



APPLICATION FOR GREEN CAMPUS AWARD RENEWAL 2016

SUBMITTED BY GREEN CAMPUS COMMITTEE, UNIVERSITY COLLEGE CORK TO ENVIRONMENTAL EDUCATION UNIT, AN TAISCE, MAR. 2016



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Contents

Chapter 1: About UCC Green Campus	2
UCC Campus	3
Campus Maps - General - Smartphone App	3
Campus Maps - Guided Green Tour of Campus by smartphone	4
Chapter 2: Green Campus Committee	5
Chapter 3: Environmental review, Monitoring & Evaluation	9
Environmental Citizenship	10
Recycling and Waste	10
Energy, Water and Climate Change	13
Energy	13
Water	15
Climate Change	17
Food	22
Procurement and Contracts	23
Commuting and Business Travel	24
Landscape and Natural Heritage	28
Chapter 4: Proposed Action Plan for 2016+	29
Context and New Direction	29
5 Proposed Key Focus Areas:	29
Consolidation of Operations and Resources:	31
Chapter 5: Links to Learning on Campus	32
Teaching and Learning	32
Research	32
Other initiatives	33
UCC's University Wide Module on Sustainability	33
Chapter 6: Informing and Involving the Campus and Wider Community	35
Communications	35
Connections	35
Chapter 7: Green Charter	38
Chapter 8: Conclusion	38

APPENDICES

Appendix 1:	Draft University Sustainability Strategy
Appendix 2:	PDF map of UCC campus
Appendix 3:	Carbon Footprint Flyer developed by UCC works intern Jemma Doyle
Appendix 4:	WASTE MANAGEMENT IN UCC - A Review of General Waste Management Facilities and Services, D'Arcy 2014
Appendix 5:	WASTE MANAGEMENT IN UCC -Specialised Waste Management Report & Guidelines, D'Arcy 2014
Appendix 6:	Recycling Flyer for students in Campus Accommodation
Appendix 7:	WeForest Report on Tree Planting Project in India following 'Greening Events' project
Appendix 8:	ERI Annual Report
Appendix 9:	UCC Travel Survey
Appendix 10:	Biodiversity Survey of University College Cork Campus 2014 -2016 Interim Report 2014, Caroline Lalor, MSc. MCIEEM, 2015
Appendix 11:	Bryophyte Survey 2014 University College Cork - Main, North Mall and Mardyke Sports Campuses, Rory Hodd, 2014
Appendix 12:	Green Campus Meeting Minutes and other relevant notes

Appendix reports available from Buildings & Estates

Abbreviations:

Buildings and Estates (B+E)
 Full Time Equivalent (FTE)
 Green campus (GC)
 Green Forum (GF)
 Students Union (SU)



Chapter 1: About UCC Green Campus

Founded in 1845, University College Cork, National University of Ireland, Cork (UCC) is one of four constituent universities of the federal National University of Ireland. UCC is a leading Irish educational and research institution: University of the year three times in recent years (2003, 2005 & 2011), with a research income that is consistently one of the highest in the country. The University has approximately 20,000 registered students: (13,342 FTE undergraduates and 4747 FTE post graduates, see Fig 1 below) and 2,800 staff (including academic, research and admin). This is an increase of close to 1000 students and 300 staff since the 2013 assessment.

FTE numbers	2012/13	2015/16
Undergraduate	12681	13342
Postgraduate	4375	4747
Total	17056	18089

Figure 1: UCC Full Time Equivalent Student Numbers 2012/13 and 2015/16

UCC Green Campus is open to all staff and students to join and/or participate in to whatever degree they wish. It was initiated by students from the Environmental Society, who continue to play a key role; in addition to personnel in Buildings and Estates, who are essentially the sustainability managers at an operational level in matters of waste, energy, water, transport and natural resource management; numerous administrative and academic staff engaging in various professional capacities, the Students Union (the Deputy Vice President of which is also affiliated to the Green Campus Committee), a number of other active student societies (e.g. Suas, Philosoph) and ‘unaffiliated’ students and staff who engage in particular events and campaigns. The new university sustainability strategy (in prep, draft Appendix 1) details the overarching sustainability objectives of the university going forward. The Green Campus, Green Forum and sustainability management in general will be merged in the coming years under a single banner.



Figure 2: UCC Green Campus Logo for Social Media designed by student member.

Overarching sustainability objectives of the new UCC sustainability strategy

- Provide for continuous improvement for sustainability in all University activities.
- Cultivate a sustainability culture within the University that is student led, research informed and practice focused.
- Foster sustainability citizenship among the University Community.
- Facilitate participation of all the University community in sustainability initiatives.
- Inform and train all stakeholders (e.g., staff, students, contractors, visitors) to ensure awareness of sustainability issues and the relationship to their own activities.
- Continue the University’s contribution to advancing the sustainability agenda nationally and within academic discourse.
- Play a key role in the societal transition to sustainability through teaching, creating future sustainability leaders and generating new knowledge to facilitate and support a more sustainable future.
- Engaging with local, national and international groups and stakeholders to contribute to more sustainable communities.
- Plan for integration of sustainability into all University strategies, plans and policies as they come up for renewal.
- Actively promote the University, internally and externally, as Ireland’s ‘Green University’.

UCC Campus

The University building stock consists of 250,000m² of buildings across 120 individual properties and 180 acres {73 Hectares} of land. An interactive google based campus map is available¹ along with a variety of other campus maps², a general campus map (also included as Appendix 2 as a pdf and a footnote link), and many maps specifically relevant to Green Campus themes including bus routes, park and ride, bicycle parking, water fountains, heritage displays and more. This is being added to on an ongoing basis.

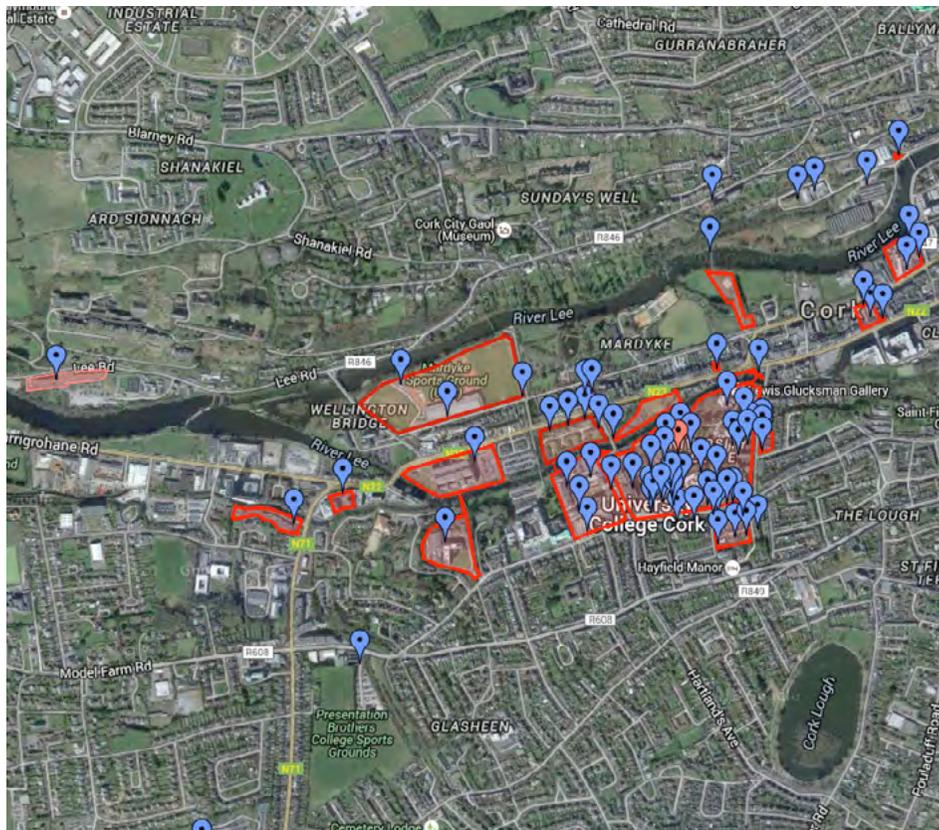


Figure 3: Screen shot of interactive google map of UCC campus.

Campus Maps – General – Smartphone App

Interactive campus maps are also available through UCC Connect, a new smartphone app for life on campus.³

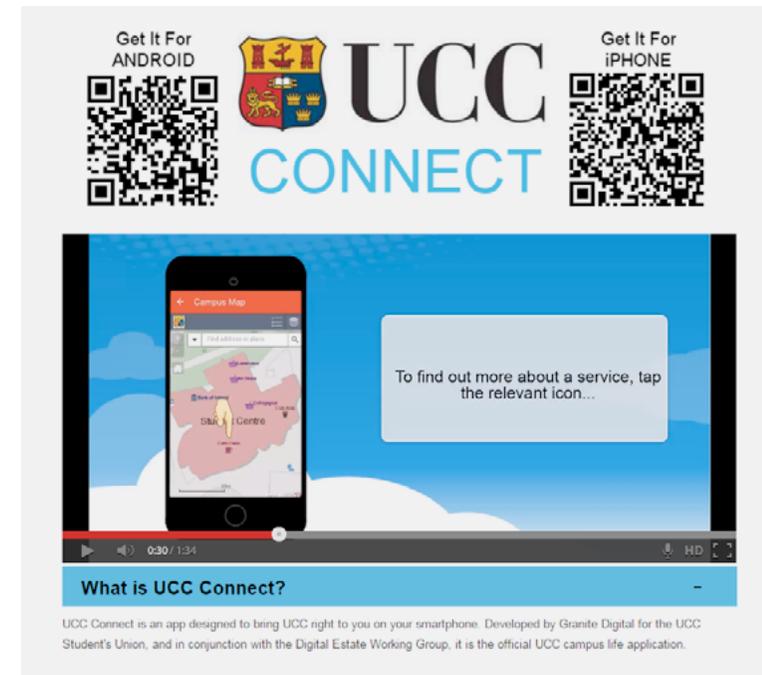


Figure 4: Screen shot of UCC Connect App with interactive maps of UCC campus.

In time a number of 'green' map layers may be added to the smartphone app, ideally via student projects in mapping using Geographic Information Systems.

¹ www.ucc.ie/en/visitors/maps/

² www.ucc.ie/en/media/siteassets/contentassets/maps/UCC_CAMPUS_MAP_23_11.pdf

³ www.ucc.ie/en/sit/faq/app/

Campus Maps – Guided Green Tour of Campus by smartphone

An audio and video guided smart phone app tour of some of the key green features of UCC is being developed. It is hoped that this will be available to launch in early Spring 2016, and freely available to visitors and university community alike.

Edit Tour: UCC Green Campus Walks

The screenshot displays the 'Edit Tour: UCC Green Campus Walks' interface. At the top, there are navigation tabs for 'Intro', 'Stops', 'Map', and 'Link to App'. Below these, a dropdown menu is set to 'Standard Map' and a search box is available. The central map shows a route through the UCC campus with 41 numbered stops marked by red pins. The route starts near the River Lee and passes through various campus areas like Mardyke Walk, Fitzgerald's Park, and the Main Campus. On the right side, a sidebar titled 'Plot Stops on the Map' lists the 41 stops, each with a crosshair icon. The stops include: Welcome to UCC, the ...; UCC Visitor Centre; The Quad; Boole...; Botanic Gardens & Sign.; The O'Rahilly Building - .; The Honan Chapel; Aras na MacLeinn - Stu...; SignificantTree - Chines...; The Lower Grounds; Glucksman Gallery heat...; The Main Gates; and Mardyke Walk.

Figure 5: Screen shot of UCC Green Route Audio Guided Walking Tour App in development

Chapter 2: Green Campus Committee

UCC Environmental Society was reformed in 2006 after a number of years' hiatus. Many members had come from Green Schools and were aware of the programme. They initiated the idea of a 'Green Campus' with UCC staff and An Taisce, which led to the pilot 'Green Campus' project, the awarding of the first Green Flag to a university (UCC) in 2010. The Green Flag rewards long term commitment to continuous environmental improvement from the campus community, and is administered in Ireland by An Taisce (the National Trust) for the global Foundation for Environmental Education.⁴ Since the genesis of the Green-Campus Programme in Ireland in 2007, partially at the behest of the UCC student environmental society, the programme has expanded to include over 20 Campuses, with nine awarded the Green Flag.

Over the years UCC have experimented with different structures and levels of formality in the committee and general organisation of the campaigns and projects. However the basis of how the programme runs is as follows:

- Green campus (GC) committee (GC) meetings are being held on a regular basis to monitor progress of projects, minutes are circulated among all GC members. New members are encouraged to join every year through a number of initiatives which be discussed later in the document.
- Green Forum (GF) meetings monitor progress on larger scale developments around campus. A more formal system (than in the past) of reporting between GC, GF, Students Union and other groups is being developed. More info here.⁵
- Relevant parts of Buildings and Estates track information on performance (energy, water, waste etc.) as part of their work
- All GC documents are accessible to all B+E staff via departmental server
- A google docs system has been established to give easier access to students involved (particularly coordinators in the UCC works scheme) to input and share data. We need to work on how students and staff can have access to the same information.

