



International  
Energy Agency

# **The Low-Carbon Energy Revolution in Europe Has Begun..... .....But it Must Be Accelerated**

**Bo Diczfalusy**

**Director of Sustainable Energy Policy and Technology**

**WEC Montreal 2010**

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# The context

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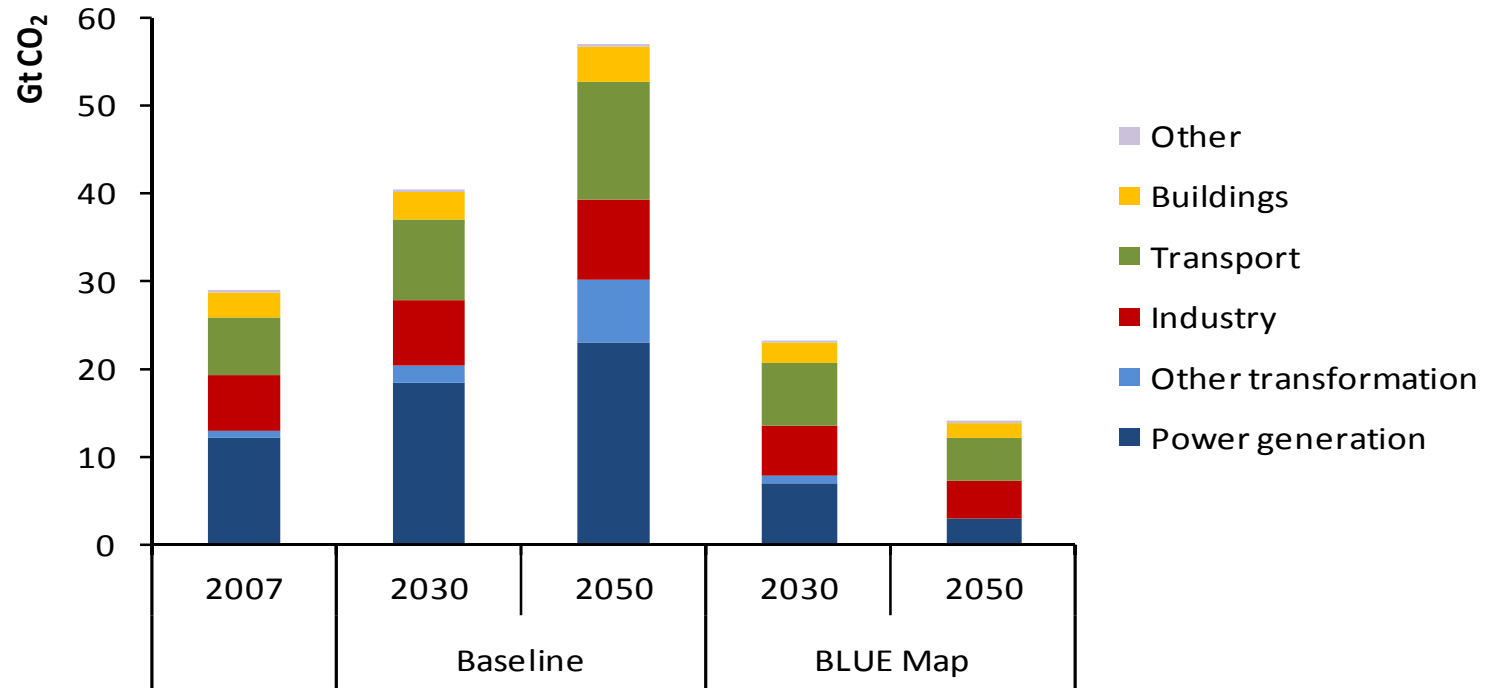
- **Need a global energy technology revolution to meet climate change and energy security challenges.**
  
- **Some early signs of progress, but much more needs to be done.**
  - **Which technologies can play a role?**
  
  - **What are the costs and benefits?**
  
  - **What policies are needed?**



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# Global energy-related CO<sub>2</sub> emissions in the Baseline and BLUE Map scenarios

