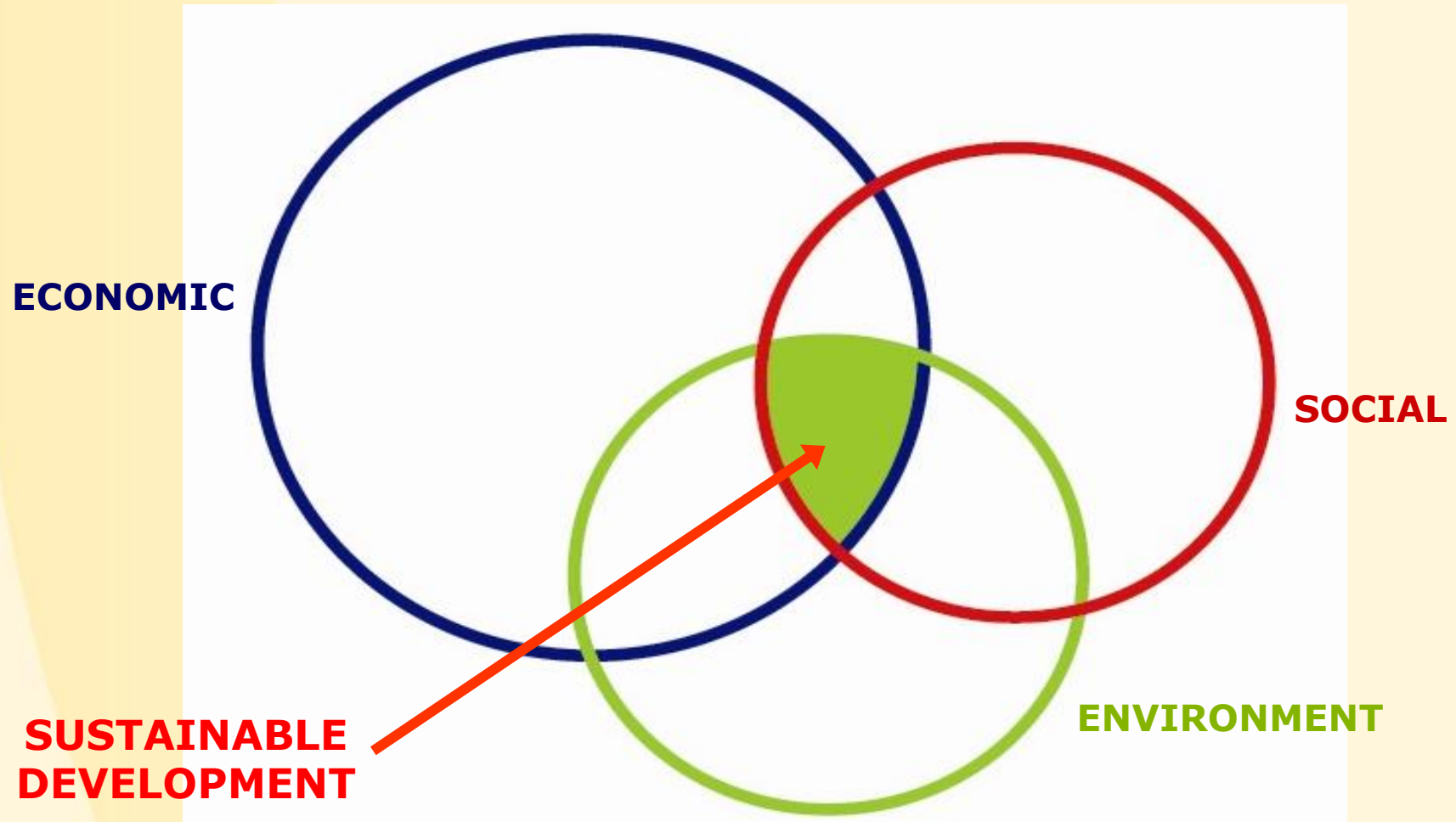


# Achieving a low carbon environment

George Martin

Head of Sustainable Development  
Willmott Dixon

# Triple Bottom Line



# Sustainable Development



# One Planet Living



Ref: WWF

# One Planet Living



Ref: WWF

# One Planet Living



Ref: WWF

# The elephant in the Boardroom !



# The elephant in the Boardroom !



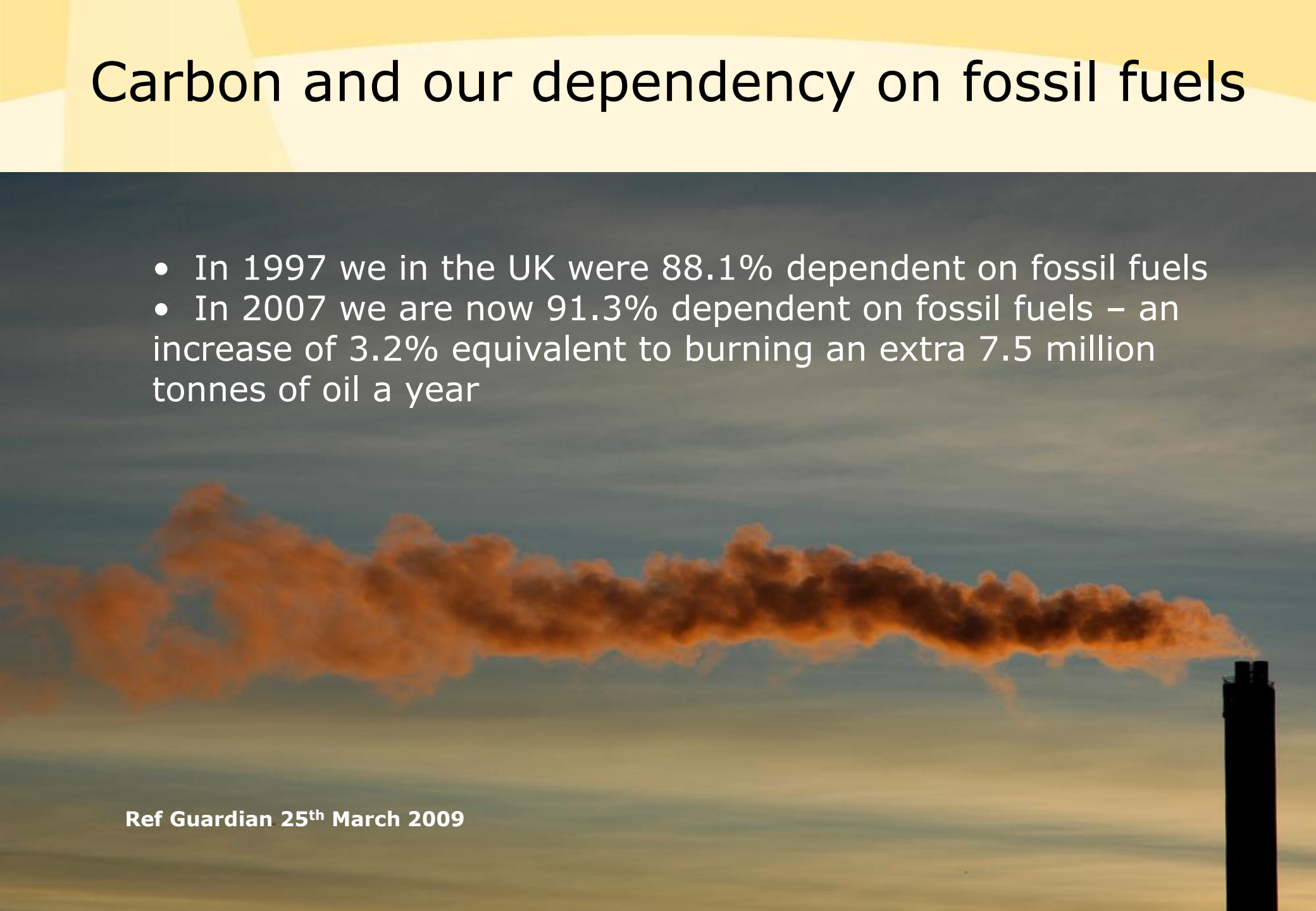
There's something  
business needs  
to talk about

# CARBON

# Carbon and our dependency on fossil fuels

- In 1997 we in the UK were 88.1% dependent on fossil fuels
- In 2007 we are now 91.3% dependent on fossil fuels – an increase of 3.2% equivalent to burning an extra 7.5 million tonnes of oil a year

