

# Realising the Low Carbon Economy –a Carbon Trust Perspective

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Regional Manager, South East

Making business sense of climate change



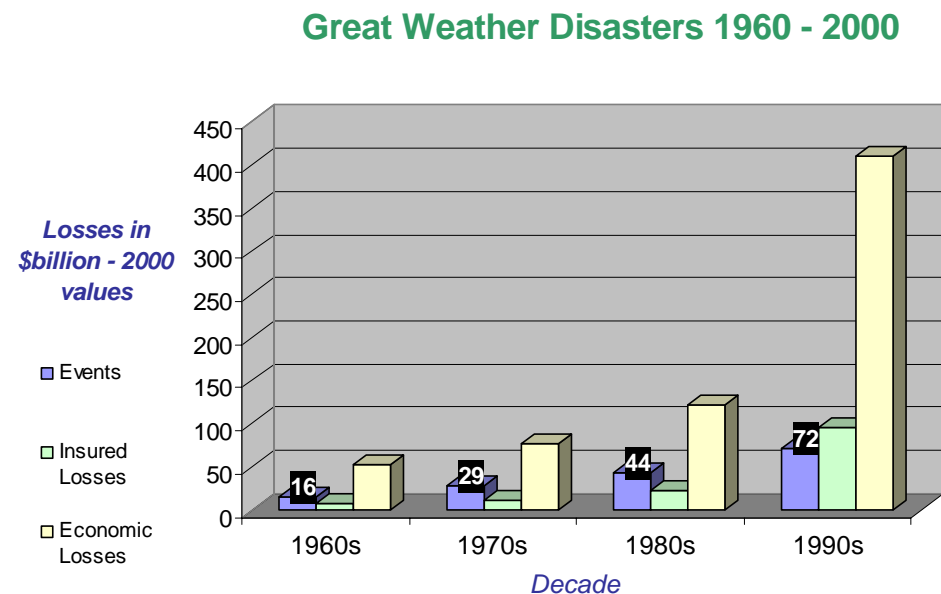
# The Energy White Paper since the 1960s - Our Energy Future (2003)

- Accepts **RCEP target** to reduce CO2 emissions by 60% from current levels by 2050
- “The cheapest, cleanest and safest way to meet our energy objectives is to use less energy” (**energy efficiency**)
- “We need a shift to energy sources that produce much less or no carbon” (**renewable energy & CHP**)



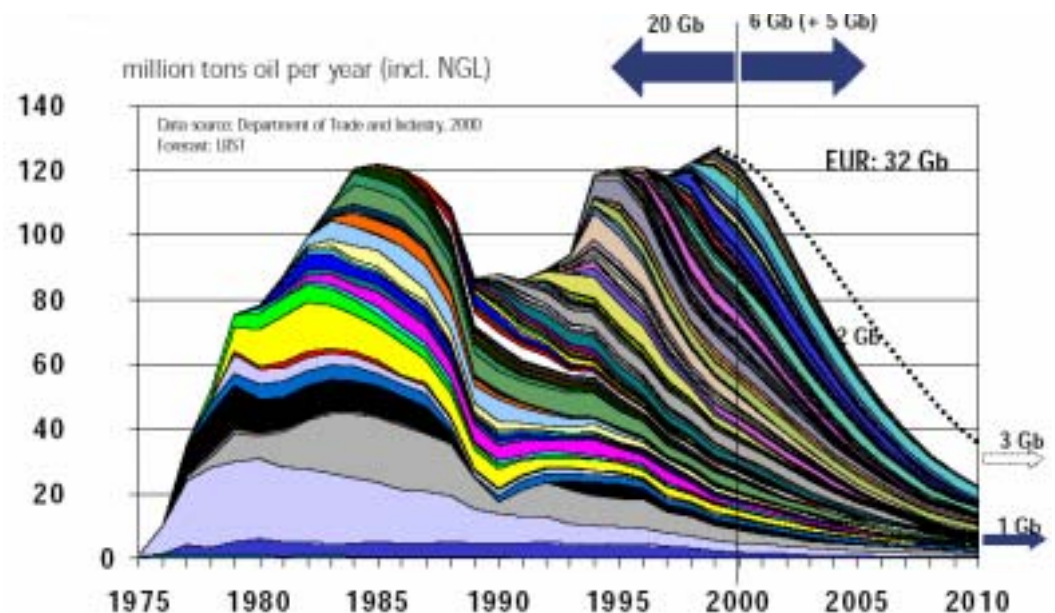
# A low carbon regional economy

...will **minimise the impacts of climate change** that threatens everyday business activity, regional health, water resources, patterns of agriculture and land use including the economic blight of flood risk



# A low carbon regional economy

...will be **managing the decline of indigenous and traditional energy sources** and using new and emerging technologies and innovations to create new businesses and employment



# A low carbon regional economy

...will be **less reliant on (fossil) energy for wealth creation** and deliver more efficient businesses with high levels of productivity and competitiveness



# A low carbon regional economy

...will manage the **transformation** of the regional energy generation and distribution infrastructure **from one that is based on large-scale centralised generation and one-way distribution networks...**



# Towards...

a **diverse, embedded and often building-integrated generation** sector energising a more reactive network with far more provision for heat distribution



# Producing.....

An energy sector with **new scope** for:

- **security of supply**
- **local/regional ownership**
- **wealth and skills retention**
- **strengthening**
  - social enterprise
  - environmental benefits



