

Behaviour Change and its Impact on Delivering LCSs

LCS Workshop

Tokyo 13 – 15 Feb 2008

Expert Group 1

- Group chairs: Yuichi Moriguchi (NIES, Japan) and Jeremy Watson (Arup, UK). Rapporteur: Steve Cornelius
- Keynote speakers:
 - Day1: **Charles Secrett**, Special Advisor (Sustainability) The Mayor's Office/Visit London
 - Day2: **Yuichi Moriguchi**, Director of research center for material cycles and waste management, NIES
- **Experts:** Naoki Matsuo (Climate Expert), Carbon Offset, Jun Fujimoto (Tokyo University), Shigeru Hikone (Arup Japan), Mariko Hanada (Osaka Sangyo University), Masaru Ohara/Toshiko Chiba (Tokyo Metropolitan), Ichiro Ozawa (Waseda Univ.), Keisuke Matsushashi (NIES), Ho Chin Shion (Malaysia), Murari Lal (India), Narita Shibaïke (Panasonic, Japan), Teruaki Masumoto (TEPCO, Japan), Yasuo Takahashi (MOEJ), Jim Skea (UK ERC)

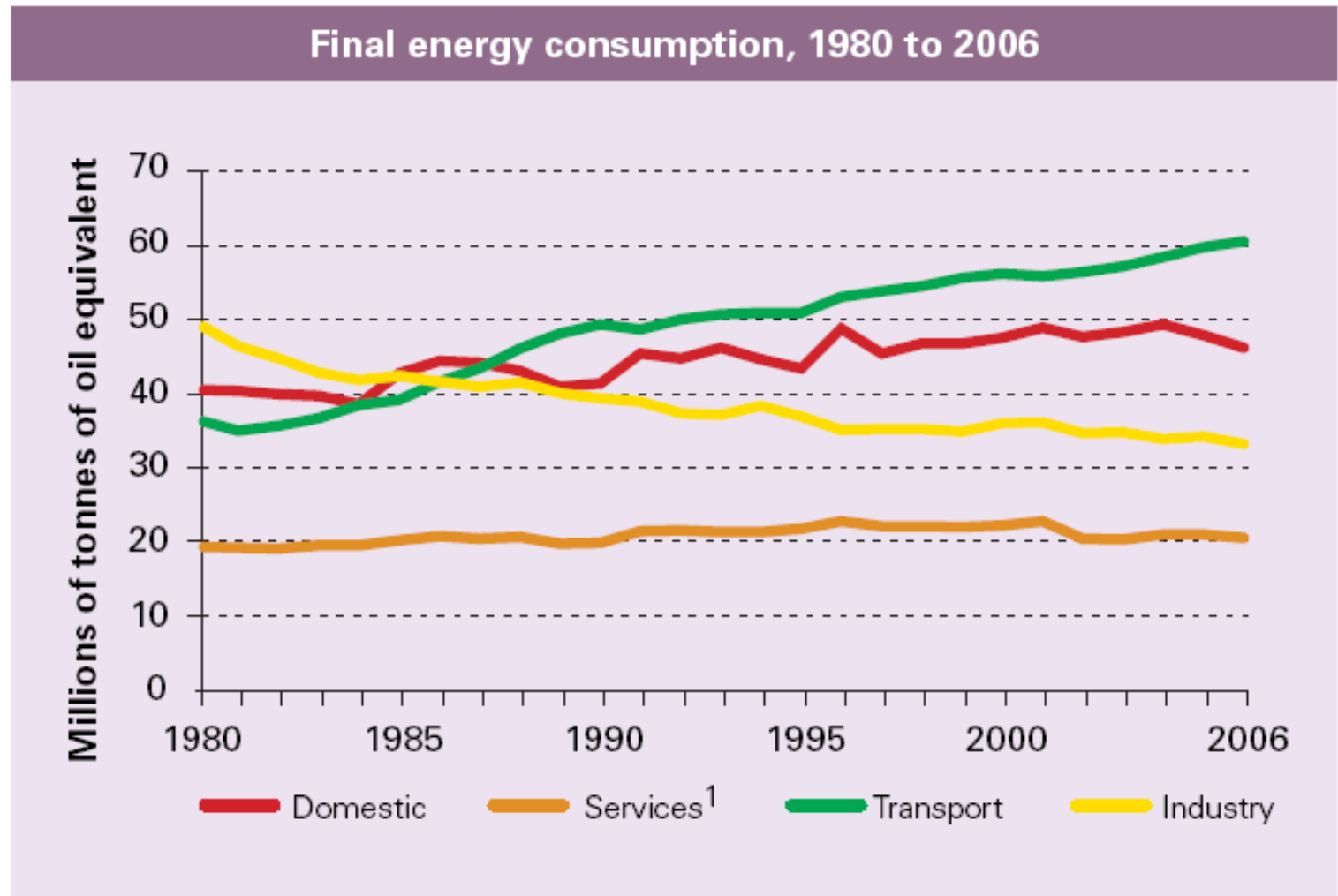


Key issues to be covered

- What are the main levers in behaviour change, what barriers need to be removed?
- What roles exist for different actors i.e. individuals, business, Governments etc?
- What is the role of policy, including regulations and setting standards, for behaviour change?
- How can the consumption patterns of the developed countries can be tackled in the context of behaviour change?