Ref Guardian 25<sup>th</sup> March 2009



It's the law.

# Climate Change Act

26<sup>th</sup> November 2008

## Climate Change Act

- 26% cut by 2020; 80% by 2050
- 5 year budgets; independent Committee; annual report to Parliament
- Extensive enabling powers
- New Department of Energy and Climate Change (DECC) established in November 2008
- Committee on Climate Change recommendations on 1<sup>st</sup> December 2008



**Climate Change Act**

November 2008

# Climate Change Act

26<sup>th</sup> November 2008

**34%**

## Climate Change Act

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**Climate Change Act**

November 2008

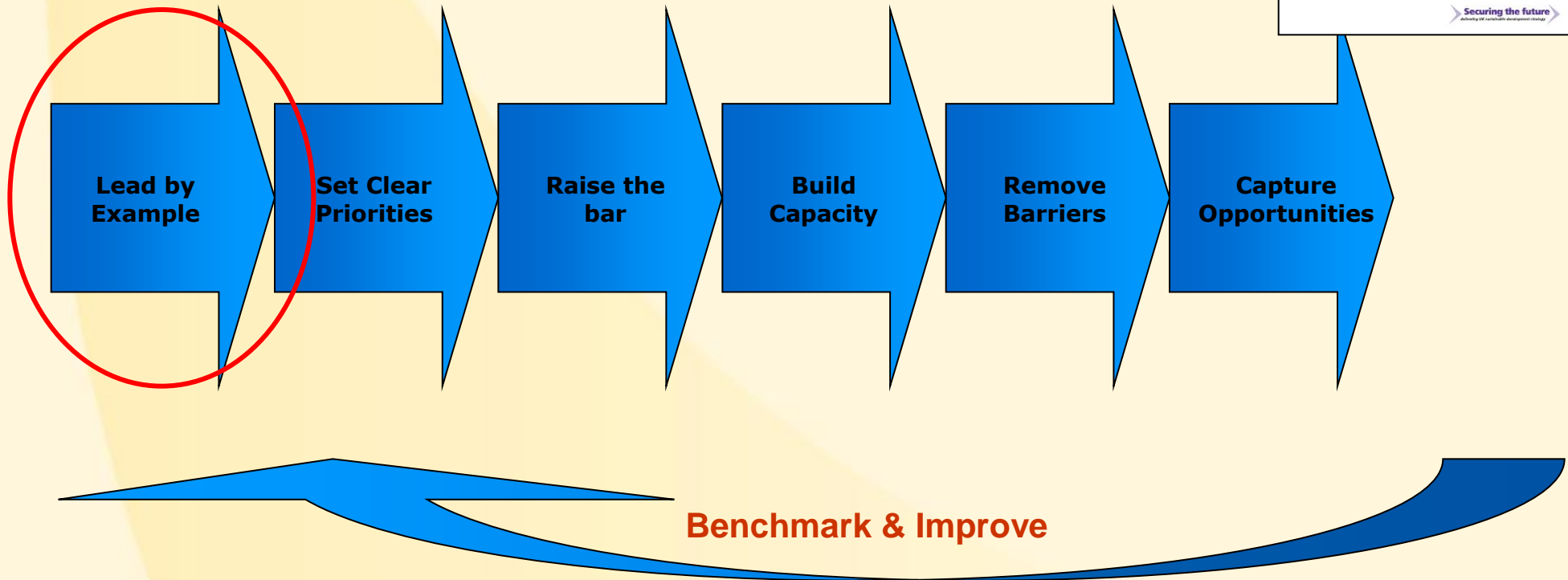
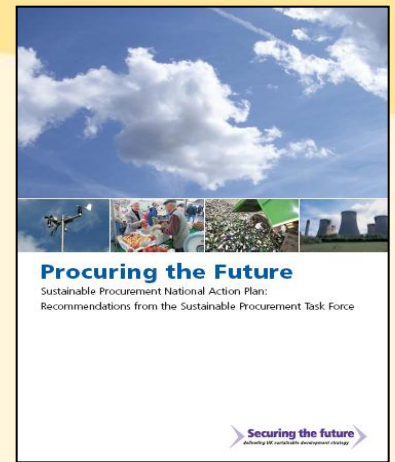


