Towards the sustainable university

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All universities have the capacity to embrace, embed or ignore sustainable development. Looking across the sector and reflecting on the past seven years and my own institutional experiences, the key finding is that change for campus and curriculum-based sustainability is clearly possible but unpredictable.

For many years my own institution (University of Bradford) struggled to make progress in a number of key aspects of 'campus greening' including recycling, green build, energy management, green travel, fair trade etc. It employed its first environmental manager as recently as 2003. Up until 2007, education for sustainable development (ESD) was largely found in one small academic department. Now, as this paper describes, it is a central feature of the learning and teaching strategy for the university and an overall institutional objective.

Impact for change

The initial 2005 Hefce vision statement had a significant impact on the University of Bradford. It led to the launch of a strategic whole–institutional sustainability programme known as Ecoversity. The overarching aim of Ecoversity is to embed sustainable development into:

❚ campus management and operations;
❚ student learning through the curriculum and wider experience;
❚ decision-making;
❚ community relations;
❚ the culture of the organisation.

The programme recently received support from Hefce's SDF for a project called Ecoversity StuDent (2007-10) which focuses on sustainable development and the student experience.

Back in 2001, I had initiated with my colleague Professor Peter James a Hefce-funded project known as Higher Education Environmental Performance Improvement (HEEPI). The aim was to promote and support environmental improvement in higher education through capacity building, best practice exchange and detailed research and evidence-based guidance. HEEPI has now run over 60 workshops nationally on a range of environmental and sustainability topics and founded the Green Gown Awards. It is currently leading a project called GreenBuild which seeks to develop a sustainable building design method for the sector.

10 principles for embedding sustainability

Experiences from both HEEPI and Ecoversity provide an opportunity to reflect on some of the changes that have occurred in higher education in relation to sustainable development over the past few years, and to draw out lessons and observations about how and why key changes occur or not. In the following analysis I focus on two particular areas of activity in the Hefce vision statement - campus operations and graduates.

1. Effective practitioners

Change on a significant scale will not occur without staff in post that have some dedicated role and responsibility for management of the areas of concern. There has been significant growth in the past few years in 'campus greening' posts such as environment, energy, waste/recycling, green travel or the broad brush 'sustainability'. It is evident, however, that some HEIs do not have such posts or else bundle the responsibility as part of some other role. There are relatively few positions which have been created to specifically direct or manage internal change around sustainability in the curriculum.

Where a post does exist, then this is a sign the university has recognised that these are important issues to address. In the case of environmental managers the extent to which the post holder can, or wishes to, extend the role or remit beyond the usual compliance or issue-specific operational task to something more strategic and visible to the institution will, however, depend on a number of factors.

All too often the sole practitioner in this field becomes overwhelmed by the scale of the task and is unable to gain wider support or resource. Often appointed for a core technical skill or expertise, the practitioner may need to draw on a range of skills and competencies to make or maintain progress. These skills include advocacy, political know-how, interpersonal relations, communication, teacher, business case development, researcher, strategy formation, psychologist and project manager. Absence of one or more of these is not fatal, but experience shows that the more of these skills possessed or developed the more effective the practitioner is in creating and maintaining change.

2. Knowing your institution

Higher education institutions are complex and driven by a series of pressures, issues, opportunities and objectives. An effective practitioner will be one who is able to understand and work with the institutional context and the small amount of status and power they may have been afforded in their role. The ability to operate effectively within the institutional setting will be affected by the ability of the individual(s) to work out what is driving the institution, what problems it is facing, where resources are being directed, where is the power and influence, what is the culture and what are the institutional limitations. A mapping and understanding of the basic dynamics of the institution is crucial to developing change for sustainability. Failure to do so will lead the practitioner to be marginalised and invisible to the organisation beyond the immediate silo in which they are placed.

In the case of Ecoversity this started life as a top-down, estates-led vision which addressed a number of key institutional problems and issues such as: the impact of the campus appearance on student recruitment; the need for campus renewal; the link to wider city regeneration etc. Led by the director of estates, the Ecoversity vision was integrated with a new campus masterplan which inspired senior management to support not only the estates dimension of Ecoversity, but a wider educational and academic vision. Having gained this foothold, Ecoversity had a period of time to become established and evolve. As the requirements of the programme have altered, other staff have been brought in with different skills to ensure that the complexity of change involved under Ecoversity is strategically facilitated.