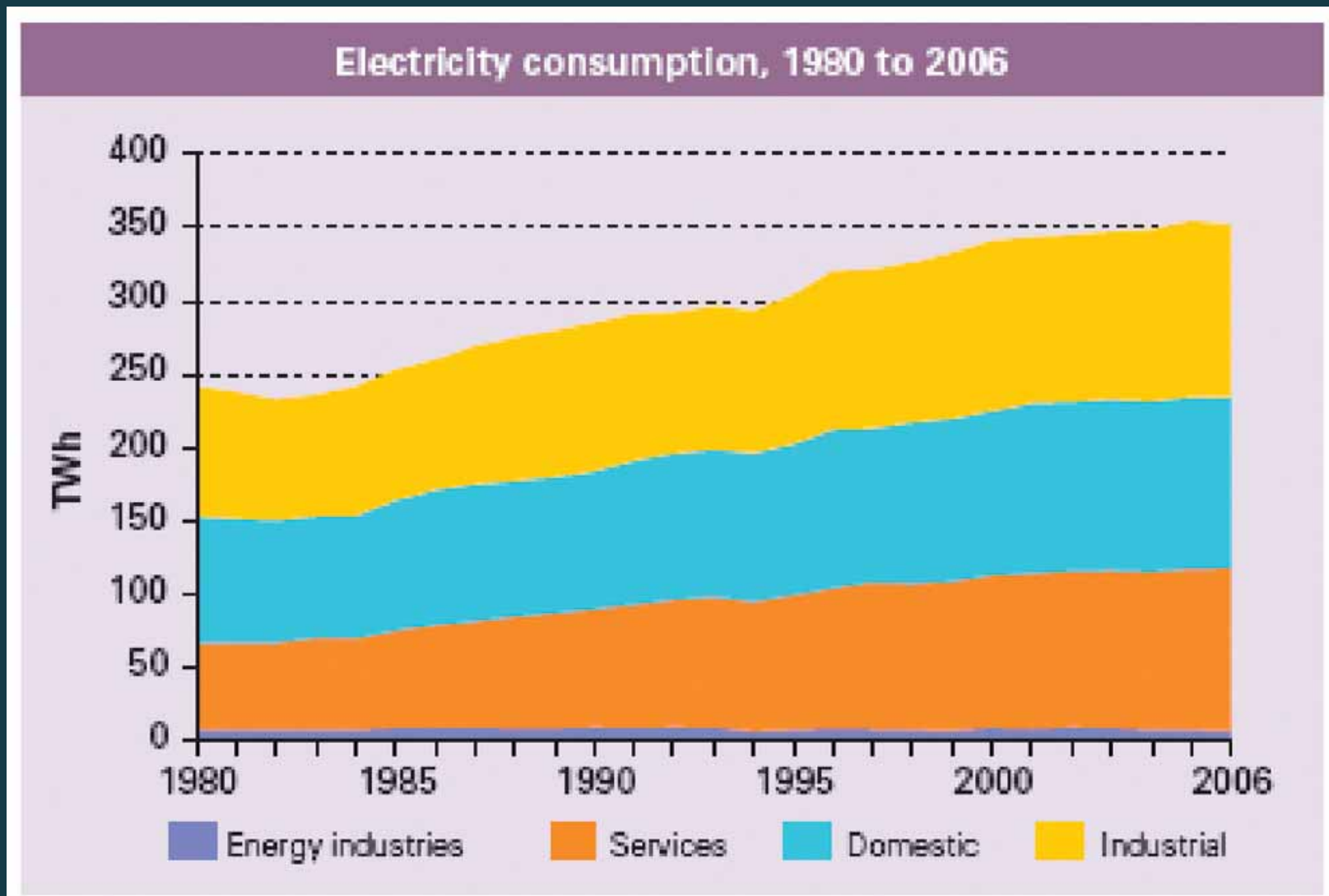
Projected UK energy consumption



Source: Technology Strategy Board, DIUS UK