**POSSIBLE**

**IMPOSSIBLE**

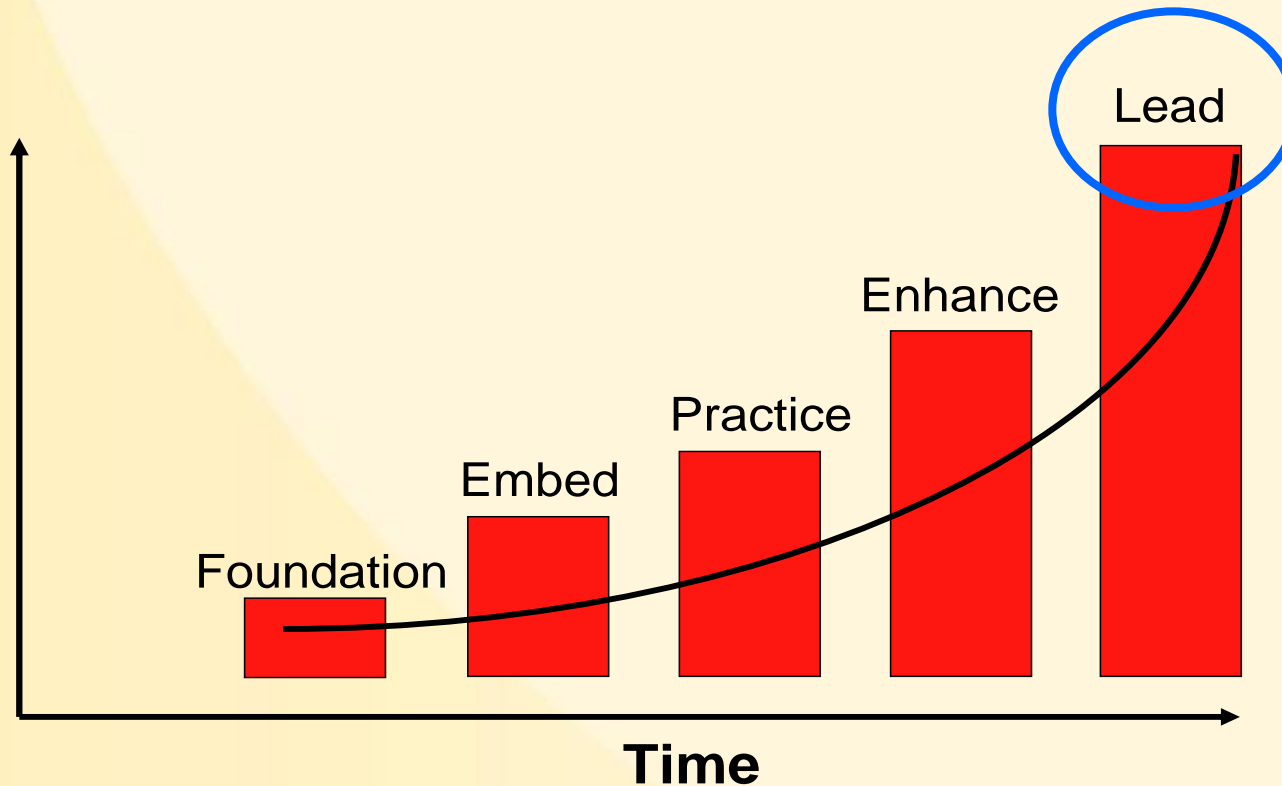
# Leadership

# Sustainable Procurement.....



# Sustainable Procurement Challenge

## – Flexible Framework



Benchmarking how well you are addressing ***your*** sustainability issues against how well others are addressing ***theirs***



