



# **Education for Sustainability Strategy**

## **(25 September 2010)**

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## 1 INTRODUCTION

1.1 The Education for Sustainability Strategy (EfS, 2010-15) sets out the University of Exeter's goals and planned actions to take forward the University's aim to embed learning for sustainability in the curriculum.

1.2 Acknowledging that there are many different interpretations and definitions of 'Sustainability' and 'Sustainable Development' (SD), the University of Exeter chooses to define environmental sustainability as a state where human activity does not degrade the natural environment beyond self-sustainability. Sustainable development is the process that enables humanity to move towards an environmentally, socially, economically and culturally sustainable world.

1.3 The University of Exeter is a leading, internationally recognised higher education institution whose core business is the generation and dissemination of knowledge, which includes two key science themes 'Climate Change and Sustainable Futures' and 'Systems Biology'. Climate change, loss of biodiversity, pollution, dwindling non-renewable resources, population growth and excessive consumption all contribute to the increasingly urgent global problems. These problems have complex and interrelated causes, and require complex and imaginative solutions. Science helps us to understand and quantify the problems we face and may help us to solve them.

1.4 The University acknowledges "the importance of being responsible, sustainable and ethical in order to meet the needs of the present and leave a better environment for future generations. We believe this can be achieved through our research and exchange of knowledge, through business and community engagement, and through our own strategies and operations." (Environmental Sustainability Policy, 2009) We are committed to equip all graduates with an understanding of both the scientific, human, social and cultural issues which are involved in the vital field of environmental sustainability and to equip them with the skills for a 'greener' economy and the imagination to provide solutions for a sustainable society.

### National and international context

1.5 Education for sustainability has become increasingly relevant to higher education. The United Nations' Decade of Education for Sustainable Development (2005-2014), which seeks to integrate the principles, values, and practices of sustainable development into all aspects of education and learning, has given the educational response to sustainable development a new momentum. The Stern review (2006) on the Economic Impact of Climate Change brought to our attention the risks and impacts on business stating, that climate change is 'the greatest and wide-ranging market failure ever'. HEFCE (2009) responded declaring that "*Sustainable development is central to our strategy for the future development of the HE sector. Sustainable development in HE, and supported by HE, can be achieved through: the skills and knowledge, through research and through taught programmes, that graduates learn and put into practice; research and exchange of knowledge through business, community and public policy engagement; and institutions' own business operations.*"

1.6 The University wishes to take a lead in the Higher Education sector in offering all students a basic understanding of the science and issues of climate change, environmental sustainability and sustainable development as well as offering specialist programmes and world class research. It seeks to "*engage with the Higher Education Sector and the wider community to promote environmental best practice and seek collaborative opportunities in order to facilitate developments in this area.*" (Environmental Sustainability Policy, 2009). Students will have the opportunity to be actively involved in the implementation of this strategy through the 'Students as Change Agents' programme.

### Employability, Internationalisation and other benefits of Education for Sustainability (EfS)

1.7 Businesses all around the world have embraced Corporate Responsibility, recognising the importance of ethical, environmental, social and economic values to their clients and relations. Students expect the same ethical values of their University. Equally employers expect graduates to have an understanding of corporate responsibility and environmental issues.

1.8 It is expected that the demand for graduates with sustainability knowledge and skills will grow significantly over the next years in order to meet government's targets for renewable energy, carbon saving technologies and mitigation strategies. The growth of green jobs is estimated to rise to a million by 2017. As these jobs include working with new technologies and systems, many will be taken up by graduates. University of Exeter students will benefit from the excellence in provision of learning for sustainability throughout the curriculum and have the

opportunity to link it to world leading research in sustainability, which will increase their employability.

1.9 Engagement of all students in learning about sustainability will equip graduates with the attitudes and skills they need to contribute to a sustainable society and prepare them for a potentially volatile and changing job market. It will give them the opportunity to enhance their own subject specialism whilst reflecting on the context of sustainability and other global issues. This strategy will impact positively on NSS results relating to learning and teaching, progression/achievement and graduate employability.

1.10 A curriculum with high relevance to current global issues will support our internationalisation strategy, attracting students with an interest in leadership, sustainable business practices and environmental issues and promote the notion of 'global citizenship'.

## **2 INSTITUTIONAL CONTEXT**

2.1 At a corporate level we are implementing a wide range of policies and practices to ensure our activities are sustainable. These include major investment in energy-saving measures, a sustainable travel plan, and new initiatives on recycling and waste. Our commitment to sustainability is evidenced by our challenging target of reducing our emissions of carbon dioxide by 2% year on year during a period of considerable growth in our activities (Carbon Management Plan v.8).

