

UK Low Carbon Industrial Strategy

- establishing an industrial policy for greener growth

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Structure of the presentation

1. Context for the UK

- Industrial activism
- Twin objectives of tackling carbon emissions and supporting growth

2. UK's Low Carbon Industrial Strategy

- Business opportunities and jobs
- Transition to a low carbon economy
- Horizontal policies – the importance of innovation, skills, investment and demand

3. Delivery of the UK Strategy

4. Links with the OECD Green Growth Strategy

Policy Context

- “New Industry New Jobs” and “Going for Growth”
 - The role for “Industrial activism”
 - Highlighting key sectors
 - Targeted spending
- Principles behind policies to address carbon emissions:
 - Public and private working together
 - Economic instruments where most effective/efficient
 - The need to provide certainty for business
 - Portfolio approach for policies

UK Low Carbon Industrial Strategy July 2009

- Integral part of wider suite of strategies targeting carbon emissions
- Core objectives to:

Ensure that British businesses and workers are equipped to maximise the economic opportunities

Minimise the costs of the transition to a low carbon economy.

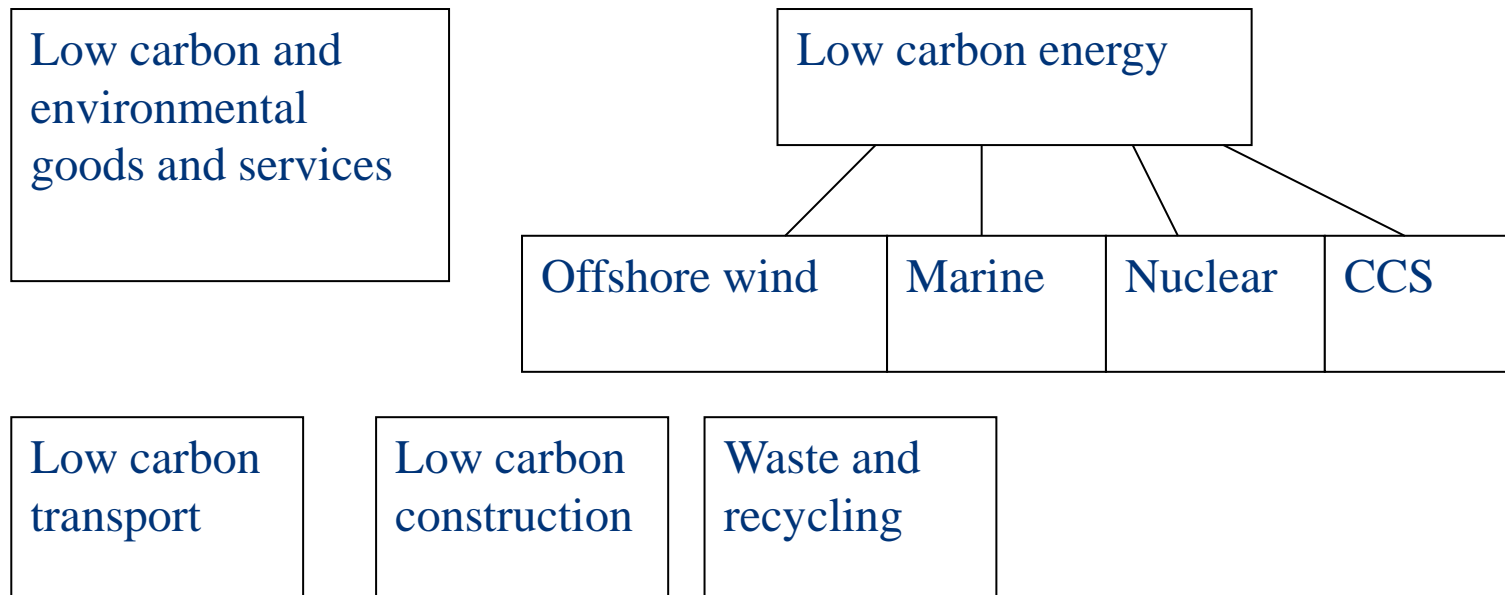
- Recognition of the need to transform the whole economy
- Policies and initial government spending
- Analysis of the UK Low Carbon and Environmental Goods and Services (LCEGS) sector

Business opportunities and jobs (1)

- Whole economy needs to become more 'green'
 - Transformation of the industrial landscape
 - Adjustments across the supply chain
 - Defining a 'green job'?