- The UCC works scheme⁶ provides a structure through which students can carry out projects and provide us with reports on those projects with evaluation points included such as (no matter what the theme or project) describing the baseline, setting a target, carrying out the project, and evaluating the results.

Over the past year a concerted effort was made to try and address issues around the continuity of membership of the Green campus committee from students and staff. A presentation on this was given at the Green Campus Network meeting in Dublin in January 2015) giving many of the details.⁷

There were four main aspects/approaches:

- 1:** Adjustment of committee structure and organisation
- 2:** Development of UCC works awards for Green campus projects in collaboration with the UCC Careers office to encourage and reward interested students
- 3:** Development of accredited postgraduate modules for green campus projects to encourage postgraduate students
- 4:** Forward planning for new student recruitment

⁴ www.fee.global/

⁵ www.ucc.ie/en/greenxcampus/greenforum/

⁶ www.ucc.ie/en/careers/uccworks/

⁷ University College Cork: UCC Green Campus - Towards Continuity and Embeddedness <http://media.heanet.ie/page/7b8c24f7b822a367542e5cbf1f492eaa>

1: The committee roles and associations were restructured and tested over the last few years.

- In the past there was a strong involvement of the UCC Environmental Society in Green Campus, however this engagement had reduced in recent years. In the last year the Green campus committee endeavoured to rejuvenate the links between Envirosoc and Green Campus, including reiterating that the role of a specified Envirosoc officer doubles as a Green campus officer in their constitution. This year while there was more interaction between Green Campus and Envirosoc, including working on a number of projects together, we feel that the current situation of having a separate Green Campus Committee and Envirosoc is not sustainable and we are rethinking the way forward. This is discussed in more detail in the Plan of Action for 2016 onwards (Chapter 4: POA 2016+).
- Key members of staff from the Buildings and Estates Office are members of the Green Campus Committee. The nature of their work and employment with UCC is continuous and the Green Campus work part of their brief. However without specified roles on the Green Campus committee things can fall through the cracks, so a revised structure is suggested. Again this is discussed in more detail in the Chapter 4.
- The Green Campus Committee (GCC) invited and encouraged the Students Union to have a representative on the committee. Last year meetings with the SU Deputy President led to the passing of a motion by the SU to re-establish the link between the two organisations and include a dual role for the SU Deputy President as a member of the Green Campus committee. This has been successful to a degree, with much more interaction between the SU and Green Campus. In addition the Students Union are developing green guidelines for their own operations and to disseminate to e.g. societies and students. However again we discuss an alternative way forward in the Chapter 4.

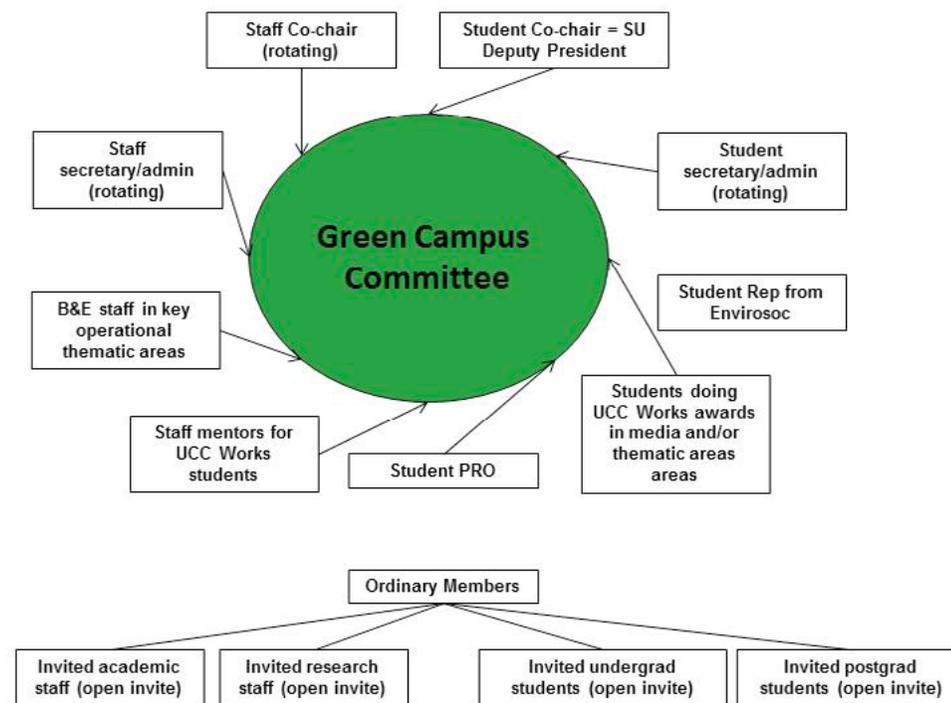


Figure 6: Diagram of idealised structure of UCC Green Campus Committee 2015/2016



2: UCC works awards

A number of these internships/placements were advertised from 2014 to 2016 in collaboration with the UCC Careers office to encourage and reward students who commit to putting in a certain number of hours and show leadership. Overall it was very successful in the 2014/2015 academic year with 7 students coming on board (out of -12 advertised positions), and 5 students coming on board in 2015/2016. Reports back from the students who fully participated in both years suggested that this is a very positive move and a number of them remained involved and hoped to be involved again, e.g. Sarah Nelson, our media intern from last year took on the very active position of PRO on the committee this year. This year one intern, Jemma Doyle, worked specifically on carbon footprints and developed a leaflet and manned a number of awareness



raising stands at various events to encourage people to find out their carbon number and reduce it. (Leaflet attached as Appendix 3). Another intern, Rob Lovett, worked on communications on campus and with other community groups. He participated in a series of meetings with a number of Cork NGOs on our behalf leading up to the Climate Justice March prior to the Paris COP 21 talks. The interaction between these community groups and Green Campus has led to the formation of a new Cork based Climate Action Group.

Figure 7 (above): Images of students accepting UCC works awards for internships with Green Campus (left) & student members of the committee in 2015/2016: Sarah Nelson student & PRO Green Campus, James Upton, Deputy President of Students Union and Co-Chair of Green Campus, and Tadhg Moore, EnviroSoc Representative on the Green Campus Committee.

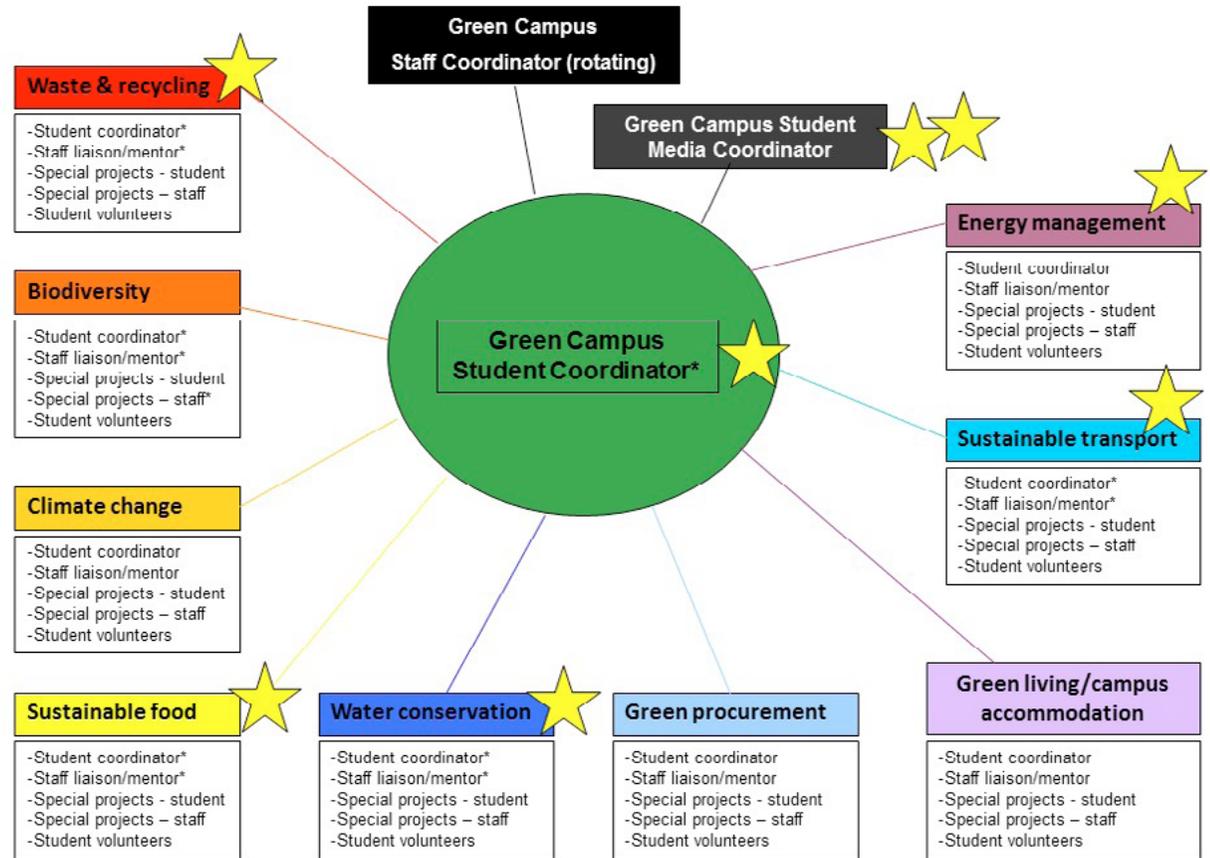
3: Provision of accredited post graduate training modules in green campus projects to allow enthusiastic, interested, able post graduate students to be rewarded/incentivised to take part in extra-curricular green campus activities.

A number of test modules have been developed, passed by the relevant schools, and were advertised to postgraduates in 2015. Two postgraduates in the school of Biological, Earth and Environmental Science carried out preparatory work, coordinated the Bioblitz and are carrying out some further outreach in this area, towards a 5 credit module in their structured PhD programmes. A further two postgraduate students in the Environmental Research Institute working in the area of energy management are carrying out work towards a ‘Greening Events’ project (i.e. offsetting the emissions related to an event in the ERI and another event in the community), again towards a 5 credit module in their structured PhD programmes. (Discussed further in Chapter 4).

4: Preparation for the following academic year in terms of availability of information, opportunities to join, and incentives for students, as well as a basic projected calendar of meetings and planned events paid dividends in terms of attendance of the first meetings and sign-ups to the Green Campus email. This included high levels of visibility and attraction during Failte Fest for freshers, on club and societies days, and the UCC volunteer fair to recruit new students. This will be built on in 2016/2017/18, as discussed in Chapter 4.

Conclusion:

Chapter 4, our plan of action for 2016+ details our proposal to adjust the committee structure, and overall roll and operation of, and participation in, campus initiatives for sustainability.



**Have application process & mentor for UCC works underway*

Figure 8: Images of committee structure tested in 2014/15 using UCC works as a basis for committee structure

Chapter 3: Environmental review, Monitoring & Evaluation

We will structure our maintenance themes and new themes in accordance with our new draft sustainability strategy and address environmental review, monitoring and evaluation in the same section. Official Green Campus themes are referenced [in square brackets], maintenance themes followed by M, new themes with regard to sustainability by New:

- Environmental Citizenship New
- Recycling and Waste [Litter and waste- M]
- Energy, Water and Climate Change [Energy - M, Water Conservation and Protection - M, Climate Change- M, Climate Justice New]
- Food New
- Procurement and Contracts [Procurement] New
- Commuting and Business Travel [Transport and Travel - M]
- Landscape and Natural Heritage [Biodiversity- M]
- Teaching and Learning New
- Research New

Note: The theme entitled [Green Information and Communications Technology (ICT)] is not currently addressed separately. It is integral to how we communicate and interact in many of the thematic areas. However the development of the UCC Connect App and the Guided Green Tour App speak directly to this theme. We may develop this theme separately in the future.



Figure 9: Image of UCC Quad

Environmental Citizenship

Proposed quantitative performance indicators for environmental citizenship

- Number of students and/or staff involved in green campus initiative (#).
- Campus awareness of UCC environmental initiatives
- Numbers involved in on-campus environmental societies (#)
- Number of involved in off-campus environmental organisations (#)
- Participation in sustainability initiatives, activities and societies (%)
- Green flag status
- Number of student organisations relating to the environment (#)
- Number of students involved in sustainability organisations (#)

Environmental or sustainability citizenship is a key part of the new sustainability strategy. The University is cognisant that each of us, individually, is an integral part of the wider environment and accordingly should act as good citizens of Earth. This University commits to support and promote such sustainability citizenship amongst its student and staff population. The green campus programme has been and continues to be a key component of its sustainability efforts.

The strategic aim of the university going forward is to establish environmental citizenship as a central component of the University ethos – with students and staff giving a commitment to learning more about the environment and to taking responsible environmental action.

A number of initiatives exhibiting high levels of sustainability citizenship will be described in the relevant thematic areas such as climate change action, in links to learning through the development of the sustainability module, and in links to campus and community.



Figure 10: Image of Climate Action March in Cork (by Michael Holly).