2.2 The University of Exeter is committed to the principles and practice of environmental sustainability in its activities throughout the institution. Our research into the causes and consequences of environmental change, and especially climate change, is world leading, and we are continuing to develop sustainability as an integral part of our undergraduate and postgraduate programmes. This strategy aims to take this agenda forward and will link this research with the taught programmes. It is also comprising the spheres of interdisciplinary and extra curricular learning, e.g. the Exeter Award and the Campus as Living Laboratory for Sustainability. Students as Agents for Change in Learning and Teaching inform contents and context of these activities.

### **The current status of EfS in teaching and learning**

2.3 A curriculum review undertaken in November 2008 (Sustainable Development and Sustainability at the University of Exeter 2008) shows that there is clear evidence of engagement with Sustainable Development throughout various subject disciplines, however the level of engagement varies considerably. Sometimes issues, concepts and actions related to sustainable development are addressed implicitly in modules and may surface unsystematically in delivery.

2.4 In 2009, a sustainability task and finish group, chaired by Janice Kay, identified the importance of bringing the Education Strategy and the Sustainability Strategy together to position the University of Exeter as front runner in the UK for delivering education with sustainability as part of its core. This has led to the appointment of a *Sustainability Curriculum Development Manager* in November 2009, to take forward the University's environmental sustainability through the curriculum agenda.

### **Integration with the strategic framework**

2.5 The Education for Sustainability Strategy is one of several University strategies that contribute to the University's strategic framework. It contributes most directly to the Education Strategy and has links with the Science, Research, Employability and Internationalisation Strategies. There are also important links to the Carbon Management Plan and Environmental Sustainability Policy.

## **3 SHAPING OF THE STRATEGY**

### **Vision**

3.1 The University has underwrites the importance of EfS which is notably reflected in the research, education and environmental sustainability strategies as well as in the overarching Strategic Plan: *The University of Exeter aims to shape the future by extending the boundaries of knowledge for the benefit of individuals, society and the environment. Further it aims to be responsible, sustainable and ethical, meeting the needs of the present and leaving a better environment for future generations* (Strategic Plan, 2007-11)

3.2 The vision therefore is to galvanise these intentions for EfS into a comprehensive and coordinating strategy that sets out to embed learning for environmental sustainability throughout the curriculum.

3.3 “Through a research based curriculum, we provide our students with the opportunity to share the excitement of research and of extending the boundaries of knowledge. And through research inspired teaching and assessment, we encourage and enable our students to develop valuable skills of critical and independent enquiry”. (Education Strategy 2010-2015) The curriculum, across all subject disciplines will benefit from Exeter’s high quality interdisciplinary research in the areas of climate change and environmental sustainability and will offer all graduates the opportunity to learn about the latest developments in this field.

### **Guiding Principles**

3.4 The following principles guide this strategy

3.4.1 ‘To put environmental concerns at the centre of what we do, we recognise that our university community and the environment are inherently connected and interdependent. Influencing the drive towards a world that is sustainable in the long-term is one of our key aims’. (Strategic Plan 2007-11, p.19)

3.4.2 ‘The University of Exeter seeks to raise the awareness of Biodiversity and sustainable practices, and the impact the activities of the University have in it. Also to take positive action to promote biodiversity and sustainability on the sites it manages or owns.’ (Biodiversity Statement, 2008)

3.4.3 ‘Our academic endeavours will include a focus on climate change and sustainability. We aim to maximise our wider influence in reducing global carbon emissions through our research, learning and teaching and in the wider debate and dissemination of evidence and information’. (Strategic Plan 2007-11, p.21)

3.4.4 ‘The University wishes to take a lead in offering all students a basic understanding of the science and issues of climate change. Heads of Schools will be asked to consider how this should be implemented.’ (Carbon Management Plan 2007-2011, p8)

3.4.5 High quality staff development will be provided to ensure the effective and efficient integration of sustainability into the curriculum which will contribute to the overall enhancement of the quality of teaching and learning

3.4.5 “The interdisciplinary approach of the Science Strategy is a new way forward at the University of Exeter. It is breaking down barriers between academic schools and bringing staff together to tackle some of the big issues of our time” (Science Strategy, 2010). This approach will inform the development of ‘sustainability’ pathways alongside the existing programmes. The pathways will give students the opportunity to take ‘sustainability’ labeled modules utilising the flexible combined honours or enhanced modularity opportunities, that will complement core modules and lead to a degree with a sustainability ‘flavour’ and an interdisciplinary element.

