

Pathways to a low carbon economy: the business response to climate change

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Project background

- Collaborative membership organisation that focuses on sustainability for competitive advantage.
- Founded by the Universities of Hull, Leeds, Sheffield and York.
- Brings together multidisciplinary and evidence-based research to inform policy and demonstrate low carbon innovations.

Project objectives

- Lots of technological and economic optimism has enabled action on climate change
- But are companies embracing the opportunities to improve their energy efficiency and reduce their carbon footprints?
- And is business practice keeping pace with market opportunities, government targets and with the need for change?

Baseline survey of business: perspectives and expectations

- Where do they think they'll be by 2020,
- Will they meet the targets,
- What are the key drivers and barriers to investing in low carbon options?

Roadmap for a green economy

Roadmap for a Green Economy

Welcome



The image displays three logos side-by-side. On the left is the logo for the Centre for Low Carbon Futures 2050, featuring a blue wavy line above the text 'Centre for Low Carbon Futures' and a small '2050' badge. In the center is the Business in the Community logo, consisting of two stacked pink rectangular boxes with the text 'Business in the Community'. On the right is the logo for The Prince's Mayday Network, which includes a circular orange and white graphic of stylized figures holding hands, followed by the text 'THE PRINCE'S MAYDAY NETWORK' in pink and blue.

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Sensitivities

Roadmap for a Green Economy

What is this, 20 Questions?

Err, actually there are a few more than that, but please bear with us, they're all important, and it should take no more than 10 minutes to complete the whole survey!

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Can you give us your own personal assessment of how the organisation that you work for rates in the following respects:

	Very high	High	Medium	Low	Very low
Level of priority given to energy management by the board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of confidence that energy efficiency can generate economic returns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of awareness of the range of technologies that could be used to reduce energy use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perceived stringency of legislation relating to energy use and carbon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity of the organisational objectives for energy management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to access capital to invest in reducing energy demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Likelihood of you working with suppliers to reduce their energy use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extent to which you learn from other organisations in your sector on energy management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extent to which investments in reducing energy demand depend on energy prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credibility of the government's target of a 34% reduction in 1990 levels of greenhouse gas emissions by 2020	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Levels of Business Confidence

Very high levels of confidence in climate science

(58% high or v high, 8% low or v low)

Credibility of government targets for 2020 is an issue

(19% high or v high, 40% low or v low)

Credibility of government targets for 2050 is even more of an issue

(14% high or v high, 45% low or v low)

Awareness of the technological opportunities is high

(55% high or v high, 13% low or v low)

Confidence in the economic opportunities is also high

(65% high or v high, 8% low or v low)

Levels of Business Commitment

Energy management given a high priority by the board

(53% high or v high, 12% low or v low)

Fairly high degree of buy-in across organisations

(44% high or v high, 21% low or v low)

But access to capital is an issue

(27% high or v high, 35% low or v low)

As is access to management time

(21% high or v high, 34% low or v low)

The Scope for Business Learning

Prospects for organisational learning are excellent

(82% high or v high, 2% low or v low)

Professional networks play a key role in learning

(56% high or v high, 10% low or v low)

But learning within sectors is lower

(40% high or v high, 24% low or v low)

And learning within the local area is lower still

(26% high or v high, 34% low or v low)

The Scope for Business Change

A high level of willingness to change

(43% high or v high, 13% low or v low)

Some appetite to take risks to reduce energy demand

(30% high or v high, 25% low or v low)

The prospects for incremental change are very good

(64% high or v high, 4% low or v low)

But the prospects for radical change are much lower

(25% high or v high, 33% low or v low)

Forms of change

Roadmap for a Green Economy

Operational change

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Operational change refers to the ways in which your organisation uses its current assets.

Focusing only on the opportunities for reducing its energy use through operational change, how highly would you rate your organisation's:

	Very high	High	Fairly	Low	Very low
Awareness of the opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commitment to exploiting the opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capacity to exploit the opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What proportion of all of the opportunities to reduce energy use through operational change do you think your organisation had exploited by 2010 and will exploit by 2015 and 2020?

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
By 2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By 2015	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By 2020	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ultimately, if it exploited all of the opportunities to reduce energy use through operational change, by how much do you think your organisation could reduce its energy use?

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How much confidence do you have in your predictions?

Very high High Medium Low Very low

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Forms of change

Operational Change

‘where improvements could be made by increasing the efficiency with which your organisation uses its current assets’

Capital Renewal

‘where improvements could be made by gradually replacing your organisation’s assets with more efficient options’

Strategic Change

‘where improvements could be made by changing the way that your organisation does business’

Forms of change

Operational Change

Many expected to move from low to high exploitation by 2020; 25% expect to continue on low level.