Recycling and Waste

The University is committed to reduce the volume of waste generated and to increase the proportion of that waste which is recycled. We endeavour to implement sustainable resource management practices based on reduce, reuse and recycle principles. The University will strive to reduce the acquisition of new materials, re-using existing materials and increase recycling to the best possible standards. All waste will be disposed of in a manner consistent with statutory requirements and a documenting procedure implemented. We use this site⁸ as a platform so all staff and students can stay continually informed on the University's waste policies and procedures.

Baseline data, progress comparison over time

Recycling rates have continued to increase since 2007, and have now reached 80%.

Table 1: UCC Recycling Rate Figures from 2007 to 2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015
UCC Recycling Rate	21%	53%	60%	63%	65%	75%	76%	78%	80%

⁸ www.ucc.ie/en/build/environment/recycling/

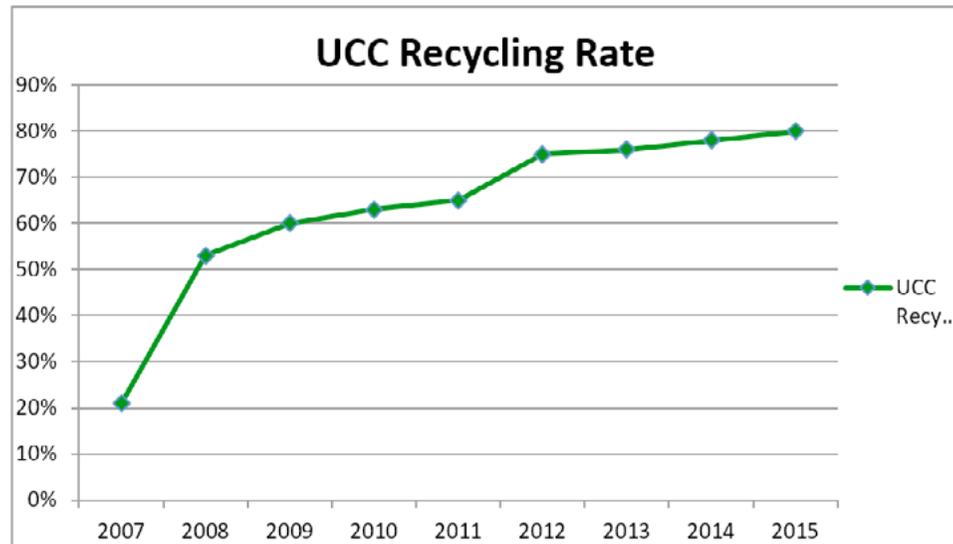


Fig 11: UCC Recycling Rate Figures from 2007 to 2015

Table 2: Waste Tonnage Figures for UCC from 2007 to 2015 (not including Construction & Demolitions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
UCC WasteTonnes	1342	1213	1230	1040	1012	1060	877	890	892

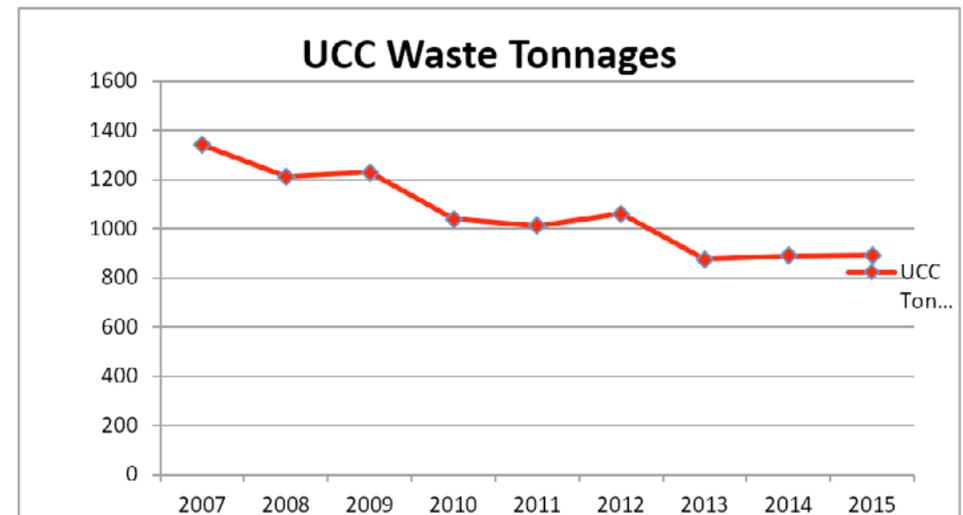


Fig 12: UCC Waste Tonnage Figures from 2007 to 2015 (not including Construction & Demolitions)

Tonnage of waste has continued to decrease, and transparency has increased as each recycling zone is now fully costed separately.

Food Waste

Segregation of food waste is increasing as can be seen from the figures below.

Table 3: Food waste tonnage figures for UCC from 2007 to 2015

Year	2013	2014	2015
Food Waste Tonnage	37.50	49.08	54.31

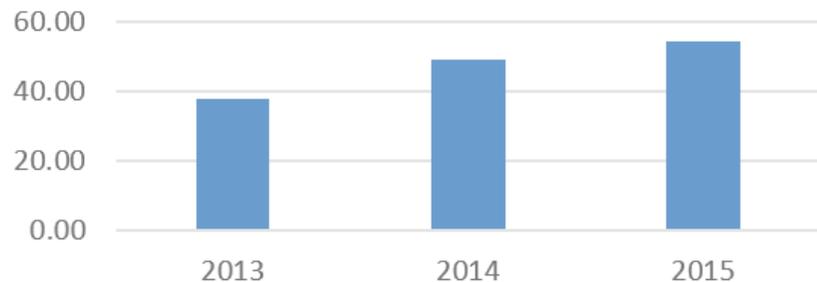


Fig 13: Food waste tonnage figures for UCC from 2007 to 2015

External Audits & Reports since 2012

UCC commissioned follow up research to the D'Arcy report on waste and recycling facilities and services (2012) in 2014. This consisted of two separate reviews:

- **WASTE MANAGEMENT IN UCC – A REVIEW OF GENERAL WASTE MANAGEMENT FACILITIES & SERVICES**, D'Arcy 2014, (Appendix 4) assessing progress made since the 2012 review and environmental action plan and identifying further opportunities for waste and environmental impact reduction. The report concluded that significant overall improvements in management and provision of facilities by area and by waste stream were made since the 2012 audit, and recommended action points are being followed up on. The report identified lack of/infrequency of communications with the university community as an ongoing problem. A number of the recommendations around communications have since been adopted and the system is continually being monitored and reviewed. Increasing recycling rates and user engagement and trust in the system is an ongoing endeavour. Recommendations around developing a clear mission statement and targets for improvement are being addressed through the new sustainability strategy, which clarifies the objectives and key performance indicators in this category. Recommendations around standardised classification and integration into Agresso (the university financial management system for tracking purchases etc.) to allow for better tracking of waste streams have yet to be addressed.

- **WASTE MANAGEMENT IN UCC - SPECIALISED WASTE MANAGEMENT REPORT & GUIDELINES**, D'Arcy 2014 (Appendix 5). This review involved a more detailed assessment of specialised waste management in UCC, following a recommendation of the 2012 audit. It provides a categorisation and overview of university risk waste and non-risk waste, with general guidelines around the management thereof. The guidelines are not mandatory, but may be adopted by individual departments/schools/institutes to adjust/enhance their current specialised waste management systems towards greater resource, cost and operational efficiency and reduction of environmental impacts. Relevant waste streams can include e.g. laboratory, chemical, hazardous and some non-hazardous wastes, and anything outside of the everyday general waste and recycling categories which may require an extra level of precaution in management. It is currently under consideration.

Decision making process

A considerable amount of the decisions made were as a result of the external report commissioned in 2012 and the subsequent follow up report in 2014. Added to this the audits carried out informed us of problems and where they were occurring.

Monitoring and Evaluation

We have been carrying out waste audits onsite over the past year. We have adopted a transparent approach which has identified some issues with the current system, including the need for further training for cleaning and catering staff. This is being addressed and will be ongoing e.g. a closing point from a recent monthly waste audit was as follows:

➤ Closing Points

Areas to be addressed:

- ✓ Staff training to be organised for individual buildings. Bio Science, Pharmacy and Student Centre are top of the list. Further training and a closer look at the recycling set up in the Library and O'Rahilly Buildings would also be a positive move forward.
- ✓ I would recommend a person comes in before collections are done to ensure bins are compacted properly at R1,R2,R3 & R4. 2hrs a day on Mon,Wed & Fri would decrease the bin count across these sites by 6-8 bins each day and would more than cover the costs.
- ✓ Implementation of one type/colour bag for G/W, Recycling & Food Compost across campus would be recommended in order to assist staff and avoid confusion when it comes to segregation of materials.

UCC Monthly Waste Audit



Fig 14: Before and after shots of revamped recycling centres

Additional Action Points

- We are going to trial further onsite segregation to see the cost/benefit dynamic along with recycling rate levels.
- The waste contract is going to tender again this year and we will use this opportunity to invite submissions which include new technologies/systems which might increase recycling.
- The sustainability strategy details the strategic aims and objectives relating to waste management in the coming years, as well as key performance indicators which will streamline reporting (these include Quantity of waste generated (kg per staff FTE), Quantity of waste generated (kg per student FTE) and Waste recycling rate (%).
- Awareness raising leaflets have been developed/events held by the waste management company in and near UCC campus accommodation to encourage increased recycling in these areas also. Leaflet attached as Appendix 6.

Energy, Water and Climate Change

ENERGY

UCC is committed to continuous energy performance improvement to enhance the environment of the university community in which they work, teach and carry out research. The University is committed to responsible energy management as part of their overall sustainability strategy. UCC recognise that their activities impact upon the environment through their education, research, infrastructural development and their influence on the wider community of which they are a part. The University is particularly mindful of their environmental responsibilities in local, national and global terms.

As a result UCC has a long track record in energy management. We were the first third level institution worldwide and the first public sector body in Ireland to achieve the ISO 50001 standard. ISO 50001 is an International Standard, since June 2011, that enables organisations to establish the systems and processes necessary to improve energy performance, including energy efficiency, use, and consumption. Implementation of this standard is intended to lead to reductions in greenhouse gas emissions, energy cost, and other related environmental impacts, through systematic management of energy.

UCC's current energy policy is available at the link below.⁹ It is currently being updated into the sustainability strategy.

The decreasing trend in energy use in UCC continues, and in the last year UCC realised an overall 1% energy reduction. See figure below. The objective for the next 4/5 years is to optimise energy use: continuously improve energy performance and systems; reduce consumption 3% year on year and by 33% by 2020 with baseline of 2006-08.

Energy Reviews take place by the energy manager and committee on monthly, weekly and daily intervals. See examples of such results which are circulated to staff and are available for any periods required. A number of other energy awareness initiatives, guidelines and reports are available through Buildings and Estates and the Green Campus webpages.¹⁰

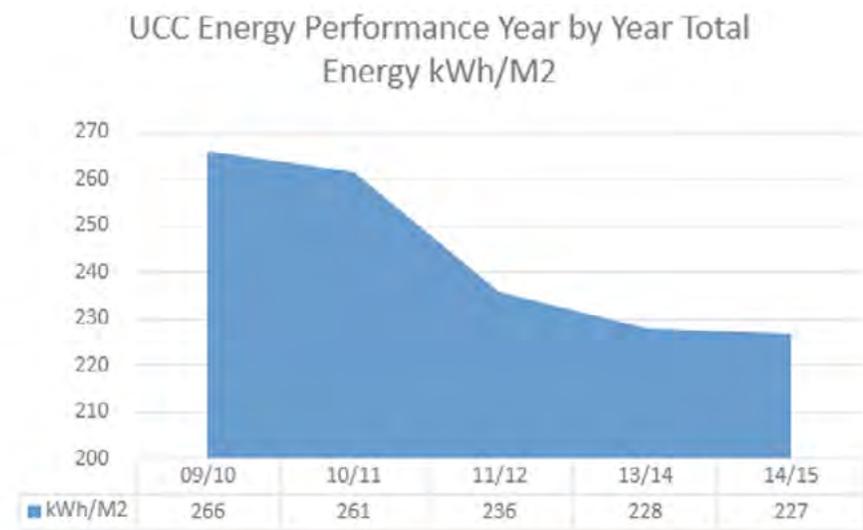


Fig 15: UCC Energy Performance in kWh/m2 2009 to 2015

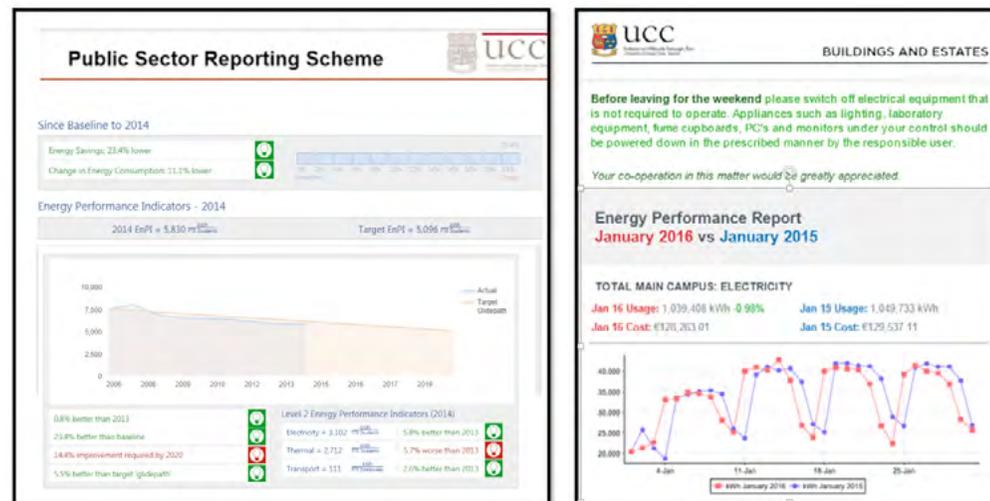


Fig 16: Examples of UCC Energy Performance Reports in 2015

SEAI supported initiatives:

