



# Contributing to the Wellbeing of Future Generations:

the role of Further Education Colleges

## Managing Facilities and Estates



Rooftop garden: Blaenau Gwent Learning Zone

Like a number of Sustainable Development Charter Signatories, Further Education colleges are responsible for large estates and complex facilities. Since the recent round of mergers, college managers are now responsible for multiple sites often many miles apart. Estate management however is one of the areas that colleges have been most successful in adopting a sustainable development management ethos.

Here are some updates from Colleges Wales:

**Cardiff and Vale College** is developing a £45m campus on Canal Parade to BREEAM Excellent standard. Site chosen due to proximity to public transport links. Community benefits including close consultation with local groups, provision of training and apprenticeship opportunities for local people. Largest photovoltaic canopy in Wales. Building designed to enhance microclimate, including temperature flow. 40% on site generation of energy. Wildflower meadows at rear to enhance biodiversity. [Read More >](#)

**Coleg y Cymoedd's** showcase £40m campus at Nantgarw was runner up in Constructing Excellence National Awards. [Read More >](#)

**Coleg y Cymoedd** is the first college in Wales and one of the first colleges in the UK to sign up to the WRAP Hospitality and Food Service Agreement. It sets the benchmark for other colleges to target waste and improve sustainability by reducing food waste across catering and hospitality services at all campus sites. [Read More >](#)

Overall, the experience of colleges provides some useful tips for any organisation that wants to reduce its environmental impacts and save itself unnecessary expense. Here are some useful steps to take - further examples are provided overleaf.

### Monitor

What's the baseline?  
How much water, gas and electricity is being used and when? Sub metering, overnight monitoring and analysis of bills....

### Start small Behaviour

Get the basics right -  
insulate lofts, plug leaks, change light-bulbs and install spray taps. Switch off when not in use. Isolate different areas.

People don't like change so make it easy. Use incentives and rewards. Explain and reassure. Get the natural leaders on-side.

### Celebrate

Small changes produce results that can inspire. Let people know its been worth it! Publish data and use it in training to reinforce messages

### Innovate

Build major changes into maintenance and development cycles. Design for sustainability don't bolt on. Invest for the long term.



Bat boxes - Small Animal Centre, Northop

## The Northop Campus- Coleg Cambria

Northop is the site of the former Welsh College of Horticulture which merged with Deeside College in 2009. The campus is shared with Glyndwr University and hosts a range of land-based courses and learning opportunities for SEN students. It is the site for Coleg Cambria's Small Animals Care Centre and the British Horse Society approved Equine Unit.

The Small Animals Centre and adjacent Learning Centre include bat and bird boxes incorporated at the design stage, full ground source heating, solar-powered ventilation systems, sun-pipe illumination, rainwater harvesting and a lighting system which automatically reacts to the levels of natural light and activity.

Digital information panels relay real time energy use to the students and each classroom has posters which explain how management of that space contributes to sustainability. The Animal Centre has a wild flower roof meadow. Paper, wood and textile waste is used for animal bedding and as a surface in the horse arena.

The campus will increasingly be used as a teaching aid for ESDGC in all subject areas.

## NPTC Group Neath Campus

This campus like many across the FE sector has a number of buildings of different age and design. It is hard therefore to incorporate stretching sustainability targets when basic maintenance priorities for the older buildings place demands on a shrinking budget. Salix funding from the Carbon Trust has helped and government funding for sub metering has allowed an intelligent analysis of the use base load, revealing inefficiencies that can quickly be dealt with.

Buildings of course contain people who present their own challenge. Getting staff to change the habits of a lifetime is hard. Students are more flexible. Segregation of waste at the point of disposal can be undermined by careless disposal of bags in the wrong skip. Building management systems can turn out to be less flexible than manual controls - human perception of temperature follows a normal distribution meaning you will never get full consensus! Procurement is a gateway and an opportunity to change long term behaviour.

With a shrinking budget, its in everyone's interests to reduce waste and energy use. Taking time to develop contracts with the right suppliers benefits the budget and environment in the long term.



Campus bins - Neath



Electric car charging point - BGLZ

## The Blaenau Gwent Learning Zone (BGLZ)

A brand new building presents the opportunity for state of the arts sustainability features but it also seems to provide an opportunity for new behaviours. The Blaenau Gwent Learning Zone was user-focused from the start and the design evolved through a series of stakeholder workshops and public exhibitions which considered a wide range of sustainability criteria including the promotion of biodiversity, roof gardens, electric car charge points and sustainable drainage systems.

The BREEAM Excellent building is heated through a district heating system powered by combined heat and power boilers and controlled by an Intelligent Building Management System. This light, airy and flexible teaching and learning resource has a public concourse that buzzes with energy. The College Managers report that the buildings have definitely influenced the behaviour of the learners not just on environmental awareness but also academically.

The first cohort of A level students to complete their studies in 2014 were the most successful Blaenau Gwent have ever had.