# Why else should energy use be back on the Agenda?

- Aug & Nov 03

## UK power prices soar as Europe's utilities tap into grid

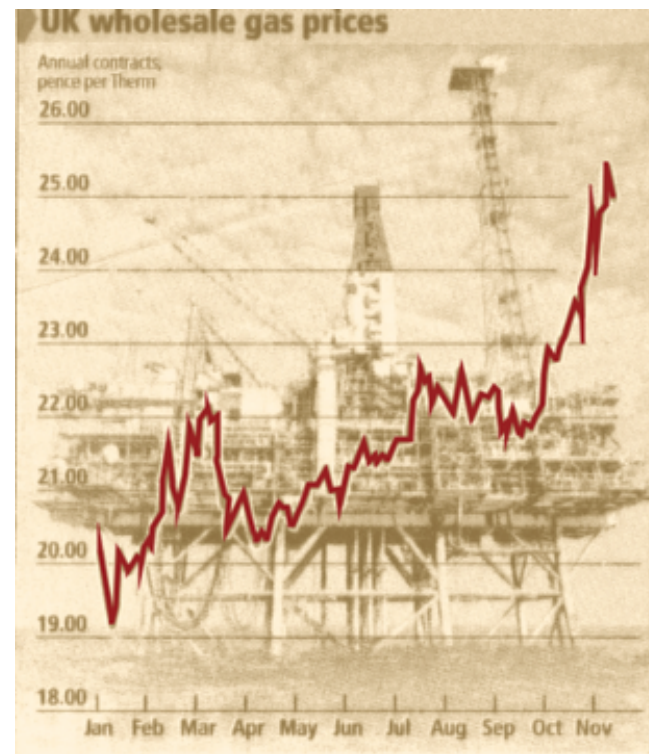
By Carl Mortished and Angela Jameson

**Factory costs up**

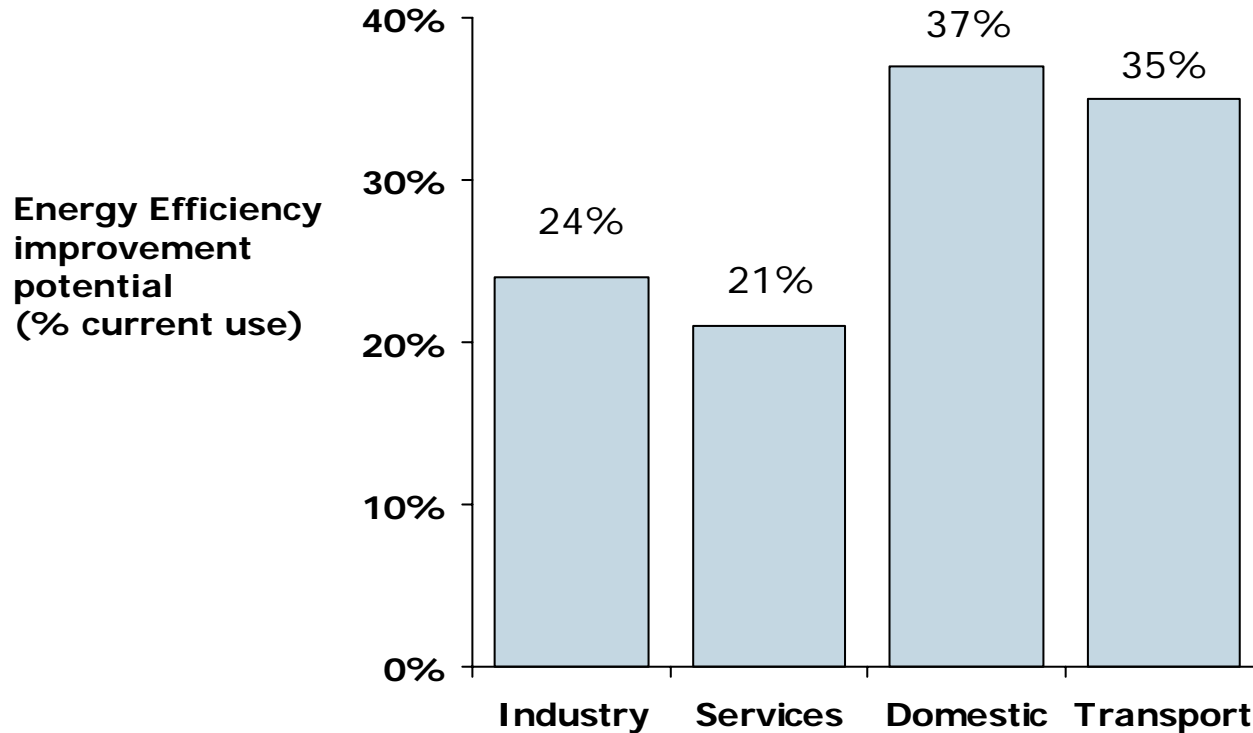
THE price of electricity in Britain is soaring as foreign utilities tap into the UK grid to replace energy lost from nuclear generators forced to shut down in the heatwave sweeping Europe.