**Plan A.**

**Because there  
is no Plan B.**

# Leadership



**Rick Willmott**  
Chairman



**Sir Michael Latham**  
Non-Executive  
Deputy Chairman



**Sir Jonathon Porritt**  
Non-Executive Director



**John Frankiewicz**  
Chief Executive Officer




**Wendy McWilliams**  
Company Secretary



**Duncan Canney**  
Chief Finance Officer

# Willmott Dixon Construction Strategic Vision

Sustainable Development Review 2008



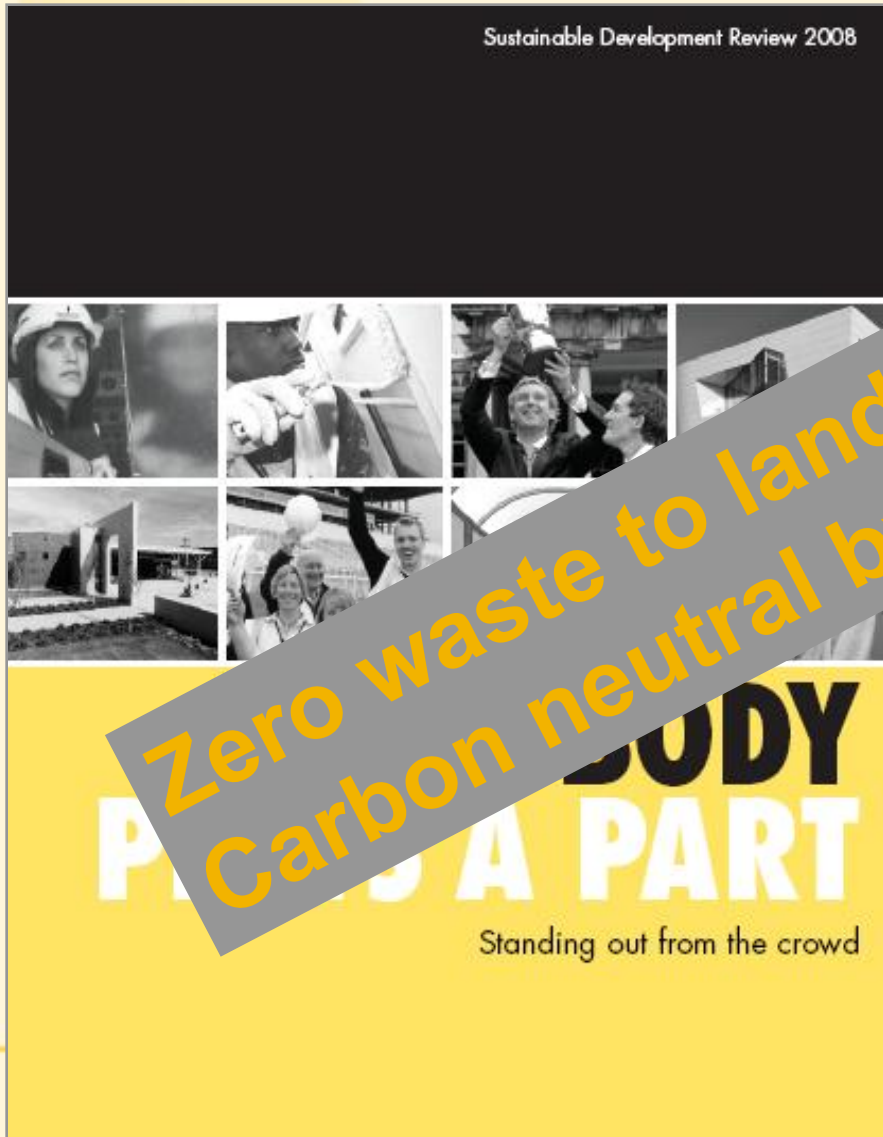
**EVERYBODY  
PLAYS A PART**

Standing out from the crowd

## Strategic Vision Statement

Our vision is to continue to add value to our clients and our shareholders and build upon our history and reputation by continuing to contribute to society as a whole. We are committed to undertake our activities in a sustainable and responsible manner and **take a leadership role in the built environment.**

# Everybody plays a part



## Willmott Dixon

- Climate Change and Energy Efficiency
- Communities
- Natural Resources and Environmental Enhancement
- Climate Change and Energy Efficiency

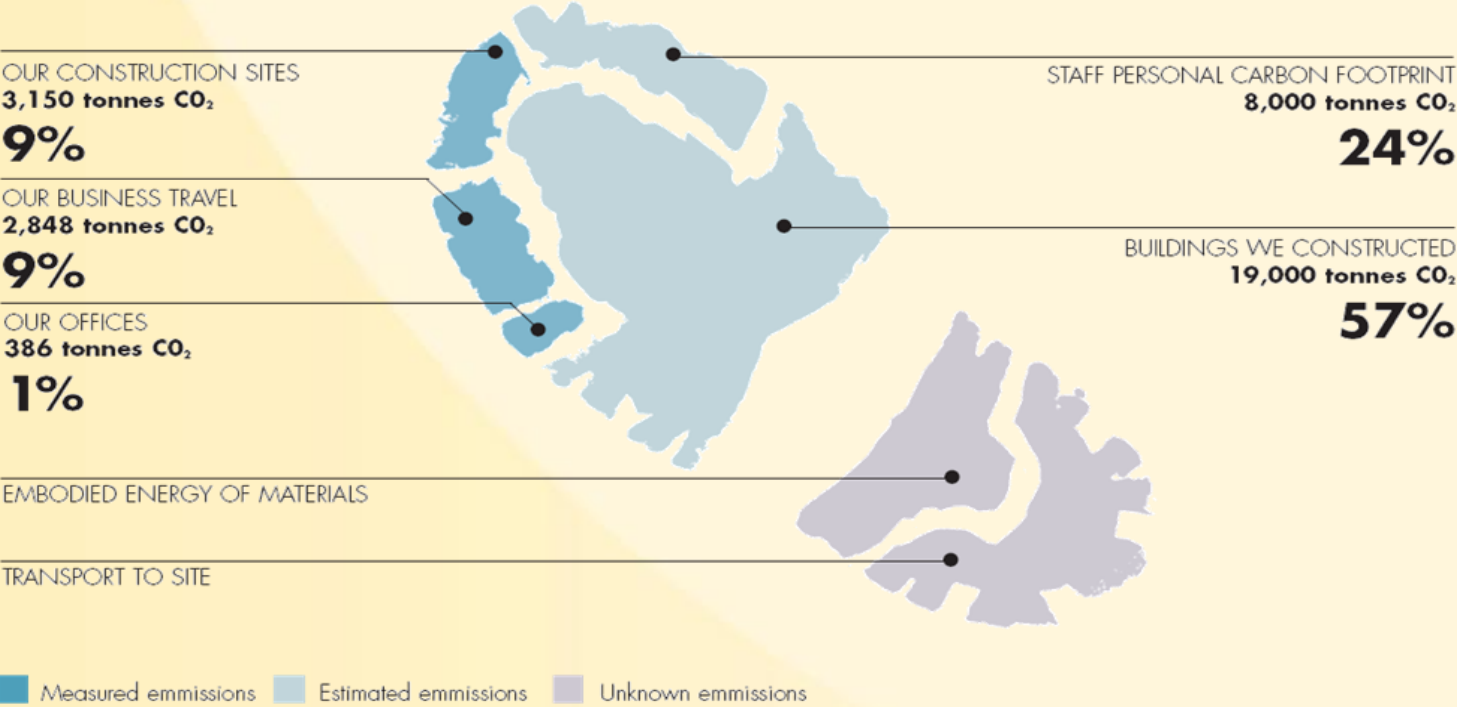
# Willmott Dixon's Ten point criteria for a 'sustainable' project

Criteria	2008	2009	2010	2011	2012
1. Client commitment to making it a sustainable project	Yes	Yes	Yes	Yes	Yes
2. BREEAM Design	Very Good	Very Good	Excellent	Excellent	Outstanding
3. Sustainability workshop	Yes	Yes	Yes	Yes	Yes
4. Energy Performance Certificate - Rating	C	C	B	B	A
5. Recycled content by value	> 20%	> 20%	> 25%	> 25%	>30%
6. Waste - % diverted from landfill	>70%	>80%	>85%	>90%	>100%
7. Sustainability healthchecks & POE	Yes	Yes	Yes	Yes	Yes
8. WLC & LCA undertaken	-	Yes	Yes	Yes	Yes
9. Considerate Constructor Scheme - Score	>32	>32	>34	>34	>34
10. Directly associated community project	Yes	Yes	Yes	Yes	Yes


