

An Taisce Green Campus Report 2022/2023

November 2023



Contents

1.	Introduction	3
2.	Green Campus Committee	4
3.	Green Committee Associations	9
4.	Environmental Review	11
5.	Action Plans	24
6.	Monitoring and Evaluation	28
7.	Link to Learning on Campus	71
8.	Informing and Involving the Campus and Wider Community	84
9.	DCU's Green Committees Green Charter	106

1. Introduction

Dublin City University (DCU), established in 1989, is located to the north of Dublin City and is a significant and comprehensive provider of university education, research, innovation, and engagement. DCU gained its first *An Taisce Green Campus Flag* in July 2014 for the Glasnevin Campus and has subsequently gained Green Flag status for the other academic campuses, DCU St Patricks (SPC) and DCU All Hallows (AHC). In addition to the academic campuses there is the DCU Alpha Innovation campus and sports campuses at St. Claire's and Morton Stadium. All within a 5 km radius with over 85 buildings (~300,000m2) on approx. 130 acres. The figure below identified the locations.



Figure 1: DCU Campuses 2020/2021

In 2022/2023 DCU has over 18,000 students and 2,500 staff. DCU is one of the world's leading Young Universities, with a mission to transform lives and societies, through education, research and innovation and focuses on delivering real impact, and addressing global challenges in collaboration with partners and stakeholders.

The <u>DCU Strategic Plan 2023 – 2028</u> - 'Transformation For An Unscripted Future sees the University continue our mission to transform lives and societies. One of four drivers for DCU is Sustainable Development where we continue to embed a

sustainability ethos that will underpin all activities and ensure sustainability in all areas of our operation – Economic, Climate, Social, Financial and Staffing. We appreciate how critical it is to build Environmental, Social and Governance (ESG) capacity across all areas of the University, and this will inform all strategic activity we conduct and will become embedded in the DCU psyche.

In response to the national Climate Action Plan 2023 and the corresponding public sector mandate DCU has submitted to the Higher Education Authority and the Sustainable Development Authority of Ireland its Climate Action Roadmap in March 2023 and a revised edition in Sept 2023. Full copies of these plans are available on our <u>sustainability website</u>.

The DCU Green Committee takes a holistic approach to the themes being addressed across our campuses and as such we endeavour to address all themes on an ongoing basis. Our actions plan below identify ongoing and new activities across the themes of Energy, Water, Waste, Biodiversity, Transport and Communications.

2. Green Campus Committee

The DCU Green Committee is open to all staff and students in the university. The Green Committee at DCU is renewed each year early in semester one. There is one Green Committee bringing together representatives from all campuses. A call to all staff and students via email was circulated early in semester one. The call includes an opportunity to identify what targeted actions the Committee will seek to undertake each year. The figure below shows the change in numbers and breakdown of the committee 8 years.

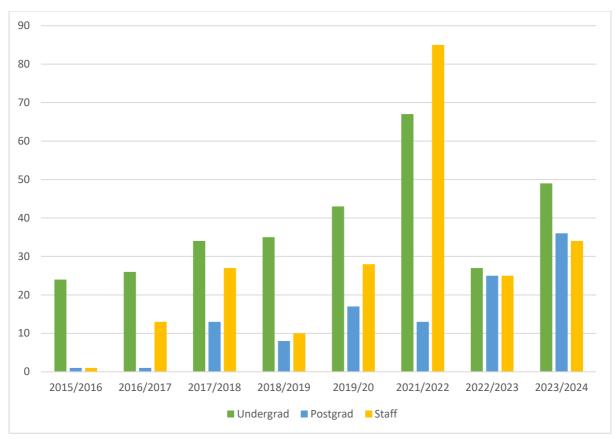


Figure 2: DCU Green Committee Membership 2015/16-2023/24

At the initial introductory Green Committee meeting there is a presentation/overview of the past achievements/activity of the past committee, a discussion on the proposed actions and a call for project leaders and team members. Meetings were monthly and rotated on each campus.

Survey response

This section will summarise the responses to the 2022/23 and the 2023/24 surveys and outline the proposed focus for the outgoing and incoming year. There were 77 responses in 2022/23 and 119 in 2023/24 from right across the university (figure 3&4 & 6/7).

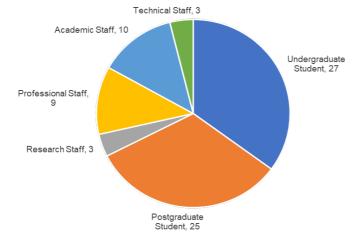


Figure 3: Breakdown of total response to Green Campus Survey 2022/23 (tot 77)

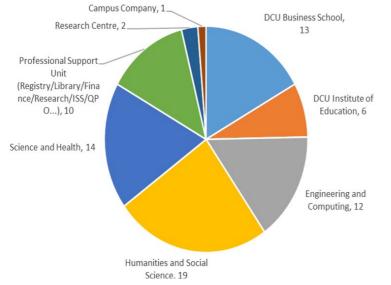


Figure 4: Breakdown across faculties/university units (2022/23)

As part of the survey respondents are asked to identify which projects, they would most like to see advance. The figure below identifies the proposed focus for 2022/2023 -

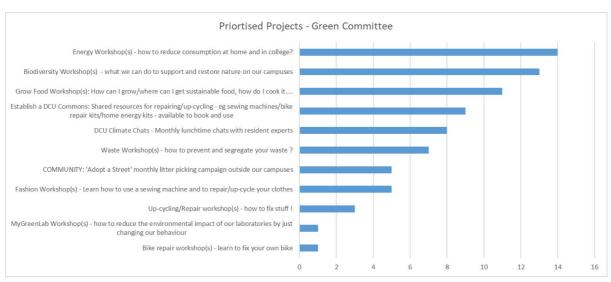


Figure 5: Overall response to proposed projects (2022/23).

Interesting to note that in 2022/23 the Energy crisis is top of the agenda but not surprising given the topical nature of energy at the time.

At the time of submission of this report the data has been gathered for the 2023/2024 Green committee and in summarised below (Fig 6 and 7). Overall, there is an increase in interest particularly in the undergrad student category.