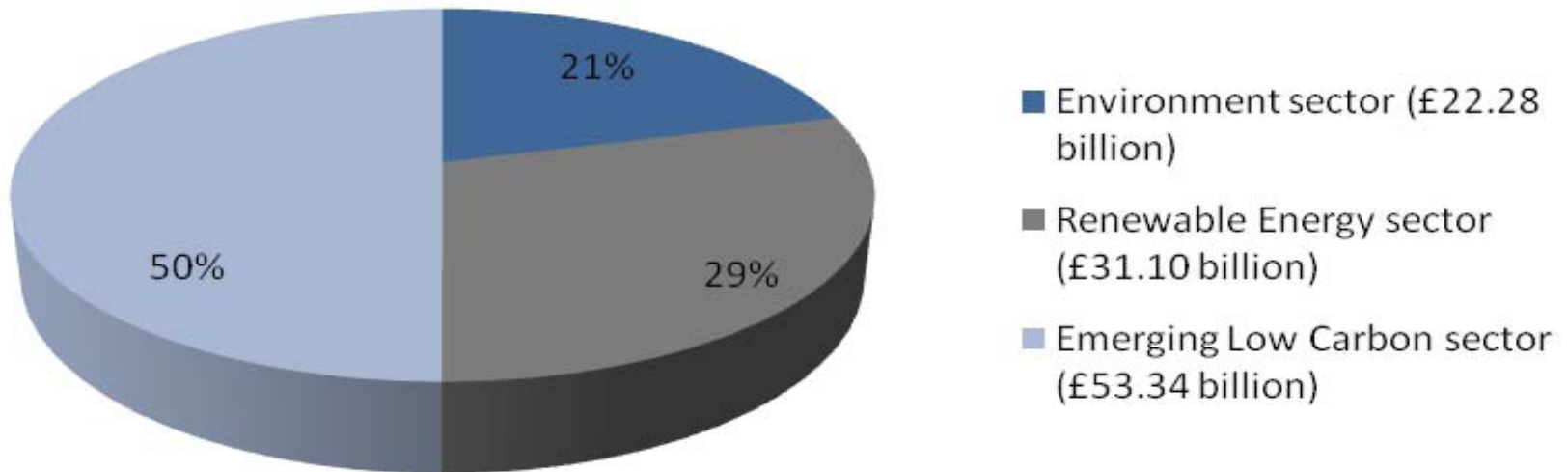
Business opportunities and jobs (2)

- Number of key sectors identified



Business opportunities and jobs (3)

- UK Low Carbon and Environmental Goods and Services sector – 2007/08



Many low carbon sectors are expected to grow strongly

| UK forecast growth rates | 2008/9 | 2009/10 | 2010/1 | 2011/2 | 2012/3 | 2013/4 | 2014/5 |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Wave & Tidal | 5.70 | 5.76 | 6.50 | 6.92 | 7.00 | 7.08 | 7.16 |
| Biomass | 5.03 | 5.12 | 5.82 | 6.24 | 6.37 | 6.49 | 6.62 |
| Wind | 7.45 | 7.57 | 8.60 | 9.21 | 9.39 | 9.56 | 9.75 |
| Geothermal | 5.23 | 5.31 | 6.02 | 6.44 | 6.56 | 6.68 | 6.80 |
| Photovoltaic | 6.48 | 6.57 | 7.42 | 7.90 | 8.02 | 8.14 | 8.25 |
| Alternative Fuel Vehicle | 4.14 | 4.18 | 4.71 | 5.00 | 5.05 | 5.09 | 5.14 |
| Alternative Fuels | 4.79 | 4.85 | 5.46 | 5.81 | 5.88 | 5.93 | 6.01 |
| Carbon Finance | 6.29 | 6.29 | 7.05 | 7.44 | 7.43 | 7.42 | 7.47 |
| Building Technologies | 4.69 | 4.74 | 5.35 | 5.69 | 5.76 | 5.83 | 5.91 |
| TOTAL | 4.66 | 4.74 | 5.38 | 5.76 | 5.87 | 5.98 | 6.10 |