**Continuous improvement**

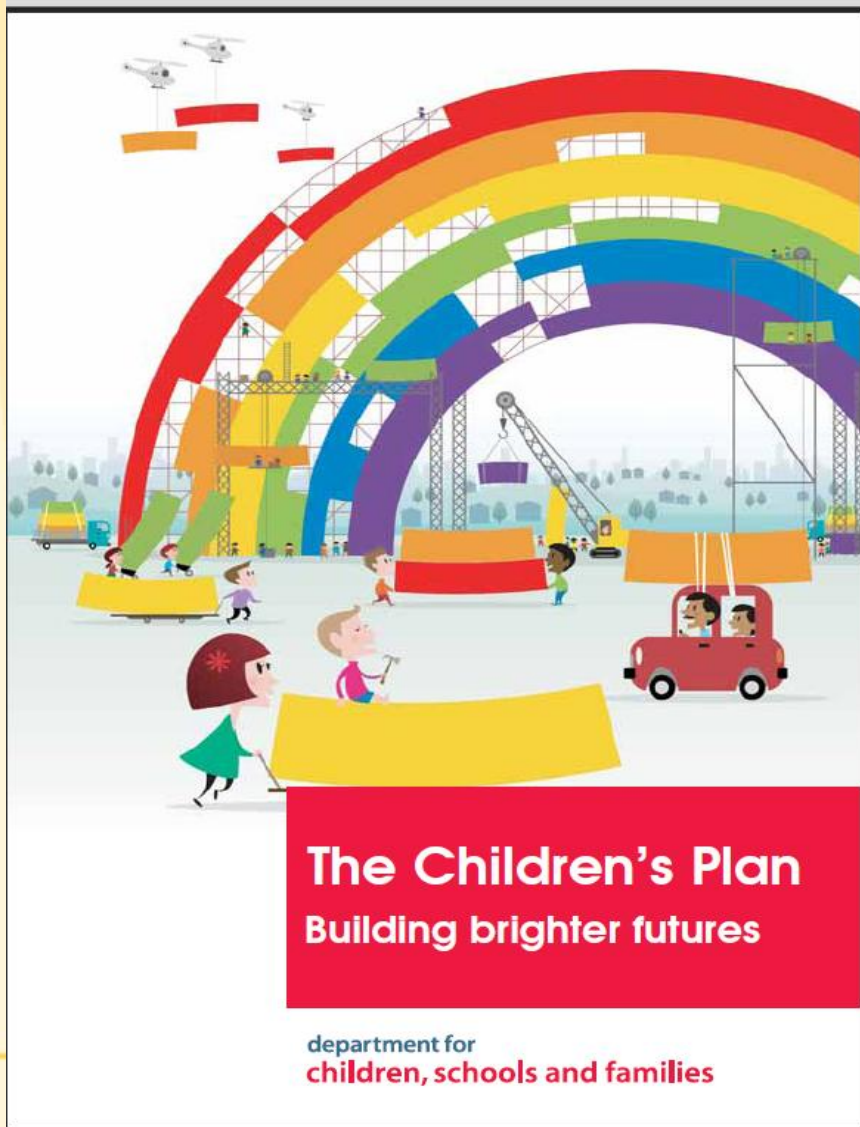
# Willmott Dixon Carbon Footprint

## OUR CARBON FOOTPRINT



# Prioritisation

# The Children's Plan



“We are also setting ourselves the ambitious goal that **all new school buildings should be zero carbon by 2016** to contribute to the Government’s commitment to reduce carbon emissions.”