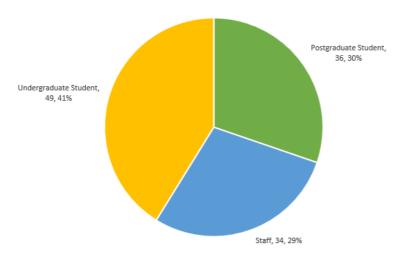


Figure 6: DCU Green Committee 2023/24

The breakdown across facilities is somewhat different this year compared to previous with Humanities and Social Science demonstrating significantly more interest. There may be some impacts due to the establishment of 'green teams' in line with the Climate Action Roadmap but details of this are not available at this point.

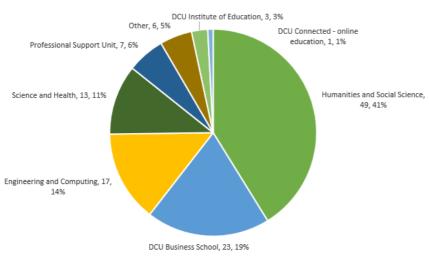


Figure 7: DCU Green Committee across faculties

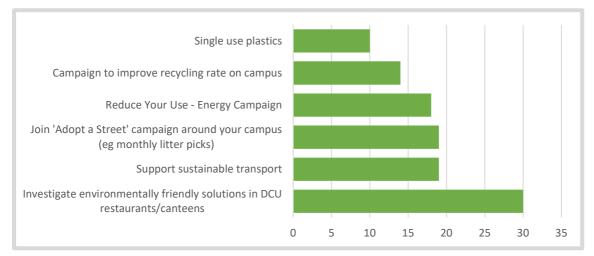


Figure 8: Priority projects in 2023/24

3. Green Committee Associations

DCU Green committee has several links and associations.

Organisation	Activity
An Taisce Green Communities	DCU and particularly DCU community gardens work with the An Taisce Green Communities team to provide access and support for project in the community.
Cloughjordan Eco Village	Memo of Understanding, Working together on shared learning journey.
DCU Cycling Club	To promote cycling facilities on campus and intercampus
DCU Office of Student Life	Several linkages including sustainable bottle/cups, community employment and engagement
DCU Students Union	Work together with Sustainability and Green Committee to communicate message and organize and support events
DCU Sustainable Living Society	Strongly linked to green committee and activities to promote sustainability to student body
Drumcondra Tidy Towns Association	DCU Sustainability/Green Committee are working with the Drumcondra TT Ass to help increase biodiversity on the Drumcondra facing perimeter of St. Patricks Campus including new flower baskets, propagation of native ivy, support maintenance of DTT planters etc
Dublin City Council	DCU Sustainability/Green Committee have several engagements with DCC including the removal of hot water from public sanitary facilities, refurbishment of sheds on the DCU Glasnevin Community Garden and the Adopt a Street programme
Eastern and Midlands Regional Authority	Memorandum of Understanding; DCU as a HEI has forged valuable links within the region with industry, local government, other public bodies, and community. DCU can therefore contribute to the development and implementation of the Regional Economic and Spatial Strategy for the Eastern and Midlands region several ways.
Global Consortium for Sustainability Outcome (GCSO)	The Global Consortium for Sustainability Outcomes is a non-profit international consortium of universities that collaborate to implement and scale solutions to sustainability challenges. GCSO membership spans seven countries on three continents, enabling universities to work together in partnership with each other and with governments, businesses, schools, and NGOs. 2018-2020.
IBikeDCU Society	To promote biking, basic skills incl rules of road etc.
Mens Shed Association & Ballymun Mens Shed Association	DCU is working to support the Mens Shed association and Ballymun Shed.

Organisation	Activity
National Transport Authority	Smarter Travel Campuses programme and several support awards to improve transport related initiatives at DCU
North Dublin Chamber of Commerce (NorDubCo)	Working on sustainable project implementation including hot water and policy recommendations
Other third level institutions	DCU participated in several forums and event where it works together with other HEI's to develop and deliver the sustainability message! E.g., IUA Sustainability WG
Phibsboro Tidy Towns Association	DCU Sustainability/Green Committee are working with the Phibsboro TT Ass to raise awareness on waste and water issues
RCE Dublin: United National Regional Centre for Expertise in Education for Sustainable Development	RCE Dublin is coordinated by Dublin City University (DCU) and its partnership includes educational organisations (DCU, Educate Together), Public bodies (An Taisce, Dublin City Council), industry-academia networks (Sustainable Nation) and non-governmental organisations (FightingWords, Exchange House Ireland and ECO-UNESCO).
Rediscovery Centre	Several linkages including weekly bike clinics, fashion workshop and education and awareness raising programmes.
Smarter Travel Campus Group	Working to achieve a 90% of campus users using a sustainable form of transport.
Sustainable Energy Authority of Ireland (SEAI)	DCU have several links to SEAI including grant aid under the Better Energy Communities Awards, as members of the Better Energy Communities Network, and working with SEAI to increase awareness of energy reduction and efficiency by DCU Staff through energy awareness workshops
Sustainable Energy Communities	DCU SEC works in conjunction with other SEC to promote and engage homeowners to access grants available to upgrade energy efficiency of homes.
The DCU Vegan Society	To support positive choices in the DCU restaurants
Union of Students of Ireland (USI)	DCU is one of the four universities participating in the EU funded SAVES (Students Achieving Valuable Energy Savings) Programme in conjunction with DCU Residences.

4. Environmental Review

This section will give an overview of Energy, Water, Waste, Biodiversity and Transport at DCU in 2022/23.

Energy

The DCU Estates Energy Team has a long track record of delivering on our energy targets as set by the Sustainable Energy Authority of Ireland (SEAI). In 2020, DCU exceeded the national public sector 33% energy efficiency target by 2020 and in 2022 has exceeded the 2030 energy efficiency target of 51%. The university has undertaken several infrastructural projects include LED retrofit, insulation upgrades, building fabric and glazing upgrades with several more in the pipeline many supported with SEAI Communities funding. The figure below is an extract from the SEAI Monitoring & Reporting tool and indicated that DCU's energy efficiency performance is tracking well below the target glidepath even with the bounce back from post COVID return to work.

Achieving the energy efficiency targets is positive progress however the new targets established under the *Climate Action and Low Carbon Dev. (Amendment) Bill 2021* and the National Climate Action Plan 2021 and 2023 for absolute carbon emission reductions are significantly more challenging.