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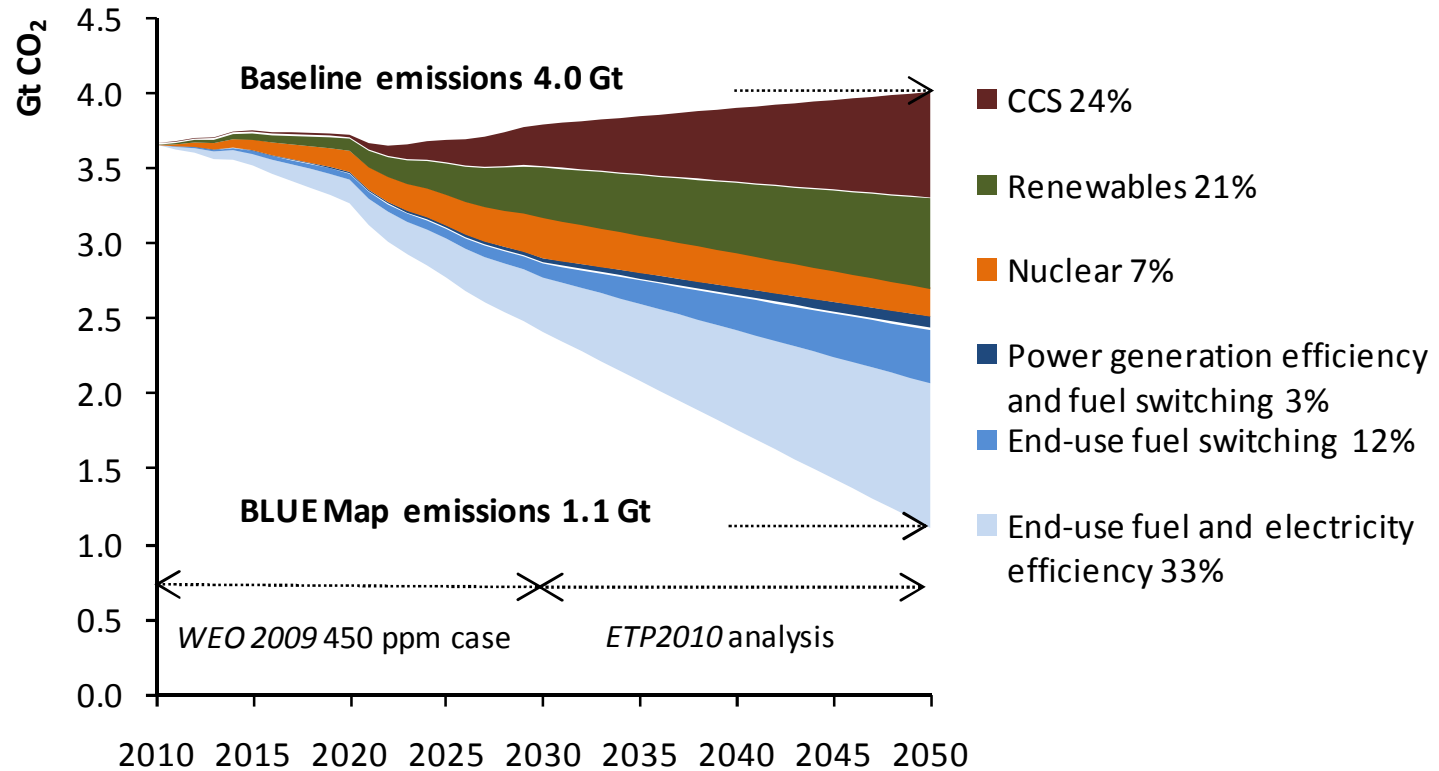
Global CO<sub>2</sub> emissions double in the Baseline, but in the BLUE Map scenario abatement across all sectors reduces emissions to half 2005 levels by 2050.