The National Grid made an emergency request for extra

A sharp rise in crude oil prices contributed to a 1.8 per cent jump in manufacturers' materials costs in June, according to the Office for National Statistics. Despite the 5.4 per cent year-on-year increase in the cost of crude, prices at the factory gates



# There is potential for significant cost effective energy efficiency improvement



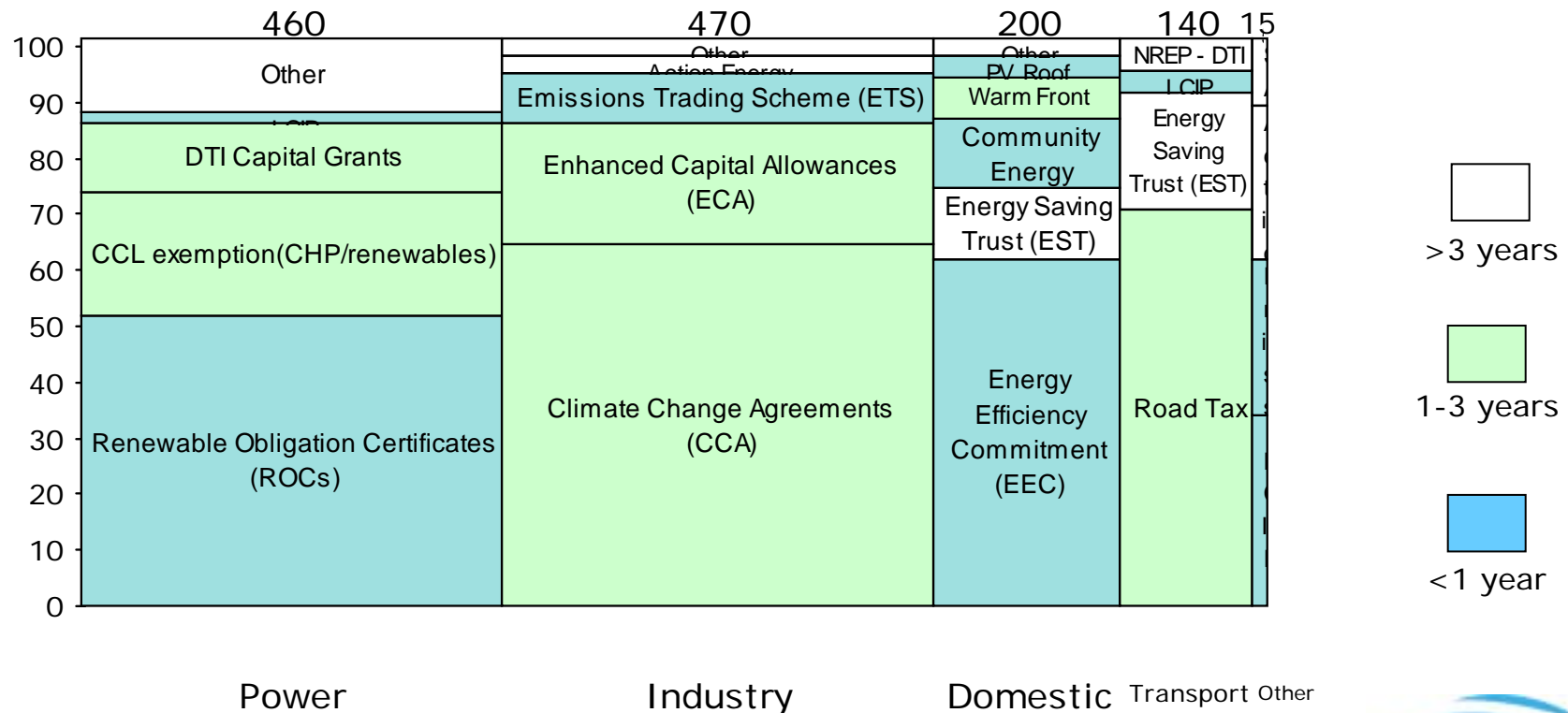
Source: PIU, February 2002