Since Energy Efficiency Baseline to 2022



Energy Performance Indicators - 2022



Figure 9: DCU SEAI Monitoring & Reporting Glidepath for 2022

National legislation required a 51% reduction in all greenhouse gas (GHG) emission by 2030 and climate neutral by 2050 there are some difficulties in translating these targets to institutional level. The DCU emission reductions based on the DCU carbon footprint can be seen in figure 10.

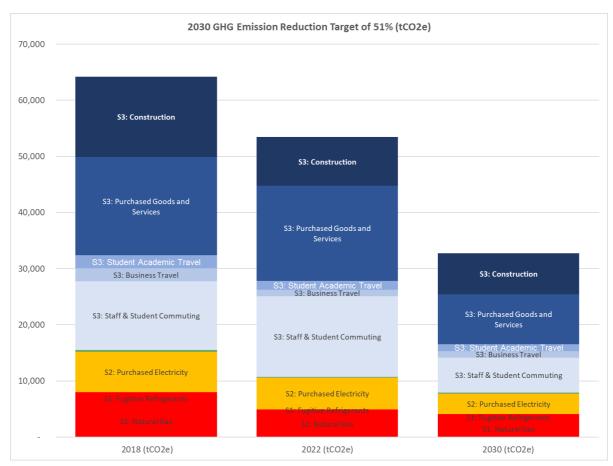


Figure 10: DCU GHG Emission reduction targets in line with National Legislation.

To enable organisations to start/continue the journey to climate neutrality, National Climate Action Plans are published with mandated actions for specific sectors. Currently the public sector emission reduction targets are focused on energy related emissions and include:

- 51% reduction in energy related ghg emission by 2030
- 50% energy efficiency by 2030
- Climate neutral by 2050

Our pathway to meeting these targets can be seen in figure 11 below which comes from the SEAI 'Gap to Target' tool for DCU. Significant resources will be required to enable DCU to implement the measures necessary include heat pumps, district heating systems and deep retrofits to meet these targets. Details of all actions can be found in the <u>DCU Climate Action Roadmap</u>.

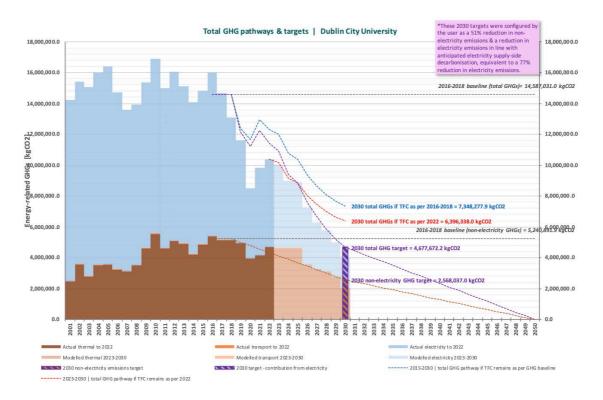


Figure 11: DCU Energy Decarbonisation Target Glidepath towards 2030

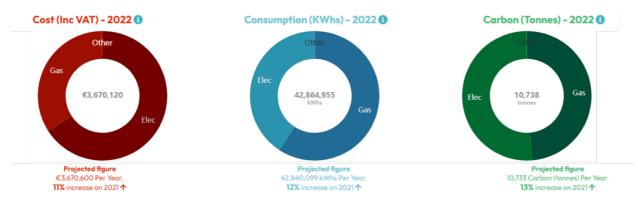


Figure 12: Energy costs, consumption, and carbon for 2022

Any reported reduction or increases over the past couple of years is mostly due to COVID. Figure 12 below tracks the transition across COVID. The green bar for 2020 (12 mts) is an estimate based on a simple doubling the first 6 mts of consumption. It can be seen that in 2022 consumption exceeded that of 2019 in both gas and electricity.

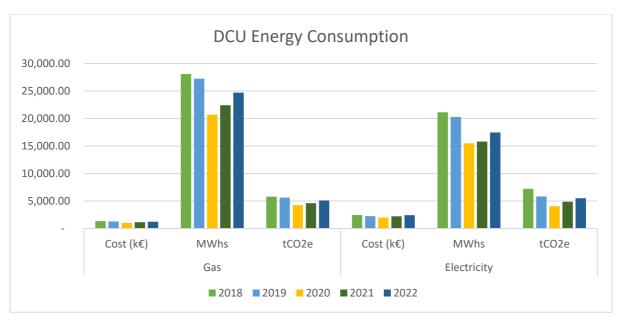


Figure 13: Energy consumption at DCU 2018- 2022

Water

Over the past number of years DCU has addressed some significant leaks within our water systems- such leak detection surveys are ongoing. Figure 11 below shows water consumption levels across all campuses from 2018 to 2022 (half yr). The impact of COVID is again evident.

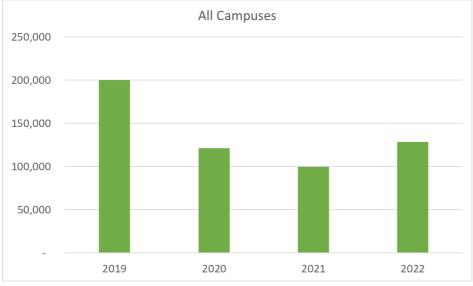


Figure 14: Water consumption on DCU campuses 2019 - 2022 for all DCU campuses

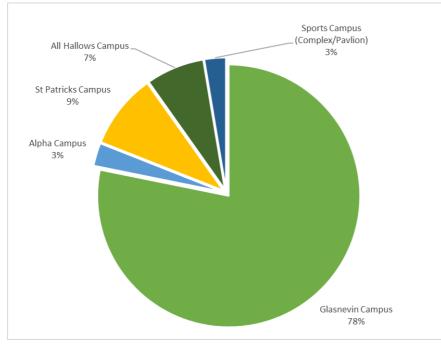
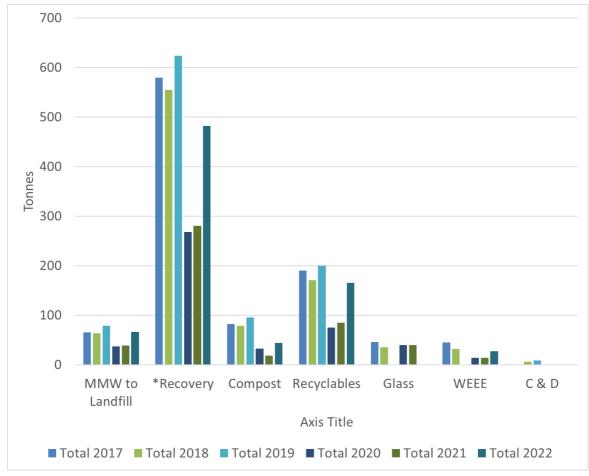