UCC has been particularly successful in winning grant support from the Sustainable Energy Authority of Ireland (SEAI) to support energy saving initiatives, and has received a number of awards in operations and research for their efforts in this regard. In 2012 the Tyndall Institute UCC, one of Europe's leading centres for Information, Communications and Technology (ICT) research and development, won the award for Outstanding Leadership in Energy Management for a Major User. The focussed energy management emphasis continues to deliver sustained savings in energy consumption, create a strong awareness from the CEO to researcher level, and reduce the energy footprint of the building. More on this here.¹¹ In 2014 the UCC Intelligent Efficiency Research Group (IERG) won an SEAI research award for their Heating Ventilation and Air Conditioning (HVAC) system. This typically accounts for 40% of an industrial site's total energy consumption. The team developed a web-based, expert system of Automated Fault Detection and

⁹ www.ucc.ie/en/media/support/buildingsandestates/energy/energy-policy-ucc.pdf

¹⁰ www.ucc.ie/en/build/energy/

¹¹ www.seai.ie/Your_Business/Sustainable_Energy_Awards/Winners_2012/Category_E/#sthash.10TUzwlw.dpuf

Diagnosis which will result in significant energy savings. UCC has successfully trialled this system live across 26 pilot Air Handling Units on 6 industrial and commercial sites to demonstrate up to 30% energy savings. - See more here.¹²

UCC Target for 2017: 100% Renewable Energy

UCC has just signed a contract with Electric Ireland as part of the Office of Government Procurement Framework Agreement, to become the first and only third-level institute in Ireland to be supplied with electricity entirely from renewable resources. i.e. the college will be provided with 100% renewable energy from Electric Ireland over the next two years. The deal means UCC's 96 sites across Cork will be provided with electricity generated solely from wind and biomass sources. UCC currently uses roughly 12GWh a year, the equivalent of 2,300 households.



Fig 17: Denis Brosnan, Energy Manager UCC with representative of Electric Ireland

¹² www.seai.ie/Your_Business/Sustainable_Energy_Awards/Winners_2014/Research/Research-Winner.html#sthash.rHZZgXmw.dpuf

WATER

Reducing water use on campus is the key strategic aim in this thematic area. Fig 18 below shows the total water consumption and overall reduction in cubic metres of water used per annum from 2002/2003 to 2014/2015. If we look at water use in relation to FTE student numbers water use is currently averaging 5.26 cubic metres per student per annum. We are continually working towards reducing this figure. Since our water conservation programme begun we have saved an average of **137,570 Litres per Annum** totalling **12.3 million Litres**. In addition to our water reduction campaign we have a monitoring system which alerts increased usage. Increased usage can be affected by some variables such as weather, opening hours, semester timetables or building/lab projects that happen from year to year as well as student numbers increasing by 5% over the last 3years. UCC hope to continue the conservation trend through a number of developments including:

- Development and on-site demonstration of cutting-edge technologies and systems for water reduction and reuse.
- Development of a water management plan to minimise impact on water resources including reducing consumption (green & blue) and water pollution (grey water).
- Exploring the reuse of grey water for appropriate applications.

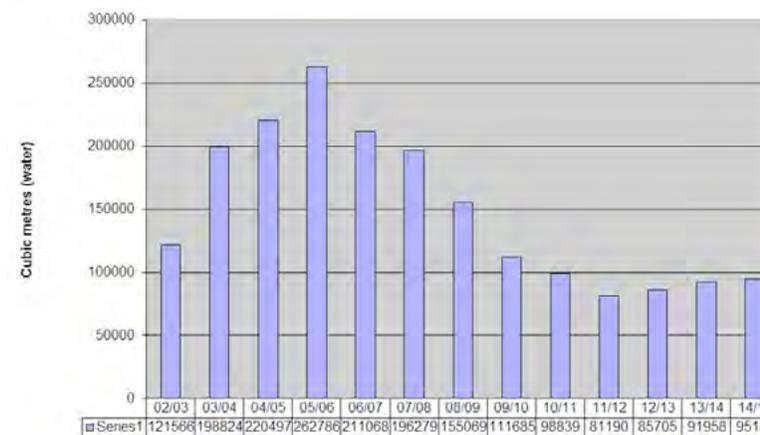


Fig 18: Cubic metres of water used per annum 2002/2003 to 2014/2015

Initiatives

Water usage savings of over €100,000 a year have been achieved by UCC through identifying and repairing leaks on the Main Campus and providing technical solutions. Leaks were identified using night time monitoring of water consumption on the main campus. The principle behind this approach is that there should be little or no water consumption when the university is unoccupied and therefore any water consumption is most likely due to leaks or unnecessary consumption in the system. Night time flow rates were reduced from 2.3 litres per second to 1.9 litres per second and an early warning system installed to alert on high usage patterns. The continuous monitoring of water usage has allowed further savings to be identified and the buildings and estates office is continuing to target these on an ongoing basis e.g. replacement of the conventional urinal control to an enzyme based / waterless system. On-going monitoring of usage and a list of locations for new water meters has been drawn up for implementation.

Water Awareness Action

Following a water awareness event in 2014/2015 organised and run by students it was suggested that the development of a map of all the water fountains in UCC would encourage the reduction of sales of bottled water for water, waste and energy reasons. This has since been developed and the map (image below) is available online here.¹³



Fig 19: Water Awareness Day in 2014/2015



Fig 20: Map of Drinking Fountains in UCC developed after water awareness day in 2015

Water Capacity Development Centre, UCC & UNEP Global Water Monitoring

A new water quality monitoring centre is being established in UCC, in association with the UNEP GEMS¹⁴ programme which supports “*global, regional, and national environmental assessment and reporting processes on the state and trends of water resources by providing access to quality-assured data and information on water quality in freshwater ecosystems worldwide*”. A Centre of the School of Biological, Earth and Environmental Sciences and the ERI at UCC on the Lee Road, Cork, by mid-2016 it will employ five core staff and a network of water experts from the Environmental Protection Agency, DCU, NUI Galway, Trinity College Dublin and Sligo IT. The centre “*will be bringing GEMS/Water up-to-date by using e-learning technology for training and education programmes that will equip developing countries with the knowledge to make use of the latest approaches to monitoring and managing water quality,*” according to Dr Debbie Chapman, BEES.¹⁵

¹⁴ www.unep.org/gemswater/

¹⁵ www.ucc.ie/en/about/uccnews/fullstory-616114-en.html



Fig 21: Dr Debbie Chapman, head of the new GEMS water quality monitoring station in UCC

CLIMATE CHANGE

UCC have a policy of measuring the impact of its activities on climate change by determining its 'carbon footprint' on a regular basis, using the internationally recognised methodology specified in the Greenhouse Gas Protocol Corporate Standard. This determination is not intended as a public relations exercise but rather primarily for internal benchmarking for activities and facilities.

The **UCC Carbon Footprint** was last determined in 2013 for the 2011-12 academic year. We will revisit this periodically. We have kept these figures internal to date due to the complexity of the matter. The 'footprint' total is not an important datum and actually would likely serve to obfuscate the University's performance in this area.

We contend that the true value of the footprint is not in a single figure, but rather the value is embedded in the process of determining the inventory, and in the resultant performance drivers which are inherent in tracking such metrics.

It is envisaged that future communication on the carbon footprint will in the main concentrate on questions such as (1) what is being measured? (2) how it is measured? (3) why we are measuring it? (4) how has it improved environmental performance?

However this is an issue under review and the carbon footprint quantum may be published in the future.

The objectives of the new sustainability strategy around this theme include the following:

- Prioritise the use of low carbon energy sources and effectively utilise efficient products and services
- Periodically measure and track the University's greenhouse gas inventory or 'carbon footprint' including both direct and indirect emission.
- Develop and implement comprehensive University carbon management plan including a commitment to reduce greenhouse gas emissions.
- Lead in development and on-site demonstration of cutting-edge technologies and systems for renewable energy generation, and energy efficiency.

Climate research, action, and awareness

A number of significant research, action and awareness events and actions have been carried out in recent years. These are also relevant to the sections on research, environmental citizenship and links to the community.

Greening Events:

This is a Green Campus Initiative started in 2015 to address carbon emissions from people attending conferences for example, and increase collaboration between the Green Campus Committee and other clubs/societies/events in UCC. The overall intention was to develop a spreadsheet/tool for use by students (and staff) to calculate emissions from events they organise, with a view to mitigating them by planting native trees. A number of these events have occurred/are occurring. E.g. in February 2015 UCC Green Campus collaborated with the UCC Philosophical Society and UCC Engineers without borders to run a student led conference on climate change,¹⁶ and to pilot the 'green your event' initiative to offset transport emissions associated with the conference. This was described fully in the last submission to An Taisce. Using IPCC transport emissions estimates and data collected from attendees the transport, a UCC works student calculated the emissions of travel to and from the conference at 0.1 tonnes CO₂ eq.

¹⁶ www.facebook.com/universitycollegecork/photos/a.801973943185113.1073742007.134737799908734/801974273185080/

As the vast majority of people were local, and walked or used public transport to attend, and the speakers make a conscious effort to use public transport, the emissions were very low (the figure of 0.1 t CO₂eq would equate with c. 570 km car journey given typical average emissions for a car of unknown engine size and fuel type). 100 native Irish birch trees were donated to individual attendees and a local homeless charity, the *Simon Community*, to plant in their community garden for the homeless. €140 in donations were raised and donated to *WeForest* to further offset emissions and support reforestation programmes in India. Since then *WeForest* have provided a reported on the tree planting in India which resulted from our donations (as well as others). This is attached as Appendix 7.

Overall we succeeded in providing enough saplings and donations to far exceed the emissions of transport related to this particular conference (in theory up to 16 tonnes CO₂ equivalent offset).

Greening Events 2016: As mentioned earlier in relation to provision of accredited post graduate training modules in green campus projects two postgraduates in the Environmental Research Institute working in the area of energy management are carrying out work towards a 'Greening Events' project (i.e. offsetting the emissions related to an event in the ERI and another event in the community), towards a 5 credit module in their structured PhD programmes. This involves an element of outreach also – in which the two students will speak to a school group in the nearby Lifetime Labs about carbon emissions, climate change and tree planting, and we will provide saplings to the school to offset the emissions of transport of their trip to the Labs.

Carbon Footprint Awareness

In addition one of the UCC works interns, Jemma Doyle, worked specifically on carbon footprints and developed a leaflet and manned a number of awareness raising stands at various events to encourage people to find out their carbon number and reduce it. (Leaflet attached as Appendix 3).



Fig 22: Images from the UCC Philosophical Climate Conference in 2015



Fig 23: Carbon footprint and Climate change awareness in UCC, 2015

Climate Research & related action

The **UN climate summit in Paris (COP21)** reached an ambitious and historic deal to limit global temperature increase to below 2 degrees above pre-industrial levels on December 12th. Researchers at the Environmental Research Institute contributed significantly to the national commentary on COP21 on Radio, TV and Print during the two weeks of negotiations.

A selection of media clips and print articles from ERI researchers during COP21 have been brought together (thanks to Ruth McDonnell in UCC Media & Communications) in the Storify for those with interest in the climate change area.¹⁷

In a related action UCC took part in a COP Global sit down¹⁸ – in which researchers all over the world downed tools, to create awareness that scientists have done the climate research and that it was up to the decision makers and politicians at the COP talks to follow up. This involved not only researchers however, but staff and students from many areas, in solidarity with climate scientists.¹⁹



Fig 24: COP Global sit-down action by staff and students, UCC, 2015

¹⁷https://storify.com/UCC_Ireland/eri-showcase-research-at-cop21

¹⁸www.facebook.com/COP21-Global-Sit-Down-1004080602987301/

¹⁹www.ucc.ie/en/greencampus/news/fullstory-611553-en.html

Campus and community action on climate justice

People all over the world took to the streets in November to show that the time for dragging feet on climate change was over. The march in Cork, held on November 30th, started from the Grand Parade, to send a clear message to the government and the world that Ireland needs to acknowledge its role in creating the climate crisis and to ensure it does its fair share to tackle the causes and consequences of climate change, both at home and abroad. One of the UCC works intern, Rob Lovett, worked on communications on campus and with other community groups. He participated in a series of meetings with a number of Cork NGOs on behalf of Green Campus leading up to the Climate Justice March prior to the Paris COP 21 talks. EnviroSoc, supported by Green campus, and a number of Green campus interns also played a big part in running banner making and organisational activities related to the march, as well as participation on the day. See photos below. The other groups involved included Trocaire, SHEP, Transition Town Kinsale, People's Climate Mobilisation Ireland & Cork Environmental Forum.



