

University of Bristol Continuous Improvement

Greening the product not just the machine

Section 1 The project

Summary

The University of Bristol has not only integrated sustainability into its operational activity, but has included sustainability into how and what it teaches and researches. It particularly exemplifies what a research intensive university can achieve within its sustainability agenda.

Project partners

Though 'Sustainability' within the Estate's Office drives forward the Sustainability agenda within the University, the team realize that it can only achieve change with the help of partners across the University.

This approach has been key in delivering progress across the University and without their help the progress made would not be possible. These partners include, Hospitality – Food, Grounds and Gardens – Biodiversity, Capital Projects – Sustainable Construction, Finance Director – Approval of spend to save projects, Director of Estates – Support across the board, Director of Residences – Helping in halls, Procurement – Sustainable Procurement, Site Services (Porters and Cleaners) – Waste Management, Director of Undergraduate Studies – ESD, Bristol Student HUB – Engagement and support for students, Senior Managers (Registrar, DVC and PVC's) – Integrating policy and IT services – Green ICT.

On top of this are staff and students who have helped with initiatives from Green Impact to Student Switch Off.

Section 2 The results

The problem

To be a sustainable education institution is a real challenge for the HEI sector. This means not only addressing the wide variety of environmental operational issues such as waste management or energy use, but to look at what and how we teach our students and the research we do, as well as how we act within the community. Thus the title, 'Greening the product not just the machine!'. Within the sector it is also key that research intensive universities which have significantly higher impacts show that they can achieve real change, the University of Bristol is not the only example of this in the sector, but can help others by illustrating what is possible.

The approach

Sustainability at the University of Bristol is driven by the sustainability team based in the Estate's Office, this involves direct manage of many areas such as the carbon management plan, waste management and transport such as running a bus service. To deliver effective sustainable change the sustainability team works with key partners within the University.



Profile

Example:

- University
- 17,000 students (includes full and part time students)
- 5721 staff
- Urban (City Centre) and Rural sites

Winner's case study

Sustainability is all about change, for the sustainability team to achieve any of its aims involves changing others activities (sounds obvious but often we rely on technologies or policies to achieve change, when it is all about people!). To do this the team engages with a wide stakeholder group, most of this is done through developing strong direct relationships, rather than via committee structures (which can help as well).

A range of approaches are used to get support and help from others and illustrate that there is no one size fits all. Solutions include; Identifying solutions to problems that departments may have (using waterless urinals to prevent blocking of toilets), direct cost savings for departments (LED lights vs fluorescent), support for mutual beneficial results (moving from printers to MFD's), use of top down University wide policies (doing BREEAM to drive sustainable construction), sponsorship of projects from senior management (Green Impact supported by Deputy Vice Chancellor gave legitimacy to getting involved in the scheme), taking opportunities when they arise (the ESD initiative started due to involvement with HEA Green Academy), waiting for the right time (Green ICT started once standard builds we possible) and therefore being in it for the long term (Green ICT has not been developed whilst the infrastructure was not in place). Once successes have been achieved, departments are more open to do further sustainability activity and even to consider actions that are inconvenient or costly.

Our goals

To not only achieve our key environmental impact targets but to achieve a more holistic approach, including ESD and research. The key targets can be seen at <http://www.bristol.ac.uk/environment/policy/>.

Obstacles and Solutions

Obstacles	Solutions
Resistance to change	Highlighting benefits, looking for synergistic outcomes, trialing and building on successes, obtaining senior management support.
Engaging staff and students	Creating activities that can be celebrated and have synergistic outcomes. Also looking for multiple points of interest, e.g. appealing to cost saving, environmental reduction, employability.

Performance and Results

Research intensive Universities have significant impact; twenty HEI's contribute 50% of carbon emitted in the sector, most hazardous waste and use a large proportion of the water. Bristol provides an exemplar of how a research intensive University can play a key role in addressing these impacts, by continuously improving all areas of sustainability, not just focusing on flagship projects.

£2.5million spent of £20m **Carbon Management** Plan, reduced absolute CO₂ emissions by 2,000tonnes (3.3%), against Estate growth of 3,000tonnes. 'CEMARS' certification ISO14064-1:2006 achieved last three years. Installed almost 3MW of CHP.