3. Go with the flow

Many HEIs have pockets of 'greening' or 'curriculum' activity which offer the scope for celebration, expansion or further developments. These activities or projects are often the key signs of a potentially larger coordinated programme, and the key is for the institution to be able to identify, coordinate and nurture those activities to something more than the sum of the parts. The Ecoversity vision grew out of and drew from a large number of small, fragmented initiatives over the previous five years, which up to that point had been largely invisible to the majority of the institution.

An effective sustainability practitioner will be able to look for signs of emergent change and bring these to the attention of the institution to build support and confidence for future action. I have been asked many times by different HEIs how we got started or how they could get started from apparently humble beginnings. I always say that the first stage is to 'join the dots' to see what you have already, as the basis for shaping a coherent action plan that can be used to secure allies and support from within the institution.

4. Accountability framework

Campus greening and terms such as education for sustainable development are often complex and difficult terms for people to grasp. People coming to it for the first time often ask 'what does it mean?', 'how do we measure it?' or 'how are we doing?'. In any situation complexity makes it all too easy for people to lose focus, give up because it's too hard and become confused. In such situations the use of accountability or performance frameworks can be very helpful in communicating and explaining some of the key parameters of campus greening and sustainability.

Such tools are only as good as the people using them, hence they need to be used and interpreted with care. Tools such as the BREEAM (Building Research Establishment Environmental Assessment Method) for new buildings, BiTC Environment Index and CSR Index have all been found to be useful in supporting wider understanding and change in different higher education settings. In the case of Ecoversity, our new Student Village is being designed to achieve BREEAM outstanding status, which is helping to keep the senior management and design teams on their toes to avoid slippages in various environmental design features. Under Ecoversity we will use the BiTC environmental and CSR indices and People and Planet Green League, to give us feedback on our strengths and areas to improve across a wide range of environmental, social and ethical metrics.

5. Pilot projects and making the business case for change

Lack of support, funds, enthusiasm or leadership can often be a barrier to change and lead to frustration and loss of confidence in creating change, and a 'business as usual' culture. In such settings, pilot projects are often a very effective way of generating change or unfreezing an institution. Building support for a pilot project to demonstrate the feasibility or potential of doing something differently can be a manageable step and carries low risk. Such pilots may be relatively low cost but still require careful planning.

Over the years I have observed pilot projects for bike hire, lighting schemes, water and energy efficiency, recycling, green travel, green-IT, purchasing etc that have been successfully implemented and evaluated and led onto bigger schemes. In Ecoversity up to 2006 we had very limited recycling systems and an overall recycling rate of around 20%. The institution appeared to want to improve its recycling, but numerous debates and discussions led nowhere. A pilot in-building scheme was introduced in early 2007 at a cost of £2,000. This scheme was found to be hugely successful. Eighteen months later as a result of building internal support and developing a business case for a scaled-up scheme, we now have a campus-wide scheme and a recycling rate approaching 70%.

Many environmental issues in HEIs are costly. My own institution has an annual energy bill of around £2.5 million. The cost of water, waste disposal, recycling, provision of car parking etc, which all produce significant institutional environmental impacts are all expensive items. Paradoxically, however, actions which are often proposed to address the environmental impacts of an HEI, and can reduce operating costs, fail to be supported because they appear to be an additional cost or too expensive.

The ability to write and gain support for a business case is a core element in successful change. In the case of Ecoversity the vision was underpinned by a sound business case in terms of impacts on building maintenance costs, student recruitment, student retention and reduced costs of environmental management. Even then, specific actions or projects requiring funding or resources all require justification. Some projects have stalled or not been advanced due to the lack of a robust or evident business case.

