What business could do for global environmental challenges



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Scenarios for CO₂ stabilisation

| Stabilization level (ppm CO ₂ -eq) | Global mean temp. increase (°C) | Year CO ₂ needs to peak | Global sea level rise above pre- industrial from thermal expansion (m) |
|---|--|--|---|
| 445 – 490 | 2.0 – 2.4 | 2000 – 2015 | 0.4 - 1.4 |
| 490 – 535 | 2.4 – 2.8 | 2000 – 2020 | 0.5 – 1.7 |
| 535 – 590 | 2.8 - 3.2 | 2010 – 2030 | 0.6 – 1.9 |
| 590 – 710 | 3.2 - 4.0 | 2020 – 2060 | 0.6 - 2.4 |

Mitigation efforts over the next two to three decades will have a large impact on opportunities to achieve lower stabilisation levels



Impacts of mitigation on GDP growth









Carbon markets



Growing price of carbon on **EU carbon market** has encouraged businesses to consider new opportunities, driving Europe towards technological leadership

There are clear signs that **other countries**, including the USA, will follow the EU's lead in the coming years

For stabilization at levels between 450 and 550 ppm CO_2 -eq, global carbon prices of up to 100 US\$/tCO₂-eq need to be reached by around 2030



Clean technologies (1)

Investments in renewables have tripled over the past 2 years, amounting to over 50 billion € annually

Global renewable energy capacity grew at rates of 15-30% annually for many technologies in 2002-2006

Regulation has been the major growth driver for many clean power technologies and helped to bring costs down



Clean technologies (2)

Energy supply

- Renewable energies
- Second generation technologies
- CO₂ capture and storage
- Combined heat and power

Transport

- Fuel efficiency
- Fuel efficient vehicles
- Less carbon intensive fuels

Buildings

- Efficient appliances
- Active solar energy
- Passive solar energy







New resource infrastructure

Meeting the increasing demand in resources and energy while decarbonising the economy and adapting to climate change will require significant investments in:

- Plantations biofuels and wholesale forestry
- Pipelines biofuels, water and CO₂
- Plants biofuels and clean coal

Massive changes in composition of power generation are needed

 China's reliance on coal makes implementation of CCS essential



Energy efficiency in buildings

The overall market will be large with a significant need for **banking services**, though a main barrier is market fragmentation

Demand for global energy service has grown by 50% since 1980 and is expected to grow another 50% by 2030



Corporate commitment

Businesses committed to sustainable development must build credibility by:

- Leading by example by reducing their own environmental footprint
- Adhering to recognised external commitments (UN Global Compact, Carbon Disclosure Project, ISO 14001)
- Leading the debate by adopting a public stance
- Promoting changes in lifestyles
- Developing a Corporate Social Responsibility policy



Business will be increasingly vulnerable to consumer preferences and government regulation in response to climate change

- Companies can take the lead by mitigating their own emissions and developing loweremission products
- Companies that lag behind would suffer from losses in their competitive position





Be the change you want to see in the world