



# Green Gown *Awards 2009*

## *Winners' Brochure*

*The* annual awards, recognising excellence  
in sustainability within the  
further and higher education sector

*Imperial College London*

*23 June 2009*

Great thanks go to the sponsors for this year's prestigious event



Sponsoring the BIS Award for Outstanding Contribution to Sustainability within an English College or University category



Sponsoring the Carbon Reduction category



Sponsoring the Residences category



Sponsoring the Carbon Reduction category



Sponsoring the Green ICT category



Leading learning and skills

Sponsoring the Colleges & Smaller Institutions category



Sponsoring the Carbon Reduction category



Supporting the Courses category



Supporting the Student Initiatives category



Supporting the Social Responsibility category



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# Foreword

Now in their 5<sup>th</sup> year the Awards have become the most prestigious recognition of sustainability best practice in the university and learning and skills sector. This issue is rocketing up the agenda for everyone and it is right that universities and colleges are starting to recognise the potential and responsibility they have to make our economy and society more sustainable. They are also benefitting from the savings which can be achieved through improved energy and water efficiency and other actions – demonstrating that sustainability actions can make a positive contribution to the financial challenges which the sector will inevitably face in coming years.

The Green Gown Awards provide the sector benchmarks for excellence and have high credibility and recognition amongst government, funding councils, senior managers, academics and students. Their value is reflected in an increased number of applications this year, many of them from the learning and skills sector – a reflection of the huge contribution it makes and the many good news stories which it has.

This year's winning and commended entries demonstrate that sustainability is taking root in the sector. Our next challenge is to find new and effective ways to get the learning and success of such organisations out to inspire, support and challenge the rest of the sector.

In doing this the Awards will continue to draw on its central strength, which is the support and encouragement of the partners and sponsors whose logos appear on the inside cover. Their number and diversity demonstrates that the demands of sustainable development are relevant to everyone, and every activity, in further and higher education.

**Iain Patton**

*Executive Director*

Environmental Association  
for Universities and Colleges

**Peter James**

*Director*

Higher Education Environmental  
Performance Improvement



# About the Awards

The Green Gown Awards recognise exceptional environmental and sustainability initiatives being undertaken by universities and the learning and skills sector across the UK. The Awards were founded by the Higher Education Environmental Performance Improvement (HEEPI) project which was funded by the Higher Education Funding Council for England (HEFCE) and are now administered by the Environmental Association for Universities and Colleges (EAUC).

The Awards are governed and run in collaboration by a cross agency steering group with key sector bodies: The Association of University Directors of Estates (AUDE), The British Universities Finance Directors Group (BUFDG), Association of Colleges (AOC), Guild HE, National Union of Students Services Ltd (NUS Services), Universities UK (UUK) and UK funding councils.

The Awards began in 2004, now in their 5<sup>th</sup> year they have grown tremendously and are gaining in strength and reputation. The number of applications has risen dramatically with a record 178 applications submitted for 2009, an increase of 200% since the Awards launch. This achievement underlines the value and recognition that winning offers, while also highlighting the growing importance of sustainability with the further and higher education sector.

The Awards have been supported and sponsored by a number of organisations during its lifetime and huge thanks go to past and present sponsors.

## 2009 Award Categories

This years Awards have a variety of categories, 12 in total, in which all learning organisations can showcase their achievements. There are three new awards for 2009 and some of last year's Awards have been revised.

### Carbon Reduction

This category recognises initiatives which have achieved significant reductions in the carbon footprint of a university or college.

### Colleges and Smaller Institutions

This category recognises the difficulties which FE and smaller HE institutions have, relative to larger universities, in taking action in many areas. It encompasses any environment-related initiatives which contribute to sustainable development.

### Continuous Improvement – Institutional Change

This category recognises sustained and successful activities, running for at least 5 years, to improve the performance of whole further and higher education institutions, campuses, faculties and buildings over a number of years.



## Continuous Improvement - Specific Area

This category encompasses initiatives which have been sustained over a period of at least 5 years, supported by long-term investment and/or which span a number of areas.

### Courses

This category recognises innovative actions with regard to sustainability in undergraduate, postgraduate and vocational courses in FE and HE institutions.

### Green ICT – *New!*

This category recognises the growing environmental importance of ICT within the sector, and more generally and can encompass a variety of actions that will help minimize environmental impacts associated with ICT use.

### Research – *New!*

This category recognises research activity within universities and colleges which has had tangible effects on practice with regard to mitigation of environmental impacts and/or other areas which fall within the domain of social responsibility.

### Residences

This category recognises initiatives to create environmental and social benefits in any residences which mainly house FE or HE students.

### Social Responsibility

This category recognises initiatives by FE or HE institutions which create significant benefits for local communities, disadvantaged groups, and society as a whole in either the UK or developing countries.

### Student Initiatives

This category recognises initiatives which have been developed and/or substantially influenced by students, including activities such as awareness campaigns, procurement actions and sustainability activities organised by unions and student bodies.

### Sustainable Construction and Refurbishment

This category recognises new or refurbished buildings or campuses in further or higher education which have good energy and environmental performance.

### The BIS Award - for Outstanding Contribution to Sustainability in an English College or University –*NEW!*

This award seeks to recognise and reward the initiative that can demonstrate the most outstanding, significant achievements for sustainable practice within the English further and higher education sector.

## Leicester College



### Carbon Reduction *Counting the Carbs*

#### Project snapshot

The judges were impressed by the significant and far-reaching impact that Leicester College's Carbon Reduction programme has had. Virtually every aspect of college life has been touched, with the College having undergone a massive cultural change that has influenced the behaviours of both staff and students.

Information sharing outside the campus boundaries is also central to Leicester College's approach. It has disseminated its findings, so that other organisations within the Further Education sector can benefit from its experiences and replicate its successes: - another example of its far-reaching, all encompassing approach.

The entry demonstrated how energy efficiency and reduction is deeply embedded in the College's redevelopment and refurbishment programme. Recent initiatives have spanned a broad spectrum, ranging from the installation of natural light tubes and wind turbines to the introduction of a building management software system.