# Recently introduced support measures have increased UK climate change funding to £1.3bn pa

## UK climate change programme: total £1.3bn pa

Estimated share of sector funding 2002/3

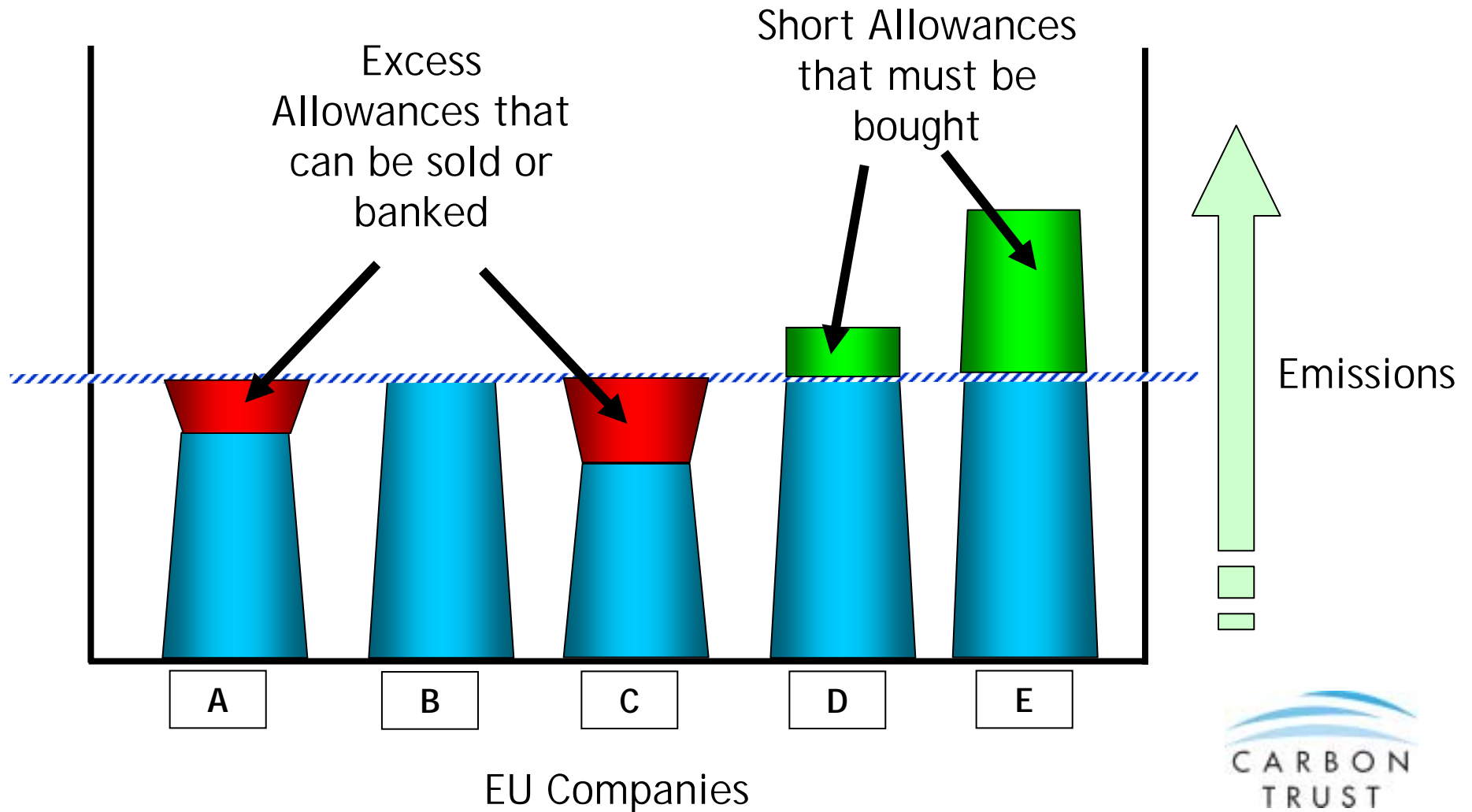


Note: Other includes Public/Commercial and Agriculture; ROCs assessed on 3% renewables at full £30/MWh buyout price

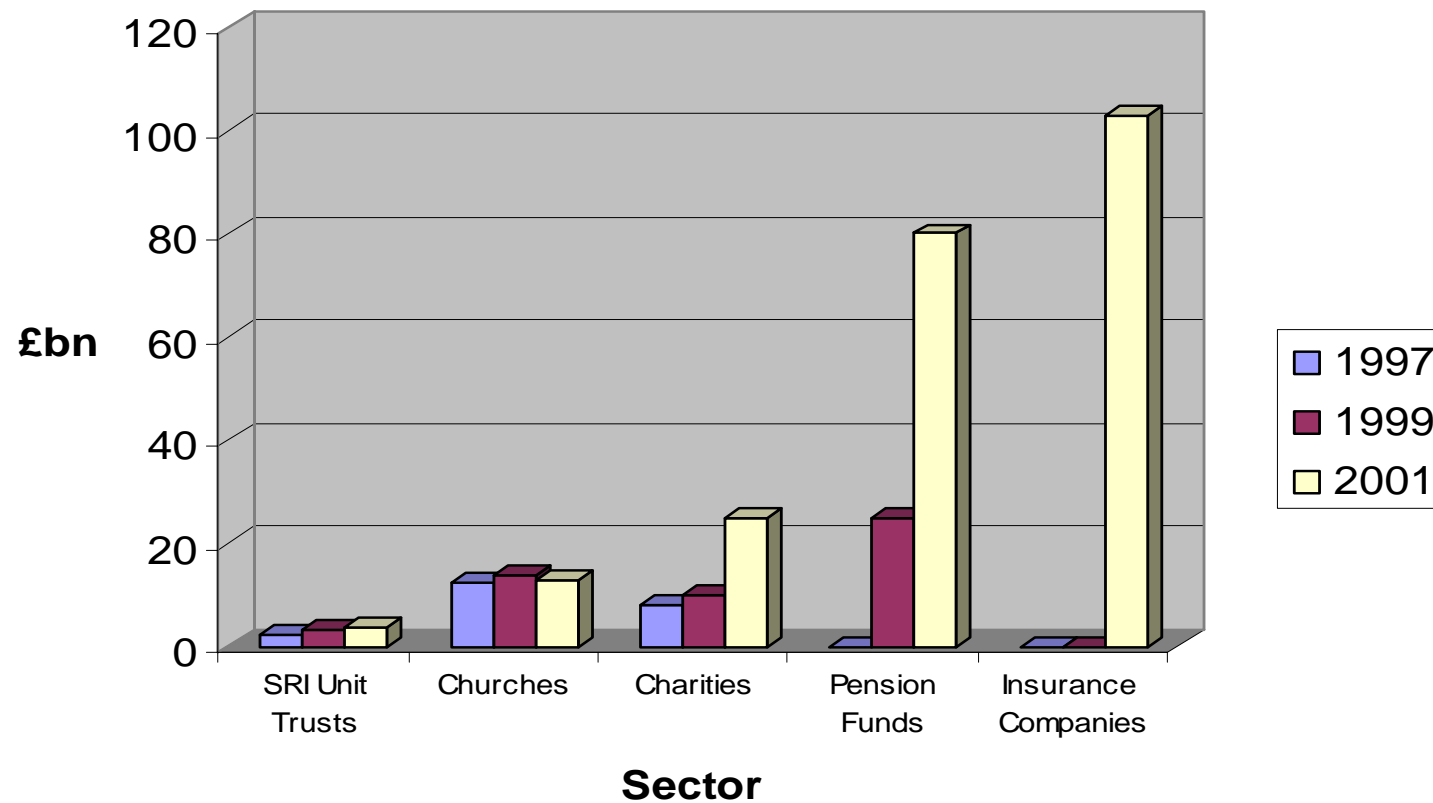
Source: CSA Energy Research Review Group, Feb 2002, Defra, DTI, DfT press releases, Carbon Trust analysis