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# Contributions to emissions reductions in OECD Europe

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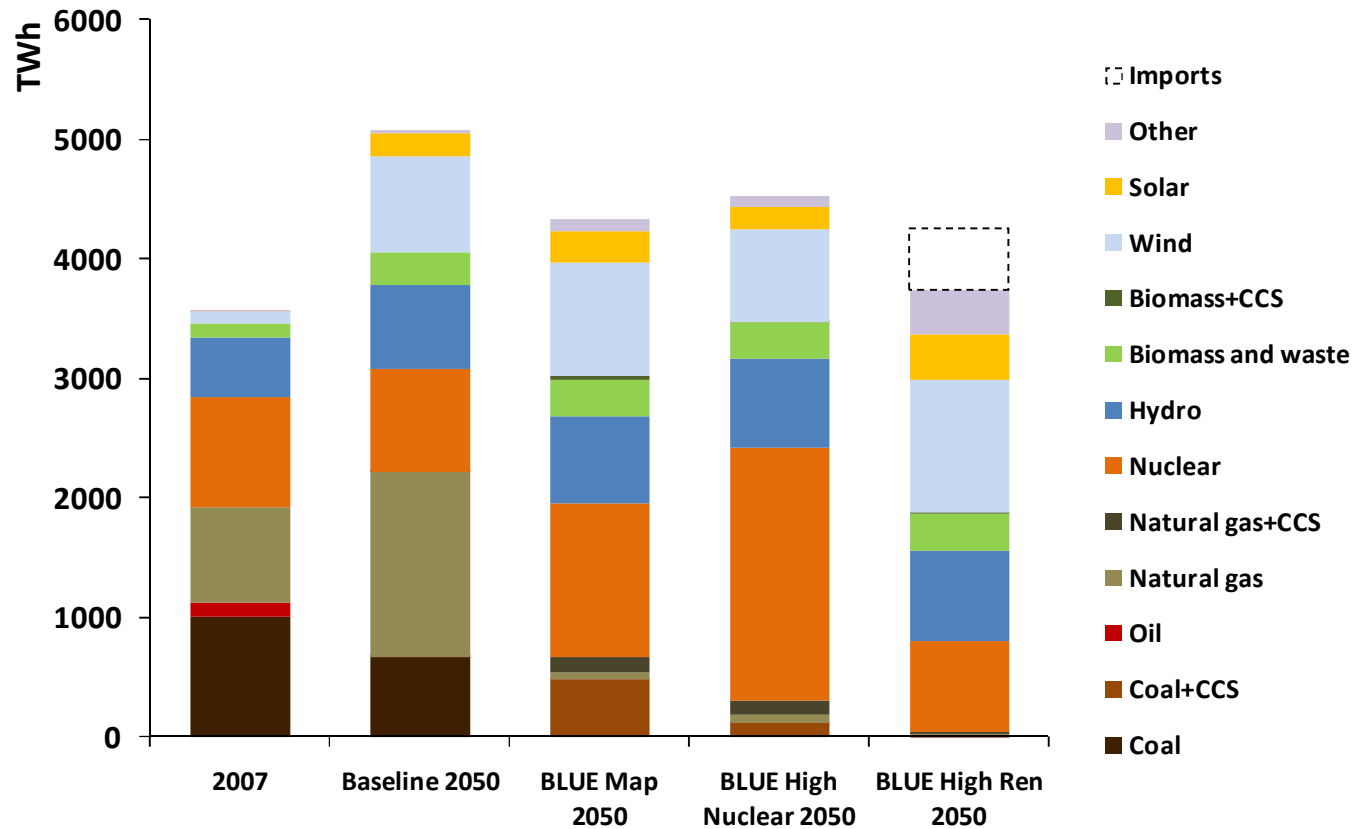
End-use sector measures contribute nearly two-thirds of the emissions reductions between the Baseline and BLUE scenarios in 2050.



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# Decarbonisation of power generation in OECD Europe