Fig 25: Green Campus awareness events on climate change related to the People's Climate March



Fig 26: Green Campus awareness events on climate change related to the People's Climate March

The interaction between these community groups, including Green Campus has led to the formation of a new Cork based Climate Action Group.²⁰ The first event held by the group was a panel debate on climate issues for politicians running for the election: Responses to Climate Action. The most positive & notable aspect was the huge turnout by the public from all parts of Cork. On the disheartening side was the lack of representation from the mainstream parties including Fine Gael, Labour and Fianna Fail.

²⁰www.facebook.com/CorkClimateAction/?fref=ts



CORKCLIMATEACTION

Fig 27: Cork Climate Action group logo

Envirosoc Earth Week

The banner making workshops leading up to the climate march also galvanised support for Envirosoc, leading to them holding Earth Week in February, with a different theme each day.

EARTH WEEK

8th - 12th of February

Monday	Tuesday	Wednesday	Thursday	Friday
Energy	Agriculture	Reduce, Reuse, Recycle	Transport	Home
Blender-Bike Energy Talks Meat-less Meet-Up	Pet Farm Talk - 'I'm a Little Vegan' 'No Snowflake'	Clothes Swap & Sale 'Trashed' Screening	Bike Doctor Carbon Calculator Concert - 'T in the Garden'	Seeds for Students

Fig 28: Envirosoc Earth Week Plans 2015

Environmental Research Institute Outreach Activities

The Environmental Research Institute at UCC regularly conducts high profile community outreach activities on climate. It has conducted very successful Climate Change Evenings which have been attended by 400 people and watched on webcast by an additional 200 people. The Institute also regularly

hosts webcasts of the EPA Climate Lecture Series “twinning” the lectures of internationally recognised speakers with an introductory lecture by a UCC researcher who provides an Irish perspective on the seminar theme has conducted a number of high profile community outreach activities on climate change. In 2015, the Institute successfully secured Observer Status for UCC in the UNFCCC (the first Irish third level institute to do so) and the Institute had a team of delegates attending COP21. The ERI team organised a side event on Dec 3rd entitled Equitable Decarbonisation of the Global Energy System where they presented results of research carried out on an equitable approach to meeting the 2 degree cap on human induced global warming alongside former Irish President Mary Robinson. The Institute has recently formed Climate Lab which is a cross-university initiative bringing over fifty climate change researchers together with a strategic focus on solutions for the transition to a low carbon society. ERI Report attached as Appendix 8.

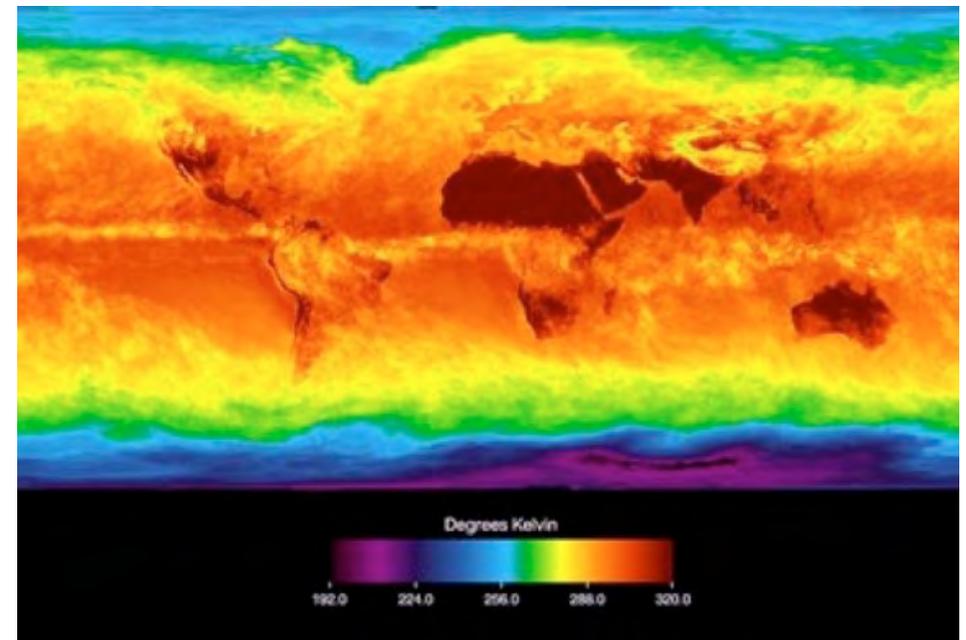


Fig 29: Image from Environmental Research Institute Report on Climate Actions 2015

Food

Food service providers on campus:

Kylemore Services Group catering company provide food and refreshments for the College population via three cafeteria-style restaurants and a fully licensed bar. KSG is a 100% Irish-owned company, and one whose corporate ethos espouses many of the same sustainability and environmental goals as the University itself. They were named Irish Sustainable Restaurant of the Year in 2015²¹ and boast a three star rating, the highest possible rating available, under their new banner of 'Food Made Good'. SRA ratings are judged on a number of criteria around the use and provision of ethically and sustainably sourced food, socially responsible working practices and minimising environmental impacts. KSG will continue to work closely with them to ensure that their practices and those of their local food producers and suppliers follow the very best international sustainable practices.

Over the last 2 years KSG, with the support of Buildings and Estates, have begun to grow herbs and garden produce in the UCC glasshouses, the 'Edible Garden and Greenhouse' project, for consumption and use on campus. This will reduce packaging and carbon-miles on these items to near-zero. Further plans for on-campus food production include the cultivation by KSG of 5-6 acres of vegetable gardens in UCC's Curraheen Road Campus.

UCC Community Gardens

The UCC Community Gardens, aka "The Polytunnels", began in 2007 as a joint project between the International Development and Environmental Societies, who are co-owners of all the structures and equipment. The site comprises of three 7metre x 4metre polytunnels plus the same area approximately in outdoor growing space as well as storage sheds for equipment. The Community Garden is open to and managed directly by interested staff and students of the College. Participants grow their own fruit & vegetables, practice natural building and explore aspects of permaculture in an urban setting. The Gardens also host regular demonstrations, workshops and cooking classes, barbecues and parties.



Fig 30: Images from UCC Community Gardens

²¹ www.ksg.ie/2015/02/winner-of-the-irish-sustainable-restaurant-of-the-year/

Cork Food Policy Council

The Cork Food Policy Council²² is a partnership between representatives of the community, food retail, farming, fishing, restaurant/catering, education, environmental and health sectors and local authorities. It was formed to work towards the achievement of a fairer, healthier, more secure and sustainable food system within the City and throughout the region, is chaired by Dr Colin Sage of UCC, and coordinated by postgraduate Tara Kenny.



Fig 31: Poster for Cork Food Policy Council

²²<http://corkfoodpolicycouncil.com/>

Procurement and Contracts

UCC by its nature procures a large amount of goods and services, and the environmental implications of such expenditure can be significant. This is a great opportunity for the University to reduce the environmental impact of its purchasing decisions by implementing a systematic green procurement process. Furthermore, owing to the scale of the procurement, such a system (along with similar action by other public procurers) can affect real change in the marketplace resulting in great availability and more competitive pricing of environmental preferable products.

This is an area which will be focused on in the coming years under the new sustainability strategy (see box on following page). There are a number of initiatives underway around 'green procurement' but not at a university level as yet. As mentioned in the Food section KSG (the main campus catering company) have received numerous awards for their efforts towards more sustainable sourcing and supply of food. In the area of energy there are a number of policy requirements, and as in the example mentioned in the energy section, a requirement of the new energy contract with electric Ireland was the provision of 100% energy from renewables. Similarly a number of the UCC institutes and associated facilities, such as the Mardyke Arena, have introduced their own sustainability guidelines into their procurement policies (*pers comm* Mardyke procurements manager - internal documents).

Green Campus Partners

In addition the extension of the An Taisce Green Campus to the Green Campus Partner Programme should accelerate the 'greening' of procurement in many ways.

The programme was instigated when it was identified that service providers into the third level sector could benefit from assessing and reducing the environmental impact of their organisational activities, improve their sustainability, and support their third level clients in applying sustainable best practice associated with the service. Partner organisations can develop, adopt and apply a seven step environmental management process similar to that of Green-Campus, to their organisation with the support and guidance of the Green-Campus office of An Taisce.

In particular the 'greening' of HEA Net in the pilot programme will positively affect the environmental costs associated with provision of ICT to HEIs including UCC.

In addition the Green-Campus Programme for Hospitals has resulted in our partner, Cork University Hospital, being awarded a world-first Green Flag for a hospital in 2015.

Strategic Aim of the new UCC sustainable procurement policy

- Systematic inclusion of sustainability criteria in the selection criteria for the purchase of goods and services for the University.
- Consideration of life cycle perspectives during the selection of goods and services wherever practical and appropriate.

Objectives:

- Development of green procurement guidance to assist drafters of tenders within the University to consider environmental criteria at the different stages of the procurement process, including:
 - Contract subject matter definition;
 - Technical Specification;
 - Selection Criteria/Exclusion Criteria;
 - Award Criteria.
- Promote green procurement best practice when participating in procurement consortia.
- Engage with key suppliers to bring about environmental improvements throughout the supply chain, including:
 - Substituting products containing harmful substances;
 - Consideration of environmental impacts on a life cycle perspective;
 - Selecting products that meet the requirements of recognised labelling schemes e.g., EU Ecolabel.
- Requiring contractors and suppliers to achieve environmental management standards equivalent to certified environmental management systems such as ISO14001, EMAS.
- Promote where appropriate and practical sustainable buying principles e.g., the principles embodied in schemes such as Fairtrade™.

Measurement of Performance:

- Number of contracts awarded to suppliers of 'green' products and services (#)

Commuting and Business Travel

Aware of the sustainability implications of its ca. 18,000 students & 2,500 staff commuting to the University, UCC developed a comprehensive Commuter Plan (initially in 2003). Led by a dedicated Commuter Plan Manager, this plan provides for active car park management and for alternative modes of travel are to be systematically addressed, facilitated and promoted. This includes initiatives such as the free University Park + Ride system, enhanced public transport links; cycling facilities; dedicated parking for car-pooling; walking routes. The plan is updated and informed by regular commuting surveys. Staff are encouraged and incentivised to use public transport for business travel wherever possible (e.g. costs for travel to Dublin, served by regular train service, are only refunded at regular train fare). Alternatives to travel such as videoconferences are facilitated and promoted by the University – staff are encouraged to minimise travel.

Baseline data

UCC staff and students' commuting patterns have been monitored on a regular basis since 2001, with almost annual surveys since 2011 (in 2011, response rates for students were too small to be representative). Since 2001 there have been improvements in % modal shares of walking, cycling and public transport, and decreases in car travel in both staff and student populations (see Fig 32 & 33).

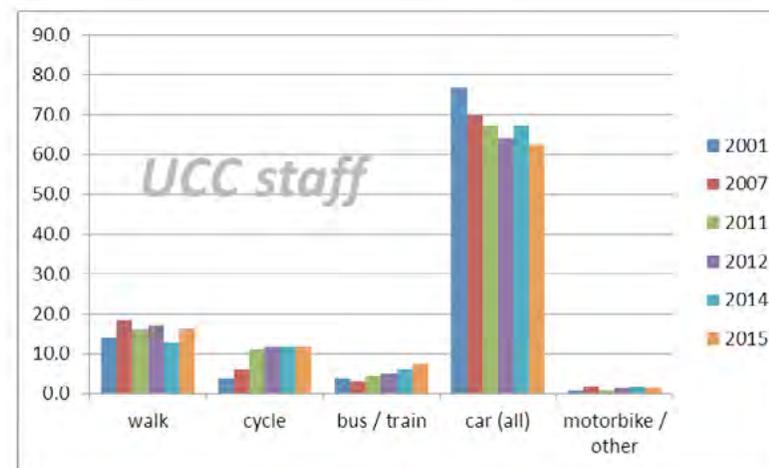


Fig 32: Modal share in % for Staff commute to UCC

There has been a small increase in the share of staff walking to work, but the share of staff cycling has approximately tripled since 2001. The % modal share of staff commuting by car has decreased by approximately 15% in the same time period. The staff cycling share has doubled within the 5-year period between 2007 and 2012 alone, and it can be assumed that the Cycle-to-Work scheme, introduced in 2009, played a major role in this.