Capital Renewal

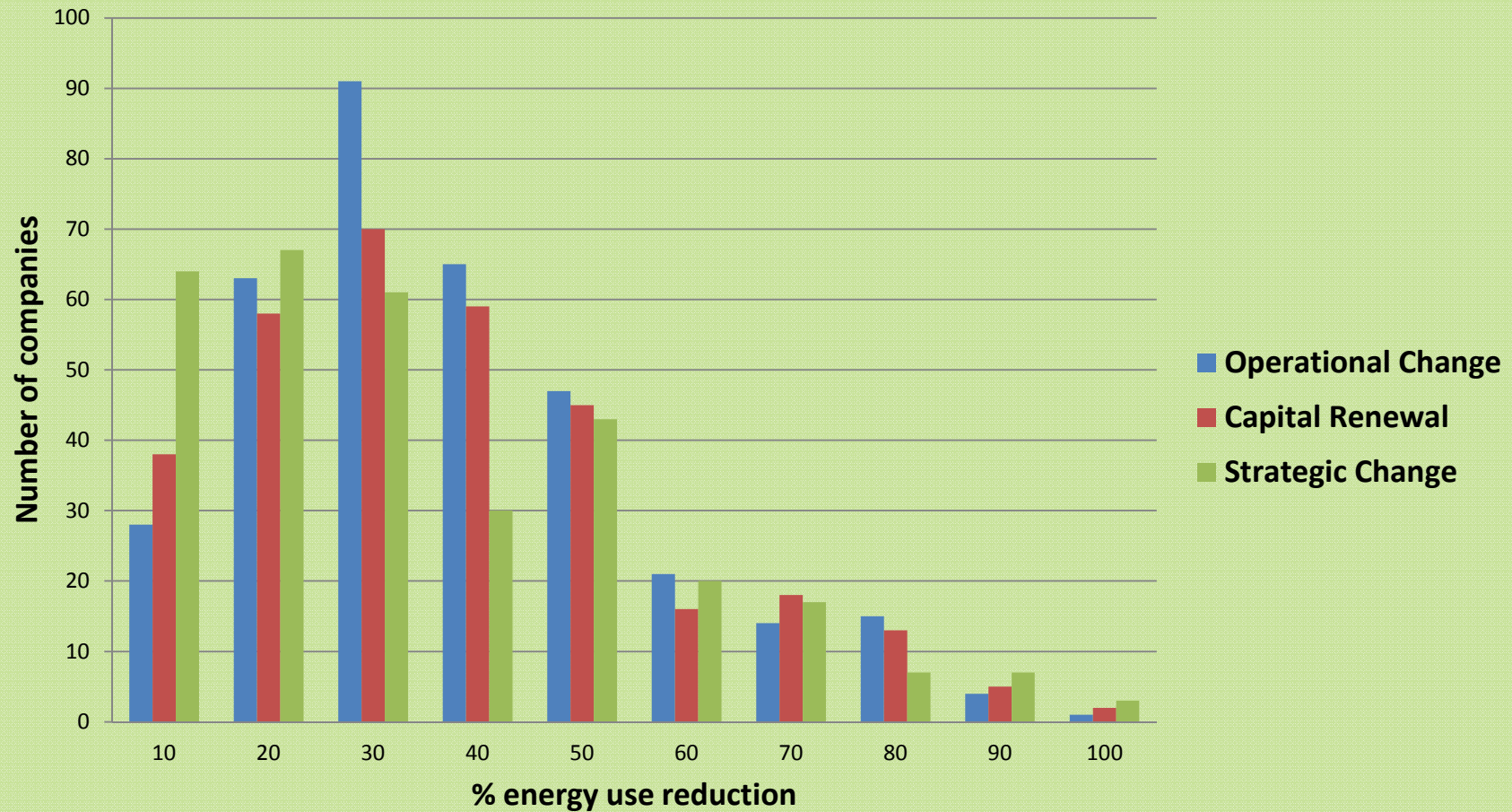
Many expected to move from low to medium exploitation by 2020; 25% expect to continue on 2010 level.

Strategic Change

Significant amount expect to continue with low level of uptake; more than a third expect to continue on 2010 level.