Another tangible example of the energy and cost savings now being experienced by the College, as a result of its comprehensive carbon reduction strategy, is demonstrated by the impact of installing variable speed pumps, improved building insulation and the installation of heating and lighting controls. These actions have so far reduced the College CO<sup>2</sup> footprint by 317 tonnes, a potential energy saving of 950,000KWh.

#### What it means to win

***Winning is a celebration of all the actions that Leicester College has implemented on our path towards increased sustainability. This award is a massive boost and underlines our success and long-term commitment, as we work towards greater carbon reduction.***

Robin Dalby, Maintenance and Development Co-ordinator, Leicester College



***The judges were particularly impressed by Leicester College's work to integrate its carbon reduction strategy into all aspects of college life. Strong links have been forged with students, staff and the local community.***



# Highly Commended

## University of Cambridge

### Carbon Reduction

#### *Energy Management Systems on the Web*



### Project snapshot

Information sharing and lateral thinking are at the heart of the University of Cambridge's entry. The University has taken Building Energy Management Systems out of the back office and made them accessible to all, via the University's intranet.

With many pairs of eyes looking at heating systems, opportunities to improve efficiency have been identified and real energy savings achieved – demonstrating that a relatively simple strategic shift can have significant long-term benefits.

The initiative means that any Internet-enabled PC can access information about the heating, cooling, refrigeration and ventilation systems in real time. The information is displayed on web pages, using easily intelligible graphics.

A common standard for heating and other building services in University buildings is being rolled out, which allows for communication via the University's data network. To date £360k has been invested in the systems and they now control about one third of the University's total use of heating fuels.

This has resulted in energy savings of 4,406 MWh, the equivalent of 16 per cent of annual usage and an annual financial saving of £104,000.

### What it means to win

*The University of Cambridge is committed to continually improving its environmental performance and is delighted to now have its achievements recognised in this way.*

*Paul Hasler, Energy Manager, University of Cambridge*

What the judges say

*The judges were particularly impressed by the level of data produced within this entry and felt that this model offered a practical example of how to reduce building related carbon emissions. It was considered to be a model that could be easily replicated across the HE sector, to improve the control of heating systems.*





# Highly Commended

## University of Central Lancashire (UCLan)



### Carbon Reduction

#### *An International Model for Sustainability*

#### Project snapshot

UCLan has adopted a holistic approach to its carbon reduction strategy, embracing all aspects of sustainability and encompassing everything from its building portfolio to its transportation, procurement, ICT and academic courses.

The University's approach to carbon reduction links in with its Sustainable Development Strategy and spans the entire institution. Seven key objectives each have a working group of experts drawn from the University's academic staff, support staff, students and trade union representatives.

Each group is responsible for achieving their set objectives, including the design of campaigns and the prioritisation of actions. In addition to the working groups, the University also has four forums set up in order to increase the effectiveness of its work on Biodiversity, Community, ICT and general staff concerns.

The University had demonstrated the benefits of a focused approach to carbon reducing projects and has seen a 5.2 per cent carbon emission reduction over a three-year period 2005 – 2007.

#### What it means to win

***"We believe that universities are in the ideal position to take a lead in the drive to reduce carbon emissions, combat global warming and influence future generations to embrace sustainable living. This award confirms our position as a national leader and a truly progressive organisation within this field."***

Ruth Taylor, Energy and Carbon Management Officer, UCLan



*The judges felt that the University of Central Lancashire offered a focused and co-ordinated effort across the whole organisation, setting clear goals and implementing a defined action plan.*

*They also felt that this comprehensive approach enabled the university to concentrate on areas such as procurement, which were not covered by other organisations.*

What the judges say

# Winner

## Warwickshire College

Colleges and Smaller Institutions  
*Journey Towards Sustainability*



### Project snapshot

Warwickshire College demonstrates an excellent strategic approach and shows how clear behaviours, policies and procedures enable everyone within the College community to recognise how they can contribute towards a sustainable future.

Over a five-year period the Management Team has worked with students, staff and other stakeholders to make sustainability core to the College. This has resulted in a cultural shift and the adoption of a four-strand approach to sustainability, encompassing:

- Exposing learners to sustainability through the curriculum
- Making sustainability key in management decisions
- Improving environmental efficiency
- Working with wider communities

This strategy underpins the College's central values that '*put the learner first; deliver the highest quality in all we do; and promote a fair, open and respectful culture.*'

Key actions have ranged from a recycling strategy and development of renewable energy systems, to curriculum enrichment with new courses having sustainability at their core and theme weeks to raise awareness.

### What it means to win

*This award provides meaningful public recognition for the proactive approach taken by Warwickshire College on our journey towards becoming an ever more sustainable institution. It rewards and recognises staff and students who have embraced the ethos and culture for a better, more sustainable future.*

Dr Diane Whitehouse, Programme Manager, Warwickshire College

What the judges say *This entry recognised the long journey towards sustainability, while offering a strong, integrated and strategic approach. It showed a strong balance between curriculum, estates, social responsibility, waste management and energy use and tangible examples of success.*



# Highly Commended

## Bedford College

Colleges and Smaller Institutions  
*Embedding Sustainability*



### Project snapshot

Bedford College demonstrated a strategic and wide-ranging commitment to sustainability. Environmental initiatives are driven across all areas of college life by a team of 28 Sustainability Champions. This proactive framework has led to significant improvements ranging from reduced energy consumption, to increased recycling of waste, reduced car usage and a very high level of stakeholder engagement.

Bedford College works hard to establish networks, develop sustainability projects and drive campaigns in order to achieve maximum benefit. It has contributed significantly to many FE sector developments.

One area of particular expertise is the College's track record in running sustainability courses. However curriculum initiatives are not implemented in isolation and a great deal of thought and effort has been put into incorporating sustainability into college operations and external partnerships. For example, the College's recent collaboration with EEDA to finalise the business case for a regional Pathfinder Innovation Centre for Sustainability (PICS) project.