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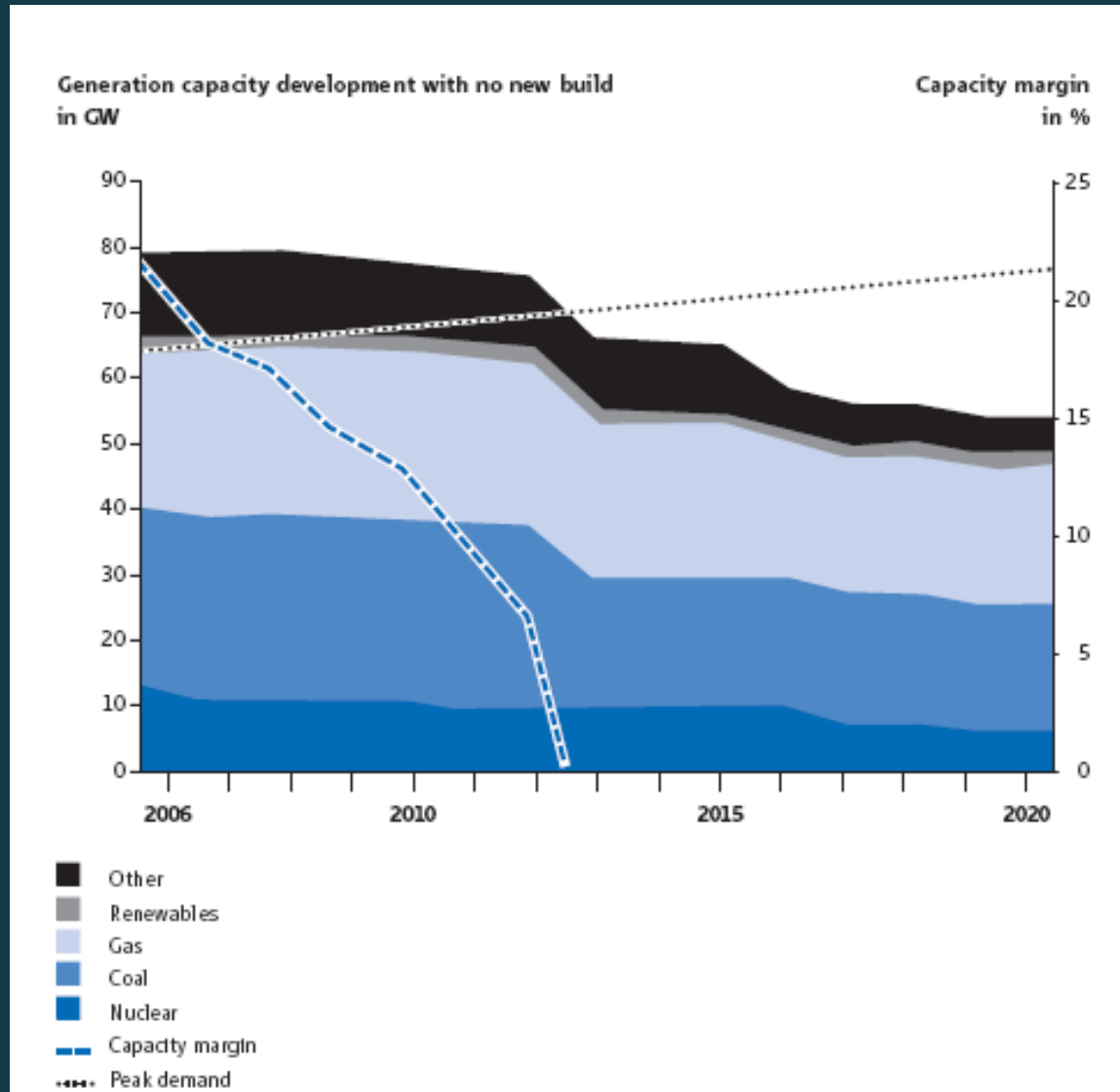
Growth in UK electricity demand