Figure 15: Water consumption in 2022 by DCU campus

Waste

DCU along with Thorntons Ltd, DCU's waste contractor, are continuing to closely monitor waste generation and management across all campuses and is working towards reducing total waste. Figure 16 below identified the waste levels from 2018 – 2022. In additions, student led ongoing litter surveys have also been undertaken across all campuses and cigarette butts continue to be the highest volume litter on campus.

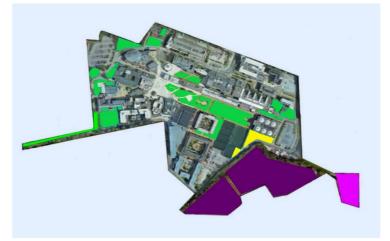




Biodiversity

DCU has a Biodiversity plan for the university and is a partner in the national All Ireland Pollinator Plan¹. In late 2022, DCU joined many universities from across the world in pledging to be a <u>Nature Positive University</u>.

The DCU Biodiversity Plan commits to protecting biodiversity and embedding this protection into decision making across all sectors of the University including building and grounds management, public realm spaces and in the construction of new buildings. To support efforts toward a nature positive campus, student led surveys of green spaces across the DCU campuses (see figures below) were undertaken to provide a base line for reaching pledged targets.



Key:
Regular Green Space
Key Biodiversity Area
New Fields
DCU Gardens

Figure 17: Map of the DCU Glasnevin Campus



Key: Regular Green space Key biodiversity Area

Figure 18: Map of DCU St Patricks campus

¹ <u>https://pollinators.ie/partners/</u>

Key:
Regular Green space
Key biodiversity Area

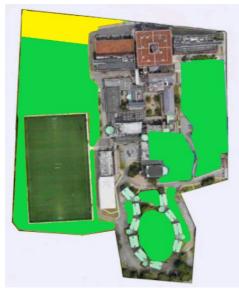


Figure 19: Map of the DCU All Hallows Campus

Campus	Regular GS (m ²)	KBA (m²)	Gardens (m²)	New fields (m ²)	Total (m ²)
All Hallows	26170	140	n/a	n/a	26310
St. Patricks	29885	6000	n/a	n/a	35885
Glasnevin	18495	2205	4760	30610	56070
Total	74550	8345	4760	30610	80690

Table 1: Summary of areas across DCU Academic Campuses

Transport

Dublin City University is a multi-campus university and the second largest commuting hub in the north Dublin region after the airport. DCU works closely with the National Transport Authority and undertakes regular travel surveys of all staff and students to assess current transport choices vs previous surveys.

Year	# Respond	Response Rate	Foot	Bike	Bus	Rail	Car	Carpool	WFH
2023	1296	8%	14%	11%	39%	9%	20%	5%	1%
2022	1243	8%	15%	9%	32%	6%	28%	6%	2%
2019	2050	11%	20%	10%	35%	7%	25%	3%	
2018	2284	13%	18%	10%	34%	7%	26%	3%	
2017	1135	6%	14%	10%	27%	6%	38%	4%	
2016	2494	14%	21%	9%	33%	5%	27%	4%	

Table 2: DCU Transport Data Surveys

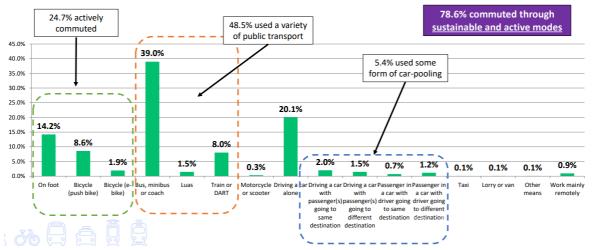


Figure 20: Response to regular mode of transport used to travel to DCU in 2023 survey.

The main reasons given for modal choice was quickest (30.6%), lack of alternative (26.6%) and cheapest (16.7%). It is difficult to know if the lack of an alternative is known or perceived. The 'occasional modal choices' responses indicate that assess to the University by sustainable transports went up from 78.6% to 91%, which demonstrate that there are alternatives that commuters can take but they choose not to most of the time.

Compared with the previous year's survey results, there was a 9.5% increase in the use of public transport as a modal choice. There are several factors that contribute to this:

- reduced rate 'TFI 90-minute fare'

. There was also an 8% reduction in single-occupant car usage observed.

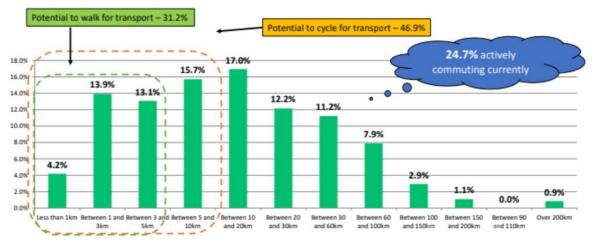


Figure 21: Distance travelled to campus.

The distance travelled by commuter to campus is shown in Figure 18 – it is thought that distance travelled in general is increasing potentially due to accommodation issues but the frequency of attendance on campus is reducing (Fig 16).



Figure 22: Average number days on campus in last semester (Jan – April 2023)

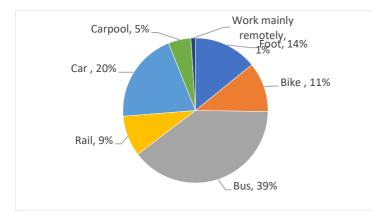


Figure 23: Percentage breakdown of each mode of transport for DCU commuters in 2023

Carbon Footprint

DCU actively seeks to contribute to the creation of a post carbon world and in doing so, it is seeking to become a carbon neutral campus. Following the **Greenhouse Gas Protocol Corporate Standard** DCU carries out a comprehensive carbon footprint each calendar year since 2018. The university includes Scope 1, 2 and 3 emissions – see figure 24.

