

# Sustainability at the University of Glasgow



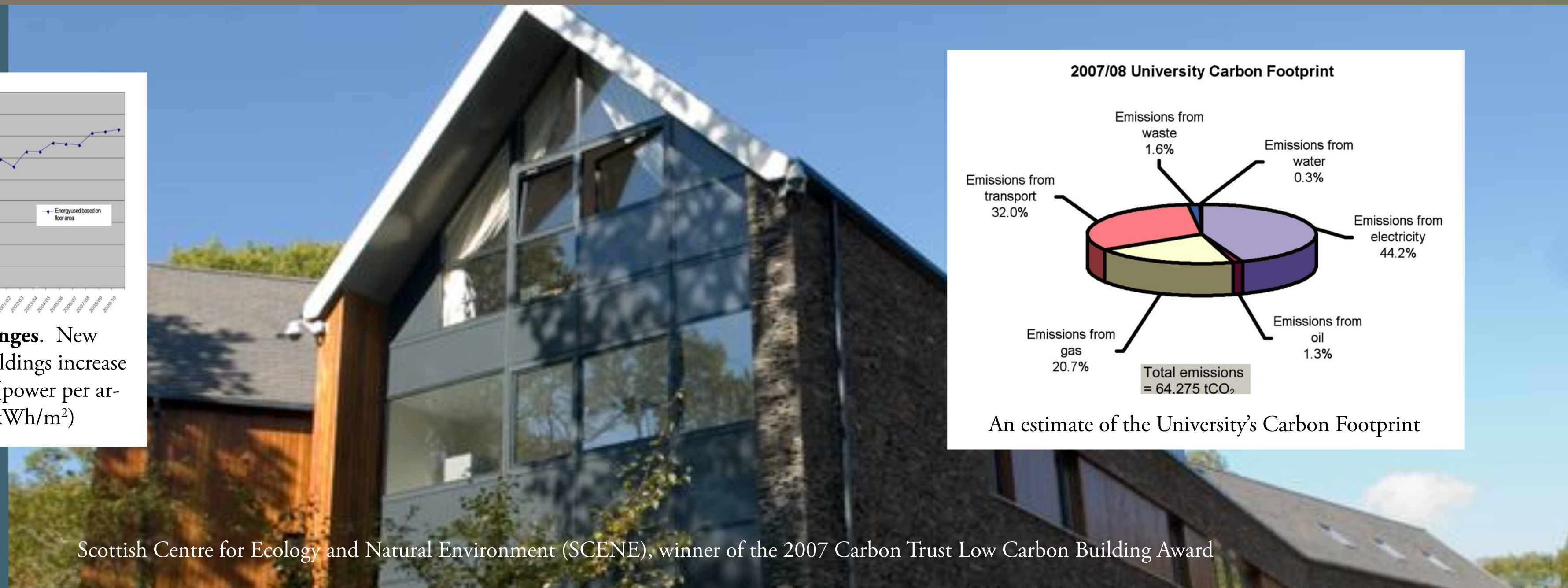
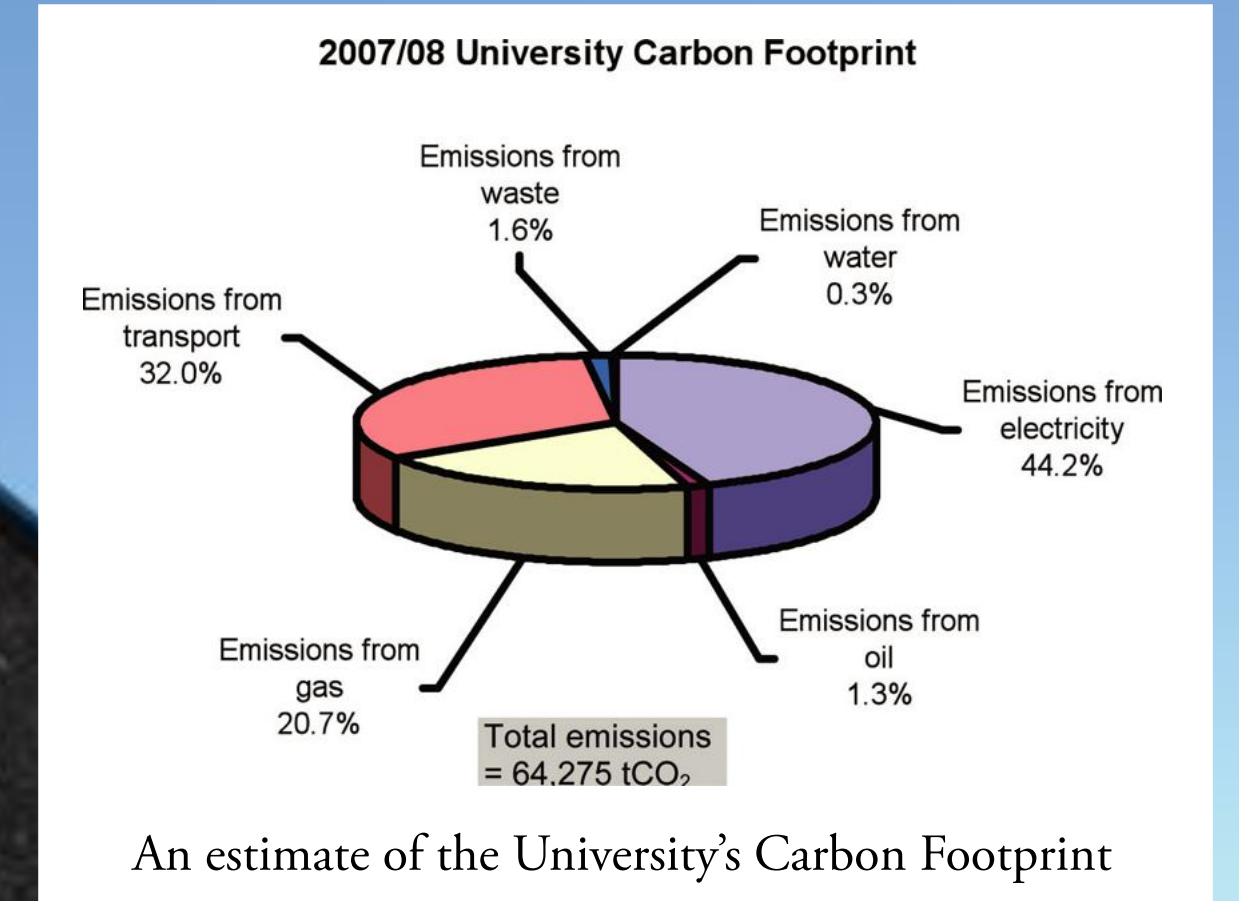