### What it means to win

*"Winning a Green Gown Award for Colleges gives Bedford College staff and students well-deserved recognition of their achievements to date and will help to accelerate the pace of our journey to become a totally green institution."*

Esin Esat, Director of Sustainability, Bedford College



*The judges were impressed by the whole College's commitment to sustainability combined with its support for broader, sector-wide developments and in particular how sustainability has been strongly embedded within the curriculum.*

What the judges say

# Highly Commended

## Harper Adams University College

### Colleges and Smaller Institutions *What Makes Students Switch Off?*



#### Project snapshot

An investigation into the factors that influence energy-use amongst students was at the heart of this dynamic project, which resulted in real long-term behavioural changes. The college ran a unique, research-based campaign, which shed light on student attitudes, by studying student decision-making and the reasons why energy-saving campaigns can sometimes fail.

The findings highlighted the point that in-depth feedback on energy reduction was not necessarily the best approach to bring about changes in behaviour within the student community. Instead the researchers concluded that more needs to be done to educate resident students, even those who are environmentally aware, about the 'whole-life' costs of energy use.

The direct cost of the project was under £1,000 and resulted in a number of environmental and social benefits, including: a broader appreciation of the College's approach to energy-management; research into an acknowledged, but under-researched component of demand-side energy management; identification of key factors within student behaviour and understanding; and information that can be shared with and benefit other institutions in their energy management planning.

The findings also led Harper Adams to revisit a number of environmental measures to make them more inclusive and effective. These included a new travel plan, local food sourcing and comprehensive mapping of waste streams.

#### What it means to win

*"As a land-based institution we are committed to the environment. Winning an award for research outside our traditional disciplines demonstrates how sustainability has become culturally embedded in our decision-making and practice. It shows how we have grown in our approach to the wider impact of our institution on the environment."*

Jaclyn Green, Corporate Communications Manager, Harper Adams College

What the judges say

*This entry demonstrated how a focused approach in one area can prompt strategic changes and result in clear financial and carbon savings. Harper Adams University College offered a good example of how an initiative can act as catalyst for change and contribute towards a wider institutional strategy.*



## University of Bradford

**Continuous Improvement – Institutional Change**  
**Ecoversity – Beyond Greening**



### Project snapshot

The University of Bradford's ambitious change management programme, designed to create systemic change across institutional practices, behaviours and norms, has demonstrated a major step-change in many areas. This project demonstrated how environmental performance, curriculum, staff and student engagement and community involvement have all been impacted. Clear evidence of deeper cultural and behaviour shifts was also given.

'Ecoversity' has evolved over a five-year period and includes clear targets and a road map to enable the University to chart progress and plan future directions.



Environmental and social benefits achieved to date span everything from reduced carbon emissions and an integrated transport policy, to a green buying strategy, increased recycling rates and a buy and make local food policy. Significant shifts have taken place in relation to campus planning and estate management, while a sustainable development curriculum initiative is embedded in all courses regardless of discipline. To date two academic schools, nine academic divisions, impacting 2,500 students and 1,500 staff members.

### What it means to win

***"Winning will promote Ecoversity to the sector and wider society. It will demonstrate how to bring about institutional change management around sustainable development and will give us confidence to go further and maintain leadership within the sector."***

**Emma Griffiths, Ecoversity Programme Officer, University of Bradford**



***This ambitious project demonstrates that with the right strategy and commitment, change towards sustainability can be actioned across an entire institution spanning estates and facilities, student and academic activities. It demonstrates strong senior management support, academic commitment across all subject areas and student engagement.***

What the judges say



# Highly Commended

## Pembrokeshire College

### Continuous Improvement – Institutional Change *Embracing the Sustainable Challenge*



#### Project snapshot

Pembrokeshire College has demonstrated how a smaller institution can 'punch above its weight' and provide innovation and leadership within the sector.

Triggered by an energy audit in 2003, the College set out to reduce its energy consumption and improve sustainability. Since then a continuous improvement programme has been in place, touching on all areas of college life from building fabrics and new equipment to software programmes, staff and student awareness.

In order to support this, the College has restructured how it manages environmental issues and established a Sustainable Development and Environment Committee to oversee all key environmental initiatives, such as energy consumption, transport and waste management.

This approach has resulted in significantly reduced energy consumption. Electricity consumption is down by 20 per cent over five years and gas consumption down by 54 per cent over the same period. Water consumption has also fallen by 51 per cent.

#### What it means to win

*"Winning is a deserved accolade for the staff and students at the College, who have shown commitment for the environment and sustainability, by developing and implementing various initiatives over the past five years. Achieving an award will support and encourage future initiatives."*

Steve Jones, Director of Estates and Facilities, Pembrokeshire College

*Pembroke College put forward an impressive entry, with impressive data. We hope to see the college build on its community involvement in the future and to share its successes with local organisations.*





## University of Leeds

### Continuous Improvement – Specific Area *University of Leeds Transport Plan*



UNIVERSITY OF LEEDS

#### Project snapshot

The University of Leeds' leading edge transport plan has surpassed its ambitious launch targets, with car usage down by a significant 30% since 2004.

The plan encompasses a suite of travel initiatives designed to reduce dependence on private car usage and improve environmental performance. These range from a carshare scheme and discounted regional travel cards to secure bicycle storage and showers and a cycle mileage allowance. Key achievements include:

- An ongoing investment programme of £150k per year
- 400 people registered with the University car-sharing scheme – saving 190 tonnes of CO<sup>2</sup> per year
- An increase in cycle parking of 60% to nearly 900 spaces
- 1,000 university cycle maps distributed

Working in partnership, the initiative has been jointly developed with Leeds City Council, Metro and the West Yorkshire Public Transport Executive. It operates under the stewardship of the Deputy Vice Chancellor and develops in consultation with both staff and students.

The Transport Plan has set targets and measures progress against a 2004 baseline; provides an ongoing investment programme and identifies priorities in shaping future initiatives.