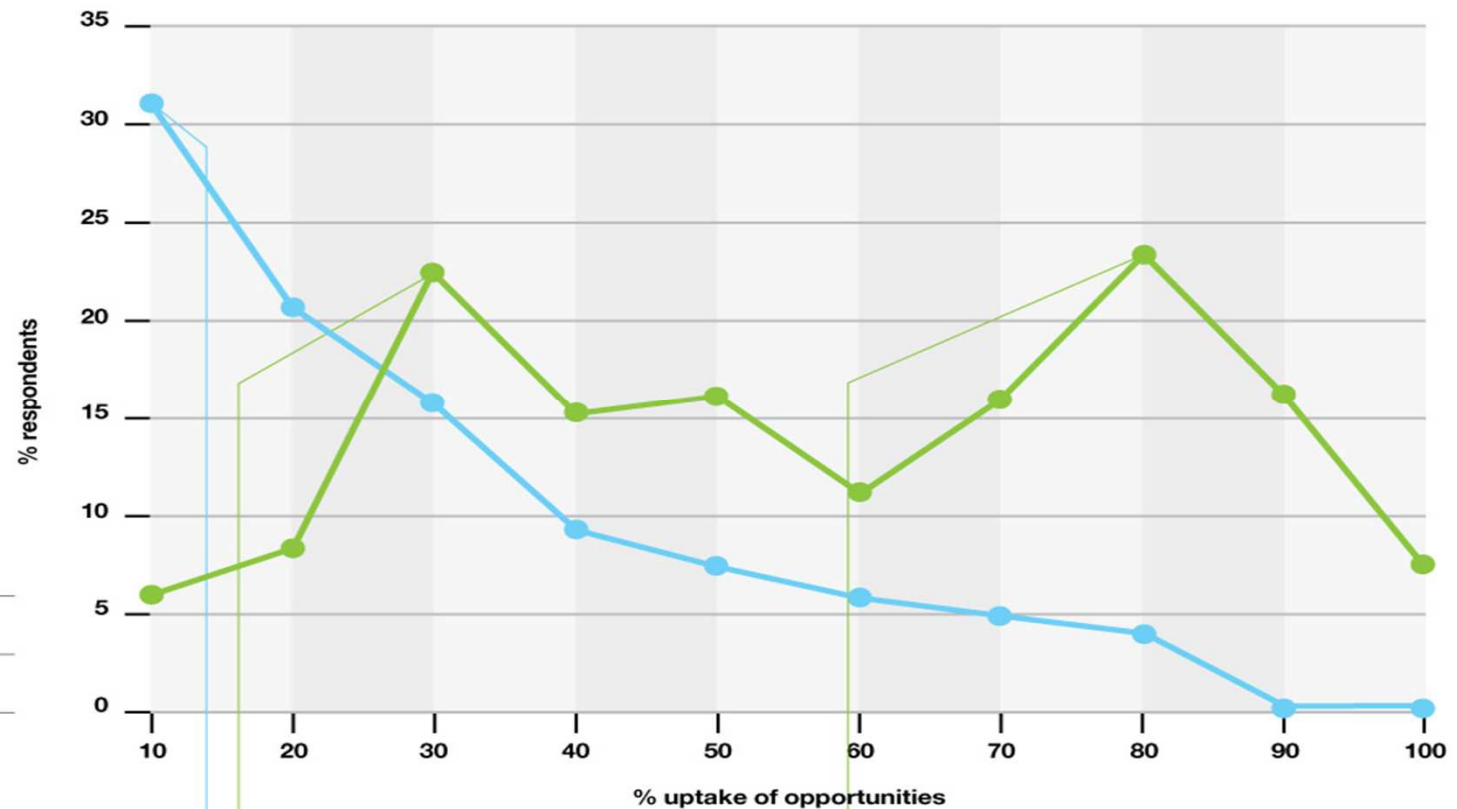
Energy use

If all opportunities were exploited:



Segmentation

Operational Change



10% PEAK IN 2010

The highs: confidence in climate science.

The lows: access to capital; awareness of range of organisational changes; learning within local area; willingness to take risks to reduce energy demand; prospects for making step changes; management time and skills available.