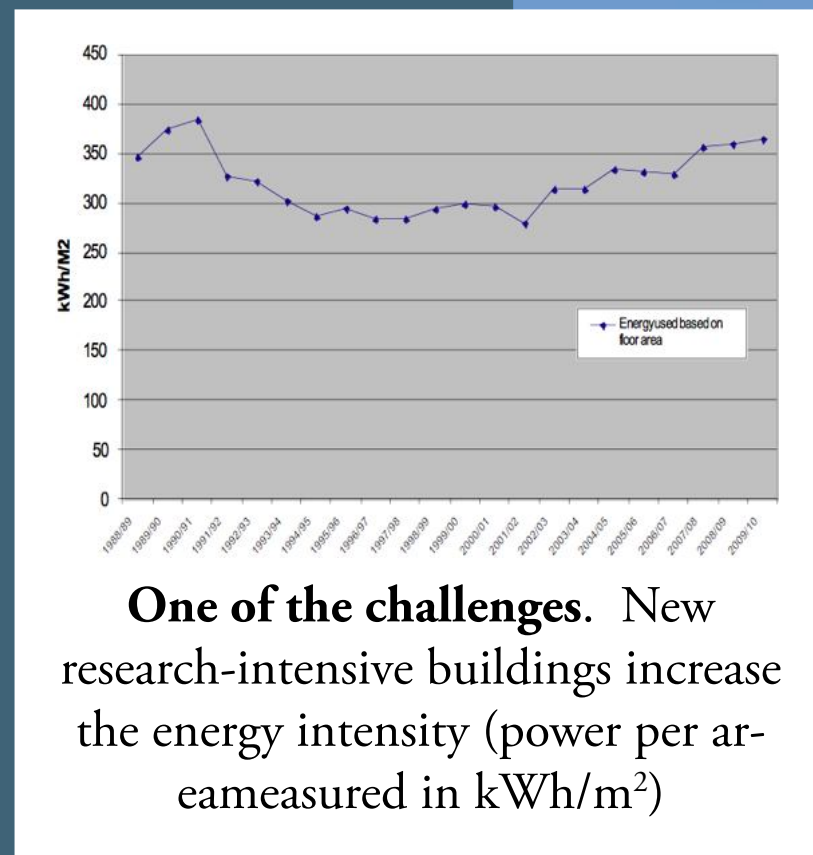
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## Overview