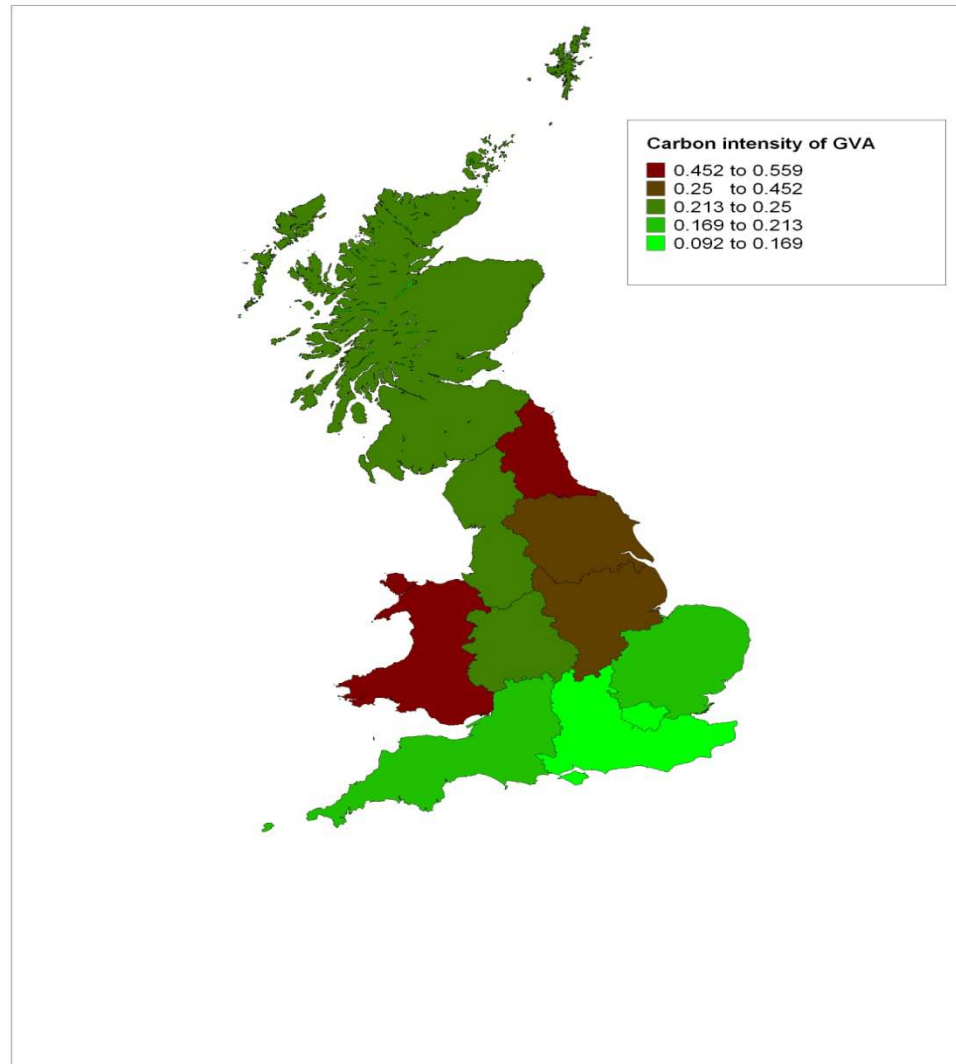
Transition and restructuring : Sectors

- Key components of supply chain for low-carbon from energy intensive industries
- Key challenges:
 - high direct and indirect costs
 - carbon leakage – off-shoring and lost competitiveness
- Transformation of these sectors required
 - Eg through energy efficiency, new production processes and technologies, alternative fuels, low carbon products

Transition and restructuring : Regions

- Regional challenges
 - Industry mix will be a key factor in the challenge faced by a region
 - But strong base in skills, innovation, entrepreneurship and infrastructure can help the transition
- Alongside geographically cross-cutting policies on innovation and skills etc, we have region-specific policies, eg
 - Low Carbon Economic Areas
 - Grants for Business Investment
- The Forum for a Just Transition to advise government on the distributional issues of the transition

GB map of energy intensity



Innovation

- Includes both *radical* and *incremental* innovation
- Market failures are potentially significant in slowing transition