# EU Emission Trading Scheme (2005+): Cap and Trade system



# Growth in UK SRI Assets (1997-2001)



Source: Russell Sparkes, 2002, 'SRI: A Global Revolution'. John Wiley & Sons



# Energy Efficiency Accreditation



- National Benchmark Standard for Energy Efficiency
- Demonstrates Energy Efficiency competency
- Awarding Body: Energy Institute, managed by NEF
- Endorsed by CBI
- >180 companies accredited inc Rolls Royce, BT, Tesco, Local Authorities, NHS Trusts etc



# Economic Opportunities: Energy Efficiency

## **Goods:**

- Sale and installation of Existing Technologies
  - Insulation, boilers, fans and motors etc

## **Services:**

- Expertise, skills, advice & consultancy
  - Production, design, procurement etc
- All Businesses, Buildings & Industry



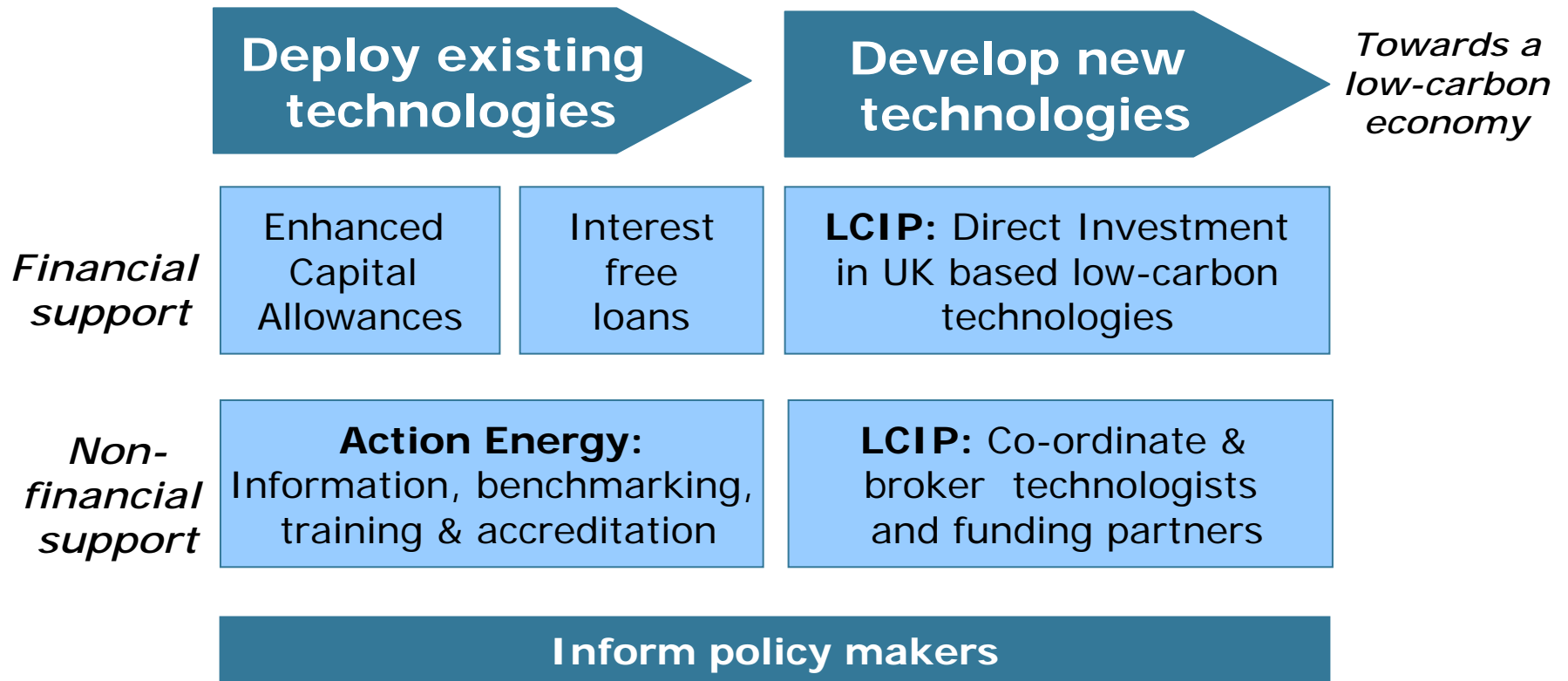
Web site: [www.actionenergy.org.uk](http://www.actionenergy.org.uk)  
0800 58 57 94  
Email: [info@actionenergy.org.uk](mailto:info@actionenergy.org.uk)