The University is currently in the process of fundamentally changing the way it views and treats sustainability and energy conservation.

So far, the University's efforts were mostly aimed at moving to clean power and upgrading the energy efficiency of its buildings, and indeed there are many opportunities in that area.

Now, the focus is much wider, and includes as key areas sustainability in the curriculum and the creation of a culture of conservation awareness on campus.



**Universities & Colleges Climate Commitment for Scotland**

**We recognise the challenge:**

- We recognise the scale and speed of climate change, and the likely effect on Scotland's people and places, impacting adversely on our economy, society and environment.
- We consider that early action to address the expected changes will create long-term economic, health, social and environmental benefits.
- We acknowledge the Scottish Government objective – to reduce emissions by 80% by 2050 – to avert the worst impacts of climate change; and realise we have a role to play in this.

**We welcome the opportunities:**

- To harness our academic talents and expand Scotland's ability through its research capacity, knowledge transfer activity and the provision of skills, modules and courses to create solutions to the challenges posed by climate change.
- To demonstrate practical leadership in tackling climate change by containing growing energy use and costs, protecting estates and buildings and promoting sustainability and social responsibility.
- To engage our students, staff, alumni and local communities with the challenge of climate change.

**Consistent with sustainable development principles, we commit our institution to:**

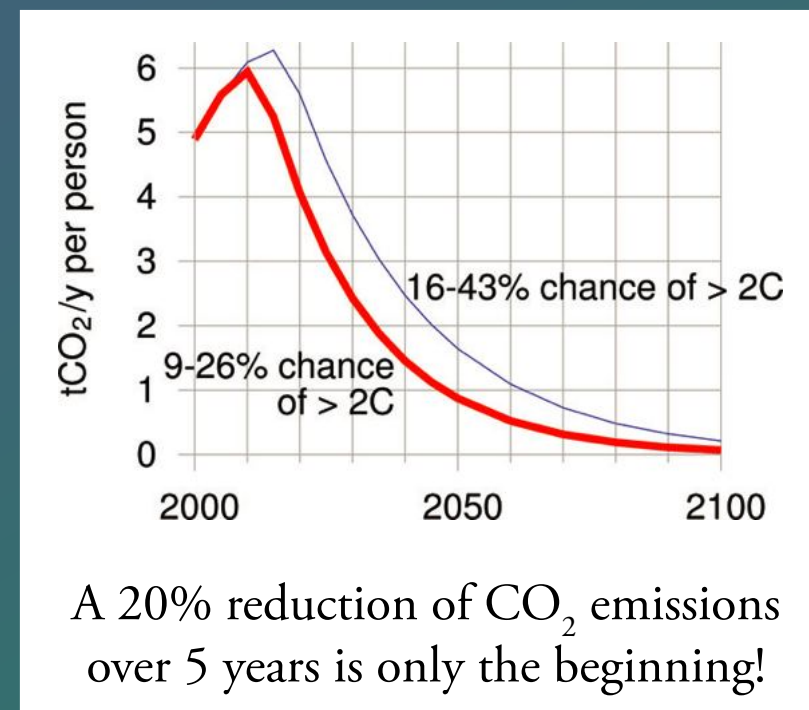
- Support the national Climate Change programmes, reducing our greenhouse gas emissions and implementing adaptation measures for future climate change scenarios.
- Allocate time and resources to implementing measures to reduce our overall carbon footprint and engage in the community planning process to deliver low-carbon solutions ("mitigation") by preparing and, within a year, publishing a five-year climate action plan with targets and time scales to achieve a significant reduction in emissions from all our activities, including:
  - energy consumption and source
  - waste reduction, recycling and responsible disposal
  - sustainable estate development
  - sustainable travel planning