Successful environmental and sustainability business case proposals often require the circumventing of traditional internal accounting procedures. Too often the split between capital and revenue expenditures falls on different parts of the organisation which leads to decisions which disadvantage overall organisational resource efficiency. A classic example is someone locally purchasing an item of equipment,

which may have lower capital costs but higher energy running costs, than a more expensive similar item, but where the energy costs fall on the institution not the original purchaser of the equipment. Often the energy/running costs of equipment are many times greater than the original purchase price: hence over the lifetime of the equipment the organisation is burdened by a higher overall cost.

6. Leadership

It is often stated that effective change requires top-level commitment and leadership. Our Ecoversity initiative would not have happened had it not been supported by the previous vice-chancellor and senior management. A year after the Ecoversity launch, however, the programme - despite retaining the support of senior management - was beginning to stall. Leadership at higher levels is valuable but needs to be backed by other actions; notably the right structures and processes to ensure that initiatives are not stifled.

Ecoversity regained momentum following the appointment of Geoff Layer, the pro vice-chancellor for Learning and Teaching to head up Ecoversity. He initiated a Change Academy process which involved a team of seven internal change agents to address the issues that were beginning to hold back Ecoversity. One outcome was the development of a new task group structure which would free up thinking and action to create change. We have subsequently initiated several internal 'change academy' conferences to share the lessons and experiences gained from the initial national Change Academy project. A further outcome is that nearly every member of the 12-strong senior management team is a chair of an Ecoversity task group - ensuring Ecoversity is on the radar of senior management on a daily basis.

7. Communication

Internal communication is an essential component of generating awareness, interest and support for change. All too often projects such as a new building or Estates project appears out of the blue with no clear communication about what it is or what it is for. Developing effective communication within large organisations is complex at the best of times and many people suffer information overload.

Our own Ecoversity initiative was criticised in the early stages for being top-down, with key decisions and information being managed by a small elite group creating a sense of 'them' and 'us'. To address this shortcoming, the current team have worked hard to develop more accessible and easy-to-digest information about what is happening (web, e-newsletters, noticeboards, briefing papers, events).

The team has also established a genuine two-way conversation within the institution through an Ecoversity newspaper, named The Seed (available online at www.bradford.ac.uk/ecoversity). The paper is a collaborative venture which allows staff and students to raise and debate the issues that concern them around campus greening or sustainability. Feedback has been overwhelmingly positive and the newspaper has promoted discussion around a host of issues.

8. Learning from others

There is much good practice emerging in the UK and internationally around sustainable development. Observing and learning from others is a good way to build individual confidence and competence among environmental or sustainability practitioners. Indeed, this was one of the core aims of the HEEPI project, which found that many HEIs had a desire to 'do something' but didn't know what to do, or were trying to re-invent the wheel.

Organisations such as the Environmental Association of Universities and Colleges (www.eauc.org.uk) provide professional peer support for staff often isolated within their own institution. In 2003, HEEPI set up the Green Gown Awards to identify and celebrate innovation and good practice in different areas of campus greening and, more latterly, curriculum and student initiatives. From humble beginnings, last year's Green Gown Awards attracted 160 applications, and the scheme is now being developed as an international award. It is frequently stated that simply entering for the Green Gowns helps HEIs think about what they are doing more critically, and to look and learn from each other. The winners and highly commended entrants find that it has become a valued and motivating award that boosts their credibility within their own HEI. Under Ecoversity we are planning to run our own internal award scheme to celebrate internal sustainability projects and actions by staff and students.

9. Students

In recent years the role of students as change agents for sustainability has come to the fore. National schemes such as the Green League table – organised by the student pressure group People and Planet - have had a noticeable impact on the attention given by HEIs to league positions and the actions which might improve them.

A number of Student Unions and student groups in different HEIs have developed innovative and eye-catching campaigns or projects – a number of them featured as winners in the Green Gown awards. Elsewhere, student-led projects to reduce the amount of waste generated from the end of year clear out or energy use in halls of residence have proved effective in reducing the environmental impact of university activities. Such projects can and often do work with the core service areas in a university.