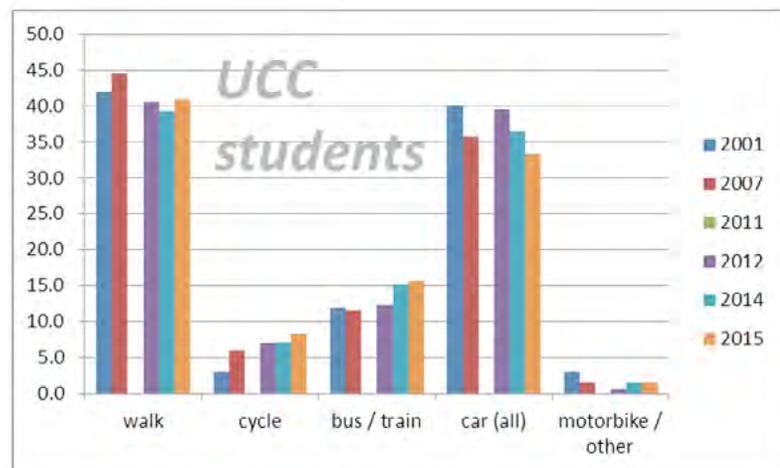


Fig 33: Modal share in % for Staff and Student commute to UCC

In the student population there has been a small decrease in % of students walking to college, but, as for staff, the share of students cycling has almost tripled since 2001. The share of public transport has increased by ~5% while the % commuting by car has decreased in the same time period.

As a general long-term trend, car usage is falling, while cycling and public transport shares are rising. Walking numbers, however, don't show a clear trend. On the staff side, these trends are clearer than for the student population. One explanation may be that for the student commute, there are more and different factors that determine travel behaviour, e.g. the question whether to rent accommodation near UCC or to commute from their homes further afield.

Monitoring & evaluation: UCC travel survey 2015: Positive trends continue

UCC Buildings and Estates' latest Staff and Student commuting travel survey in late March 2015 confirmed of the overall positive trend to alternative modes, other than the single-occupancy car drive to Campus. (Since 2011, the figures of car usage also give information on "passenger" or "P+R usage", see detailed figures in Appendix 9).

For staff, the latter is down to 55% (from 57% in 2014), with overall car usage (incl. P+R and car passengers) to just over 62% (from 67%). While almost 30% use means of "active travel" by walking or cycling to work, bus and train usage continues to rise, and is now at 7.5%.

On the student side, two thirds travel by alternative modes, which would be up to 85% if P+R and lift sharing was included. 50% of all students walk or cycle to college (up from 46%). This is partly due to the large scale provision of accommodation close to UCC.

Cycling enjoys an increasing popularity among students (up to 8%), with its mode share for staff remaining stable on high levels (12%). In comparison, the average share for cycling to work or education in Cork City is around 3%. It's worth noting that only 3 months after their introduction, the public CokeZeroBikes already had a 1% share in staff and student commuting to UCC. Such figures as well as those provided by the NTA show that the Cork scheme is a huge success, and UCC Buildings and Estates are strongly behind the extension of the scheme to further UCC locations and Victoria Cross (Student Accommodation).

Evaluation and Planning: 2015 Commuter Plan update under way

It is 10 years now since UCC formally started its first Commuter Plan in 2005, making a holistic and concentrated approach to more sustainable commuting patterns of its 20,000 strong staff and student community. For the first time, the coordination of parking, cycling, Park+Ride, walking or public transport access to the campus was consolidated into one office, under the post of Commuter Plan Manager, in early 2006. A major ten year review and update of the plan is underway and will be available later in 2016. "Green Travel" plays a major role in this, as the Commuter Plan is one of the important pillars of UCC's overall Green Campus strategy.

Commuter Plan links up with UCC Health Matters

The UCC Commuter Plan (Buildings and Estates) has started working together with the UCC Health Matters Team (led by Dr. Michael Byrne), who were the driving force behind UCC's accreditation as "Health Promoting University" by the HSE in 2015. As the promotion of Walking and Cycling as means of sustainable and active travel matches with the "Health Matters" goal of promoting physical activity, awareness campaigns and events like the annual Pedometer Challenge and Cycle Challenge (run nationwide by the government's / NTA's SmarterTravel Campus/Workplaces programme) these are now organised together with UCC Health Matters. A further project, *Switch*, (...to more cycling and walking, EU project) sees Cork City Council as a third partner, where UCC staff and students will be assisted in making healthy changes to their commute through personalised travel planning. This is an example of cross-sectorial collaboration within the University, with separate departments/operational units working on the same goals.

Formation of the Transport and Mobility Forum, Cork²³

UCC's Commuter Plan Manager has been one of the key players in forming Transport and Mobility Forum, Cork (TMF), a cross-sectoral group comprising the two local councils, transport providers, HSE, Green Schools, lobby groups and large employers around sustainable transport in Cork. In this forum, UCC's Commuter Plan Manager pushes for improvements within the city as a whole. The Group was set up in 2013. TMF also organises awareness and discussion events, e.g. Cork's participation in the world-wide PARK-ing Day. In March 2016, there will be a seminar for professional practitioners on the impact of the public *CokeBikes* on Cork City (08/03/2016), based on a research project by UCC M-Plan masters students. A second event around this topic is envisaged within UCC (Green Campus) for the first half of 2016.

Planning for the new Student HUB development (Windle)

This year, UCC will start developing the new Student HUB building around the historic Windle Building. A re-location of ca. 100 car spaces will enable more space for pedestrians on the Main Campus. In connection with the HUB, there will be a lockable bicycle shed for high quality and secure bike parking, which will also include a self-service maintenance facility for small repairs.

Extension of commuter plan to Beaufort Building, Ringaskiddy

With UCC having opened its new Beaufort research lab in Ringaskiddy in summer 2015, an ambitious plan is being developed for low carbon commuting to the site, and to link the facility with the Main Campus in the city. The same will apply to the forthcoming development of the Cork Science and Innovation Park in Curraheen.

Proof-of-concept developed for "e-motion Green mobility station"

UCC B+E has designed a combined bike shed and shelter in the newly opened Beaufort building with integrated solar panels and connection to wind turbines (including a short term power storage facility) to power electric bikes and cars. This should serve as a model-concept for further Campus locations. Plans are far advanced, with very positive feedback from SEAI and good prospects for their co-funding for 2016.

Further, a charging point for two e-cars has been set up in the ERI car park, and three charging points are available for e-cars on Main Campus (at Electrical Engineering Building, with data directly available for research labs).

SWITCH project:

Cork City Council is partner in the EU *SWITCH* project (to let people switch from car use to active travel, based on personalised travel planning). In cooperation between City Council, UCC Health Matters and the UCC Commuter Plan, this is now the subject of a masters thesis in Occupational Therapy in UCC (spring 2016), as a co-operation between practice and research.

Ongoing activities:

BikeDoctor: A free Bike Doctor service from local bicycle shops is offered on campus at regular intervals and UCC lunchtime cycles are organised through the Commuter Plan several times a year.

Cycle to Work: Through the Cycle-to-Work scheme, the 700th bike was sold in May 2015, and the buyer was presented with a goodie pack (see fb post of 26/06/2015 on "UCC Green Travel Forum"). By end Jan 2016, UCC has sold around 780 bikes, some of them are 2nd time buyers since last year (entitlement every 5 years). Since the scheme started in September 2009, more than 100 bikes were sold per year on average, administered by UCC B+E.

²³<http://transportandmobilityforum.com/>

UCC CampusBike: UCC's free bike share fleet now has 16 bikes and ca. 220 registered users, and is well established on Campus 5 years after its start in March 2011. In the past it was often observed that staff members signed up as users for UCC CampusBikes, and some weeks later, they applied for buying their own bike through the Cycle-to-Work scheme. Planned extensions of CampusBikes will include the UCC Dental Hospital (at CUH, in preparation).

Awareness raising:

- In autumn 2015, the UCC Commuter Plan was part of Health Matters Day & Induction Week (together with Health Matters two active travel flyers produced).
- The latest UCC hosting of NTA "Road Show" took place in September 2015 on Campus (03/09/2015) with info on public transport Leap-Card, Bus Eireann offers etc. and open ears for feedback provided by their experts.

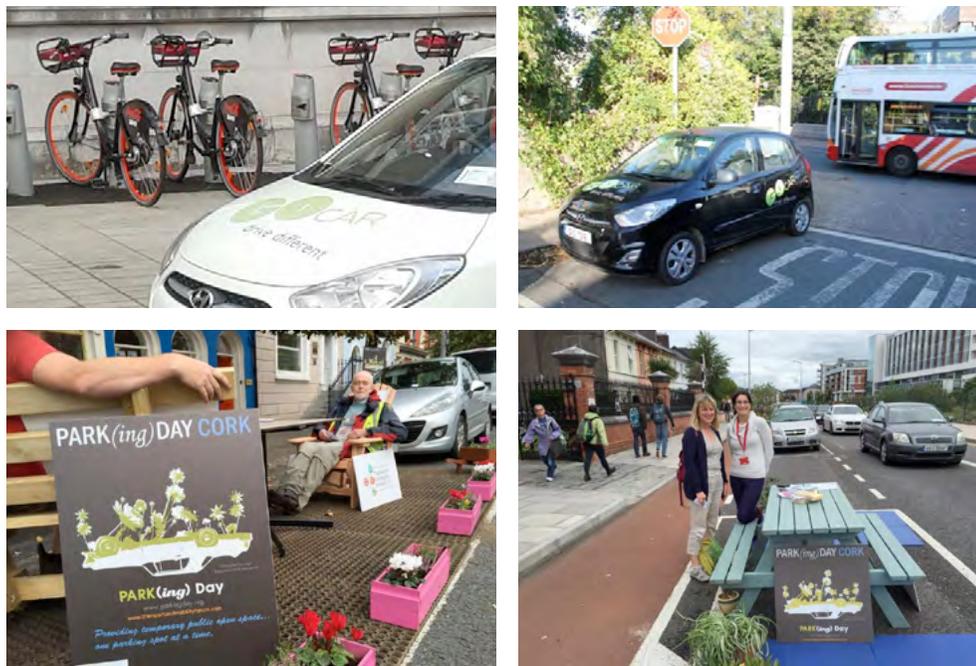


Fig 34: Sustainable transport initiatives in UCC: Go cars available for hire (top) & PARK-ing Day scenes in Cork



Fig 35: Sustainable transport initiatives in UCC: Bike doctor, staff bike scheme, Coke bikes

Landscape and Natural Heritage

Located within Cork City, University College Cork's grounds on the banks of the River Lee, comprises both formal gardens and informal areas. The estate is managed with care of the environment to the fore including: composting green waste; minimising chemical use; identification and conservation of key habitats; mapping and protection of significant trees and other natural resources. The campus is home to a significant amount of biodiversity including a variety of flowering plants, grassland, many native and exotic trees, substantial riparian areas, and the various associated wildlife – in May 2014, during an 'intervarsity BioBlitz' some 451 species were recorded on the UCC campus. Such biodiversity contributes to the student experience.

Habitat Mapping

A complete habitat map has been commissioned for the whole of UCC campus. The first Interim report on the Biodiversity survey of the campus was returned and is attached as an Appendix 10.²⁴ The 2014 survey included a habitat survey of UCC Main Campus, UCC North Mall Campus and bryophyte surveys of UCC Main Campus, North Mall and UCC Mardyke Sports Grounds. The report states that a total of twenty-two habitats were recorded in 2014 during habitat surveys on both UCC's Main Campus and North Mall Campus, some of which were assessed as having negligible importance for biodiversity, while others were assessed as being of moderate-high importance for local biodiversity. A total of 86 bryophyte species were recorded during bryophyte surveys of UCC Main Campus, North Mall Campus and Mardyke Sports Grounds, including an assemblage of County Importance on an exposed calcareous rock face on Main Campus. In addition a liverwort species recorded on the same calcareous rock face was recorded as new to the Mid Cork Vice County and a moss species recorded on a stone wall on the boundary of the Mardyke Sports Grounds was also a first for Mid Cork. Details on individual species and habitats, as well as recommendations towards improved management for biodiversity are provided in the report and will be addressed over the coming year(s).

Tree Management Plan

The Tree Management plan in place is being implemented over a number of years. Interactive map available.²⁵

Other Biodiversity Enhancement Measures

A summary of our biodiversity enhancement measures are now listed on the database of the EAUC biodiversity guide for universities, under the auspices of the Global Universities Partnership on Environment and Sustainability (GUPES).²⁶

Intervarsity Bioblitz

The latest bioblitz, coordinated by postgraduates in the School of BEES recorded 381 species between UCC and CUH in a joint effort.²⁷ This is discussed further in chapter 4/5.

Objectives and Performance indicators in the new sustainability strategy

These will be developed and further implemented in the coming years.

Objectives:

To continue to manage our grounds with due regard to the environment, e.g.,

- minimise use of herbicides and pesticides;
- use onsite compost in preference to artificial fertiliser or purchase compost;
- all works to be planned and conducted in a manner which consider habitats requiring protection.

Maintain/increase the biodiversity of our campus, including:

- Identify and characterise wildlife habitats on the campus
- Identify and protect significant trees on campus

Foster greater partnership with other organisations (including Cork City Council) to promote protection of natural heritage.