ISO14001 – full institution certification for last three years (included ESD in 2013).

Waste reduction - 76% of waste recycled/reused. 82% of construction waste is reused/recycled. Rocket composter provides grounds with compost from canteen waste. 15 domestic waste streams managed. Significant laboratory waste management and recycling.

Water consumption reduced by 13%, via closed loop cooling systems & upgrading pipework infrastructure.

Winner's case study

Sustainable Construction – 8 BREEAM Excellent buildings, 3 exceeded target of 'very good', includes four green roofs, 250Kw of solar PV and 120kw CHP unit.

Sustainable Procurement – Developed strategy and risk assessment of products/services, established staff/student procurement group, developed tender criteria for areas like clothing and lab equipment.

Sustainable Food – Developed an ethical/environmental policy. Implemented organic milk, free-range eggs (with a good egg award), bottled water via own bottling plant, seasonal food in menu's, MSC fish, red tractor meats and catering awarded regional Fair-Trade award and catering mark certification.

ESD – Innovative student intern lead work, developed ESD Strategy, baseline mapping of course modules (3,215) for ESD, supporting academics with training, development of resources via public wiki, implementing monitoring and review system via Annual Performance Review programme. Humanities, major review of ESD in their courses.

Biodiversity – Developed Biodiversity plan, measured species across the Estate, working with academics on major urban pollinator research.

Transport – New bus service provides 400,000 journeys a year, up from 1st year of operation by 21%. 82% of staff travels sustainably. Significant program of cycle facilities, sheds and showers. 200 car share teams.

Student Engagement – carbon and waste auditing, supporting partnerships financially e.g. Bristol Student Hub who run activities across the year including sustainability speaker series (e.g. Rob Hopkins), conferences - 130 delegate International Development Conference. 4,000 students are engaged in ethical and environmental activities via the Student Hub. Funded projects like bikes for Foodcycle, food storage for the Food Coop.

Staff Engagement focused on Green Impact which Bristol initially paid for, now in 50+ Universities, piloted NHS and Accommodation schemes helped develop for Impact Labs and this year ran a community Green Impact for 40 Dental Practices.

Green League position 2010 68th & 2:2, 23rd in 2012 with a 1st.

Section 3 The future

Lessons learned

Relationship building is key to delivering change; it can't be done in silos, engagement is key. Change can be slow and you should plan for that, do not dismiss areas of activity as they are difficult to achieve now, what is impossible now maybe common practice tomorrow, opportunities can arise that will help change the impossible. ESD is a good example, an academic keen to deliver ESD change became Director for Undergraduate Studies at the same time as The Green Academy was launched and these enabled something that was difficult in the past. Bristol still has areas it hasn't addressed like Ethical Investments for the institution.

Winner's case study

Sharing your project

Over the last 3-5 years Bristol has shared its activities in a number of ways including;

- Promoting our general approach, with visits to other HEI's, such as presenting to sustainability committee at the University of Southampton.
- ESD – Presented at HEA Green Academy residential, seminars at Keele University & University of Gloucestershire as well as the National Lawyers conference at University of Bristol.
- Green Impact – Offered phone and email advice to a number of HEI's on getting involved in Green Impact, presented seminars at conferences for EAUC & AUDE.
- Energy – work closely within the region with energy managers groups, hosted events at the University on energy saving initiatives such as voltage optimization and e-TRV's. Presented at S-Labs events on -80 Freezer work.

Since winning the Green Gown Award in 2013 the University has been approached by other Universities to discuss our approach, for example UCLAN.

Going forward Bristol is keen to run seminars on its work via EAUC, will be running seminars in 2014 with the HEA on ESD and is looking to run a conference/event with the NUS on the student green fund.

What has it meant to your institution to be a Green Gown Award finalist?

Winning the Continuous Improvement award recognises the progress Bristol has made over the last five years. It also rewards all the hard work the sustainability team at Bristol has been doing and thanks the staff and students for their participation and help.

Further information

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Sustainability web site - <http://www.bristol.ac.uk/environment/>