- These failures drive government intervention

Research Councils

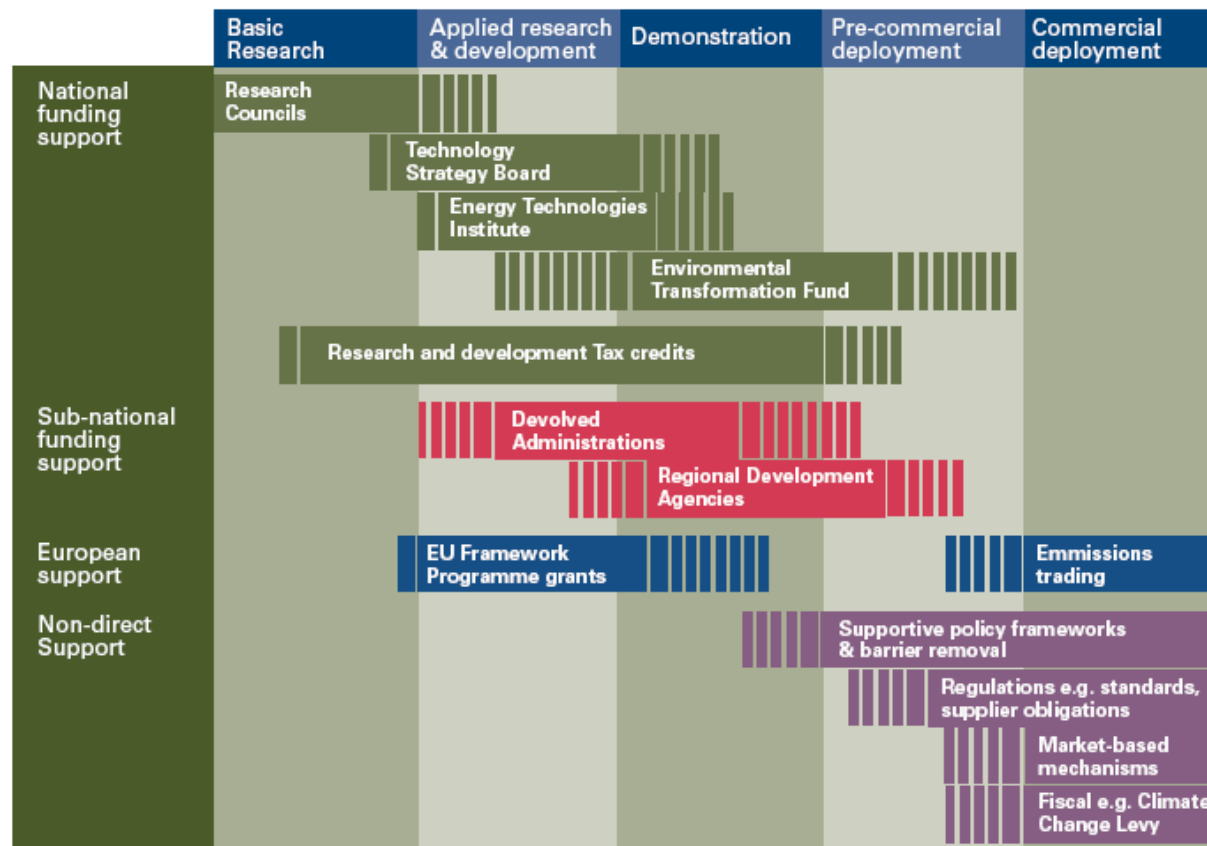
TSB

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- Though it is not just about money
 - information, certainty, economic instruments, standards and policy framework are needed too
- IP and technology transfer are important too both domestically and internationally

A range of European, UK and national funding programmes support technology innovation