Source: Technology Strategy Board, DIUS UK

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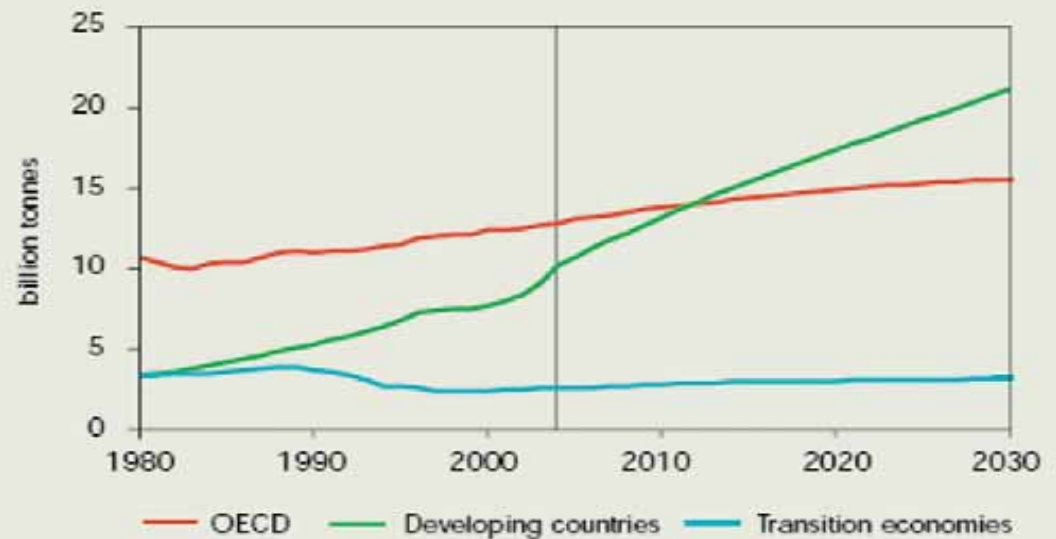
UK electricity supply margins to 2020



Source: Technology Strategy Board, DIUS UK

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Projected increase in CO2 emissions to 2030