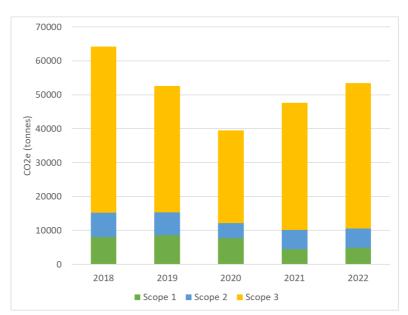


Figure 24: DCU Carbon Footprint across Scope 1, 2 and 3 from 2018 to 2022

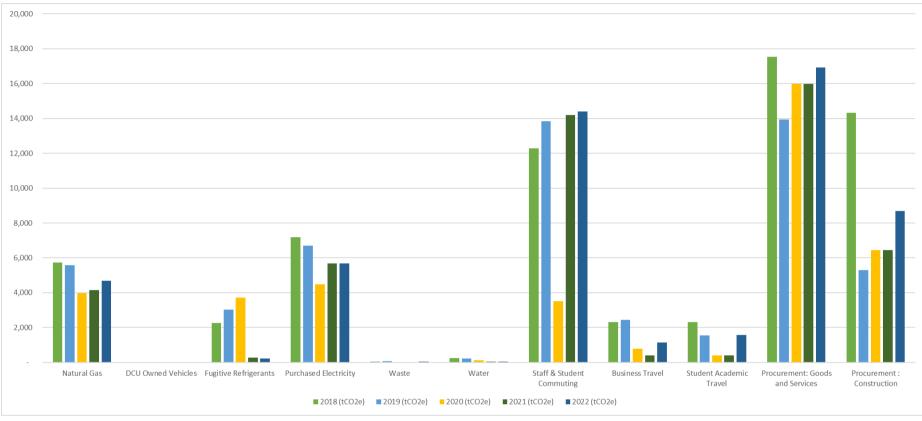


Figure 25: DCU Carbon footprint 2018 – 2022

In the figure above, the comparative impact of the different activity and their change over the years is clear to see, for example the total GHG emission or carbon footprint for waste and waste is relatively small compared with staff and student commuting. Equally the impact of covid on the staff and student commuting in 2020 is also evident.

A breakdown of DCU Carbon footprint for 2022 – it should be noted that the error bars are significant in these calculations but that it is understood that it is in the right ballpark and comparable with other similar institutions.

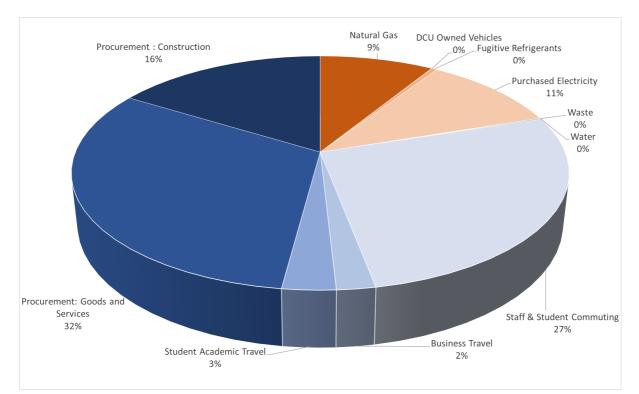


Figure 26: Total breakdown of DCU CO2e emissions in 2022 - total GHG emissions were 53,436 tonnes of CO2e.

5. Action Plans

The DCU Green Committee endeavours to keep our Action Plans up to date. They are available on a share drive for individuals to update. This sometimes does happen! However, most updates are done by the Sustainability Office with information supplied by different groups etc. New actions are added to the end of the list to ensure that where projects have not been finished that they are not forgotten and must be reinvented. It is evident from the Action plans that measures are new, and which are ongoing. One of the ongoing challenges is the capturing of ideas and suggestions from enthusiastic new members and the management of their expectations on who should deliver the fantastic solution that they propose. The green committee survey helps to capture everyone's input.

At the annual recruitment phase a set of proposed projects (at some building on projects from previous years) are suggested for Students and staff to vote on. There is also an opportunity for students/staff to propose new projects. The figures below show the voting response from the Green Committee for both 2022/23 and 2023/24.

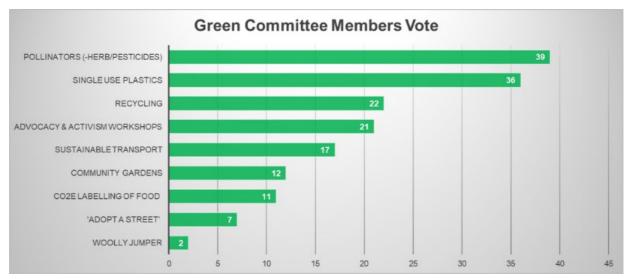


Figure 27: Vote from those who also agreed to participate in green committee (2022/23)

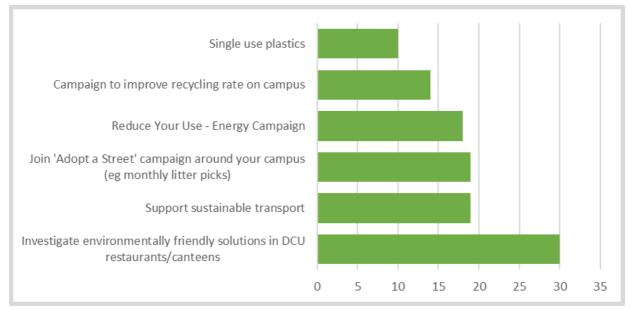


Figure 28: Vote from those who also agreed to participate in green committee (2023/24)

When asked what people are willing to work on most respondents indicated they will work on recycling more, cutting out single-use plastics and joining a team/project.

Finally, when asked what project people would like to see that were not listed included:

- More water fountains and refill drink services
- Improving the bin infrastructure, adding compost bins and more signage around campus
- Reducing the transport carbon footprint of staff/students
- Improving cycle lane infrastructure in and around campus
- Bikes/scooters available to hire.
- Raising awareness of fast fashion and its environmental impacts
- Set up a swap-shop event working with DCU Fashion Soc
- Use DCU roof space for green areas and increasing biodiversity.