  - responsible procurement of goods and services
- Assess the risks to the institution identified in projected climate scenarios and ensure safeguarding measures are incorporated into our strategic planning, including each estate strategy review ("adaptation").
- Work in partnership with others to implement measures to reduce emissions and engage in neighbourhood mechanisms, particularly through the community planning process.
- Collaborate within the sector and with other public and private organisations, both academically and practically, to share good practice on climate change mitigation and adaptation.
- Incorporate our work on climate change into established improvement processes and publish results on progress of our response annually, with outcomes achieved / further actions required.
- Contribute to the cooperative work, supported by relevant sector bodies, in monitoring progress and promoting best practice.

Signed: *Alan Lewis*, Rector / Chair of Governing Body, *Geordie Henderson*, Vice-Chancellor  
 On behalf of: **UNIVERSITY OF GLASGOW**, 18/1/09  
 [Statement of support by Scottish Ministers – awaited]

## The Carbon Management Plan (CMP)

### Document...

- current CMP was approved in 2009
- scope much wider than energy efficiency of buildings (see box on *core themes*)
- headline target: **20% CO<sub>2</sub> reduction over 5 years**
- one of the requirements of *University and Colleges Climate Commitment for Scotland (UCCCFs)*, a declaration signed by the University in 2009



### ... with built-in improvement process

- periodically reviewed, with help from the Carbon Trust
- currently in final stages of first review, *Carbon Management Revisited*; revised Carbon Management Plan currently undergoing approval process

## Carbon Management Plan core themes

- Upgrade to Efficiency** – upgrade buildings & replace inefficient appliances
- Build Better** – all new buildings should be energy efficient
- Move to clean power** – electricity from renewable sources
- Expand Transportation Alternatives**
- Implement Green Purchasing** – buy products that use less energy, last longer and are good for the environment
- Reinforce sustainability in the curriculum**
- Institutional Conservation** – create a culture of conservation awareness on campus

Mean energy usage per person in the UK (source: D. J. C. Mackay, "Sustainable energy" – without the hot air", <http://www.withouthotair.com/>)