# 'Building Options for Renewable Energy'

- **On shore wind:** poor UK position
  - German and Denmark lead
  - Opportunities for component manufacture
- **Off shore wind:** Global leader potential
  - Good experience in off shore environments
- **Wave & Tidal:** Global leader potential
- **Solar PV:** Weak competitive position (low resource & high cost)
  - Opportunities for next generation of PV



# Carbon Trust Programmes



Action Energy  
Good for business  
Good for the environment

0800 58 57 94

[www.actionenergy.org.uk](http://www.actionenergy.org.uk)



# Action Energy - Overview

- Telephone & web advice
- Tech Publications
- Site surveys
- Specialist consultancy & design advice
- Interest free loans & Enhanced Capital Allowances (ECA)

0800 58 57 94

[www.actionenergy.co.uk](http://www.actionenergy.co.uk)

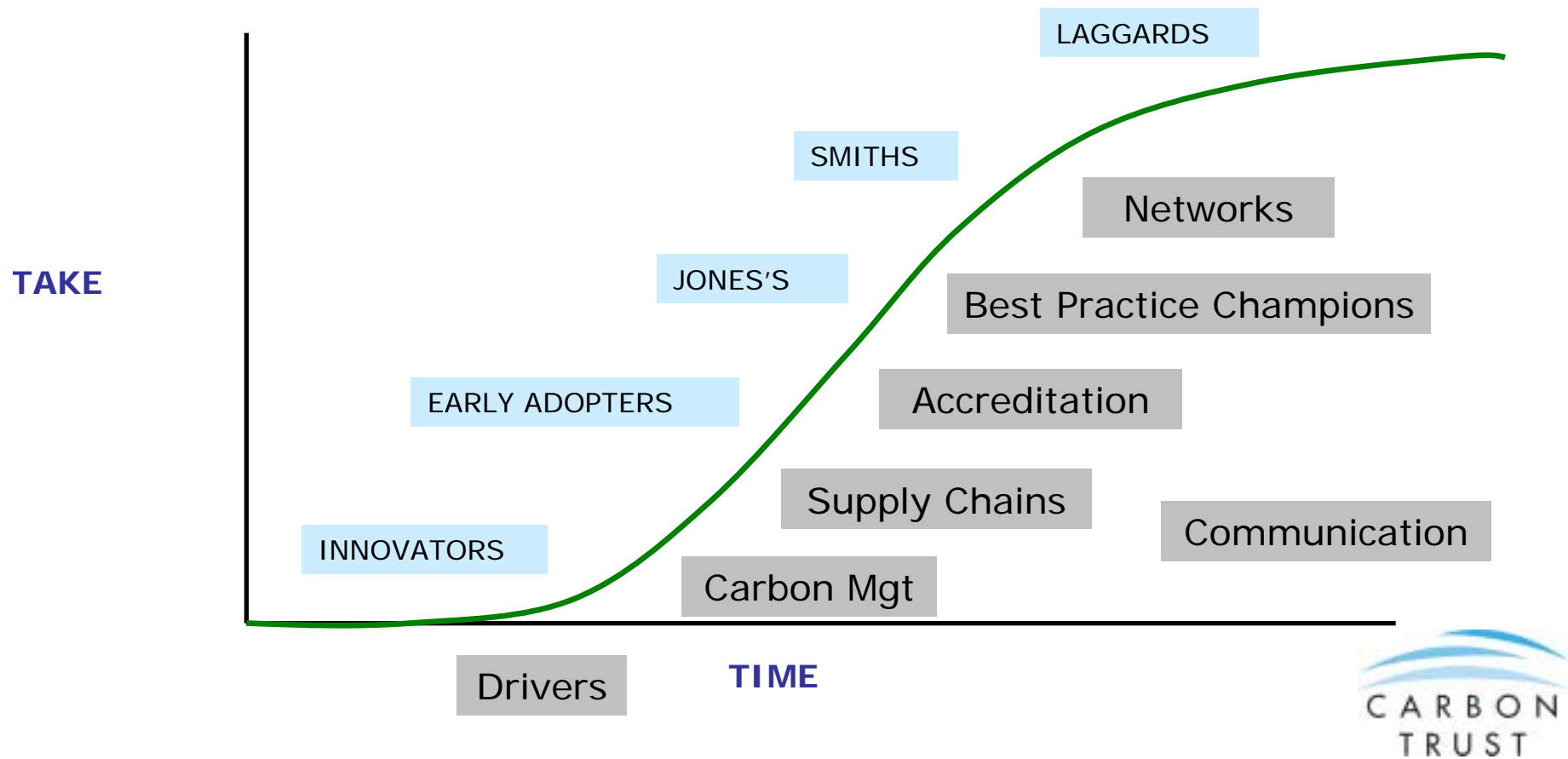


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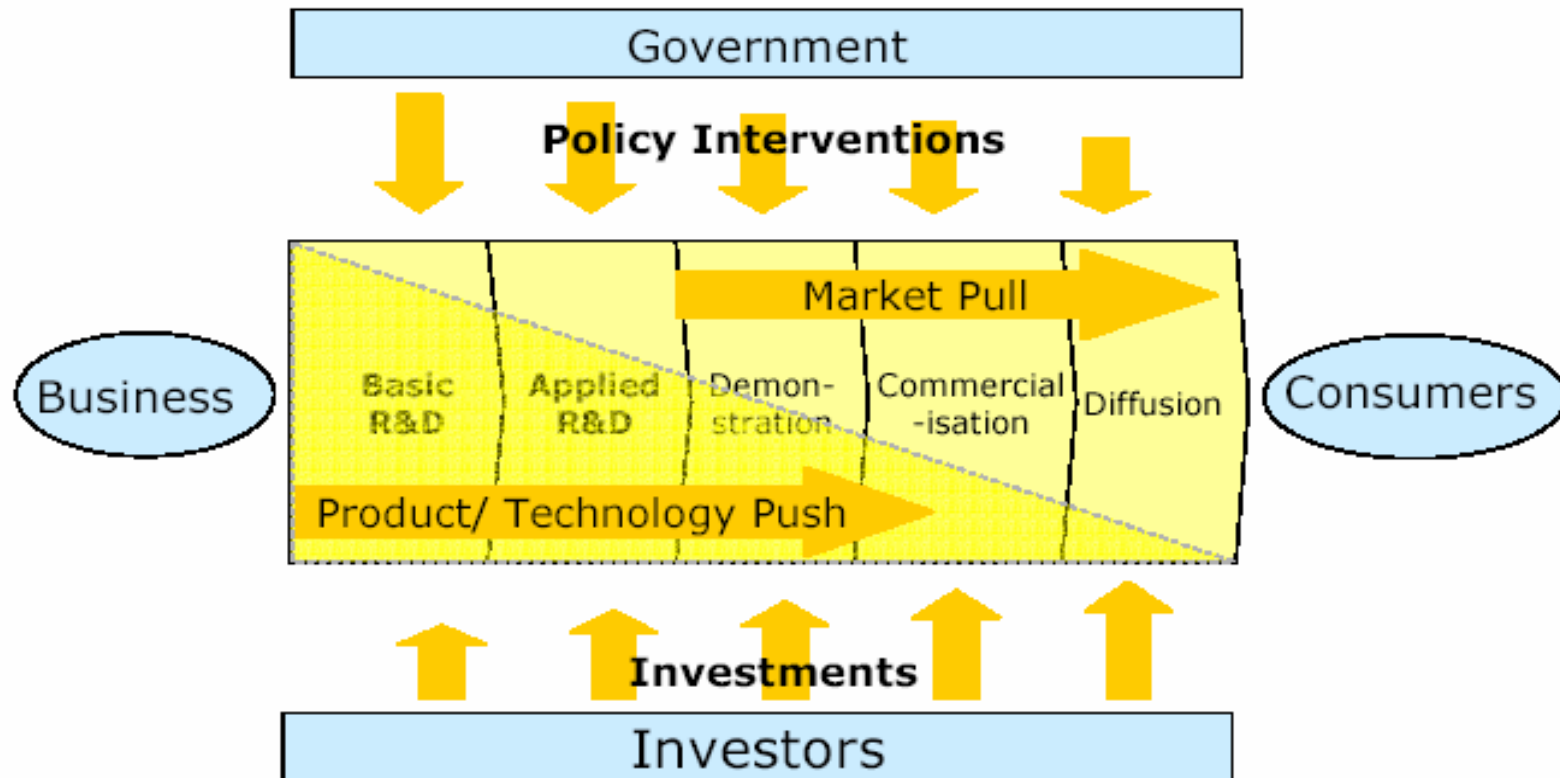
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CARBON  
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# Low Carbon Technology Deployment