Summary of Action Plans 2022/23 -> 23/24

A copy of the DCU Green Committee Action plan for 2023/24 is attached in the appendix – this is a working document that all green committee members have access to and can amend and input to. The summary actions outline below are inclusive of all cross-campus actions to address the climate and biodiversity challenges.

Energy

- Maintain ISO 50001:2018 Energy & Water management Standard.
- Develop and communicate an energy/carbon management plan including the Reduce Your Use Campaign
- Continue raising awareness of energy consumption by Students, Staff and Visitors

- Move to renewable energy supplier and install more renewable energy generation on campus.

Water

- Maintain ISO 50001:2018 Energy & Water management Standard.
- Continue to communicate about Water consumption awareness.
- Continue to identify and fix leaks.
- Communicate water consumption data to all staff and students.
- Treat as a valuable resource
- Continue to enhance and improve drinking water fountains on all campuses.

Waste

- Continue efforts for the removal of single use catering materials on all campuses in line with Climate action mandate.
- Fast-Fashion Action: Weekly Swap shop, with supporting upcycling/repairing workshops
- Communicate waste information to all staff and students.
- Where feasible ensure consistent messaging on all bins
- Circulate the IUA developed Waste Game to support understand and effectiveness of waste segregation.
- Work with procurement on waste prevention at source
- Continue 'Adopt a Street' campaign around all campuses.
- Bin-less office pilot
- Assess all paper-based process and digitise them where feasible in line with Climate Action Mandate

Biodiversity

- Work with and support the DCU Biodiversity Working Group
- DCU Community Garden Programme of works and engagements.
- Pollinator plan for DCU
- Increase awareness of the importance of biodiversity
- Increase biodiversity on campus through tree planting events.
- Investigate that possibility of developing a conscious reciprocal relationship with nonhumans on campus.

Transport

- Continue to revise and update the DCU Mobility management plan.
- Continue Smarter Travel Campus' Walking and Cycling Challenges

- Seek to Adopt recommendations received from the NTA through the Smarter Travel Mark to enhance the sustainable travel facilities and options on campus.
- Enhance intercampus mobility.
- Trial potential Maas solution on living lab environment
- Increase communications regarding the availability, and benefits, of sustainable travel when commuting to DCU; a communications plan and new 'Commuting to DCU' webpages have been devised for this purpose.

Communications

- Continue to work with DCU Comms to ensure a regular sustainability message is visible on the e-screens across campus.
- Make the SLS Green Guide for DCU Students available on the DCU website.
- Develop leadership/Advocacy and activism skills.
- Carbon guide for meals /Campaign to reduce impact in restaurants.
- Promoting awareness of Sustainable Development Goals (the Sustainability Living Society with support for several clubs/societies etc have launched a 17-week campaign to promote the UN SDG)

6. Monitoring and Evaluation

This section covers the monitoring and evaluation of actions undertaken across the past number of years since our last renewal.

Energy

While a lot of the heavy lifting in relation to energy projects are undertaken by the DCU Estates team, there are also ongoing projects with the DCU Green Committee to raise awareness and deliver behavioural change. Below are some examples of projects being undertaken across the DCU campuses.

Energy management

DCU senior management and in particular the DCU Estates Energy team are committed and focused on reducing consumption and improving energy efficiency across the DCU campuses. In conjunction with SEAI several projects have been implemented to deliver on these targets. Figure 29 below shows two certificates – our ISO50001 and our Renewable Electricity Cert from Electric Ireland.



Figure 29: DCU ISO 15001:2018 Certification – Valid to 2023 and the Renewable Electricity Cert for DCU

A new solar powered Smart Bench (Strawberry Energy Bench) has been installed as part of the Public Realm project along the main mall on the Glasnevin Campus opposite the McNulty building. The Smart Bench provides many features accessible by the DCU community including, mobile device charging points and real time local environmental data. There is a mobile app to view real time environmental data such as Temperature, Humidity, Air quality, Air pressure and Noise levels.

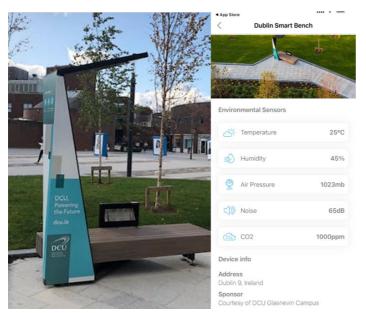


Figure 30: Smart Bench at DCU Glasnevin with environmental data available on app

DCU Sustainable Energy Community



DCU Sustainability has established a Sustainability Energy Community at DCU and over the past couple of years have run several workshops both f2f and virtually to engage and inform DCU homeowners of the grants available from SEAI to reduce home energy consumption. The overarching objective is to provide students and staff with their own home information on how to reduce their energy consumption and what supports are available via SEAI to help them make the necessary changes. While the information is all available, including sample energy audits, on the DCU Sustainability website unfortunately due to resource constraints there has been limited actions in the SEC now. A home energy kit continues to be available from the DCU Sustainability office for anyone to assess their home. The Sustainability office is also working to expand this scheme to our local community around the universities campuses when resources are available.



Figure 31: Collage of various initiatives and information circulated to DCU Students and Staff

The *Reduce Your Use* campaign, support by SEAI was focused at reducing energy consumption particularly over the winter period. A weekly email was co-created by DCU Estates and Sustainability DCU with inputs from SEAI with information on energy consumption and tips and tricks of how to reduce it. The Table below shows a comparison in energy consumption between Oct 2019 and Oct 2022 for the DCU Academic Campuses. The total energy comparison saving is approximately 823,449kWh which is the equivalent of powering 196 average houses for a year! (Based on 4,200kWh/annum electricity consumption per average Irish household as calculated and monitored by the Commission for the Regulation of Utilities (CRU).)

	Consumption Perfo 2022 vs October 20	rmance Comparison 019 (Pre-Covid)	
Campus	Oct-22 (kWh)	Oct-19 (Pre-Covid Consumption)(kWh)	Yr/Yr % Change
Glasnevin Campus	2,355,737	3,095,001	q -24%
St Patricks Campus	556,586	565,767	q -2%
All Hallows Campus	138,743	213,747	q -35%
Total GLA/SPC/AHC Campus	3,051,066	3,874,516	q -21%

Table 3:Comparison of energy consumption in Oct 2019 and Oct 2022 highlighting savings at least some of which were attributed to the Reduce Your Use campaign.