Measurement of Performance:

- Proportion of open spaces on campus (%)
- Amount of open space (m² per staff/student FTE)
- Proportion of campus covered in vegetation (%)
- Proportion of 'wild' and/or semi natural areas on campus (%)
- Proportion of non-retentive surfaces (%)
- Proportion of campus mapped for biodiversity (%)

²⁴Biodiversity Survey of University College Cork Campus 2014-2016 Interim Report 2014, Caroline Lalor, MSc. MCIEEM, 2015

²⁵www.ucc.ie/trees/

²⁶www.sustainabilityexchange.ac.uk/eauc_biodiversity_guide

²⁷records.biodiversityireland.ie/bioblitz.php?bkey=IntervarsityBioBlitz2015

Chapter 4: Proposed Action Plan for 2016+

Context and New Direction

Since being awarded its first Green Flag by An Taisce in 2010 UCC has made and continues to make significant progress in engaging with and acting towards increasing sustainability, as detailed in this report and has been recognised through numerous environmental awards on local, national and international levels.

However over the last few years the issue of recruitment of students and continuity of student and staff involvement in designated 'Green Campus' committees and event planning/attendance has proved challenging and time consuming relative to the outcomes of the investment of time. This is not a reflection of a lack of interest, enthusiasm or passion from anyone involved, rather a reflection of:

a/ the wealth and variety of existing opportunities to engage and participate in events, courses, research and other activities in UCC areas / institutes / societies /etc. that are relevant to a myriad of green/sustainability issues. Many of these may not thus far have been regarded explicitly as part of the "Green Campus". This may be seen as a strength indicating that 'green' and sustainability is becoming fully embedded in the culture and ethos of the UCC community: students, staff, providers, stakeholders.

b/ the significant time and resource pressures involved in engaging in additional 'green' initiatives outside of the above, and the day-to-day staff/student workloads.

As a result a slight change of direction/approach to the Green Campus is proposed in this document through a number of key focus areas, (considering both short and long term strategies and resourcing issues) towards the following aims:

- To adjust the focus and structure of 'Green Campus' towards a more significant role in supporting, networking, communicating and incentivising behaviour and initiatives in sustainability (rather than a Green Campus 'committee' recruiting students and actively planning events).
- And using this approach to integrate and embed the sustainability agenda more fundamentally throughout existing campus structures and community, in line with the new university sustainability strategy.



5 Proposed Key Focus Areas:

1. **Student and staff green orientation and training** to maximise engagement in the 'day -to- day' operational side of the Green Campus towards improved environmental performance (i.e. in key thematic areas including waste and recycling protocols, water use and conservation, energy use management, availability and use of sustainable transport etc.);

2. **Further development of teaching and learning and research opportunities** around sustainability issues to empower both students and staff to engage with and become leaders in the creation of sustainable solutions in relevant areas;
3. **Integration of ‘Green Campus’ and all other sustainability initiatives (including in individual relevant thematic areas) in the campus community under one ‘banner’**, and the development of a better networking and communications to increase the awareness of the above, to emphasise and encourage interconnections between relevant actors and areas;
4. **Increasing connections with the community beyond campus.** Focus on channelling the capacity and expertise of the campus community into increasing positive relationships with and beneficial impacts on external bodies & regions. (Map and measure where possible);
5. **Reward, incentivise and showcase best practice and green behaviour and initiatives** by both students and staff to encourage engagement and multiply impact and outreach;
6. **Translating our practice and outcomes to the wider community**, schools, local authorities, businesses and wider community (e.g. learning neighbourhoods).

Proposed Action Points for Key Focus Areas are detailed in the table opposite.

Table 4: Proposed Action Points for Key Focus Areas UCC Green Campus from 2016

1. Student and staff green orientation and training	1.1	Development of Green Student Orientation & Green ‘rep’ system (and/or current student rep training to include dedicated section on sustainability);
	1.2	Development of Green Staff Orientation & Training NB for e.g. Societies Guild, SU reps, heads of schools/ departments and/or facilities managers. Start at the top and work down to encourage maximum engagement and filtering through departments;
	1.3	Regular communications to students and staff on protocols and progress on individual thematic areas from senior staff;
	1.4	Continuation of awareness raising events on individual thematic areas by the relevant staff (e.g. in waste/ energy/water management etc.)
2. Further development of teaching and learning and research opportunities	2.1	Increase focus on developing, building on, and highlighting the connections between existing relevant research and research applications underway in UCC in sustainability relevant areas
	2.2	Increase focus on teaching and learning sustainability – through current courses, plus the new sustainability module. Both, but particularly the latter, have potential to be great vehicles to channel, highlight and integrate the expertise and enthusiasm of people in different departments (staff and students) and the surrounding community.
	2.3	Linking ‘global to local’ education through the UCC-UN GEMS water centre to train staff for local action in a global context.

Table continued on following page

3. Integration of 'Green Campus' and all other sustainability initiatives in the campus community under one 'banner'	3.1	Increase awareness of and linkages between existing green activities as part of the Green Campus; Increase efforts to channel the communications around individual green initiatives, departments, events etc. through the Green Campus banner;
	3.2	Increase awareness through the new green walk way.
	3.3	Communicate that enactment of the sustainability strategy through sustainability citizenship of campus community, plus research and teaching and learning activities, plus Buildings and Estates operations, facilitated through open university wide Green Forum = Green Campus

4. Increasing connections with the community beyond campus.	4.1	Focus on channelling the capacity and expertise of the campus community into increasing positive relationships with and beneficial impacts on external bodies & regions. (Mapping and measuring the connections where possible).
	4.2	Continue to work with and create awareness of initiatives which reach into the community, e.g. UCC participation in PPN, Learning Neighbourhoods, Eco-well and others involving city and county council and community groups
	4.3	Continue to include and expand the involvement of the general public and community groups in the university wide module on sustainability.

5. Reward, incentivise and showcase best practice and green behaviour and initiatives by both students and staff to encourage engagement and multiply impact and outreach.	5.1	Introduce a student societies environment/ sustainability fund to incentivise interested societies (e.g. Envirosoc, Philosoph, Suas and more) to increase their student engagement and activities/events around sustainability issues
	5.2	Introduce a special award(s) for staff members/ building/institute/area who have excelled in increasing sustainability or aspect(s) of the environmental performance of that area/theme; or e.g. and award for contributions to 'Greening the Campus'
	5.3	Host an Annual Open Green Workshop & Awards Ceremony (GREEN UCC) An open-space-type facilitated forum for staff, students, and community groups to ask and tell UCC how it can do better and through which UCC can showcase latest green research, applications, awards and actions for sustainability. There are many existing events/ initiatives that could fit into this already, and e.g. it could be part of the sustainability module focus - the participants play a part in the organisation, facilitation, presentation etc.

Consolidation of Operations and Resources:

- Integrate Green Campus and Green Forum Meetings & administration.

Green campus = the 'physical entity' - the campus and all that goes with it.

Green forum = the people who facilitate and guide the sustainability strategy and initiatives towards the achievement of a Green campus (i.e. no more separate green campus committee). With designated staff in key focus areas plus ensure participation from all actors in areas of campus (research, estates, admin staff, post graduate and undergraduate students, all departments, plus Students Union, Societies Guild etc.)

Green flag from An Taisce = accreditation at national level.

Green Metrics = accreditation at international level.

- Consolidate and increase staff, resources and operational support for making the sustainability strategy happen
- Streamline relevant communications and reporting.

Chapter 5: Links to Learning on Campus

Teaching and Learning

Sustainability issues are reflected throughout the University's undergraduate and postgraduate education programmes, both within traditional environmentally focussed fields such as science and engineering and increasingly in other disciplines (literally from A to Z – Archaeology to Zoology). In addition a University wide module on Sustainability, taught by a range of staff from across various disciplines and colleges in the University is now available to students of all programs, staff, members of community groups and the general public. This will be described further in Chapter 4 – links to learning.

As well as formal environmental education there are significant opportunities for UCC students to engage in informal sustainability education through membership of student organisations such as Environmental Society and involvement in the green campus initiative, fully supported by the University.

The strategic aims of teaching and learning related to sustainability are to foster a culture of sustainability citizenship within the University Community; and to facilitate the active participation of the University community in reducing the collective environmental impact of the organisation, through both formal and informal activity. Naturally these cross over with the aims and objectives around sustainability citizenship, which will be discussed further later in this Chapter and in Chapter 4 around links to the campus and community.

Performance measures in the new sustainability strategy include:

- Number of sustainability relevant education programmes (#)
- Proportion of students on sustainability relevant education programmes (%)
- Proportion of 'other' students taking sustainability relevant modules (%)

These measures will be used to measure the overall progress towards objectives, while in e.g. the sustainability module more qualitative measures will be addressed.

Research

University College Cork has an active research community working on multiple aspects of sustainability. UCC's sustainability researchers can be found throughout the University's four colleges (Arts, Celtic Studies and Social Science; Business and Law; Medicine and Health; and Science, Engineering and Food Science) working in the constituent schools, associated research centres and through multidisciplinary institutes such as the Environmental Research Institute (ERI), Institute for Social Sciences in the 21st century (ISS21), Tyndall National Institute, etc.

Transdisciplinarity on sustainability research is facilitated and encouraged through initiatives such as the Environmental Citizenship Research Priority Area supported through the Office of the Vice President for Research and Innovation. The University continues to win significant funding for sustainability research from EU research programmes, national agencies and through collaboration with industry.

This is a key area of the new sustainability strategy and the following measurements of performance will be used to assess progress relative to the strategic aim of maintaining and enhancing the University's standing in research on sustainability topics.

Research areas of particular note are discussed in relation to their thematic areas.

Measurement of Performance on Sustainability Related Research

- Research funding for sustainability related research (€)
- Sustainability research proportion of total funding (%)
- Number of sustainability related research projects (#)
- Number of sustainability researchers (#)
- Number of publications on sustainability and environment (average # per year)
- Scholarly events related to sustainability and environmental research (#)
- Number of internal interdisciplinary and transdisciplinary collaborations (#)

Other initiatives

A number of initiatives have already been described or mentioned in the individual thematic areas about links to learning on campus. These include e.g.

- The 'Greening events' initiative through which undergraduate interns of green campus and postgraduates working in the area of energy research have been and are involved in calculating the emissions related to events on and off campus, using their research and education to increase awareness and carry out outreach activities (discussed in Chapter 3, under Climate Change).
- The Bioblitz – through which, in the main, undergraduate and postgraduate students from Biological, Earth and Environmental Sciences have put their interests and education into action to identify as many species as they can on campus in 24 hours, with the help of experience zoology and ecology staff, and ecologists from outside campus also. This event has been held for the last number of years and has identified over 400 species on campus. The students have also carried out outreach activities such as bringing the specimens from the zoology museum up to the children's ward in Cork University Hospital. This was discussed in Chapter 3 under Landscape and Natural Heritage.
- All climate research associated with the Environmental Research Institute informs their series of outreach activities. Climate research also influenced a number of other campus and community events this year including the COP 21 sit down, and the climate march. These are discussed in Chapter 3 under Climate Change.

In general all sustainability initiatives and Green Campus committee work and decisions are influenced by both research (on and off campus) and the engagement of the individuals involved, a diverse group from operations, academia, student body, administration, and more.

A notable example of linking learning on campus to Green campus and sustainability issues in general is the University Wide Module on Sustainability that was and continues to be developed.

UCC's University Wide Module on Sustainability

The inclusive, university wide approach taken in Green Campus has been adopted and adapted to develop a university wide module on sustainability, through partnership and collaboration across all sectors of campus and beyond.

It has been developed freely by all participants involved in course and content development; participants from all schools of UCC, encompassing about 15 different disciplines, as well as numerous members of the Green Forum and the Green Campus committee, and key operations staff from Buildings and Estates. It is also provided freely to all participants enrolling. The module is open to students and staff alike, and advertised to the public externally through e.g. Cork Environmental Forum's network, and other community groups.

The initial call to action for the development of this module was met with incredibly high levels of energy, enthusiasm and openness, which continued into the plenary discussion and working-group that coordinated development. There was clearly a high level of personal and professional concern for the subject and necessity to teach and learn about it from the individuals. But discussions also directed participants to embed the module in a wider network of engagement in teaching, research, management, student societies and linkages outside the university. In such a context existing partnerships could be expanded as the module develops, with e.g. Green Campus, An Taisce, Suas, Envirosoc, International Students Society, and extended outwards, e.g. EcCoWell Cork (Healthy Cities, Learning Cities, Green Cities, Economically Sustainable Cities), Cork Food Policy Council, etc. The figure below illustrates the context of the module within UCC and in relation to the surrounding region, local and government bodies, community and voluntary sectors, and business community.

A fundamental focus of the development of the module was and is around sustainability citizenship – the course was titled 'Putting education for sustainability in its place: put yourself in the Picture'.

The model of delivery proposed was an integrated, participatory learning model, supported by online resources and peer-to-peer support. The intent was to maximise both the engagement and participation of students and their

ability to connect concepts with contexts, and competences with communities within and beyond the university, including the wider world – putting sustainability in its place.