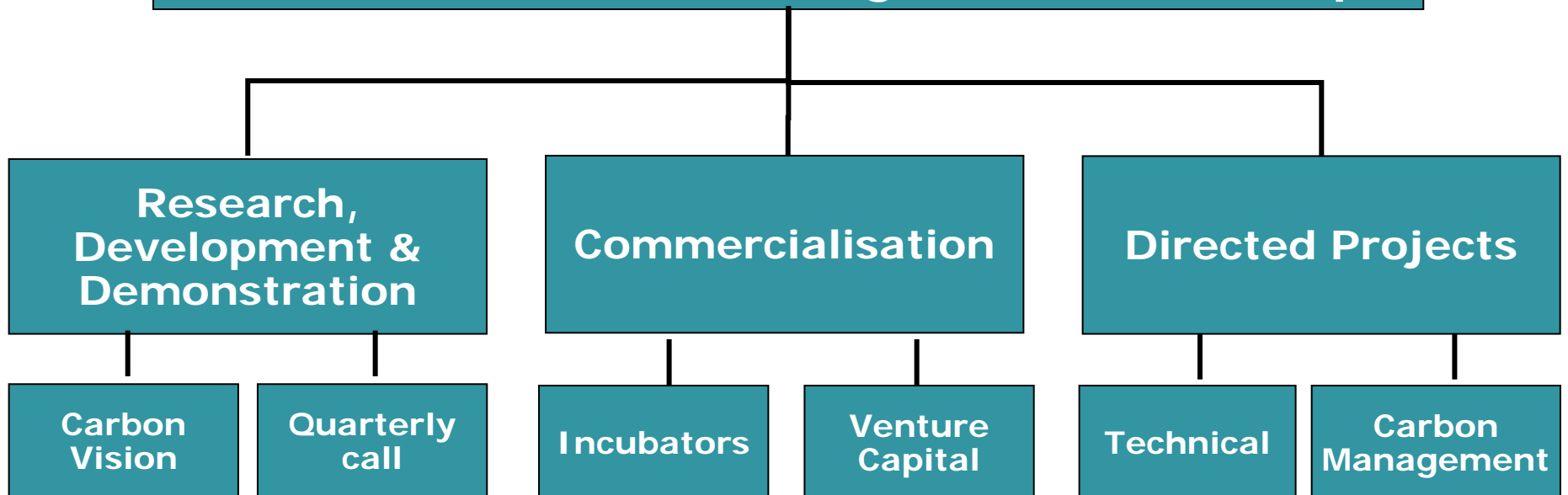


# The Innovation Process

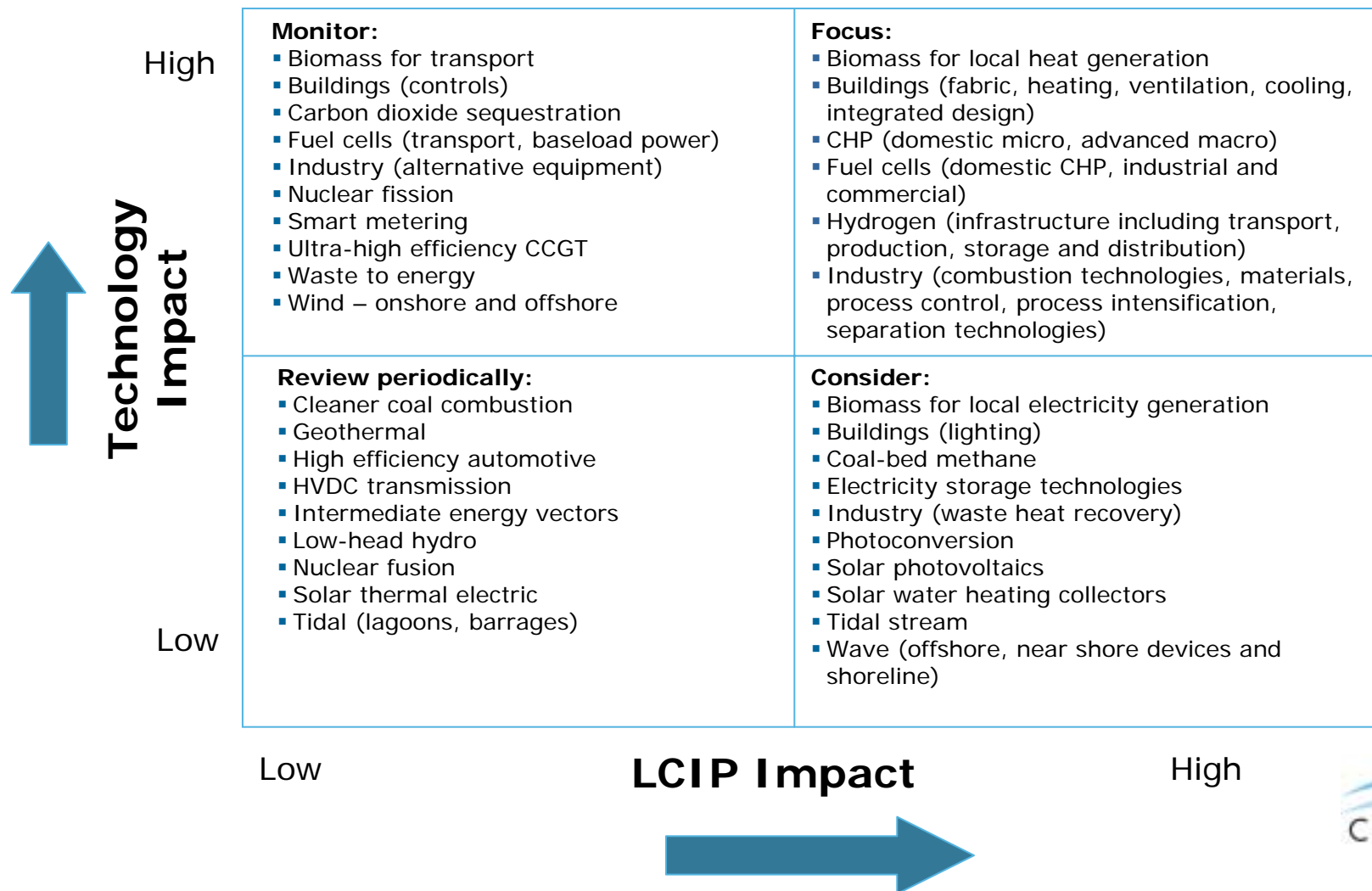


# LCIP support is designed to match need

Low Carbon Innovation Programme - ~ £25M pa



# Carbon Trust Low Carbon Technology Assessment sets priorities



# Summary

The Key Drivers for a low carbon economy are:

- Environmental – Climate Change
- Security of Supply
- Resource Availability – fossil fuels
- Corporate Social Responsibility

- The Low Carbon Economy will be realised through:
  - Developing regulation
  - Market pricing changes
  - Support mechanisms
- **Help is available from Carbon Trust!**



# Making Business Sense of Climate Change