Along with the emails further information is available on the <u>DCU unplugged website</u>. The programme will commence again in Oct/Nov 2023 for the coming winter months.

DCU Marconi Retrofit Pathfinder



The Marconi Building Retrofit was completed in 2023. This project is a trial demonstrator project on the integration of a heat pump into an existing heating system, together with a number of fabric retrofits and PV. The retrofit brings the building to a B2 Energy rating and all learnings are shared openly.

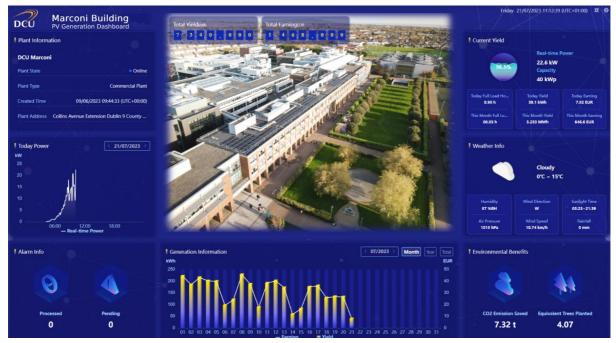


Figure 32: Graphic of the measures and improved performance of the DCU Marconi Building following its deep retrofit.

Water

The DCU Estates undertake regular water audits to identify and rectify leaks on all campuses and this is reflected in the consumption data. In 2019 a water balance exercise was undertaken to provide a baseline for required reductions by 2030 (figure below).

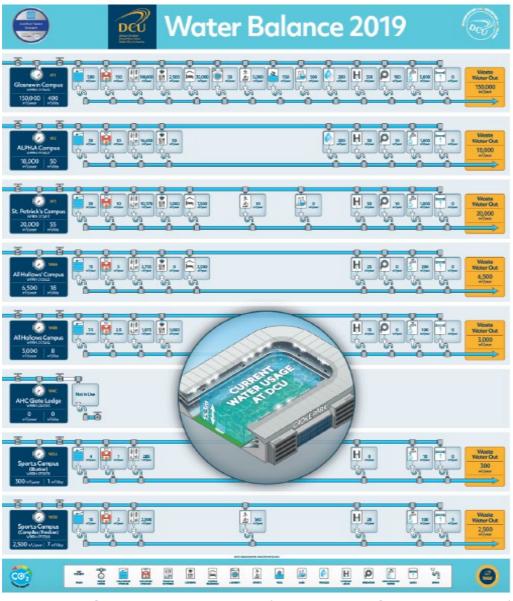


Figure 33: DCU Water Balance 2019 (Baseline Year for 2030 Targeting)

An analysis of this baseline date shown in figure 31 below, it is interesting to note that 67% of the potable water coming into DCU is used in toilets and showers and this could be even bigger if we consider that a large portion of the campus residences is also toilets and showers.

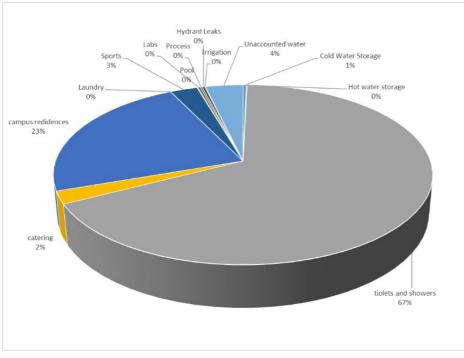


Figure 34: Breakdown of water consumption at DCU (2019)

Several measures are being taken to address this both from the estates side and the student engagement side.

Water Management

DCU manages and reduces water consumption through the university's ISO 50001 certification. An important part of our water conservation planning for 2030 was for DCU to complete the Irish Water and Central Solutions led Stewardship programme. It is a fully accredited system and DCU achieved certification in March 2019 with the added bonus of winning the Irish Water Conservation Planning Award in 2019 and the UK Times Higher Education Award in 2022.



Figure 35: DCU certified Water Steward Badge from Irish Water.



DCU wins major Green Award for reducing water consumption

Figure 36: DCU Wins major Green Award in 2021 for reducing water consumption under the Green Business Awards

DCU Water Charter

Mission, Policy & Charter

DCU's water conservation mission is to ensure our entire community receive a safe and reliable supply of clean potable water across all of our campuses and facilities, and endeavour to conserve this most valuable resource, both responsibly and sustainably. DCU are fully committed to responsible water management and strive to efficiently manage and reduce the consumption of water whilst providing an optimal learning and research environment. Our policy is to:

- Commit to Water Conservation, Continual Water Management Improvement & Regulation Compliance
- Set Aggressive Targets to Reduce Water Consumption & Costs
- Promote Water Conservation throughout the DCU Community and Engage with Research & Learning
- Project a Water Conservation Friendly Image, Demonstrate Stewardship Commitment & Lead by Example
- Continuously Review Water Conservation Strategy, Planning, Targets & Progress.

An early priority was the completion of the certified water stewardship programme, managed by *Irish Water*, and gaining certification helped set out our action plans which included the completion of region level and campus level water mapping, water balancing, water audits across all campuses, setting of aggressive ambitious targets, creation of an inclusive and engaged awareness programme, repairing pipework leaks, installation of sub-metering, installation of efficient sanitaryware and fittings, optimisation controls, measurement and understanding of the true cost of water, maintaining a register of opportunities and a year on year action plan. Our charter summarises our objectives and goals.