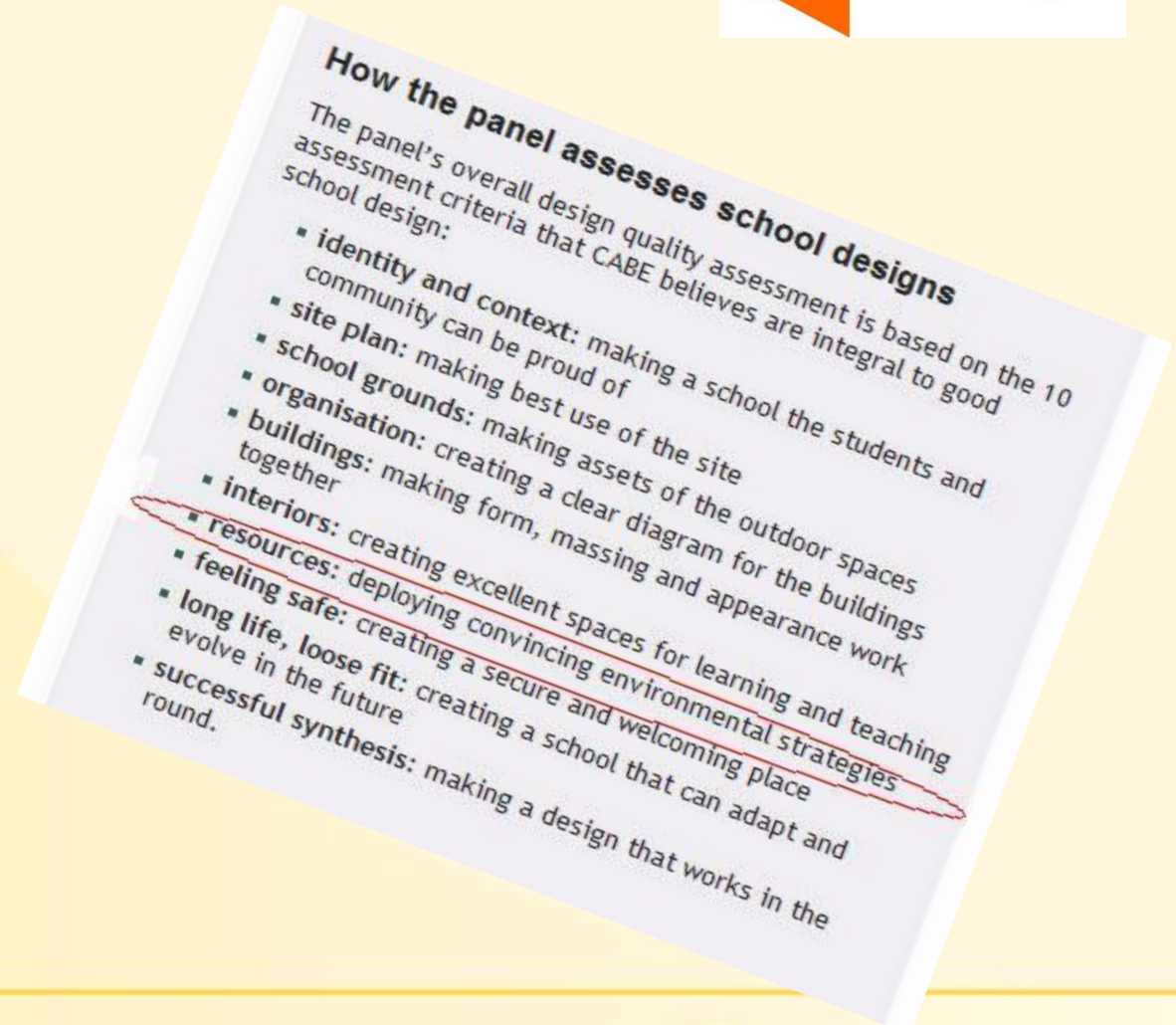
p 107 para 4.115

# How CABE assesses designs



## The 10 criteria

1. Identity and context
2. Site plan
3. School grounds
4. Organisation
5. Buildings
6. Interiors
7. Resources
8. Feeling safe
9. Long life, loose fit
10. Successful synthesis



# Ownership

Who is going to own the carbon reduction target?

# Skills

“Brilliant design”

“Dog in performance”



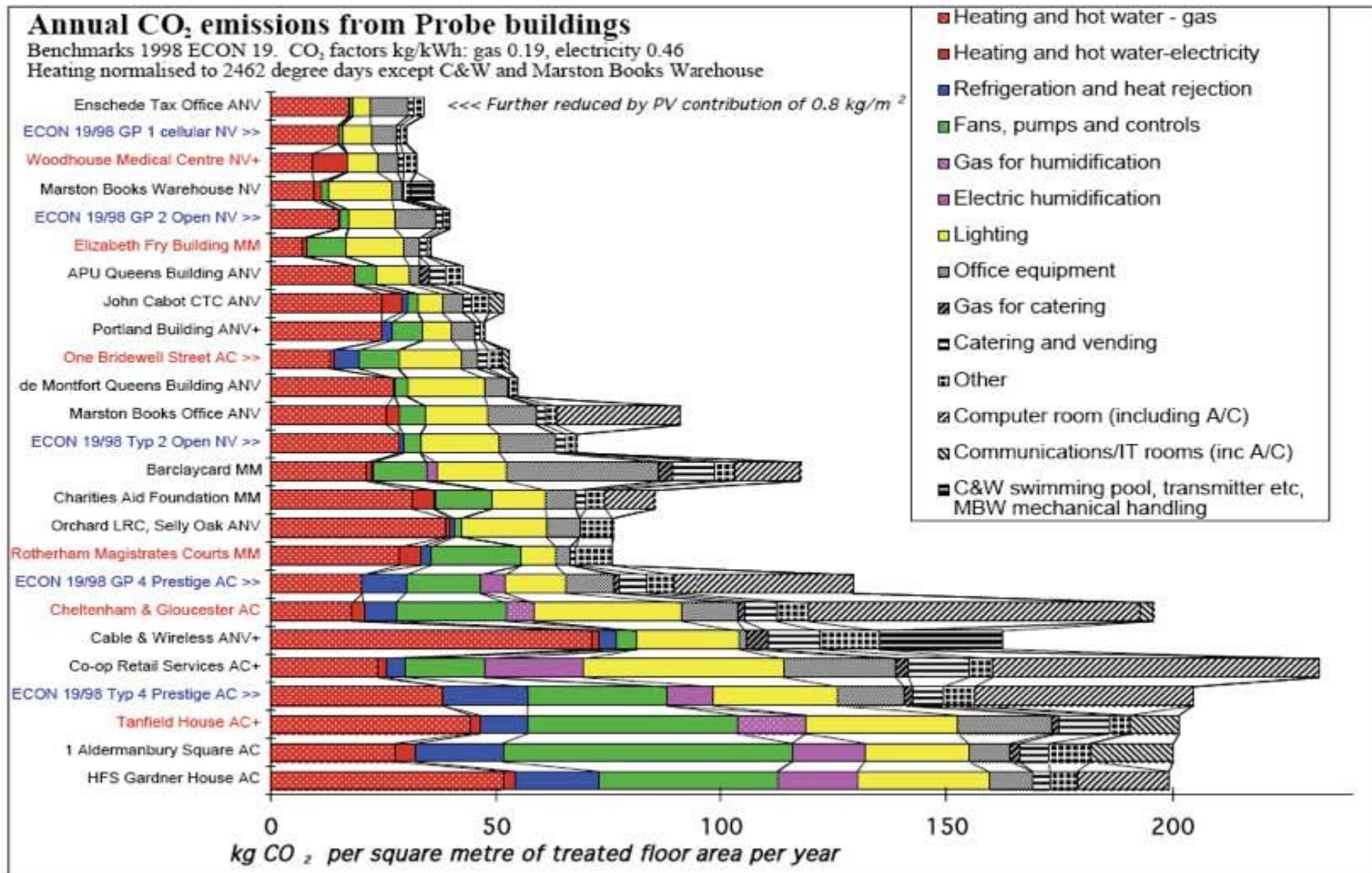
**Skills gap**

# Incentivisation

- Where is the rating for low/zero carbon for D&B in the bidding process?
- Performance payment – bonus/binus