#### What it means to win

***"Winning the award for our transport programme acknowledges and rewards the contributions made at all levels by staff and students. It gives recognition to the success of our programmes and will act as a driver for future initiatives."***

Keith Pitcher, Sustainability Manager, University of Leeds



***University of Leeds demonstrated a comprehensive plan, well integrated with the local community. A really strong ongoing scheme, it provides advice and guidance as well as incentives and demonstrates environmental, business, community and health benefits. It has achieved considerable results but has potential to go even further.***

What the judges say

# Highly Commended

## University of Hertfordshire

### Continuous Improvement – Specific Area Improving Resource Efficiency



#### Project Snapshot

University of Hertfordshire have showcased excellent progress in waste management. In 2002/3 only 5% of waste at the University was recycled, today it is recycling more than 60%, with rates having doubled over the past 12 months.

A new waste management system has increased participation and improved awareness. Key activities include:

- Development of a new waste management contract and tender assessment process
- Comprehensive awareness building and campaigning
- Training and consultation events
- A centralised waste compound to maximise recyclables collection and segregation

Looking ahead, the University has developed a Waste and Resource Management Strategy, which aims to see 90% of waste recycled by 2013/14 and a 50% reduction in the volume of waste produced.

The University has made excellent progress already and has demonstrated continuous improvement against the goals set in the Strategy, with recycling rates increasing dramatically by 30% in 2007/8 to 62% so far in 2008/9.

#### What it means to win

***"Winning an award for continuously improving waste management demonstrates the University's commitment to continual environmental improvement through gaining sector recognition. It recognises the achievement of all stakeholders and provides a platform for best practice to be shared with others."***

**Katherine O'Brien, Environmental Co-ordinator University of Hertfordshire**

What the judges say

*This entry showcased a good all round scheme, supported by strong data. It showed that the University had explored different ways of doing things and was able to benchmark considerable improvement since its inception.*



## University of Warwick

**Continuous Improvement – Specific Area**  
*From Good to Great: Ongoing Improvements  
to Combined Heat & Power*



### Project Snapshot

An extensive combined heat and power (CHP) and district heating system has been at the heart of Warwick University's energy management and carbon reduction strategy since its introduction to the campus. While major savings have already been made, this project demonstrates how the University is not sitting back on its laurels, but striving for even greater energy optimisation.

In 2007-8 the CHP system energy efficiencies were more than 8,000 tonnes and £1 million. Today the system is one of the largest in the UK – showcasing how to introduce and subsequently optimise a decentralised communal energy system.

Significant recent enhancements have included the installation of two large thermal stores to store surplus heat from the CHP engines, prior to use during peak times. Also, the innovative use of local absorption cooling plant and the integration of district cooling circuits as a key part of the carbon management programme.

In 2007-8 the CHP plant generated in excess of 25,000,000 kWh of electricity, equivalent to the average consumption of 5,000 homes.

### What it means to win

*"Having striven to raise the profile of environmental and sustainability issues at Warwick, an award provides high profile external recognition of the efforts of a wide range of staff, students and other stakeholders across the University."*

Nick Hillard, Environment Manager, University of Warwick



*This is a big scheme that is making good use of older technology – an important aspect of sustainability. The entry showed clear financial and environmental benefits.*

What the judges say

# Winner

## University of St Andrews

### Courses

#### *Sustainable Development Undergraduate Programme (SDUP)*



#### Project snapshot

The University of St Andrews' Sustainable Development Programme demonstrates innovation, excellence and educational impact. It offers a unique, interdisciplinary programme and explores a new relationship between knowledge and society.

Through the programme the University has engaged a wide range of academic disciplines combined with external institutions.

The SDUP stands apart because it is transgressive – it opens up new lines of intellectual endeavour and seeks to nurture future leaders in Sustainable Development (SD).

Teaching on core Sustainable Development modules is undertaken by 11 schools across the University. Students combine SD modules with self-selected partner discipline modules alongside specialist SD pathways.

Since the programme was launched five years ago, student numbers have grown rapidly to approximately 285 students in the first year, 90 in the second year and 25 students in each of the two honours years. Growth in this academic area has led this year to the appointment or current recruitment of 3 core lecturers and a Chair in SD, with over 55 staff actively contributing. Interest in sustainability has cascaded across the University.

#### What it means to win

*"Winning a Green Gown Award means validation of the hard work we have put into bringing this visionary course to life. It sends a message that you can successfully be innovative and try new approaches in higher education; that a change towards transformative education is possible."*

Rehema White, Sustainable Development Programme Coordinator, University of St Andrews

What the judges say *The hard work and commitment of the university staff who have brought this course to life is obvious and the speed of its growth impressive. This unique interdisciplinary approach is well integrated with the intellectual process of what is taught and reflects great depth in what is being done.*



## University of Bradford

### Courses

*From Archaeology to Zoology – ESD for all*



### Project snapshot

Bradford University has shown clear vision and commitment when demonstrating how an institution can successfully embed Education for Sustainable Development (ESD) within ALL taught courses.

A programme to embed ESD in all University courses has run since 2006 and with 12,000 students and over 700 courses, the scale of the initiative is enormous. In order to move from policy and strategy through to implementation the following measures were adopted:

- The UNESCO framework for ESD was adopted
- A curriculum review of all academic courses was undertaken
- ESD pioneers were seconded to champion and facilitate the project
- A university-wide review was implemented

The scheme has influenced the University's teaching and learning strategy and corporate strategy along with individual practitioners. Good practice has been identified and shared internally and a culture of innovation and pedagogic research supported.

### What it means to win

*"A Green Gown Award is a mark of achievement for our ambitious curriculum programme. It provides recognition of major achievements and progress to date and inspires confidence for us to accelerate the process. We hope our work will inspire other institutions to look to us for lessons and advice and encourage them to adopt a similar bold approach."*

Emma Griffiths, Ecoversity Programme Officer, University of Bradford



*Bradford University demonstrated rapid progress, clear vision and a strong focus on skills development. The judges were also impressed by the fact that the programme touched on less obvious subject areas and that it also reached out to the local community.*

What the judges say



# Winner

## Queen Margaret University Edinburgh

### Green ICT

#### RE:LOCATE Thin-Client Project



Queen Margaret University  
EDINBURGH

#### Project snapshot

Queen Margaret University has demonstrated how thin-client infrastructure can be used to significantly improve energy and environmental performance across a new build site.