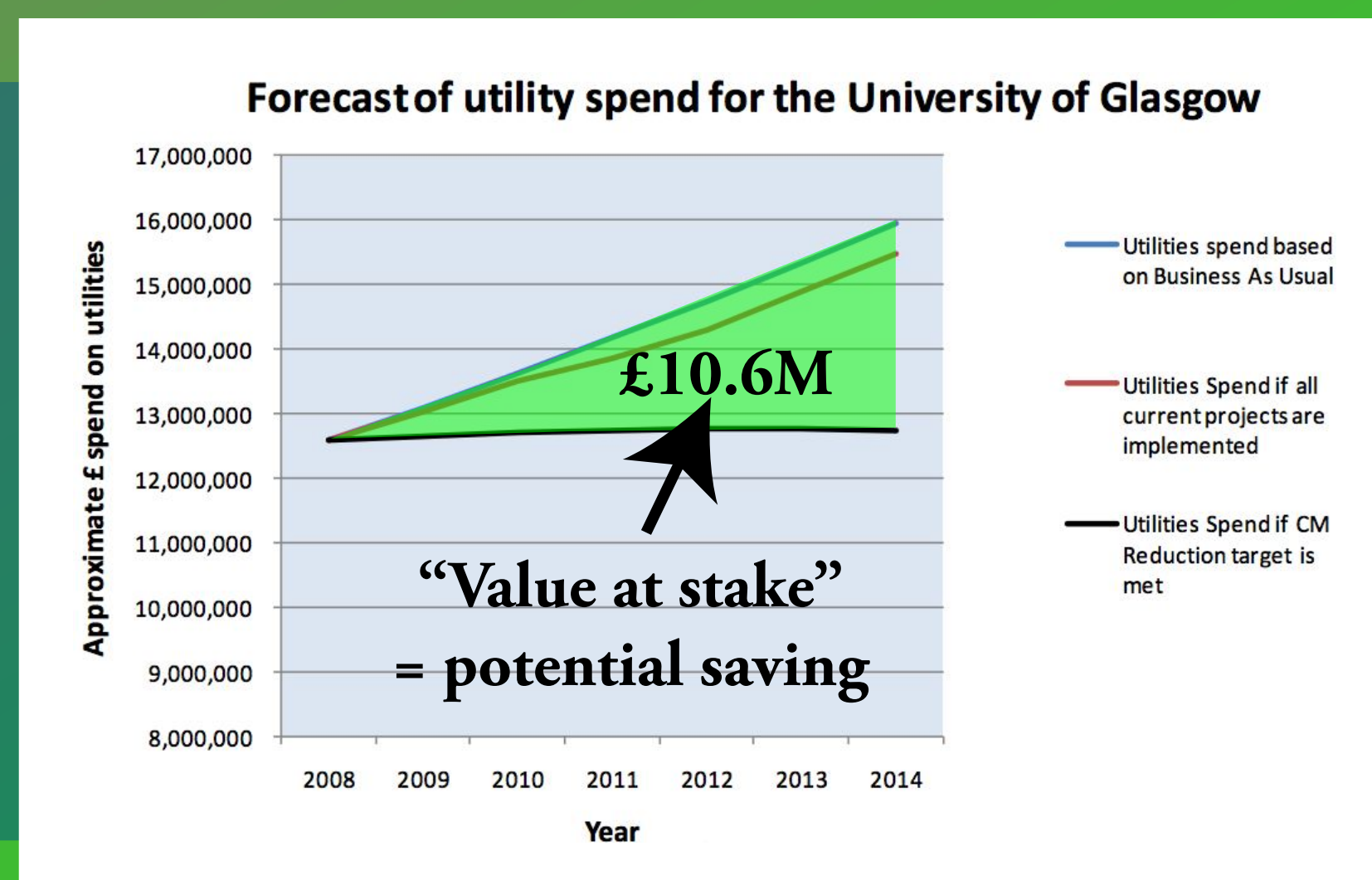
"Defence": 4
Transporting stuff: 12 kWh/d
Staff: 48+ kWh/d
Food, farming, fertilizer: 15 kWh/d
Gadgets: 5
Light: 4 kWh/d
Heating, cooling: 37 kWh/d
Jet flights: 30 kWh/d
Car: 40 kWh/d

## Sustainability in the curriculum

The Carbon Management Plan's core themes include much more than improving energy efficiency at the workplace.

Amongst these themes, *Sustainability in the curriculum* takes a central position. Arguably, the best we can do is produce "sustainable" graduates who then become role models for others. Also, teaching – together with research – is our core business! (Just imagine asking the CEO of a car manufacturer what they're doing about sustainability, and the answer is recycling in the head office.)