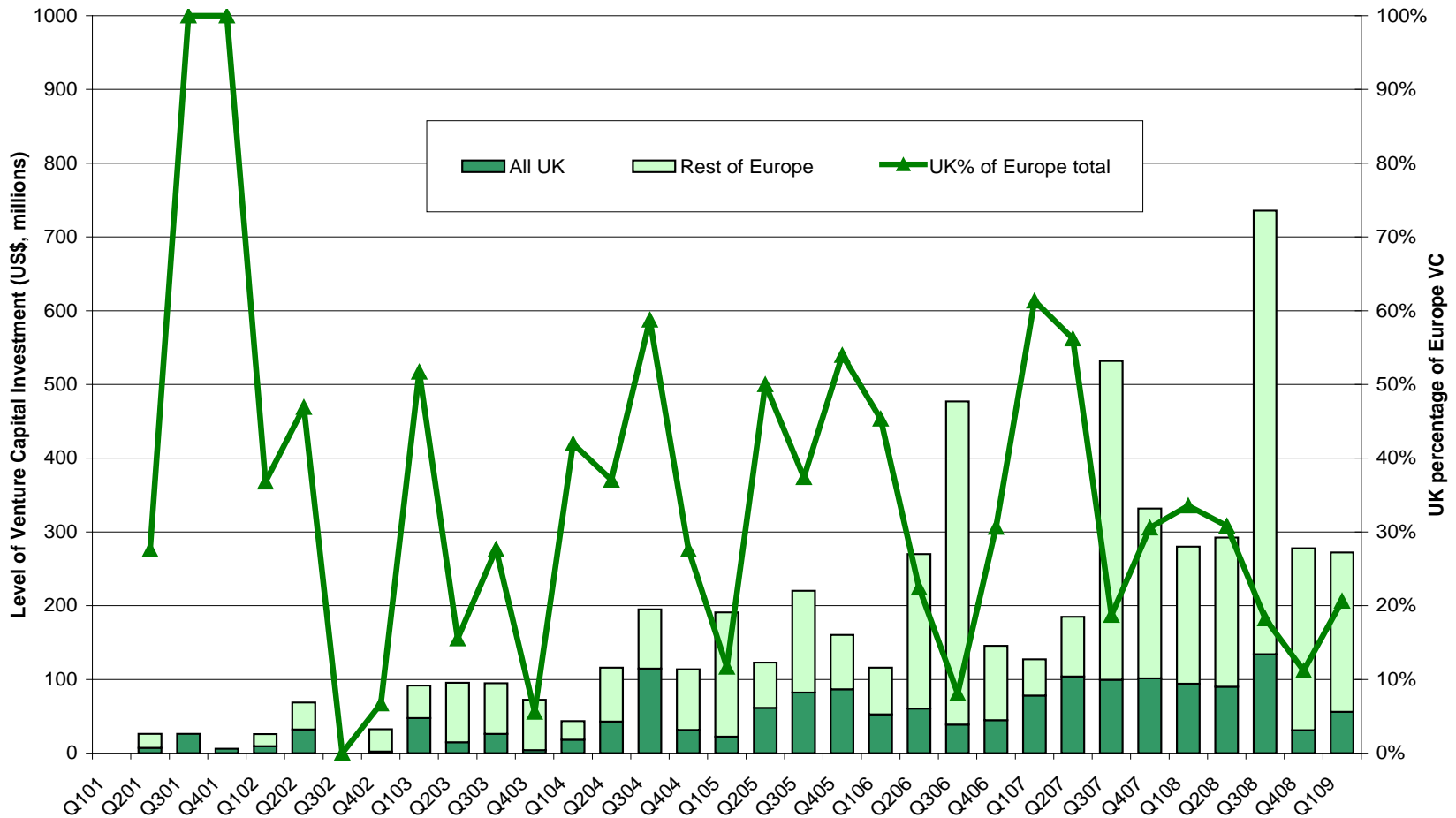
Skills

- A key enabler in technology development and diffusion of innovative solutions
- Underinvestment due to market failures – uncertainty, a lack of information and spillovers
- Both specific low carbon and more generic skills vital to deliver transition, with a greening across the economy
- Government actions include funding and information provision