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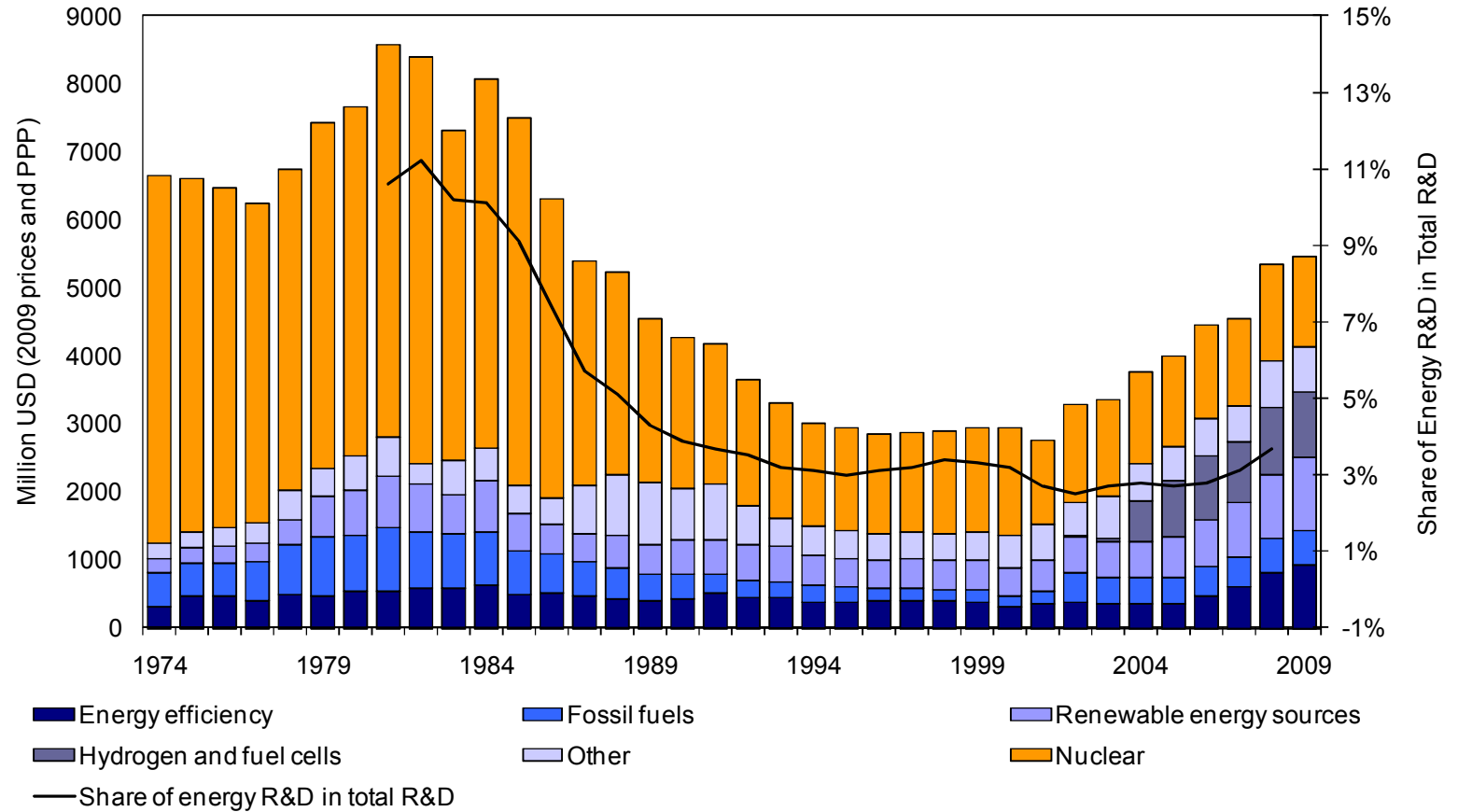
A mix of nuclear, renewables and fossil-fuels with CCS will be needed to decarbonise the electricity sector.



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# Energy RD&D spend in OECD Europe