Innovative ICT practices are at the heart of the University's new campus, maximising economies of space and energy usage and offering environmentally sensitive solutions to design problems.

The Thin-Client infrastructure means that users do not have hard drives at their desks. Instead processing is performed on central servers and users have low power terminals.

The use of this technology has minimised heat generation – so reducing the need for ventilation. Consequently, the building design requires minimal air conditioning and mechanical ventilation. Instead the design is based around natural ventilation – supporting the campus objective of low carbon, low energy.

The use of Thin-Client technology has delivered direct energy savings of approximately £47,000 per year, compared to use of the equivalent number of PCs. While a 5-6 year terminal replacement cycle is bringing lower replacement costs compared with traditional PCs and a reduction in waste output.

Cost benefit analysis indicates savings of over £600,000 in three years across all areas, compared with the use of equivalent numbers of PCs.

#### What it means to win

*"Winning provides much-deserved recognition to the staff who delivered this project, and by raising their profile, gives them further opportunities to share the expertise they have developed, within and beyond the HE sector. Such knowledge-sharing will enhance the University's reputation and help to find further ways of developing sustainably."*

Jane Scott, Director of Marketing and Communications, Queen Margaret University

What the judges say *The key aspect of this submission was the way in which it showed an integrated approach to buildings and ICT and the additional effects on the culture of learning in an institution. The judges also liked the efficiency gains in terms of square footage. The sector as a whole will be able to use QMU as a reference site and will be able to follow their experience with Thin-Client as it unfolds.*





## Cardiff University

### Green ICT

#### A Green Supercomputer & Datacentre



### Project snapshot

Cardiff University's project couples energy efficient technology with service consolidation – resulting in a state-of-the-art new build datacentre designed to enhance the research ambitions of the University, while using the most efficient environmental and energy performance available.

From planning to procurement to final implementation the project took approximately one year. It was designed and built as part of an overall University SRIF-3 HEFCW grant of £2.9m for both the Supercomputer and Datacentre.

Key aspects of the technology employed include:

- The first UK site to install the latest Intel low power quad core harpertown/seaburg processors
- Investment into a highly integrated water-cooled hot-aisle containment solution with scalable UPS – the first installation in Europe
- R&D teams dedicated to maximising environmental efficiency of the Supercomputer

The efficiency of the overall solution in terms of the energy, implementation and performance has established this facility as an exemplar to other institutions across the country and worldwide.

### What it means to win

***"Recognition by peers of a Green Gown Award is a marvellous achievement and provides excellent reward to the many people involved in establishing the centre. It will help to endorse the commitment to the University to sustainable futures and commend this as a recognised green HPC solutions to other institutions."***

**Prof. Martyn Guest, Director of Advanced Research Computing @ Cardiff University**



*The judges felt that this entry had many strengths. They considered the datacentre to be a beacon of good practice for the sector and liked the willingness of the Cardiff team to share its knowledge with others.*

What the judges say

# Highly Commended

## Imperial College London

### Green ICT

#### *Greening the Supply Chain using ICT*

**Imperial College  
London**

### Project snapshot

Imperial College London's project looked at sustainability in purchasing and provides best practice guidelines that can benefit not only the sector but also the wider supplier community. It examined the procure to pay cycle and focused on how the College could improve sustainability and efficiency by taking unnecessary resources out of the business process through the use of leading edge technology.

The project had two main drivers. Firstly to review existing business processes such as changing invoice approval from manual paper to a fully automated exception driven process. Secondly to utilise the latest, cutting edge technology including online catalogues, xml order transmission, web-based document storage and electronic invoice exchange.

The combined effect of the project was to remove 2,267,901 pieces of paper from the whole process over its duration, while the project paid for itself in its first year.

### What it means to win

***"A Green Gown Award is a catalyst and will help drive commitment to develop the sustainability agenda within the College. The award recognises us as a beacon of best practice within the institution and will encourage further improvements across all our operations."***

**John Whitlow, Head of Purchasing, Imperial College London**

What the judges say *This was a good example of ICT as an enabler of change in the sector. The thoroughness of the approach and the metrics of the environmental gains were very positive points. Although the adoption of e-Procurement is widespread in the wider economy, in the HE and FE sectors it remains a rarity.*



# Winner

## University of Sussex

### Research

#### *Informing the Global Deal on Low Carbon Technologies*



### Project snapshot

The University of Sussex's research project focuses on the development and deployment of low carbon technologies in developing countries, with the findings used to inform United Nations negotiations in their work to secure a new global deal on climate change.

For the project, the Sussex Energy Group SPRU (University of Sussex) teamed up with an internationally renowned Indian institution: The Energy and Resources Institute. The project has been overseen by senior government officials from India and the UK and has interacted extensively with stakeholders from Industry, Government and Civil Society.

The results of the first phase of research – on barriers to low carbon technology transfer – were published in 2006. The second phase is currently being finalised. It addresses specific issues such as intellectual property rights and the scope for overcoming barriers through collaborative innovation. The results will inform preparations by negotiators for this year's crucial UNFCCC meeting in Copenhagen.

### What it means to win

***"Winning a Green Gown Award would mean a tremendous amount to the University, and the Science and Technology Policy Research Unit, by demonstrating that whilst renewable technology is important, it is a robust policy framework which defines the propensity for innovation and the transfer to a low carbon economy."***

Patrick Pica, Energy and Environment Manager, University of Sussex



***This research to help identify policies for the development and deployment of low carbon technologies in developing countries may have a very high global impact. The research brings together a leading UK team with researchers in India and there is already evidence of take up of this research.***

What the judges say

# Highly Commended

## Edinburgh Napier University

### Research

#### *Integrated Collector Storage Solar Water Heater*



### Project snapshot

In a period of rapidly growing deployment of sustainable energy sources, the exploitation of solar energy systems is imperative. This research was conducted with the primary goals of developing an affordable, optimised and feasible Integrated Collector Storage Solar Water Heater (ICS-SWH) prototype for UK weather conditions and to develop a new tool to model ICS-SWH performance.