30% PEAK IN 2020

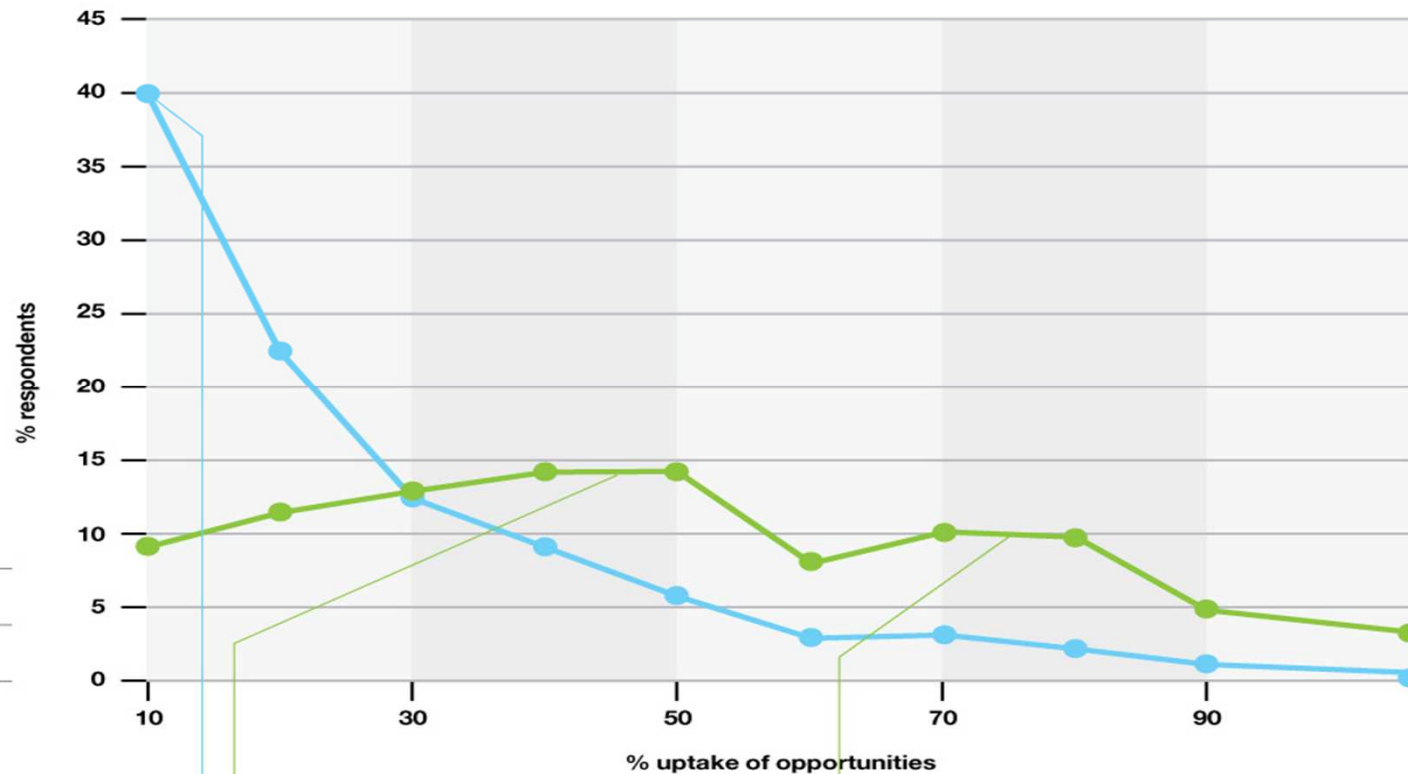
The highs: awareness of technologies; management time and skills available.

The lows: access to capital; awareness of range of organisational changes; willingness to take risks to reduce energy demand; prospects for making step changes.

80% PEAK IN 2020

The highs: priority at board level; awareness of technologies; clarity of energy management objectives; capacity for energy management; awareness of range of organisational changes; organisational buy-in for energy reduction; confidence in climate science; willingness to change; skills available.

Capital Renewal



10% PEAK IN 2010

The highs: extent to which investments depend on energy prices and broader economic climate.

The lows: access to capital; awareness of range of organisational changes; learning within local area; prospects for making step changes; management time and skills available.