3.4.6 To ensure that all students will have the opportunity to learn skills for sustainability, a systematic approach to module design and review will be developed in collaboration in collaboration with the Colleges.

3.4.7 Supporting structures will be put in place to provide a platform for innovation for EfS, building on the Students as Change Agents programme, utilising the Exeter Learning Environment (ELE) and developing a campus as ‘Living Laboratory’ (Appendix D).

## **4 THE EXETER STUDENT EXPERIENCE**

4.1 The majority of (home) students arriving at University of Exeter will have learned about environmental, ethical and climate change issues throughout their secondary education in line with the Learning and Skills Council and the Sustainable Development Commission recommendations for the integration of ESD into the curriculum. Students will anticipate that this will be taken further during their HE studies (Appendix C). This strategy will help to take further the ambitions of the Education Strategy “ *to ensure that the education we provide and the student experience we offer helps our students to develop the knowledge, skills, qualities and attitudes they will need to succeed in this new world. We must provide the opportunities and we must explain how these opportunities are designed to help them prepare for the future.*” (Education Strategy 2010-2015)

4.2 Exeter's students expect that their programmes of study are up to date with regards to current global developments and that programmes are relevant to the job market and society in general. The UCAS Future Leaders survey (2007/08) highlighted that students rate a job that contributes to society higher than a job that pays well.

([http://www.ucas.ac.uk/about\\_us/media\\_enquiries/media\\_releases/2008/2008-01-28](http://www.ucas.ac.uk/about_us/media_enquiries/media_releases/2008/2008-01-28))

4.3 Exeter's high quality research into Climate Change and Environmental Sustainability as well as demonstrable leadership in Sustainability will attract the best students from all over the world.

## 5 STRATEGIC GOALS

**5.1 To provide all students with access to education for and about sustainability. The Education for Sustainability Strategy (2010-16) sets out the University of Exeter's goals and planned actions:**

- to embed learning for sustainability in the curriculum across all Colleges
- to develop the interdisciplinary approach of the science strategy in relation to education for environmental sustainability
- to enhance action learning and skills development in relation to sustainability in programmes and extracurricular activities
- to provide all students with the opportunity to raise their awareness of sustainability issues by supporting sustainability related curricular and extracurricular activities;
- to position Exeter as a UK leader in exemplifying best practice in education for sustainability
- to engage with the Higher Education Sector and the wider community to promote environmental best practice and seek collaborative opportunities in order to facilitate developments in this area
- to provide professional development opportunities for newly appointed lecturers and existing academic staff in order to foster discussion, facilitate the implementation of initiatives, to promote cross departmental working and to ensure all are equipped with the skills and knowledge to address environmental sustainability in the subject delivery
- to provide a framework of KPIs suitable to measure progress of EfS in the curriculum

### Action Plan

5.2 The implementation action plan is set out in Appendix A and outlines how this strategy will be implemented across the institution.

## 6 MEASURING SUCCESS

6.1 Progress of implementation of the EfS strategy can be measured quantitatively and qualitatively:

Quantitative:

- yearly increase of the number of modules/programmes that address elements of learning for sustainability
- the number of extra curricular EfS learning opportunities
- the number of students taking up extra curricular EfS learning opportunities

Qualitative:

- improved accessibility to EfS related applied learning opportunities
- improved accessibility to interdisciplinary learning opportunities
- enhanced - skills and transferable skills for sustainability
- student satisfaction
- citizenship for SD

This approach has been adopted to ensure that implantation of this strategy will have a measurable impact on the student experience.

A list of potential challenges has been attached (Appendix B)

## 7 DISSEMINATION & EMBEDDING

### Dissemination

7.1 The Education for Sustainability Strategy will be disseminated, through formal strategic groups and informal structures, in close collaboration with the Associate Deans and Directors of Education at the Colleges. It will be made accessible to all on the University's website.

## **Embedding**

7.2 The Education for Sustainability Strategy will inform the development of College plans. The Sustainability Curriculum Development Manager will work closely with the DVC for Education, the Deans and Associate Deans of the colleges, the Dean of Taught Programmes, Dean of Faculty of Graduate Research and Director of Education Enhancement to implement the strategy and will coordinate interdisciplinary and extra curricular initiatives.

## **8 STRATEGIC REVIEW**

### **Strategic Review**

8.1 A strategic review will take place yearly to appraise the progress of the development of the sustainability curriculum. It will also inform and interact with the yearly targets of the Sustainability Strategy.