Laboratory and field experiments were undertaken, these were followed by the development of a thermal macro-model able to compare temperature variations in different ICS-SWH designs. A life cycle assessment was carried out and finally a study to show how the ICS-SWH could be integrated into buildings.

The research resulted in: -

- A modelling tool able to predict the bulk water temperature of the ICS-SWH for any orientation and location in the world
- Improvements to the ICS-SWH design through the use of Computational Fluid Dynamics (CFD)
- A prototype with high commercial potential, due to its environmental and monetary benefits

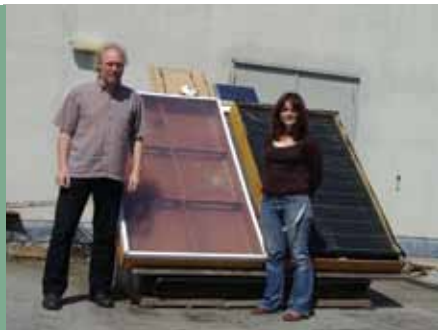
The University is now seeking to commercialise the design and is speaking to major UK house builders and manufacturers, with a view to having the newly developed ICS-SWH specified as a standard installation in achieving zero carbon housing.

### What it means to win

***"We believe that winning this prestigious award will afford an opportunity for developing a fundamental energy saving product in a market which needs sustainable solutions."***

*J Currie, Director of the Scottish Energy Centre, Edinburgh Napier University*

*This is a practical and thorough research project, into an important area for the mitigation of climate change and it looks likely to lead to the commercialisation of the technology.*



## Lancaster University

### Residences

#### Lancaster University Eco-residences



### Project snapshot

Lancaster University's project demonstrates how new build student housing, designed to incorporate high levels of environmental performance and have significant social benefits can be delivered at an affordable cost.

The County and Grizedale Eco-Residences comprise new-build student townhouse style residences and cluster flats, conceived to provide minimal emissions and excellent user information, in order to provide a sustainable yet comfortable living environment.

The carbon footprint per student per year (for townhouses in 2008) was 16% below design criteria and 30% below building regulation requirements. Utility data from Spring 2009 shows a further 11.3% reduction in carbon emissions.

The Eco-Residences demonstrate a number of key features including: design to minimise the use of construction materials; design to be energy and resource efficient; use of sustainable and renewable construction materials; thermal space heating minimised and controlled; ventilation with heat recovery; energy efficiency through design; and minimised water usage.

The project also showed a number of social benefits including student input into the design, resulting in an improved provision of shared social spaces, as well as lower rents, which have been controlled to reflect the reduced level of facilities management servicing required.

### What it means to win

***"A Green Gown Award is a fantastic vindication of the radical approach of Lancaster University in building the Eco-Residences. It gives us formal acknowledgement to the innovative, sustainable construction techniques and inclusive approach to student input."***

*Jonathan Mills, Environment and Sustainability Manager, Lancaster University*



***The judges were very impressed with the holistic approach taken, which included addressing the full carbon footprint of the construction process. They particularly liked the interaction with the students and passing on the benefit of lower costs to them.***

What the judges say



# Highly Commended

## Kingston University

### Residences

#### End of Term Halls Donation Scheme

Kingston University London

### Project snapshot

The Kingston University End of Term Donations Scheme ensures that students can donate their unwanted items on site at any Kingston University Hall of Residence and feel confident that they will be re-used within the local community.

The scheme is a positive example of closed loop re-use and partners with 14 beneficiary organisations – half of which are based within a 2 mile radius of the University.

In 2008 through the scheme the University donated an exact weight of 5,154.87kg, diverted from landfill. 5% per cent was then sold back to students at Freshers Green Fayre – providing finance to pay for the following year's posters.

The scheme has also resulted in behavioural changes. Students participate in the scheme during their first year at University, allowing them to practice waste management from the outset and develop sustainable behaviour principles for the future.

It has also helped local community relations, with partnerships developed with local groups who are appreciative of the donations.

### What it means to win

*"The scheme we have developed is in itself rewarding. However a Green Gown Award represents high profile recognition of our initiative and commitment. It says to people, 'This is right. It's what, as educationalists and community players, we should be doing... lets continue... what else can we do?'"*

Hannah Smith, Sustainability Projects Co-ordinator, Kingston University

What the judges say

*This is a good example of a University using its own resources to create local solutions, achieve cost neutrality and produce a future legacy. The project addressed a common problem, in a way that has sector wide application.*





## Queen Mary, University of London

**Social Responsibility**  
*Clean Living: The Return of In-House Cleaning*



### Project snapshot

In 2006 Queen Mary, University of London committed itself to being the first 'living wage' campus in the UK. As part of this initiative, in 2008, it brought its non-residential cleaning service back in-house, after 15 years with subcontractors.

The cleaners' wages and conditions improved dramatically and they now have access to training and a career development structure. Wages are now more than 48.5% above the National Minimum Wage at £8.68 per hour and the cleaners also enjoy the benefits offered to other Queen Mary employees. The move in-house has also seen improvements in productivity and service standards. While cleaners have taken responsibility for recycling, making a contribution to sustainability.

As a result of this initiative the College has enhanced its reputation as a good employer in the local community, as an ethical institution in the eyes of students and as a beacon for other employers in London and beyond. 90% of the cleaning staff have taken an NVQ qualification and all are now subject to an annual appraisal. 89% of cleaners surveyed said the College was a better employer than the previous contractor.

Many cleaners live locally, often in disadvantaged parts of London's East End. So offering them better pay and conditions has had a positive impact on their lives and the College's standing in the local community.