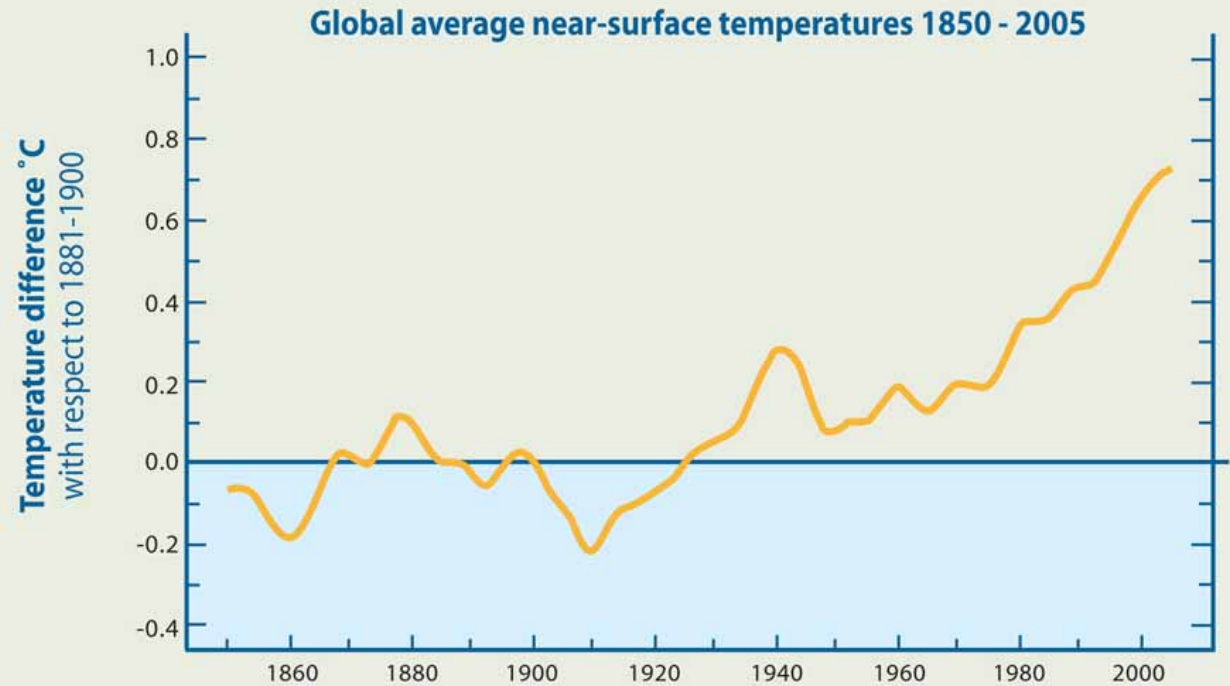
Note: Excludes emissions from international marine bunkers.

Source IEA

Source: Technology Strategy Board, DIUS UK

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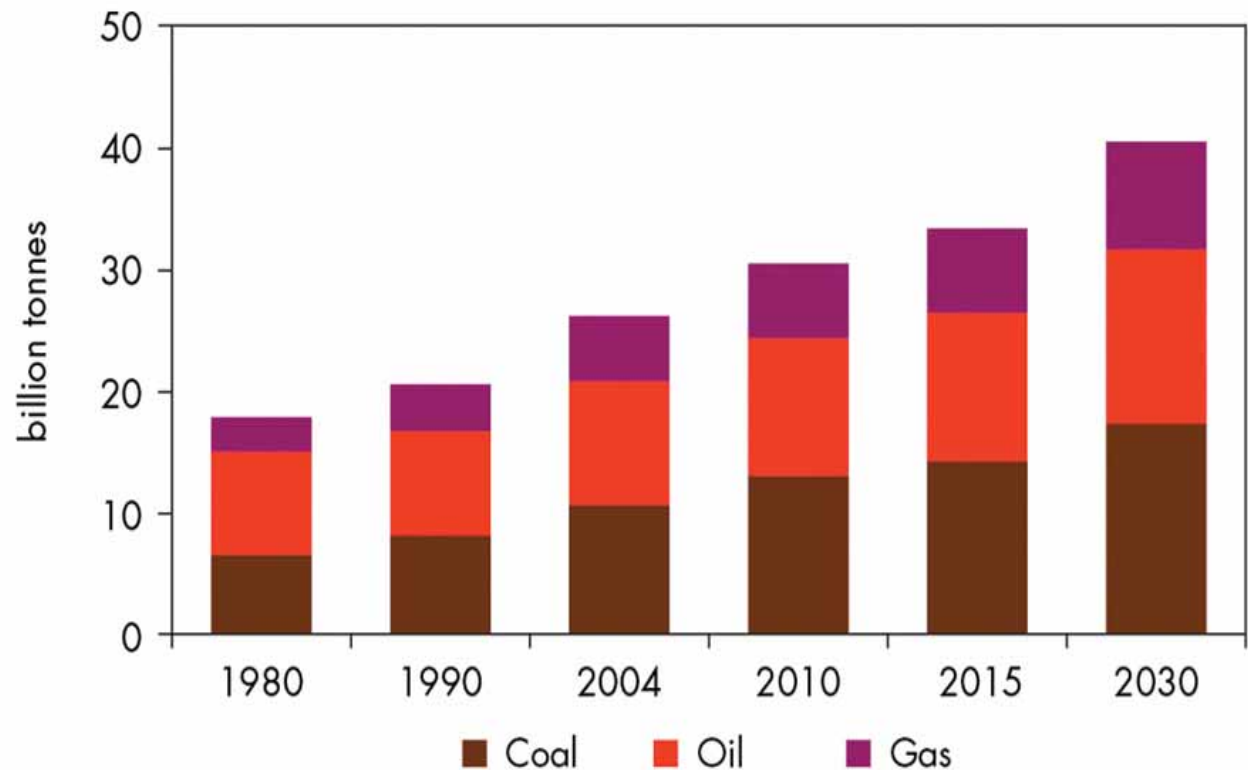
Global surface temperature rise