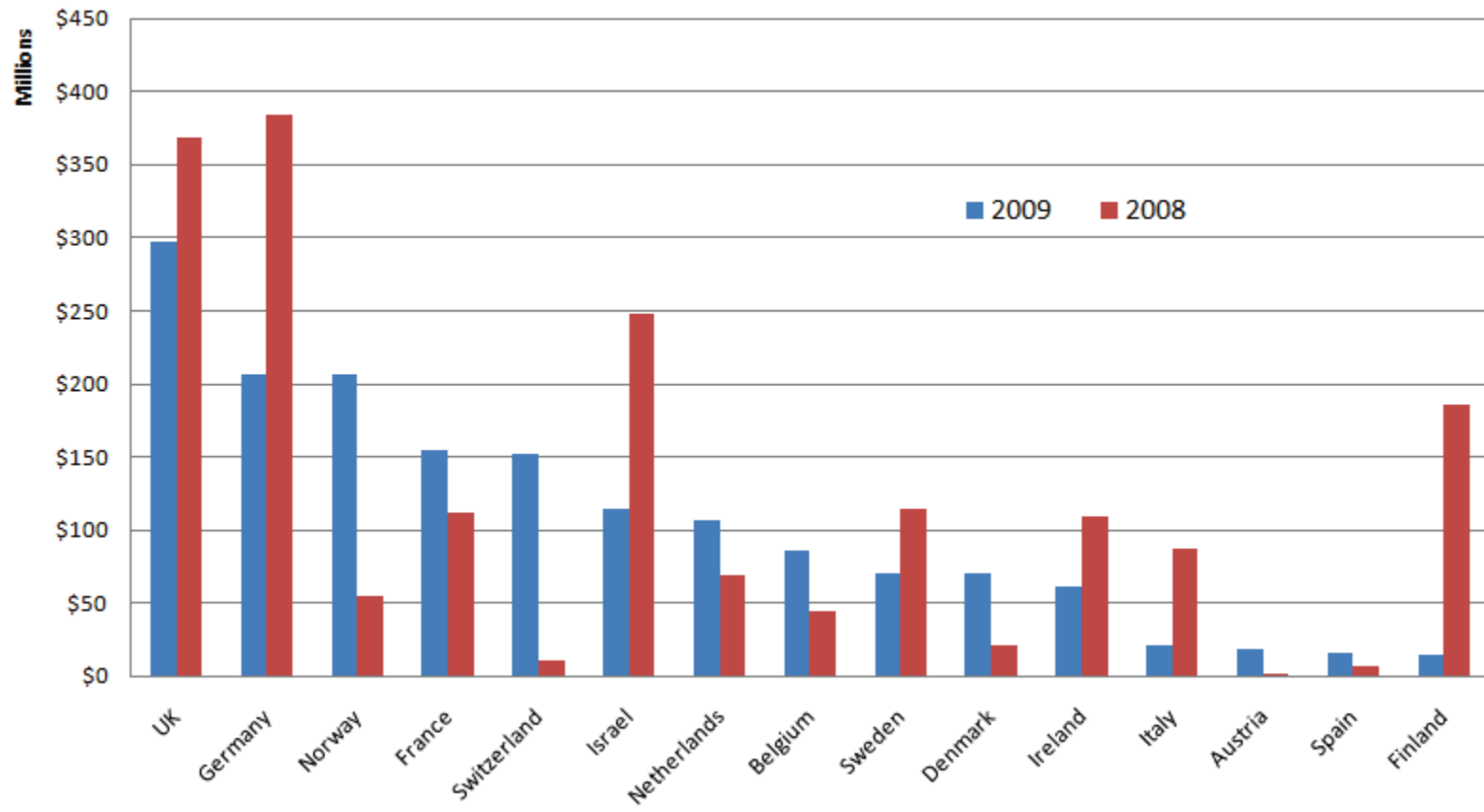
Investment

- Market failure surrounds access for SMEs, uncertainty and information asymmetry in a context of high targets in a tight timeframe
- Venture capital data unsurprisingly shows some decline in 2008 but money still going into low carbon and expected to pick up

UK and Europe Venture Capital investment in Cleantech



Cleantech VC Investment in European Countries



Investment - policy

- Government actions to address market failures
 - Vision/strategy to increase certainty
 - Macroeconomic stability to facilitate long term investment
 - Grants where private sector finance fails
 - Information to improve decision-making
 - Indirect incentives to boost encourage take-up of greener technologies

Demand

- The demand for low carbon goods and services has a key role to play
- But a lack of information means that consumers and businesses cannot always make optimal decisions
- Role for government to provide information, to introduce standards, to ensure competition and use its role as major procurer

Delivery of the Strategy

- Taking advantage of the opportunities and managing the transition and implications for competitiveness through:

Information

Grants and loans

Incentives

Public procurement

Standards

Regulation

All in the context of industrial activism and robust impact assessment

The Green Growth Strategy and the UK Low Carbon Industrial Strategy

- Common areas
 - Roles of government and the market
 - Opportunities as well as challenges
- Differences
 - Breadth
 - Accounting
 - Fiscal consolidation
- Potential for further development and prioritisation of the Strategy

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