40%/50% PEAK IN 2020

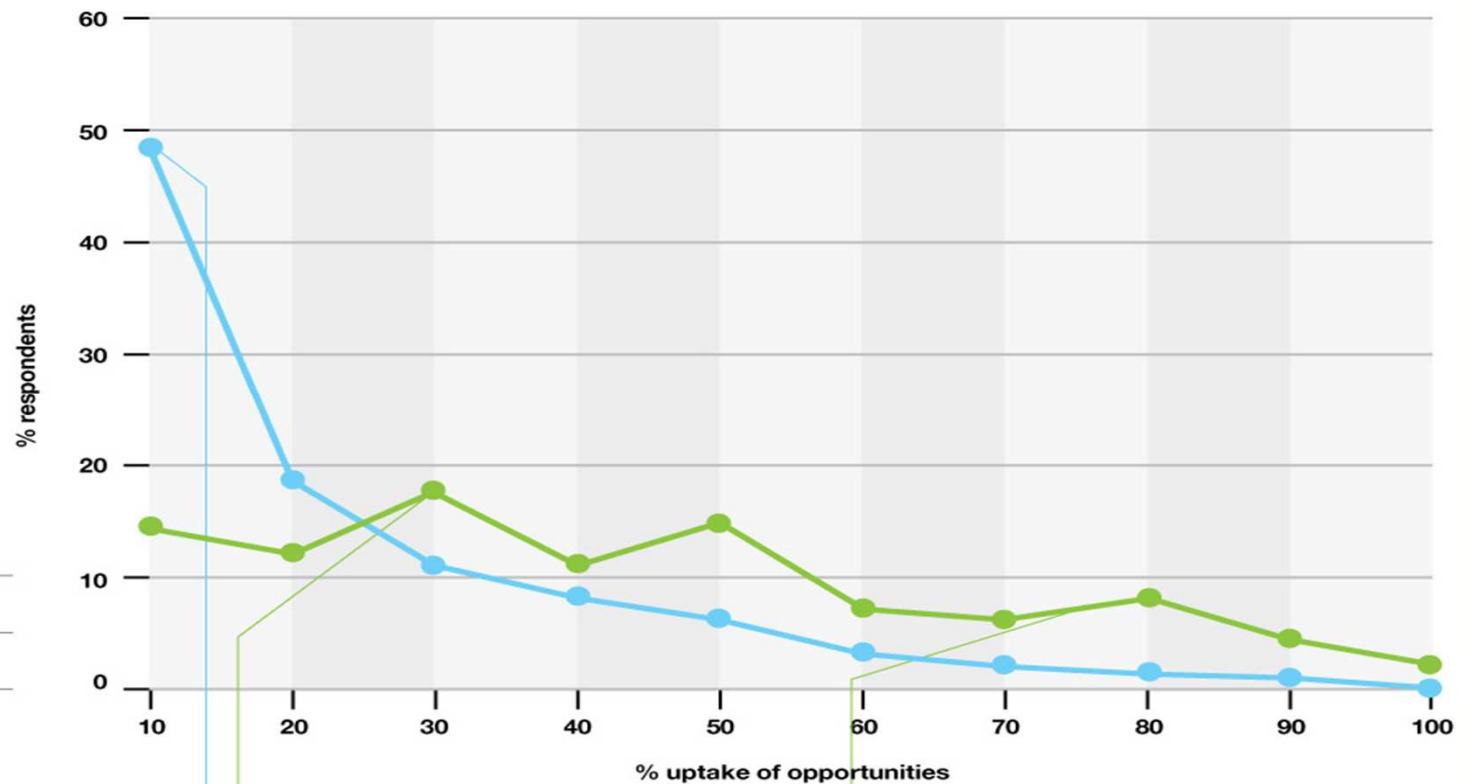
The highs: willingness to change; skills available.

70%/80% PEAK IN 2020

The highs: access to capital; extent of learning within sector; extent to which investments depend on energy prices and broader economic climate; capacity for energy management; awareness of range of organisational changes; organisational buy-in for energy reduction; willingness to change; skills available.

The lows: learning within local area.

Strategic Change



10% PEAK IN 2010

The highs: awareness of technologies.

The lows: credibility of 2050 GHG target; awareness of range of organisational changes; learning within local area; prospects for making step changes; management time.

30% PEAK IN 2020

The highs: clarity of energy management objectives; awareness of range of organisational changes; learning within local area; organisational buy-in for energy reduction.