Under Ecoversity we have created a full-time student engagement coordinator post whose role is to harness student energy and enthusiasm for change in relation to environmental or sustainability projects. This is achieved through recruiting students to distinct roles such as Ecoversity ambassadors, Ecoversity interns or 'actioneers'. The student coordinator's role is crucial to keep the students on track and manage the interface with the university without stifling their radicalism or innate desire to just 'do something' rather than talk about it. Feedback on student experiences from these and the wider Ecoversity StuDent project are captured through a longitudinal research project which provides evidence to support reflection and institutional learning.

10. The curriculum

The biggest challenge to creating a sustainable university is the curriculum. How should or could a university bring sustainable development into the curriculum in ways that are meaningful and relevant to the academic context?

Currently there are a number of interesting developments in the sector through two Centres for Excellence in Teaching and Learning at Plymouth (Centre for Sustainable Future) and Kingston (C-Scaipe) which are funded to promote education for sustainable development into the formal curriculum. At other Universities, such as Brighton, South Bank and Gloucestershire, there is evidence of a widespread development of ESD into a range of curricula through grassroots activity.

More recently four English-based United Nations Regional Centres of Excellence (RCEs) for education for sustainable development have been accredited. The RCEs are university-led and form a global network as part

of the UN decade for ESD. The four to date are North East (coordinated by Newcastle), Severn Region (Gloucester), Yorkshire and Humber (Bradford) and East Midlands (Loughborough). Each centre collaborates with HEIs and other partners in its region to promote and support ESD.

The most ambitious of Ecoversity's objectives is to embed sustainable development in the learning of all our students regardless of discipline. Space does not permit a full discussion of how we are doing this, but further details can be found in Hopkinson et al, 2008. The curriculum objective was defined as part of the initial Ecoversity vision - hence the issue at Bradford was not 'should we be doing it?' but 'how can we do it?', and avoid all the criticisms and problems that previous 'greening the curriculum' initiatives in the sector have faced.

In short we have adopted the UNESCO framework for ESD as a guide for curriculum review and development. Working with a network of academic pioneers we have established the current extent of ESD-related teaching and learning in our curriculum as the basis on which to develop school-level and programme-specific expressions of sustainable development and create a 'green-print' for long-term curriculum development.

Curriculum review in practice
One of the first reviews of ESD in the curriculum at Bradford took place in midwifery. The team were a little sceptical about how much they could teach that would save the planet. When the initial review agenda was produced, with the UNESCO criteria, it was clear to the midwifery team that in fact they had a more sustainable curriculum than even the reviewer could see. Not only was the problem-based teaching and learning strategy meeting part of the agenda, but the broader social, ethical, scientific and cultural aspects of ESD were being served through good initial design to help ethical problem-solving.

Included were a vast range of issues around health and wellbeing, technology, diversity and facilitation. Green issues such as disposable versus washable nappies or the role of multinationals in promoting bottle feeding in developing countries were a few of the critical issues addressed in their programme. In many ways the midwifery team were 'doing' ESD - they just didn't use the term. As one of the team would say: "Midwifery is not just about the safe delivery of babies, it's about the whole woman and the spaces she inhabits."

By working with the academic schools and creating time to develop an interpretation of sustainable development which staff find useful and meaningful, we have avoided to some extent the feeling that the agenda is being imposed or forced.

Alongside the review we have approved guidance for our Course Approval and Review Process which requires that all new courses and those for periodic review address ESD. This will ensure that in the next three to four years every course at Bradford has worked through a review and articulation of ESD appropriate to the discipline, professional, academic and student context.

Epilogue: the challenge of change
Talking to colleagues across the sector there is often frustration at their own institution's response to sustainable development, or questioning of how to speed up the process of change. There is no magic solution, or single action which can be used to create change. Change can, however, be initiated and developed through a number of actions - the choice of which will depend on the institutional context and practitioners involved.

For colleagues who may be interested there will be a national workshop on the lessons learned from the Ecoversity change management programme in the spring of 2009. If you would like to attend please contact r.a.j.pearson@bradford.ac.uk

References
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2. Unesco: **www.unesco.org/education**
3. More details on Ecoversity can be found at **www.bradford.ac.uk/ecoversity**
4. More details on HEEPI can be found at **www.heepi.org.uk**