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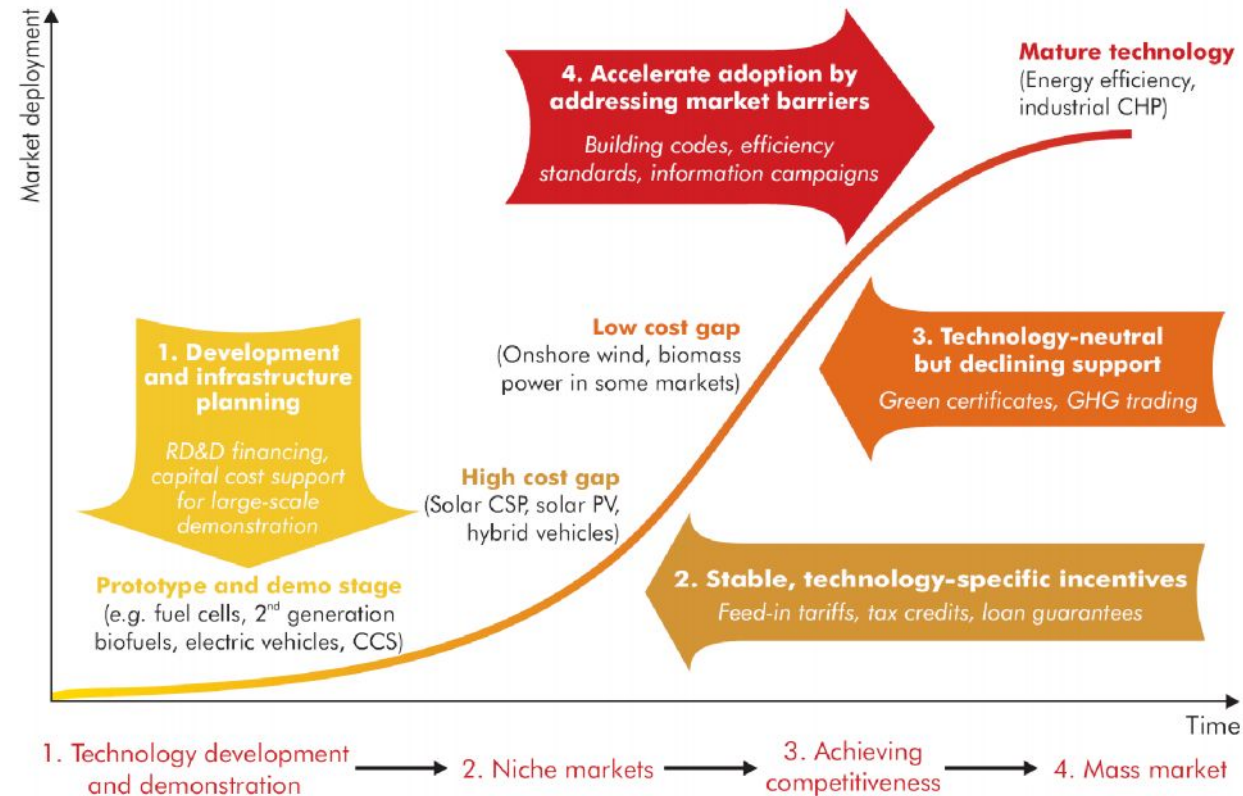
RD&D spend is now increasing after many years of decline.



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# Policies for supporting low-carbon technologies

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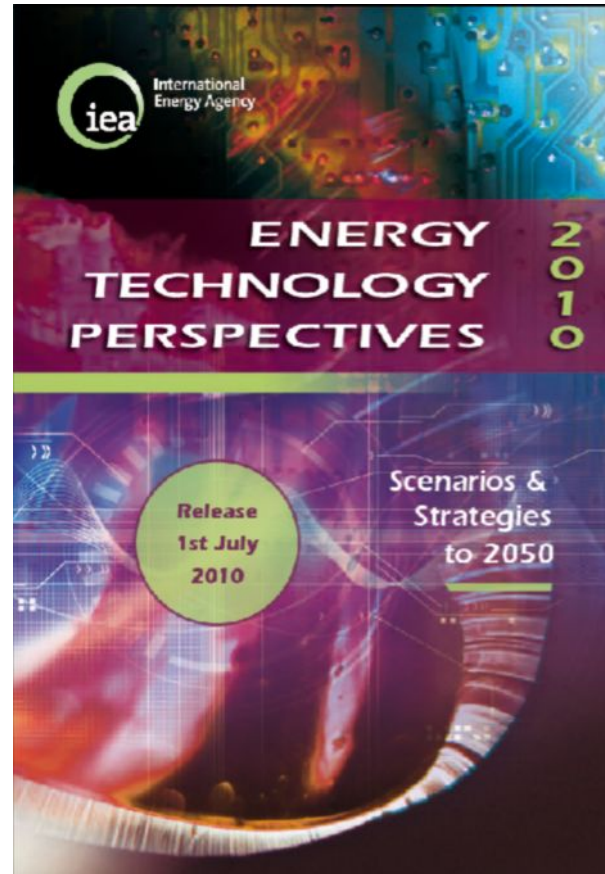


Government support policies need to be appropriately tailored to the stage(s) of technological development.



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**Thank You**

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