Developed in a short few months and advertised for enrolment in January 2016, the course was oversubscribed within days. The participants came in roughly equal proportions from the student body (a mix of undergrad and postgrad), UCC staff (from numerous disciplines), and outside groups including people from the community and voluntary sector, ex public sector, and a number of environmental consultancies. The lecturers/facilitators are also considered as participants, and often attend many more of the sessions than ‘their own’. The supporting content is being developed and shared as we go using the knowledge of the entire group. Opportunities for collaborative learning through iterative discourse and collective reflection are key to this model.

“Learning for sustainability is (more) relational, grounded and interdisciplinary. It teaches us how to think in terms of interdependent complex systems”

(Wals and Corcoran, 2012, p.17)

The module is currently half way through the pilot run, and will be revised and redeveloped in collaboration with the participants following this first iteration. Developing and integrating relationships with Green Campus, An Taisce, community groups and others will be further explored as we go. The integration and embedding of sustainability citizenship in the university as a whole is further addressed in Chapter 4, the plan of action for 2016+.

The Context of the UWM

Adapted from Too, Bajracharya and Khanjanas thiti (2013, p. 48), Reidy et al, 2015 and UCC Sustainability Strategy, 2015)

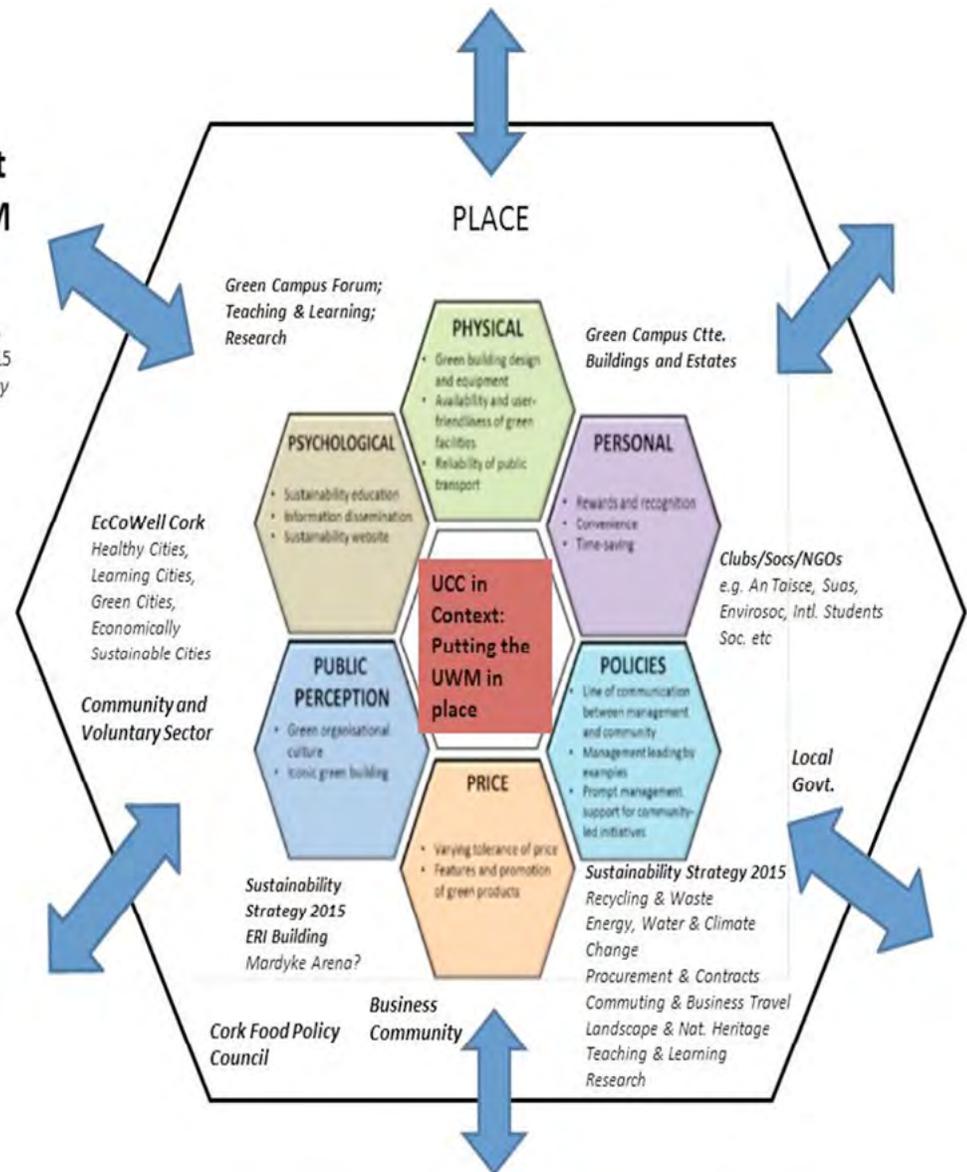


Fig 36: The context of the UCC University Wide Module on Sustainability

Chapter 6: Informing and Involving the Campus and Wider Community

As mentioned earlier environmental or sustainability citizenship is a key part of the new sustainability strategy and is committed to supporting and promoting such sustainability citizenship amongst its student and staff population, and beyond. The green campus programme has been and continues to be a key component of its sustainability efforts. The plan of action (Chapter 4) details some new directions in terms of directing and communicating awareness to the campus and wider community. Below the current status of communications and connections are described.

Communications

The new UCC Green Campus webpage²⁸ continues to be improved to increase awareness. Awareness raising measures in individual thematic areas were also described in the previous chapter. These include regular email updates on different thematic areas which are sent out via all staff and all student emails. In addition the Green Campus committee regularly email anyone who has subscribed to the green campus mailing list with upcoming events. The website now also includes a Green Calendar, links to Green Campus twitter and facebook, and a media gallery.

The UCC Green Campus facebook page²⁹ has again increased its digital presence and number of likes (now at 681) and will continue to increase and reach wider audiences in the coming years. We have also made a concerted effort on this page to link to other local organisations (e.g. Cork Wildlife Trust, Cork Food Policy Council, Cork Climate Action) and national and international ones (e.g. other green campuses in Ireland and abroad) to share information.

Green Campus Events are regularly advertised on **digital screens** in all main campus buildings.

The development of a **'Green audio tour'** of UCC (in the form of a smartphone app) for visitors to UCC and new students is intended to highlight and explain the interesting 'green' aspects of the campus.

Connections

Greening events initiatives have facilitated closer links with Philosoph, Engineers without borders, WeForest, the Simon Community, the Lifetime Labs, among others as mentioned previously.

Green Pledges: Green campus has actively encouraged student societies and staff to take 'green pledges' to increase awareness and create calls to action.



Fig 37: Green Pledges by student societies

²⁸ www.ucc.ie/en/greencampus/

²⁹ www.facebook.com/UCCGreenCampus/?ref=tn_tnmn

Climate change initiatives have facilitated closer links with a series of Cork based community and environmental groups and the formation of a new climate action group as mentioned earlier (detailed in chapter 3 under Climate Change).

Green campus committee **links to SUAS and UCC SUAS society** have led to a series of discussions on further collaboration as well as participation in the SUAS conference on Global Citizenship in Higher Education³⁰ in February 2016.

Green Campus and Health Matters collaboration



Fig 38: Green Health collaboration with Health Matters

Green Campus and Health Matters have been developing a collaborative approach over the last few years. UCC Health Matters³¹ is a cross-University collaboration of students and staff who are working towards a healthier University environment for all. UCC Health Matters is utilising the WHO's Health Promoting University framework which takes into account three things:

- Protection the health and promoting the wellbeing of students, staff and wider community through policies and practices
- Increasingly relating health promotion to research and teaching
- Developing health promotion alliances and outreach links in the community.

As a result of Health Matters initiatives UCC became a recognise Health Promoting University in 2014. Given the numerous cross overs between 'green health' and 'green living' we are hoping to collaborate on more initiatives in the future.

Health Matters run an annual **Operation Transformation** programme, following the popular TV show, and encouraging 4 staff and 4 students to become leaders in UCC among their peers in relation to healthy living and nutrition. This year we developed a programme in parallel called **Green Operation Transformation**. The idea was that as the leaders attempted to reshape their lives in the fields of fitness, nutrition and psychology in order to reach their individual goals we would also guide them towards doing so in a more environmentally conscious way.

To this end a series of Green events was planned for February and March, to which the leaders were/are invited, and which are also advertised through Health matters communications, to reduce their individual impacts on their health and the environment at the same time! We also aimed to use the opportunity to create connections and awareness in peoples' minds. Events list below, events were planned to fit into the Op Trans schedule and complement what they are doing in health and nutrition.

UCC Green Campus

Thursday 4th Feb 1pm - Growing your own for beginners - UCC Polytunnels. Free but register in advance.

EARTH WEEK - 8th - 12th February - [link to Envirosoc fb for details] Loads of events and workshops about green Energy, Agriculture, Reducing waste, Transport and Home.

Thursday 3rd March - Make your own natural skincare products. Free but register in advance.

Thursday 10th March: 1-2pm - Nature, food, and health
An introduction to the wildlife and plants on campus, and how wildlife is linked with food and health. UCC Polytunnels, with Darren Reidy, All welcome, especially our friends from Operation Transformation! Free but register in advance (link to health matters fb). **ALL WELCOME!**

Fig 39: Green Campus events in connection with Green Operation Transformation

³⁰www.eventbrite.ie/e/global-citizenship-in-higher-education-tickets-20859129217

³¹ www.ucc.ie/en/healthmatters/abouthealthmatters/

The growing workshop was facilitated by Peter Dowdall³² and largely attracted staff interested in using the UCC polytunnels or growing at home. EARTH week was run by ENVIRSOC and was aimed more at the student audience. Mixed crowds are expected at the Natural Skincare workshop and Nature, Food Health talk.



Fig 40: Growing for beginners workshop in the polytunnels

Cork Food Policy Council

On a related note the Cork Food Policy Council (chaired by Dr Colin Sage of UCC, and coordinated by UCC postgraduate Tara Kenny) (as discussed in Chapter 3, under Food) is working towards the achievement of a fairer, healthier, more secure and sustainable food system within the City and throughout the region. This involves communication and outreach within and beyond the campus.

UCC Green Campus Participation in Local Government Decision Making Process through the Public Participation Network.

Public Participation Network is the new national framework for public engagement and participation that has been established in both Cork County & Cork City Local Authorities. The PPN is the main link through which the local authority connects with the community and voluntary, social inclusion and environmental sectors. As an environmental group with strong interest in the municipal districts of both Cork City and County, UCC Green Campus registered to participate in the PPN of both local Authorities. In addition, Green Campus committee member, Darren Reidy has been appointed to the

secretariat of the Cork City PPN, having been elected by the other members of the PPN to represent the Environmental Pillar on the secretariat. Green Campus also ran three candidates for positions on Strategic Policy Committees:

- Transport SPC: Stephan Koch, Nominated by us, seconded by Cork Community Bikes, deemed elected.
- Housing SPC: Joseph Finnerty, School of Applied Social Studies, nominated by us, seconded by Cork Simon Community, deemed elected as secondary stand in.
- Planning SPC: Michael O Sullivan, B&E, nominated by us, seconded by Newbury House Family Resource Centre. Not elected.

UCC Green Campus can contribute toward these strategic policy committees through the elected representatives on the PPN. Green Campus are also members of the Cork County PPN, but have not run candidates or been elected to any committees within the PPN. We can still contribute to consultation processes etc. as they arise. It is hoped that by participating in both PPNs UCC Green Campus Committee can offer insight and experience to the decision making processes of both local authorities, and represent the environment and sustainable development in local government. Participating in the network has allowed UCC Green Campus to liaise with other environmental, community and social inclusion organisations throughout the city and county. It has also allowed us to extend the consultation process to the wider UCC community. There is a wealth of knowledge and expertise on a variety of topics in the UCC community, by participating in the PPN process we hope to extend our skills and experience in environment and sustainable development into the wider community.



Fig 41: Postgraduate student Darren Reidy representing Green Campus on the Cork Public Participation Network

³²www.thepavilion.ie/peter-dowdall/

Chapter 7: Green Charter

The previous Green Charter is available online.³³ However this has been extensively reviewed and as mentioned a new draft university sustainability strategy is also available online.³⁴

Chapter 8: Conclusion

The impact of the Green Campus both within and across the university and to our wider suppliers and stakeholders has been considerable. The Green Campus has enabled UCC to express some of our key values of leadership on sustainability through mobilising staff, students and our suppliers to think in new ways. The success of some of our suppliers in securing green credentials is testament to this impact. In the university itself the impact on curriculum, research and operations is very clear with the alignment of our strategic plan and academic and physical developments to speak to these values. Issues of maintaining continuity and further development of Green campus are addressed in Chapter 4 - in the action plan. As detailed throughout this document we are attempting to embed sustainability in all aspects of campus life, to enable better, more coherent systems and more effective use of time, people and resources. And perhaps most importantly we will focus on encouraging and nurturing sustainability citizenship and action across the campus and beyond.



“It’s not too late at all.
You just don’t yet know
what **you are capable** of.”

Mahatma Gandhi



³³www.ucc.ie/en/greencampus/policy/

³⁴www.ucc.ie/en/media/support/buildingsandstates/environment/UCCSustainabilityStrategy_interactive.pdf