

# DMU Case Studies

## Sustainability in the built environment



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## Context, themes and medium

### Context

MSc courses:

- Energy and Sustainable Development
- Climate Change and Sustainable Development

Mixed backgrounds, many distance learners

*And CPD*

### Themes

- Human factors
- System thinking

### Medium

Interactive, multimedia CD



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# Titles



- Queens Building: Human factors in sustainable building
- Leicester: Climate change in the city
- London: Renewable energy in the city
- The UK: National policy (*under development*)



# Some features ...

**Green Building**

The video focuses on the people working in the green building industry. It highlights the importance of the industry in reducing carbon emissions and the role of the industry in creating a sustainable future. The video also discusses the challenges of the industry and the need for innovation and collaboration.

**Green Building**

**Notes and further reading**

1. **Measuring Greenwash**, Sir John Egan and the Construction Task Force: CEF, 1998. <http://www.constructiontaskforce.gov.uk/ceffinal>
2. **Energy efficiency in domestic electrical appliances**, Think Consulting Group, H&M 2004 8 11 47162 8, 1999
3. **Examining the UK retail market**, ECI Research Report 16, Environmental Change Unit, Oxford University, 1997
4. **Research Globalization in Asia Group: final report**, David Smith-Dunn, Construction Research and Innovation Strategy Forum, 2009. [http://www.cris.ac.uk/PDF/CRIS0922\\_06.pdf](http://www.cris.ac.uk/PDF/CRIS0922_06.pdf)
5. **The performance of the UK construction industry: an international perspective**, Andrew Ebdon and Graham Black, The British LCI, 1999
6. **The UK Construction Challenge**, Lynton Stone Construction and David Langton & Ebdon, Lynton, 1999
7. **Building strategies: the UK's hidden strength**, Treasury Compendium Paper (TCP) 144 Treasury, 1999. <http://www.treasury.gov.uk/pub/finprog/finprog144.htm>
8. **Survey of UK Construction Professional Services**, David Langton & Ebdon and Lynton Stone Promoting and Research, Construction Industry Council, 1997
9. **1999 RIBA Top 20 International Design Firms**, Engineering News Record, 15 July 1999. <http://www.enr.com/stories/19990715>
10. **Speed in Constructing the team**, Sir Michael Latham, in: *Challenging and Rebalancing Construction*, Association of Architects, Architects, October 2001. (See also cited 1999 others.)
11. **Business Model for Constructing and Infrastructure Development**, Construction Real Practice Programme (CRPP), 1998. <http://www.crgg.org.uk>
12. **Industry construction**, National Audit Office, 2007. <http://www.nao.gov.uk>
13. **Construction: Success in 2007**, Andrew CEF, H&M 1998 1 AM 12 412 1, 2008 and <http://www.ccf.gov.uk>

Key references are shown in bold. Documents marked on the CD are in blue or blue.

Businesses are listed in broadly the order in which they appear in the text. Materiality is related to this order.

**Green Building**

**Why is it?**

The video discusses the reasons for the growth of green building. It highlights the increasing awareness of the environmental impact of buildings and the need for sustainable construction. The video also discusses the benefits of green building, such as reduced energy consumption and improved indoor air quality.

**Green Building**

**Team Building**

**Challenging times**

Construction professionals are 40% of the UK's gross national product, and employ one and a half million people. A recent review concluded that the UK construction industry is the best in the world. Its capability to deliver the most difficult and expensive infrastructure projects matches that of any other construction industry in the world. Its engineering expertise and design that ... are renowned both here and overseas. The industry is also extremely flexible, its labour force is skilled, adaptable and able to work in the harshest conditions. And yet, in recent years, it is falling behind every other major industry.

Most manufacturing industries — cars, mobile goods, computers, food, pharmaceuticals etc. — have seen massive technical innovation, huge increases in productivity and they're lowering consumer prices over the past 20 years. Many have seen a move to produce quality and sustainability, low costs and labourers have seen better performance, are more energy-efficient, and much more reliable. Industries much less able to do this, including the construction industry, have seen a decline in productivity and a fall in the quality of their products, as well as a loss of high skilled and high paid staff to other industries here and abroad. Sustainability has only improved by force of regulation. This has been paid for the economy, but the construction sector of the industry, had for the system and job security of everyone who works in it, had for its customers, and had for the environment.

Office Type	Construction	IT	Services	Energy	Business	Finance	Manufacturing
UK office	~10	~10	~10	~10	~10	~10	~10
US office 1	~10	~10	~10	~10	~10	~10	~10
US office 2	~10	~10	~10	~10	~10	~10	~10
US office 3	~10	~10	~10	~10	~10	~10	~10



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