### What it means to win

*"We would be delighted to win this award. It independently recognises our commitment to become the first 'living wage' campus in the UK; acknowledges our determination to improve conditions for staff; invest in their futures and boost service standards; and enhance our reputation nationally as a socially responsible employer."*

Ray O'Halloran, Deputy Directory, Campus Services at Queen Mary



*This project is clear, focused and inspirational. Though regionally focused in terms of wages, the implications will be deeply positive for those affected in terms of job/financial security and self esteem. A direct impact with far reaching, positive outcomes, which is what social responsibility is all about.*

What the judges say

# Highly Commended

## University of Brighton

### Social Responsibility

#### Community University Partnership Programme (CUPP)



University of Brighton

Community  
University  
Partnership  
Programme

#### Project snapshot

This joint initiative demonstrates how a community partnership programme can develop real solutions to real problems. CUPP uses University resources to tackle disadvantage and promote sustainable development.

Its achievements to date span everything from supporting vulnerable adults and children to using campus grounds to grow vegetables alongside local people.

CUPP includes a number of key elements: -

- Community-based research – working on joint projects with community groups in order to share and develop expertise
- The CUPP Helpdesk – a point of entry to the University for local community organisations interested in potential partnerships and collaboration
- Student community engagement – this could be a practical project or community-based research, undertaken by students as part of their curriculum
- CUPP research and development – includes a regular conference bringing together academics from the UK and abroad and third sector organisations

Since 2004 CUPP has responded to 900 Helpdesk enquiries; involved over 300 students annually in community engagement projects as part of their accredited learning and initiated over 100 knowledge-based partnerships.

#### What it means to win

*"Visibility via Green Gown will help others recognise the range and quality of CUPP's activities. Exceptionally in the UK, the University covers CUPP's core costs. The Award gives the University national recognition for this. It will also give us further opportunities to attract funding to extend our valuable work."*

Professor Angie Hart, Academic Director, CUPP

What the judges say *Interacting across a range of areas, with a variety of groups, whilst involving students in the process makes this a cutting edge programme. It is a powerful example of partnership working, which is key to social responsibility programmes. It offers a genuine sense of exchange with and response to local community needs.*



## Leeds University Union

### Student Initiatives

#### *Water Shouldn't Cost the Earth & Green Streets*



#### Project snapshot

This bold student-led initiative tackled two topical sustainability issues – the needless purchase and use of bottled water and the volume of student waste going to landfill. The solutions devised challenged the 'status quo', offered clear leadership and well thought out, practical alternatives.

In December 2008 the Student Union voted to ban bottled water and replace it with water fountains and sustainable, reusable water bottles. An information campaign was run, inviting students to 'taste the difference'.

The Union is committed to sourcing sustainable water bottles, installing a minimum of 5 water fountains and stopping the sale of bottled water by April 2010.

The annual Green Streets project collects and redistributes unwanted goods from students in Leeds. In 2009, 12,000 households were targeted covering halls and private accommodation, landlords and members of the public.

From a small team of volunteers collecting items from Halls of Residence in June 2006, this scheme has grown to collecting and diverting over 8,000kg of waste and has attracted funding, including £15,000 from Leeds City Council to expand the work.

#### What it means to win

*"Winning a Green Gown Award recognises our commitment to putting the planet before profit and helping to create cohesive neighbourhoods."*

Gail Harwick, Student Employment and Reception Manager



*This is an outstanding example of a student-led initiative. It is bold and unusual, offering not just a boycott campaign, but practical alternative solutions. It raises awareness of the critical importance of water as a recycling issue. Furnishings recycling demonstrates practical benefits to the local community.*

What the judges say

# Highly Commended

## Stevenson College Edinburgh

### Student Initiatives

#### *Wikis to Wormeries – A Giant Wiggle for Sustainability*



#### Project snapshot

This innovative scheme started life as a research management project for NQ level TV and broadcast students. Their brief was to explore college-wide commitment to sustainability and suggest improvements and to prove that the students as learners were capable of managing and effecting change. They were then tasked with providing a wiki diary that could be used as a college-wide resource for promoting greater understanding of sustainability.

Four wiki keepers were appointed to channel and edit contributions.

The site quickly expanded to include fundraising to purchase a wormery for a Special Educational Needs class. The location of the wormery in the college's sensory garden triggered several other projects, as well as regenerating interest in the garden itself.

The wiki site now serves as a catalyst for increasing sustainability awareness throughout the student population, spreading good practice, encouraging direct action and fostering debate.

Each new student intake will have the opportunity to add to this legacy and make their mark in terms of global citizenship.

#### What it means to win

*"A Green Gown Award is a fitting contribution to the original wiki students, where a dedication to sustainability influenced and inspired their peers and our institution. Climate change and sustainability are really important to Stevenson College Edinburgh and in particular what institutions can do about climate change."*

Fiona Wilson, PA, Stevenson College Edinburgh

What the judges say

*The judges commended this extremely good quality application and were impressed both by the practical differences the project had made and the fact that it has developed momentum and grown significantly.*



# London School of Economics & Political Science



## Sustainable Construction and Refurbishment

### *New Academic Building (NAB) – BREEAM Excellence Refurbishment Project*

#### Project snapshot

Planning for the refurbishment of the New Academic Building (NAB) began in 2004 with the objective to embody best practice in sustainable refurbishment and act as a benchmark for 'excellence'. From the start the project board identified a desire for environmental leadership within the sector and to set the cutting edge target to contractually require a BREEAM rating of 'very good' with a target of 'Excellent'.

This was the first time that the LSE focused on sustainable construction and set specific objectives to ensure that all impacts of the construction process were minimised and complied with the highest environmental standards.

Key benefits included: 70% of the existing façade was retained; 60% of the existing internal structure was maintained; all glazing was replaced; all lighting has passive infra-red controls and low energy design; heating is by high efficiency, low temperature boilers; all timber used in construction was Forest Stewardship Council certified; 36 secure cycle parking stands were introduced; and a Zero waste management plan was implemented.

This project is the new sustainable standard for future LSE construction and refurbishment projects and clearly demonstrates that BREEAM Excellent can be achieved on a budget, within timeframes, as well as maintaining design quality.