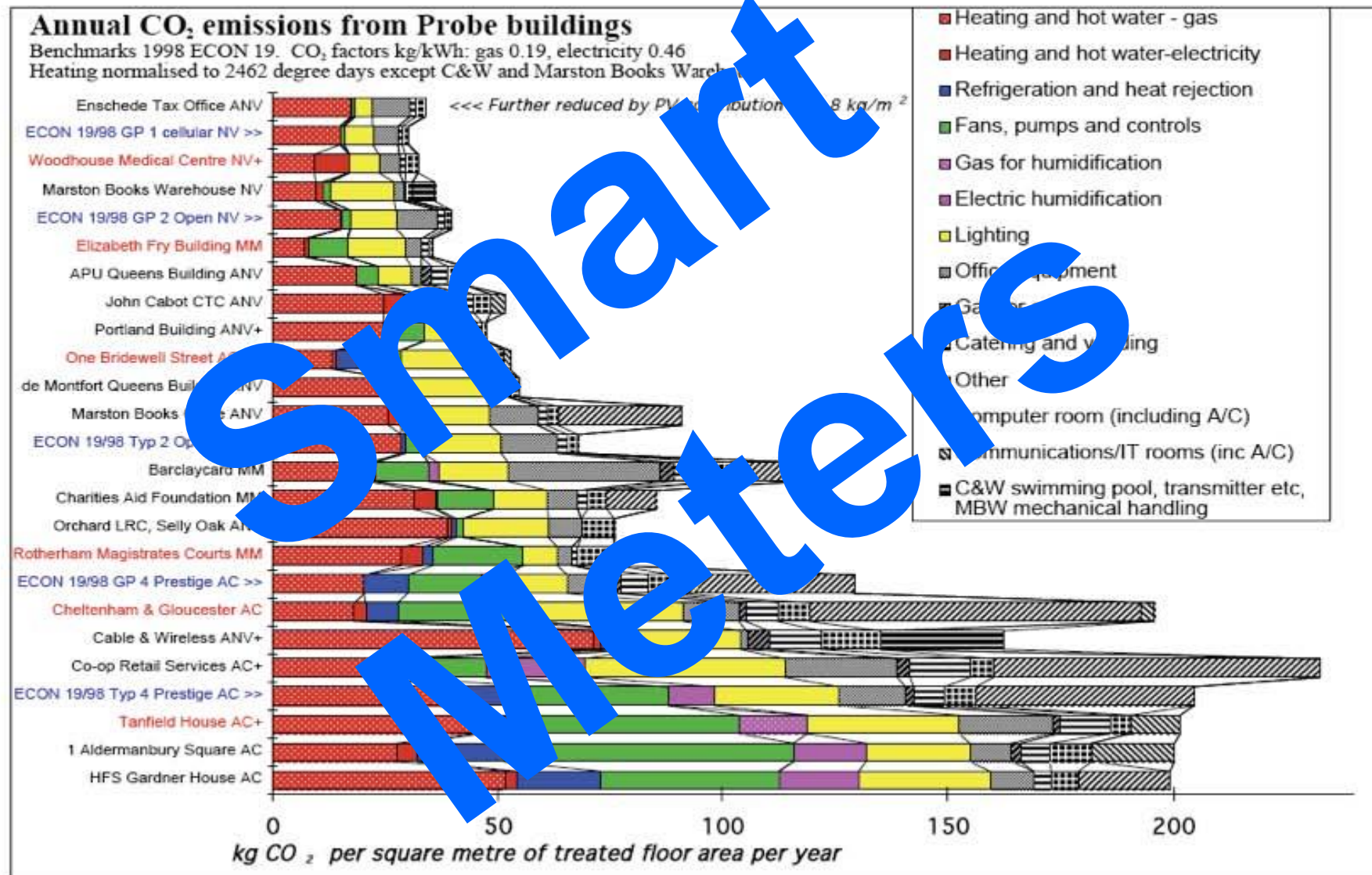
# Measurement and Targets

# Report CO<sub>2</sub> emissions like this ...



Source: Probe team [www.usablebuilding.co.uk](http://www.usablebuilding.co.uk)