## Appendix A

### Implementation Plan

	Strategic goal	Actions	Timeframe	Responsibility
1	- to embed elements of sustainability in the curriculum across all colleges.	<p>Provide creative suggestions for module/programme design and accreditation</p> <p>Showcase good practice through a variety of communications</p> <p>Engage with and advise programme leaders and academics on education for sustainability</p>	<p>Implemented by 2011/12</p> <p>Ongoing</p> <p>Ongoing</p>	<p>HSJ, JB</p> <p>HSJ</p> <p>Deans and Associate Deans Colleges, HSJ, SB, DF</p>
2	- to develop and align the interdisciplinary approach of the science strategy with teaching and learning for sustainability	<p>Promote interdisciplinary initiatives and provide support for CCSF, Systems Biology, Migration and Identity research themes and ESI. Draw on this research to inform teaching and learning</p> <p>Develop 'sustainability pathways' alongside existing programmes utilising the Flexible Combined Honours structure</p> <p>Create a webpage that will promote and bring together learning opportunities for SD.</p>	<p>Ongoing</p> <p>April 2011</p> <p>April 2011</p>	<p>HSJ, JB, PC, Lead ESI Deans and Associate Deans Colleges</p> <p>HSJ, JB</p> <p>HSJ</p>
3	- to enhance action learning and skill development in relation to sustainability through both programme and extra curricular activities	<p>Develop a 'living laboratory' on all three campuses, enabling students to link theory to practice in own community</p> <p>Extend the Exeter Award and Exeter Leaders Award to include skills for sustainability</p> <p>Involve the 'Students as Change Agents' programme to utilise bottom up approach.</p> <p>Provide introduction to</p>	<p>Ongoing</p> <p>May 2010</p> <p>March 2010</p>	<p>HSJ, KG, GW, IP.</p> <p>HSJ, KG, DL</p> <p>HSJ, KG, LD, Guild</p>

		sustainability at Exeter University during induction week	October 2011	IH, Guild, KG
4	- to position Exeter as a UK leader in exemplifying best practice in education for sustainability	See 2 and 3  Draw attention to our best practice through league tables and awards  Seek to influence HEA, HEFCE, QAA and EAUC  Partner with other key HEIs to develop EfS	ongoing	HSJ, JK, KG, MO  HSJ  HSJ, JK
5	- to provide professional development programmes for academic staff to ensure they are equipped with the skills and knowledge to address sustainability in their subject delivery (ie code of conduct and/or in the taught subject)	Identify 'sustainability' modules that can be taken by staff with or without accreditation  Identify good practice foster discussion, facilitate the implementation of initiatives and promote cross departmental working  Identify funding streams for CPD  Write awareness of SD practice into academic job descriptions  Provide Professional updating through LTHE programme	Jan 2011  2010-ongoing  To be discussed  To be discussed  To be discussed	HSJ  HSJ JK, SB, HSJ
6	- to provide a framework of KPIs suitable to measure progress of EfS in the curriculum	-Incorporate recommendations from professional bodies  - Build EfS indicator questions into Periodic Subject Review  -Develop KPIs and QA in collaboration with EE team and other HEIs	Oct 2010-	JK, DF, SB, JB, HSJ

JB Jonathan Barry  
SB Sue Burkill  
PC Peter Cox  
LD Liz Dunn  
DF Dilly Fung  
KG Karen Gallagher

IH Ian Hodge  
JK Janice Kay  
DL Dawn Lees  
MO Mark Overton  
IP Iain Park  
HSJ Harriet Sjerps-Jones  
GW Godfrey Whitehouse

## Appendix B

### ***Drivers and Challenges for EFS***

#### **Internal Drivers**

- Education and EFS Strategy
- Senior management buy-in
- Motivated academics and lecturers
- Student demand
- Students as agents for Change in Learning and Teaching
- Corporate Responsibility

#### **External drivers**

- Government
- HEFCE
- HEA
- Employers
- Professional Bodies

#### **Challenges**

- Cultural Differences between Schools
- Workload
- Complexity of Sustainable Development
- Understanding of Sustainable Development
- Narrow focus on own subject agenda and research
- Competition between schools
- Finance streams within University

#### **Supporting Strategies**

- Staff Development
- Support for interdisciplinary projects
- Streamlining information on webpages and labeling of courses
- Creative Communication
- Quality Assurance
- Programme review and approval process
- Education Enhancement