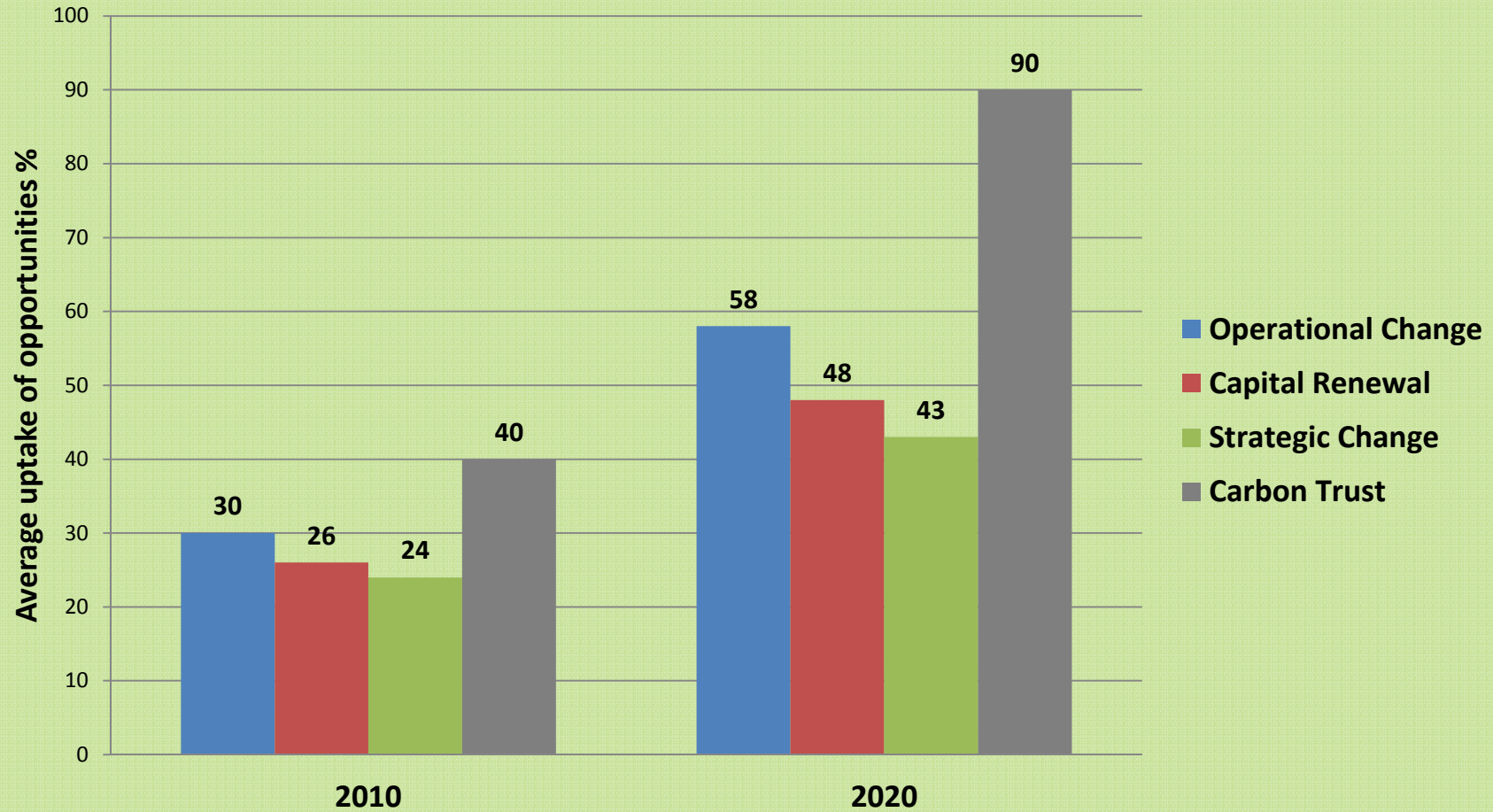
The lows: credibility of 2050 GHG target; prospects for making step changes; management time.

70%/80% PEAK IN 2020

The highs: awareness of technologies; clarity of energy management objectives; access to capital; capacity for energy management; organisational buy-in for energy reduction; willingness to take risks to reduce energy demand; willingness to change.

Comparisons

Sample vs. Carbon Trust



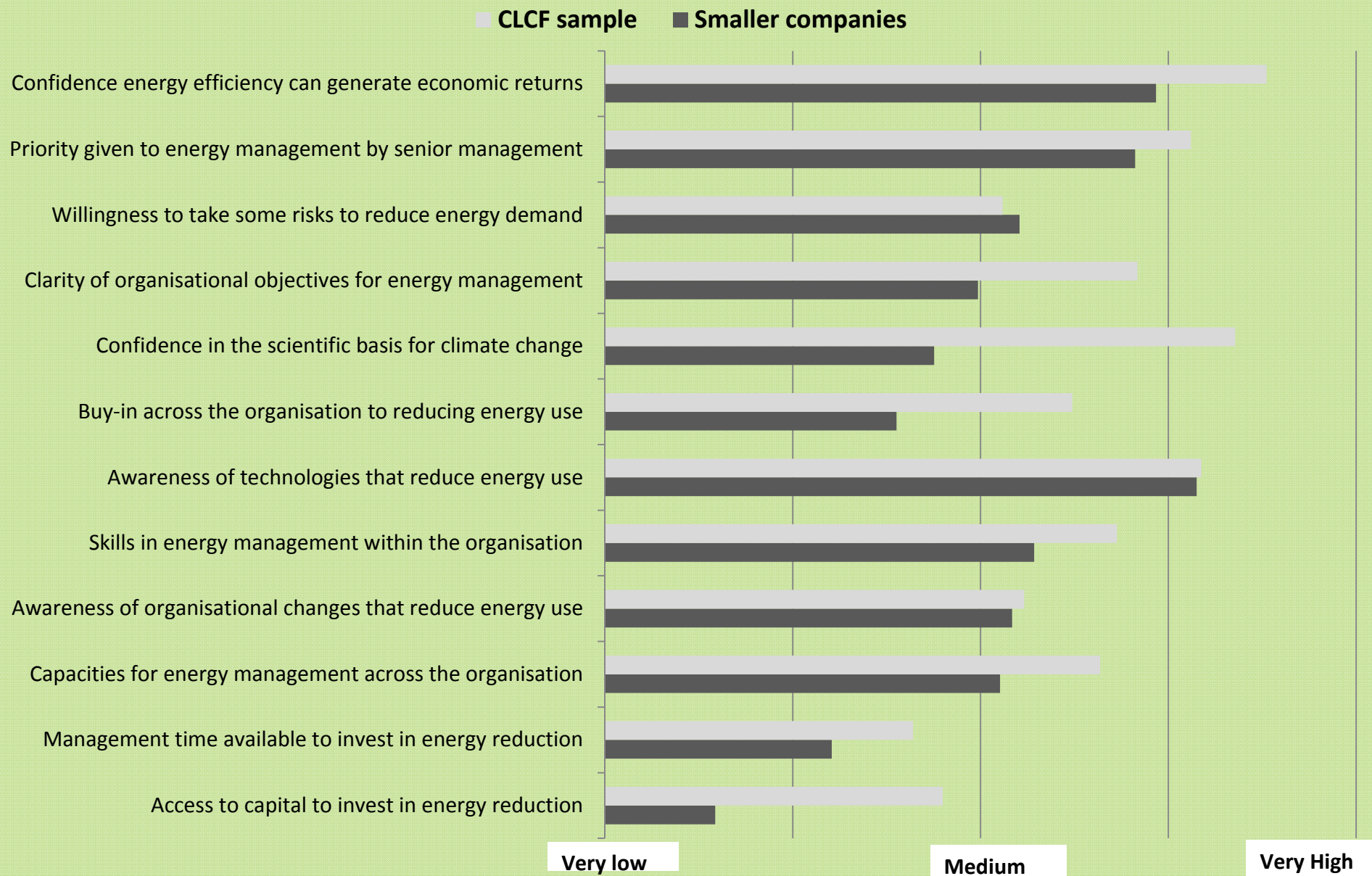
Carbon Trust research: 700 senior executives, 2011