Source: Technology Strategy Board, DIUS UK

ARUP

Projected increase in greenhouse gas emissions to 2030



IEA

Source: Technology Strategy Board, DIUS UK

ARUP

Facts and challenges

- Global primary energy demand will rise by 53%, leading to a 55% increase in global carbon dioxide emissions related to energy.
- Fossil fuels will remain the dominant source of energy worldwide, meeting 83% of the increase in energy demand.
- Emissions from power generation will account for 44% of global energy-related emissions by 2030, as demand for electricity rises.
- Coal will provide the largest incremental source of power generation, with the majority of this increase likely to be in China (55%).
- Over 70% of the increase in global primary energy demand will come from developing countries, reflecting rapid economic and population growth.
- Some \$20 trillion of investment will be needed throughout the energy supply chain.



Notes: Tanaka Business School, Imperial College

- What motivates consumers to take up green technologies and services?
- Green electricity tariffs - perceived barriers
 - social norms are weak
 - institutional support is weak
 - information is not widely available
- Consumer uptake of green innovations through study of consumer behaviours/daily practices
- How do consumer behaviours & lifestyles change in relation to sustainable technologies/services (re. energy/water use, carbon/waste reduction)
- Future study will look at a zero-carbon housing development in East London and investigate how residents' consumption behaviours will change as a result of living in such an innovative housing estate with many sustainable features



Notes: Leeds University Business School (LBS)

- There is very little literature on the behavioural aspects of energy use especially in the workplace, also surprisingly little on domestic use.
- There are earlier experiences on attempts to change behaviours and 'role models' for how it can be attempted, e.g., drink driving, drug use, smoking, etc.
- Much literature on the links between attitudes and behaviours
- Much literature on non-compliant behaviour, e.g., in the context of health and safety
- It would be interesting to find out if there are cultural differences between countries



Strategies for behaviour change (LBS)

- Offer information and feedback – use personal, local targets
- Enforce changes, e.g., through legislation – change the behaviours and then the attitudes will follow
- Offer incentives or penalties – make the effort worth it
- Make it part of our personal identity, using views of oneself, social comparisons, role models
- Use adoption models – early adopters, etc, i.e., draw on marketing knowledge and typologies
- Use social contagion ideas (the tipping point logic)