# Report CO<sub>2</sub> emissions like this ...

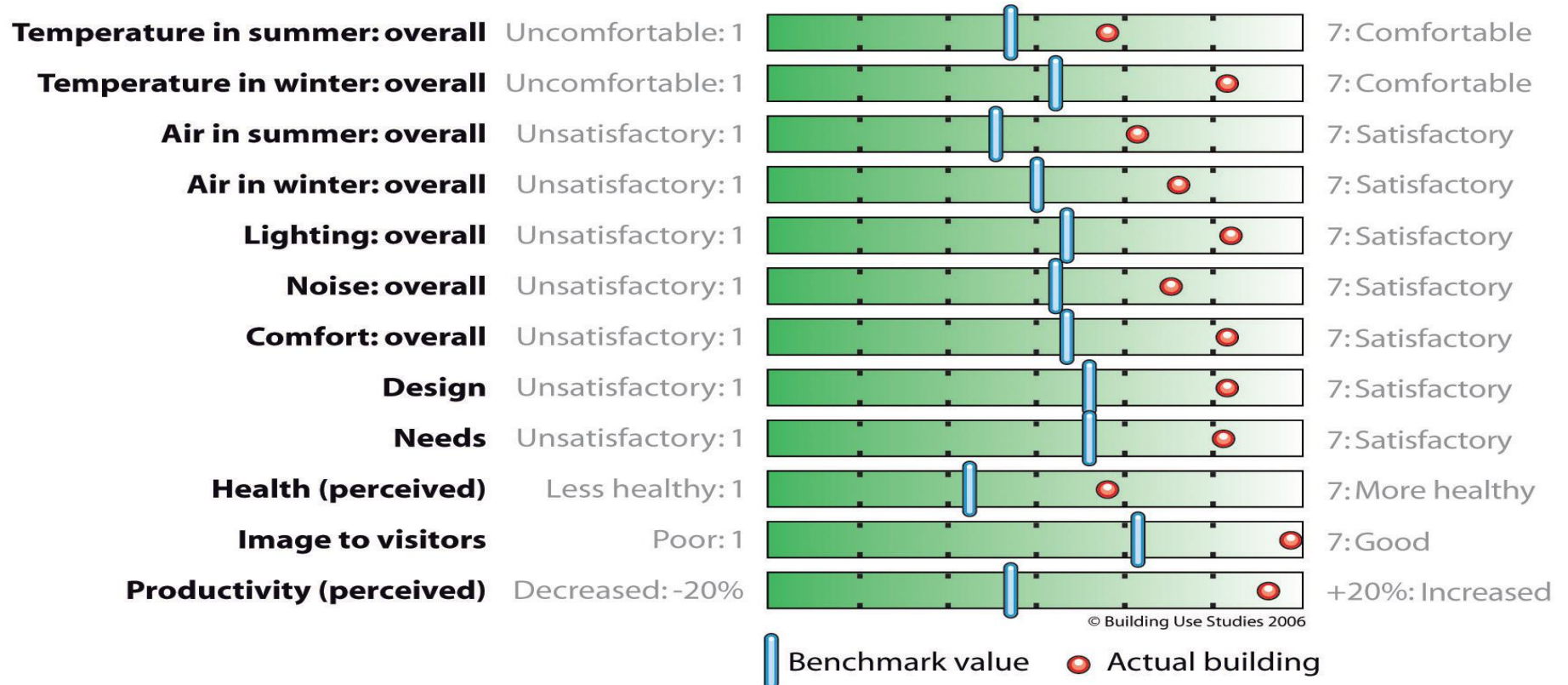


Source: Probe team [www.usablebuilding.co.uk](http://www.usablebuilding.co.uk)

# Evidence

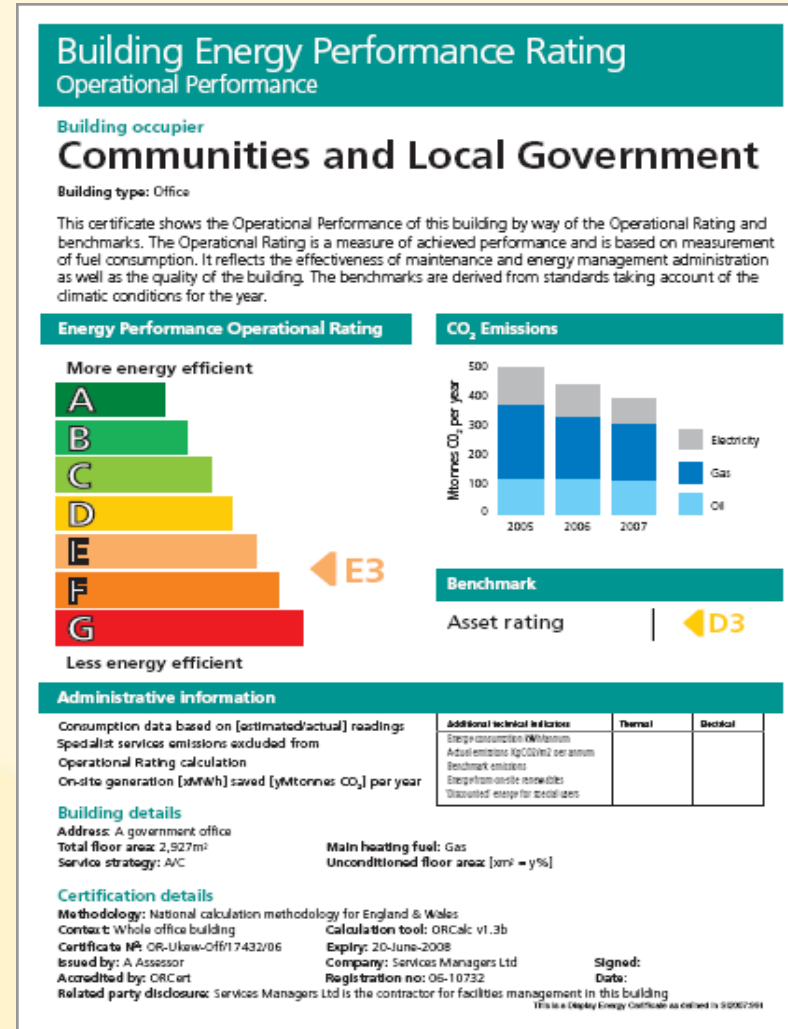
# Kingsmead – Post Occupancy Evaluation

## Typical Occupancy satisfaction scores



# Enforcement

# Energy Performance Certificates



# Partnering & collaborative working



- Bringing together complementary strengths for mutual benefit that add value
- Working as an integrated team, rather than at a distance
- Working co-operatively, rather than adversarialy, whilst still retaining a competitive edge

# Achieving a Low Zero Carbon Environment

- Leadership
- Prioritisation
- Ownership
- Skills
- Incentivisation
- Measures and Targets
- Evidence
- Enforcement
- Partnering and collaborative working

# Thank you

[george.martin@willmott-dixon.co.uk](mailto:george.martin@willmott-dixon.co.uk)

# The Carbon 'Hierarchy'

REDUCE <b>energy demand</b>	<b>Passive features (insulation, daylight, solar gain/shading, thermal mass, etc.)</b>	<b>MONITOR</b> <ul style="list-style-type: none"> <li>• Learn from existing projects and practice</li> <li>• Apply control measures</li> <li>• Evaluate impacts</li> </ul>
	<b>Encourage energy conscious behaviours</b>	
	<b>Implement energy efficiency measures</b>	
EFFICIENCY of <b>equipment and energy sources</b>	<b>Use energy efficient equipment</b>	
	<b>Provide simple and effective controls</b>	
	<b>Recover useful heat</b>	
	<b>Use clean fossil fuel technology</b>	
DECARBONISE <b>energy supplies</b>	<b>On-site or near-site renewable energy sources, including community schemes</b>	
NEUTRALISE <b>energy supplies</b>	<b>Off-site renewable energy</b>	
	<b>Procure other green electricity supplies</b>	
	<b>Distribute surplus heat and energy through a neighbourhood network</b>	
	<b>Consider responsible carbon offsetting schemes</b>	

- “In Scandinavia they build up to a standard”
- “In the UK we build down to a price”