- Majority of business leaders reluctant to increase investment in green products and services
- Third of the sample investing in R&D of green products and services
- 90% believe green growth represented a business opportunity
- Policy environment widely blamed for reluctance to invest

Carbon Trust research: Raising the bar, 2011

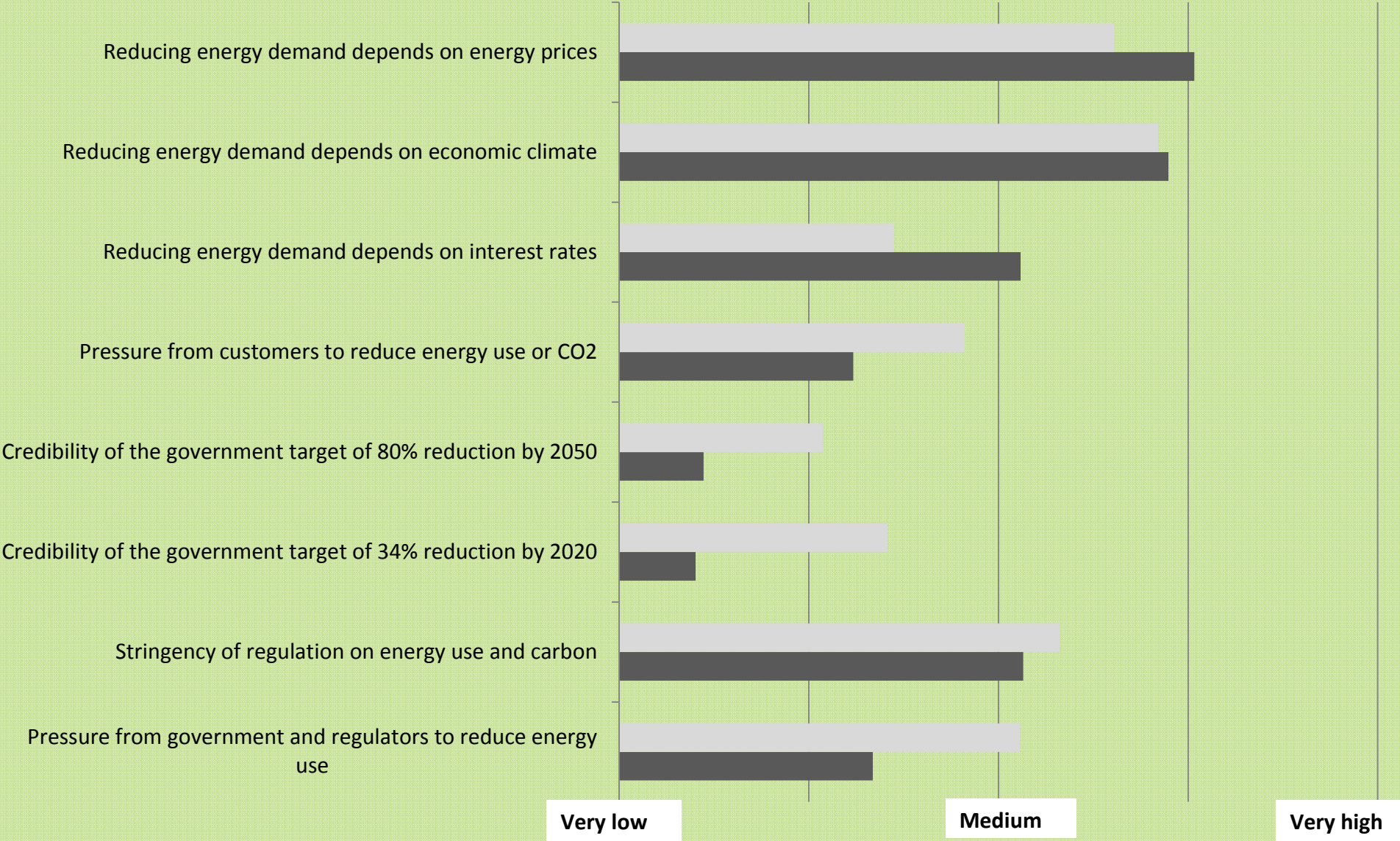
- Despite the UK adopting 50% carbon reduction targets; only 59% of FTSE 100 companies have clear, robust targets to cut carbon emissions.
- Leading companies are seeking to exploit revenue generating opportunities from the low carbon economy.