Source: Chris Clegg, Leeds University Business School

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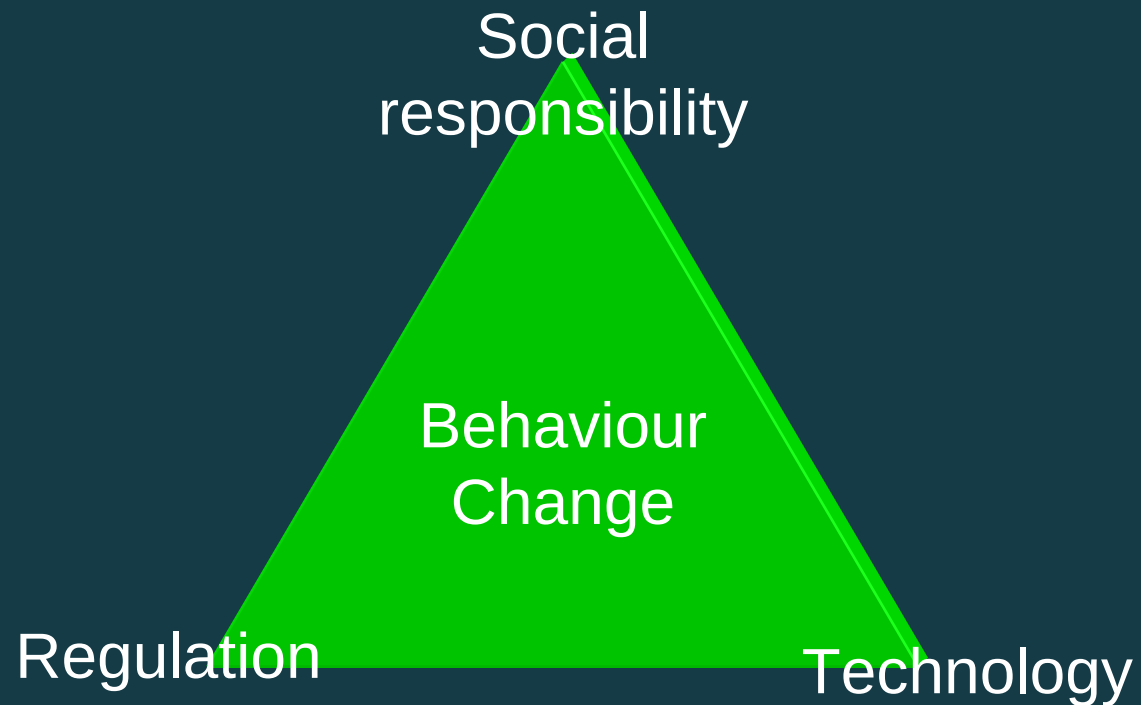
Addressing resistance to adoption (LBS)

- Examples:
 - “I won’t reduce my water use until London Water repairs all the leaks”
 - “No-one will tell me how to behave in my own life/ home/ territory”
- Avoid LCS initiatives being seen as government, party or political issues. Many people are cynical of governments and politicians. Need to raise issue above daily politics and tax debates
- Avoid initiatives being identified with the green (‘tree hugging’) fraternity because it makes it so easy for so many to reject
- Deploy people and organisations with alignment with LCS principles
- Target the young who are likely to become zealots (as happened with smoking bans), but also other groups who may score high on social responsibility (e.g. the over 60s)

