the bulk of the reductions came from the elimination of leaks and waste. Other firms—such as electricity generator Entergy, car manufacturer Toyota, and mining giant Rio Tinto—are having similar experiences. The overwhelming message from these experiments is that efficiency can both pay dividends and reduce emissions.

**efficiency measures and
new technologies give
opportunities to increase
competitiveness**



Broaden participation

Figure 1: Projected development of greenhouse gas emissions in different regions of the world



Source: Greenhouse gas reduction pathways in the UNFCCC process up to 2025, CNRS/LEPII-EPE, RIVM/MNP, ICCS-NTUA, CES-KUL (2003).



Include more sectors



- aviation
- maritime transport
- deforestation



Innovation: Deploy and develop!

PUSH FACTORS

- **Subsidise new technologies (e.g. guarantee demand, set standards, large scale demos, public-private partnerships for technology development, tax reductions)**

PULL FACTORS

- **Emissions trading**
- **Level playing field (abolition of fuel subsidies, carbon taxes, feed in tariffs)**
- **Co-benefits (security of supply, rising oil prices)**





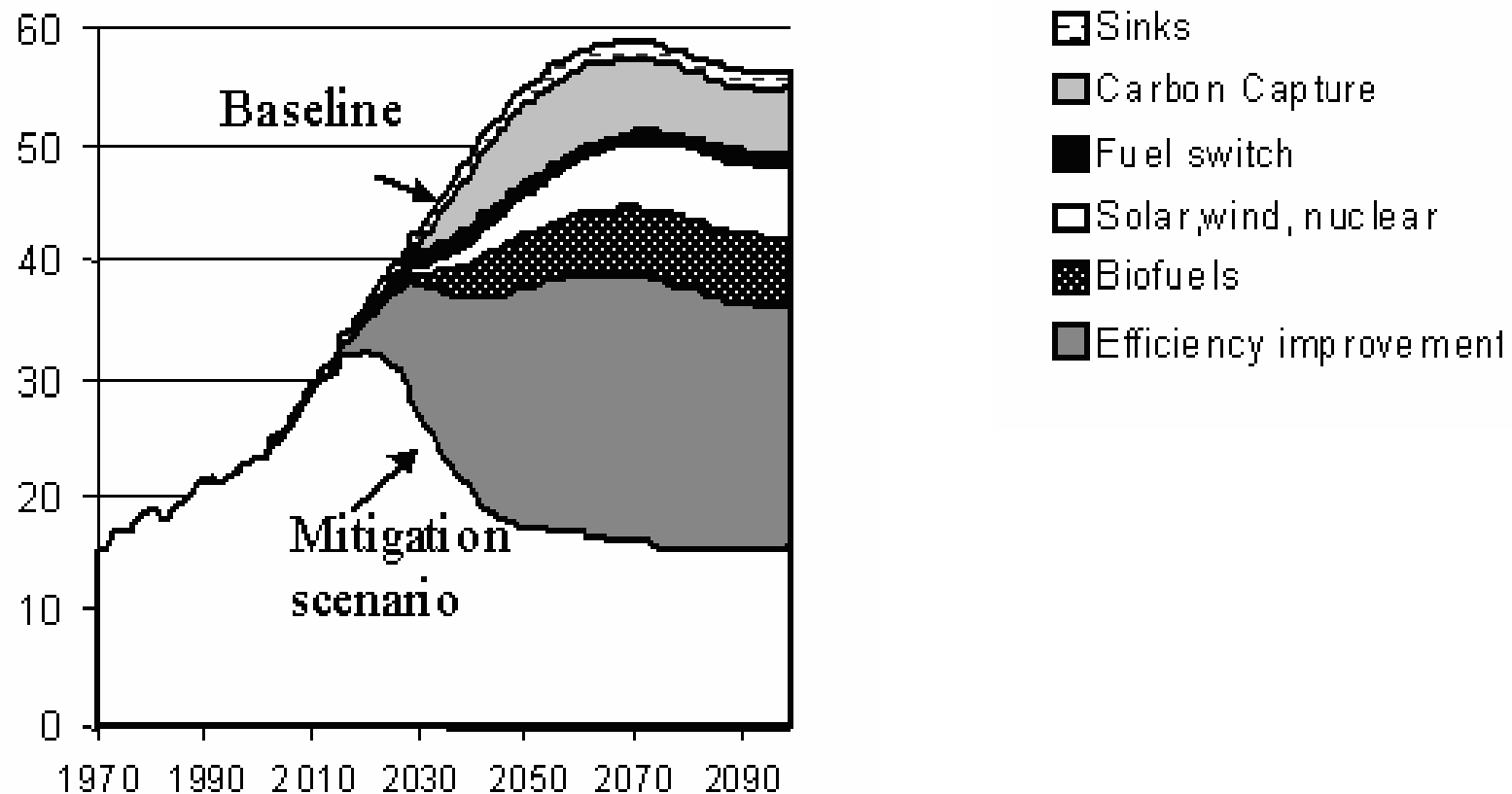
Deployment: Don't miss near-term opportunities

- **EU: Build and refurbish 700 GW of electricity generation until 2030 (equal to current installed capacity).**
- **“In the next eight years, China expects to put into operation 562 coal- fired plants -- nearly half the world's total -- and India is projected to add 213 such plants, according to government figures. The United States is expected to build only 72.”**