Large companies vs small companies



Large companies vs small companies

CLCF sample Smaller companies



Summary

By 2020 we can expect to see...

- **Business as usual... but in a more efficient form**

- **High expectations = greatest commitment...**

The companies with the highest expectations have higher levels of priority from the board, buy-in from staff, capacities for and willingness to change, appetite for risk and access to capital.

- **...but the opposite is also true**

There will be a significant proportion of hard to reach firms, even amongst the most active and engaged companies. Even more difficult for smaller firms.

- **Some significant opportunities will remain unexploited**

Broader context

Policy landscape: supporting future reductions

- Green Deal: every British home and business will be able to install packages of energy saving measures at no upfront cost.
- £200m funding boost to accelerate uptake – ‘time-limited’ introductory offer.
- Carbon Trust Implementation Service - aimed at companies that want to improve their energy efficiency, but don't have the time or resources to do so.

Maybe all is well anyway....

‘UK economy on track to meet carbon targets and will reap long term benefits’

UK Carbon Plan, December 2011.

- UK emissions have already been cut by >25% on 1990 levels.
- The economy will significantly exceed the 34% emissions reduction target - regardless of recession.
- Meeting the 50% cut by the mid 2020's will not have any additional cost implications during this parliament.
- £45 billion to be gained by tackling climate change.

...Or not? UK Green Investments: £100m in 2012-13 for energy efficiency in commerce and industry

"If we burden [businesses] with endless social and environmental goals – however worthy in their own right – then not only will we not achieve those goals, but the businesses will fail, jobs will be lost, and our country will be poorer."

"We are not going to save the planet by shutting down our steel mills, aluminium smelters and paper manufacturers, all we will be doing is exporting valuable jobs out of Britain."

George Osborne,
Government's Autumn Statement 2011

WWF response

“Does the government have a clear policy on the environment or not? One minute the Chancellor George Osborne is calling it “a burden” on business growth, and now his cabinet colleague Chris Huhne at DECC has released his ‘Carbon Plan’, which says the net benefit to the UK economy from tackling climate could be £45 billion. We know which we think is right - but do they?”

Darren Shirley, Sustainable Homes Campaign Manager

WWF response

“If ever there was a time for positive change - a chance to reward businesses that are showing ambition and helping build a new post-carbon industrial age, it’s now. But today the government has chosen to waste that chance and gamble on limited, blinkered short-term growth founded on old thinking - and by doing so risks locking the UK into a fossil fuel-dependent, high-carbon future.”

Darren Shirley, Sustainable Homes Campaign Manager

Businesses need leadership...

*“Adoption of the Fourth Carbon Budget is the absolute minimum required to put the UK on a **credible** path to reduce its emissions by at least 80% by 2050 as legally mandated by the Climate Change Act. This is also critical to improve long-term investment certainty for the UK’s clean energy industry, key to creating jobs in the UK and reducing the costs of low-carbon technologies for consumers.”*

Nick Molho, WWF Head of Energy Policy

...and clarity

“Uncertainty will cause investment to go elsewhere, business to look to other opportunities or other countries, and jobs to be lost. It will also stop the UK government hitting its carbon budget. The words, actions and decisions of a minister and cabinet can have consequences that stretch years ahead.”

Darren Shirley, Sustainable Homes Campaign Manager

Going forward in a positive way

- Significant scope for policy to provide clear, long term framework to provide incentives and enable decision making.
- New incentives on the horizon.
- Significant scope for reductions from businesses.
- Businesses are engaged with carbon reduction options and have the foundations for change to some extent.

Feedback

Are the results surprising?