There are already many great examples of sustainability in the curriculum, but we must – and will – do more. Any ideas?



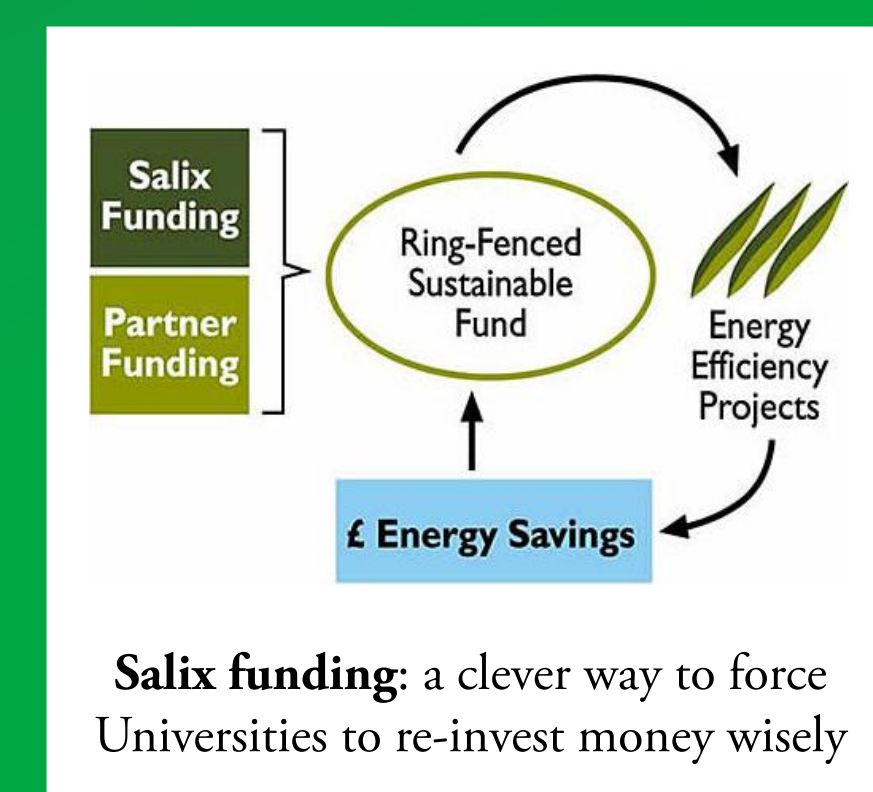
## Money

**investments: ≈£2M invested so far, £1.5M pledged**

- money saved when switching energy suppliers in mid-1990s was invested in energy efficiency
- Salix funding (≈£500K ultimately from Government, ≈£150K from University; ringfenced fund: savings made get re-invested in energy efficiency; to date ≈£1M invested)
- Carbon Management Plan budget: £1.5M

**potential savings: £10.6M over 6 years**

- potential "value at stake" identified by external consultants (see graph of utility-spend forecast)



## Student involvement

Much! There are a number of student societies related to sustainability. Here are two example projects:

### Find a solution project (summer 2011)

- the University of Glasgow Settlement funded two students – Morven Paterson and Roisin Lyle-Collins – to help Glasgow University improve its environmental practice

### GUEST (January - March 2011)

- Roisin obtained Chancellor's-Fund money to run a student team, the *Glasgow University Environmental Sustainability Team (GUEST)*
- 10 students working for 10 weeks
- great success** (see box *The GUEST experience*)
- hopefully GUEST will become permanent; the University has already in principle agreed to fund it over the summer

## The GUEST experience

- remarkably motivated and knowledgeable students
- good progress with several core projects
- organised and ran events such as *Go Green Week* and *Climate Week*
- wrote articles and created other publicity material
- engaged with students, including face-to-face
- the University listens!**