#### What it means to win

*"Winning a Green Gown Award acknowledges the importance for the HE sector to lead in sustainable construction and refurbishment using BREEAM standards. This award demonstrates our commitment at LSE to making sustainable development a reality and will support our efforts to always raise the bar and to achieve excellence in all areas."*

*Julian Robinson, Director of Capital Development, LSE*



*This was a well-evidenced submission with good data, showing how BREEAM excellence for refurbishment was achieved for a modest additional cost. The judges liked the fact that a Post Occupancy Evaluation had been undertaken and considered the project to have had a very integrated approach.*

*What the judges say*



# Highly Commended

## Pembrokeshire College

### Sustainable Construction and Refurbishment

#### First BREEAM Excellence in the UK



#### Project snapshot

The aim for Pembrokeshire College's project was to create a flexible, environmentally sustainable building and learning environment, which could set a benchmark for future projects.

The results have seen Pembrokeshire College's new construction centre become the first Further Education building in the UK to achieve a BREEAM 'Excellent' rating in both design and post construction assessment. The new building provides a high quality learning environment for brickwork and carpentry students.

In constructing the new building the College incorporated a wide range of environmental technologies including: abiomass boiler heating system, providing 29% of the energy demand for the building; a building management system controlling zoned heating; rainwater harvesting; later, electric and heating metering; recycling facilities; solar shading for windows; and a specific cycle plan for the building.

Over a six month period, electric supply consumption has been at 23kwh / per m2 compared with an annual consumption in 07/08 of 84 kwh / per m2.

The investment into this project demonstrates the College's commitment to sustainability and also provides a sustainable learning environment for staff and students, while demonstrating sustainable technologies in practice.

#### What it means to win

*"Winning a Green Gown Award is a deserved accolade for the staff at the college who have shown commitment for the environment and sustainability in developing this project. Achieving this award will support future initiatives."*

Steve Jones, Director of Estates, Pembrokeshire College

*BREEAM 'Excellent' at post construction gives robust evidence of this project's merits. It is a replicable initiative with a strong educational value. The entry showed extremely good evidence of benefits and features.*



# Highly Commended

## Queen Margaret University Edinburgh

### Sustainable Construction and Refurbishment **RE:LOCATE**



Queen Margaret University  
EDINBURGH

#### Project snapshot

Queen Margaret University's new campus exceeds current environmental standards, setting a new benchmark in sustainable design. It has achieved a BREEAM 'Excellent' rating for design, with exemplar achievements in efficiency of space utilization and energy consumption.

Based on criteria relevant to the whole sector, the campus: realises architecturally the pedagogy of student-centred learning; utilises new technologies, maximising economies of space and energy usage and offering environmentally sensitive solutions; sets benchmark standards for sustainable building in the HE sector; and realises the University's vision of becoming a true community asset, accessible to local people. The campus has also been designed to be open and accessible to the local community for leisure, education and recreation. The biodiversity landscape works as an educational and community resource and is used by local people.

The site's carbon footprint for heat generation is one of the lowest in the HE sector in the UK at 2.8kg CO<sub>2</sub>/m<sup>2</sup>. This is predominantly achieved through the use of a biomass boiler.

Energy efficiency has been maximised through intelligent design that incorporates air tightness and maximises daylight and natural ventilation. Water conservation solutions such as low flow cisterns and leak detection have led to low water consumption levels, down 28% on the previous estate. The project also embraces the latest ICT including 1,200 thin client terminals in the Learning Resource Centre alone.

#### What it means to win

***"Winning an award shows how sustainable development can work alongside addressing the agendas of 21<sup>st</sup> Century Higher Education. The Award gives QMU staff further opportunities to share the expertise they have developed, within and beyond the HE sector."***

**Jane Scott, Director of Marketing and Communications, Queen Margaret University**



*This comprehensive project had a number of very positive attributes. It demonstrated commitment to sustainability, alongside a holistic and embedded approach. The entry highlighted a high level both of performance and accreditation with particular innovations relating to ICT and space efficiency. It also demonstrated good community integration.*

What the judges say

# Winner

## Warwickshire College

The BIS Award – for Outstanding Contribution to Sustainability in an English College or University



### *Journey Towards Sustainability*

The message from Warwickshire College is a powerful one and one which speaks to every college, adult education centre, work based learning organisation and university in the land.

With vision, leadership and a coherent and comprehensive strategy, sustainability can deliver huge, educational, economic, social and environmental benefits.

Engaging students and staff across the whole college, in five years Warwickshire has put sustainability at the core of college culture. One-off actions are not enough.

### **What the judges say**

*From every 1<sup>st</sup> year FE student being exposed to sustainability enrichment, green technology training to support employers, campus biomass boilers, a recycling strategy, sustainability theme weeks, healthy and local food procurement, etc. Warwickshire has certainly gone on a comprehensive and strategic journey. The college raises the bar and is a beacon lighting a new and more sustainable path for the whole sector.*



# 2009 Green Gown Award Judges

**AoC** – Association of Colleges

**AUDE** – Association of University Director of Estates

**AUE** – Association of University Engineers

**AURIL** - Association for University Research and Industry Links

**BRE** - Building Research Establishment

**BUFDG** – British Universities Finance Directors Group

**The Carbon Trust**

**CUBO** – College and University Business Officers

**DIUS** - Department of Innovation, Universities and Skills

**EAUC** – Environmental Association for Universities and College

**EPSRC** - Engineering and Physical Sciences Research Council

**Forum for the Future**

**Guild HE**

**HEA** – Higher Education Academy

**HEEPI** – Higher Education Environmental Performance Improvement

**HEFCE** – Higher Education Funding Council for England

**HEFCW** - Higher Education Funding Council for Wales

**JISC** - Joint Information Systems Committee

**LSC** – Learning and Skills Council

**NERC** – Natural Environment Research Council

**NUS Services** – National Union of Students

**OFSTED**

**People and Planet**

**Salix Finance**

**SFC** – Scottish Funding Council

**Student Force**

**UCISA** - Universities and Colleges Information Systems Association

**UUK** - Universities UK

**UTC** – Universities that Count

**Disclaimer:** The credibility of the Green Gown awards rests with the independence of its judges. Due to potential conflicts of interest, this year, several potential judges stood down to ensure a fair and unbiased process.

## Green Gown Awards 2010



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The Awards are run in collaboration and governed by a cross agency steering group with key sector bodies:



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