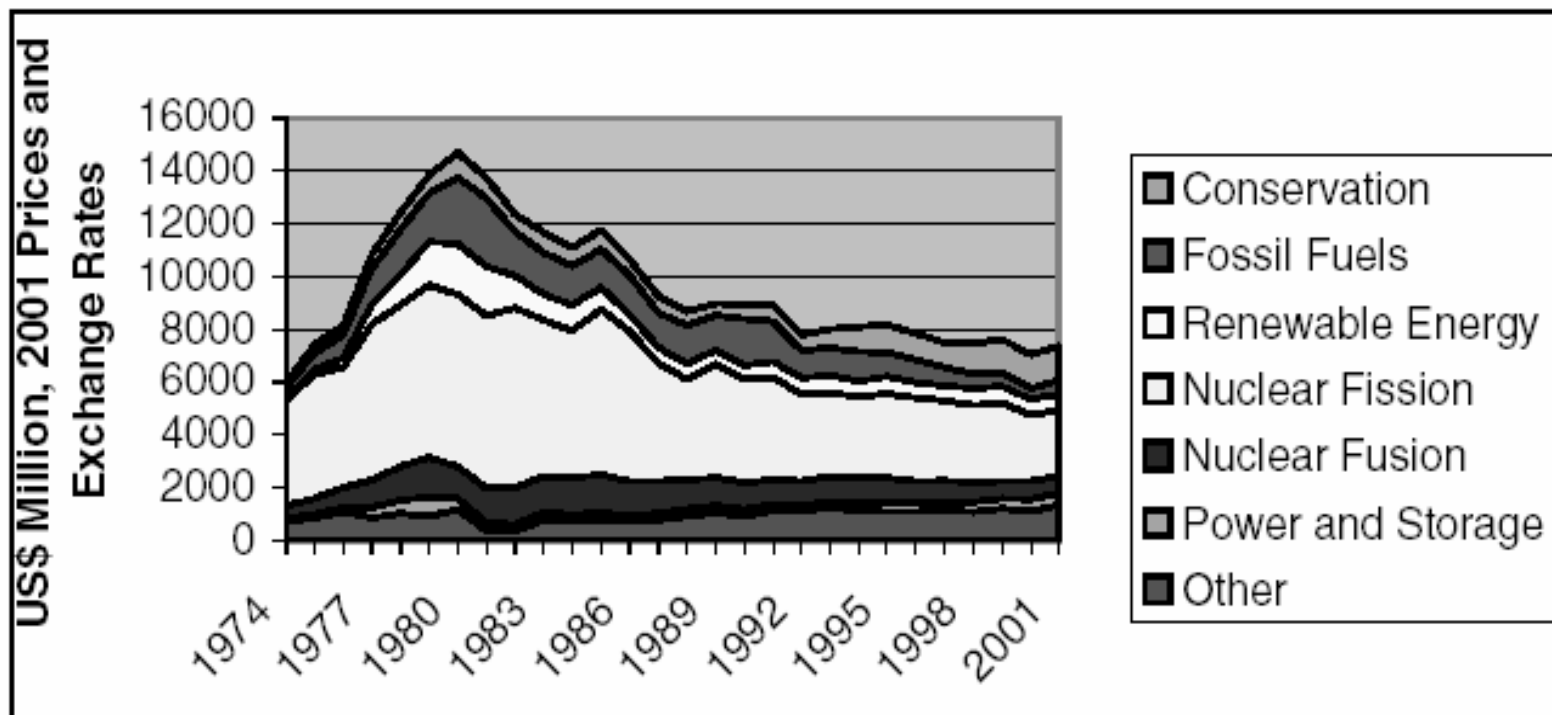


Innovation: There is no magic silver bullet - use the diversity of technology options





Develop new technologies: Reverse spending on international R&D for energy





Everybody needs to adapt to the effects of climate change as well



- **identify vulnerabilities**
- **implement measures to increase resilience**





- negotiation space

Five essential elements:

- 1. Build on Kyoto**
- 2. Broaden participation**
- 3. Include more sectors and all gases**
- 4. Deploy and develop technologies**
- 5. Adapt to the effects of residual climate change**



Building political momentum by building trust: What's up next in the international negotiations

- **March 2005: EU Spring Summit**
- **March/April/May 2005: Outreach**
- **May 2005: Seminar of Government Experts and SB22, Bonn**
- **July 2005: G8 Summit, Gleneagles**
- **September/October/November: Outreach**
- **December 2005: COP 11 and COP/MOP1, Montreal: Negotiation mandate??**
- **2008/2009: New multilateral agreement???**



No time to wait - Actions speak louder than words

- **Immediate and effective implementation of agreed policies (e.g. EU Energy Efficiency Initiative)**
- **Increased public awareness**
- **More and better focussed research**
- **Stronger co-operation with 3rd countries**
- **New phase of the European Climate Change Programme in 2005 (review, synergy with Lisbon Strategy, aviation, carbon capture and storage, adaptation)**



Climate Policy Post-2012



*Protecting the
climate system for
the benefit
of present and
future generations*

More information on EU climate policies:

http://europa.eu.int/comm/environment/climat/home_en.htm