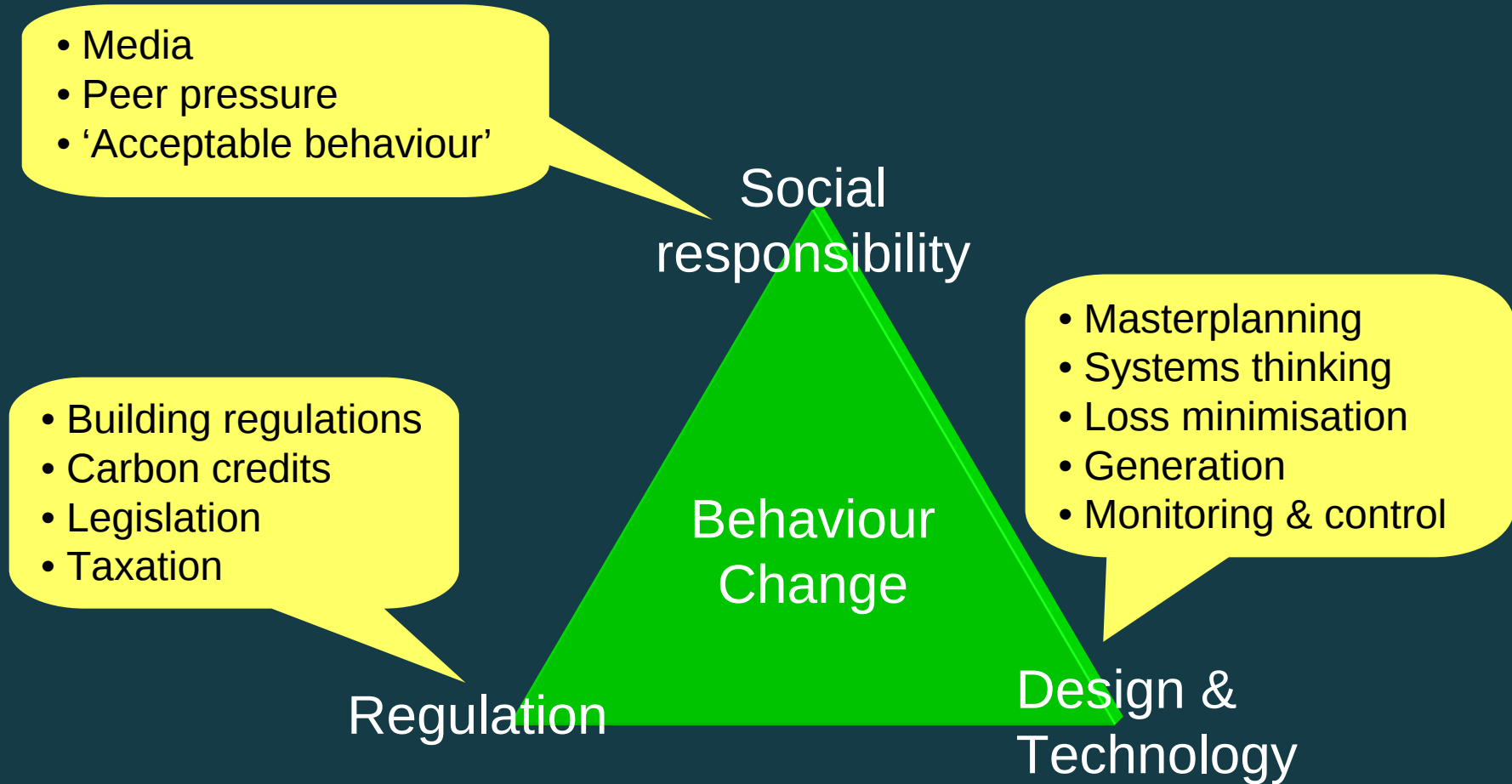


Source: Chris Clegg, Leeds University Business School

Balancing the effectors of Behaviour



Balancing the effectors of Behaviour



Lead speakers: 13th Feb

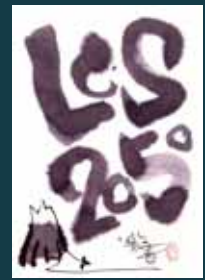
- Morning

- Yasuo Takahashi (MOEJ): Japan's LCS policy
- Jun Fujimoto (Tokyo University): ICT and Lifestyle
- Masaru Ohara (Tokyo Metropolitan): Tokyo Minus Carbon project

- Afternoon

- Murari Lai (India): New Delhi plan
- Ichiro Ozawa (Waseda University): Urban Planning in Chiyoda District
- Ho Chin Shion (Malaysia): Urban Planning in Johor District





Questions

Using voting system

Your activities towards LCS are limited by?

- 1) Lack of strong will
- 2) Insufficient social infrastructure
- 3) Expensive costs
- 4) Lack of information



LCS Lifestyle will spread among people through?

- 1) Diffusion of information on climate impact
- 2) Changes in the education system
- 3) Re-structuring of social infrastructure
- 4) Establishing market mechanisms



Creating initiatives

- 1) Does government need to help through regulation?
- 2) Are you confident that technology has the answers for Low Carbon Societies?
- 3) Do you have good business reasons to work towards Low Carbon Societies?