ubl	in City University Water Stewardship	p Charter									
		Created By			Revision		^	oproved By			Date
		Rebard Kelly			0		Exhault i	selly/Gerard N			28th May 2019
siness Pi	rioritics/ Targets for Water Stewardship	Here a letty	E	Baseline Water Use			Rechard 1				
item	Business Priority/Target Statement		Priority	Meteri	ng and Monitoring		Wat	ter Dill Analy	uia.		rue Cost of Water
1	Commit to Water Conservation and Continual Water Management Improvement		Hich	Water Mapping & Signi	ficant Water Users [Water Bills Anal	lysed and Sum	marised:		sts associated with Wate
2	Set Aggressive Targets to Reduce Water Consumption and Costs			identification to guide a installation and conserv			Glasnevin Camp AUPIIA Campus			Consumption Water Heatin	g, circa < 100,000,
3	Promote Water Conservation throughout the DCU Community and Engage with Research and	d Learning Activities		Campus Water Baselink			St Patricks Camp				costs, circa, € 50,080,
4	Project a Water Conservation Friendly Image, Demonstrate Stewardship Commitment and Le	ead by Example		Monitoring project to b the Water institute and		in Irsh Water,	All Hallows* Can Sports Campus 1				d Water, circa, C25,000 1 ve significant cost increas
5	Compliance with Regulations and Legal Requirements		atigh					,,		across all Can	
6	Continuously Review Water Conservation Strategy, Planning and Progress		High								
	wardship Action Plan/Targets									-	
iter Stev Item	Description	Action Type			pact/Targets			Who	Next		Target Completion
		Action Type Just Do It	Knowledge, Com	Im mpetence and Expertise			E	Who states Office	Next Complete W		Target Completion May-19
	Description					acilities	-			ater Charter	
	Description Complete Irish Water Stewardship Programme	lust Do It	Understand Wat	mpetence and Expertise	s all Campuses and F	acilities	E	states Office	Complete W Final Check	ater Charter	May-19
ltem 1 2 3	Description Complete trish Water Stewardship Programme Complete Region and Campus Level Water Balance Mapping	lust Do It Kaizen Event A3 Project	Understand Wat	mpetence and Expertise Iter Consumption acros	s all Campuses and F	acilities	E	states Office states Office	Complete W Final Check Initiate	later Charler s & Sign Off	May-19 Jun-19
Item 1 2 3 4	Description Complete trish Water Stewardship Programme Complete Region and Campus Level Water Balance Mapping Complete Campus Water Audits	lust Do It Kaizen Event A3 Project	Understand Wat Locate Leeks and Senior Manager	mpetence and Expertise iter Consumption acros id Unaccounted for Wal	s all Campuses and F	acilities	E	states Office states Office states Office	Complete W Final Check Initiate	later Charter s & Sign Off Audits te Policy	May-19 Jun-19 Sep-19
Item 1 2 3 4	Description Complete trish Water Stewardship Programme Complete Region and Campus Level Water Balance Mapping Complete Campus Water Audits Oblain Senior Managament Commitment, Approve, Sign & Launch Water Managament Policy	lust Do It Kaizen Event A3 Project y and Plan A3 Project	Understand Wat Locate Leaks and Senior Managen Cut Water Consu	mpetence and Expertise Iter Consumption acros Id Unaccounted for Wal ment Commitment	s all Campuses and F ter		E E E	states Office istates Office states Office istates Office	Complete W Final Check Initiate Complet	later Charter s & Sign Ott Audits te Policy argets	May-19 Jun-19 Sep-19 Sep-19
ltem 1 2 3 4 5 6	Description Complete Hish Water Streundship Programme Complete Region and Campus Level Water Balance Mapping Complete Campus Water Audits Oblain Senior Managament Commitment, Approve, Sign & Leanch Water Management Policy Set Aggressive Reduction Largets for 2023 and 2025	lust Do It Kaizen Event A3 Project y and Plan A3 Project A3 Project	Understand Wat Locate Leaks and Senior Manager Cut Water Consu Awareness of wi	mpetence and Expertise iter Consumption acros id Unaccounted for Wal ment Commitment umption and Costs	s all Campuses and F ter I how we can Conser		E E E E	states Office states Office states Office states Office states Office	Complete W Final Check Initiate Complet Set Te	later Charter s & Sign Off Audits te Policy argets Vater Team	May-19 Jun-19 Sep-19 Sep-19 Aug-19
ltem 1 2 3 4 5 6	Description Complete Irish Water streamship Programme Complete Region and Compos Level Water Balance Mapping Complete Campus Vatera Audits Obtain Senior Managament Commitment, Approve, Sign & Leanch Water Management, Policy Set Aggressive Reduction Largets for 2020 and 2025 Design and Implement a Water Commervation Awareness Campaign	lust Do It Kaizen Event A3 Project y and Plan A3 Project A3 Project A3 Project	Understand Wat Locate Leaks and Senior Managen Lut Water Consu Awareness of wi Reduced Water	mpetence and Expertise later Consumption acros di Unaccounted for Wal ment Commitment umption and Costs where Water is used and	s all Campuses and F ter I how we can Consen ix Wins		E	states Office states Office states Office states Office states Office states Office	Complete W Final Check Initiate Complet Set Ta Appoint W	later Charter s & Sign Ott e Audits te Policy argets /ater Team eak Testing	May-19 Jun-19 Sep-19 Sep-19 Aug-19 Oct-19
Item 1 2 3 4 5 6 7	Description Complete Irish Water Stewandship Programme Complete Region and Campus Level Water Balance Mapping Complete Campus Water Audits Obtain Senior Mmagament Commitment, Approve, Sign & Launch Water Management Policy Set Aggressive Reduction Largets for 2020 and 2025 Design and Implement a Water Comervation Amareness Campaign Repair Underground Water and Hydrant Leaks	lust Do It Kaizen Event A3 Project y and Plan A3 Project A3 Project A3 Project Just Do It	Understand Wat Locate Leaks and Senior Managen Cut Water Consu Awareness of wi Reduced Water i Tracking and Mo	mpetence and Expertise later Consumption acros di Unaccounted for Wal ment Commitment umption and Costs uhere Water is used and consumption and Quic	s all Campuses and F ter I how we can Consen ix Wins		E E E E E E E E	states Office states Office states Office states Office states Office states Office states Office	Complete W Final Check Initiate Complet Set Ta Appoint W Complete L	Ater Charter s & Sign Off Audits te Policy argets Ater Team eak Testing ing Strategy	May-19 Jun-19 Sep-19 Sep-19 Aug-19 Oct-19 Oct-19

DCU Water Charter

Sanitary Ware

As can be seen from figure 34 the majority of potable water coming onto the DCU campuses is used in toilets and showers. As part of our Water Steward programme DCU Estates is committed not only to the identification and fixing of leaks but also is the installation and trialling of efficient sanitary ware fittings and controls including retrofitting aerator taps, toilet tank bag as water saving devices and shower time controls.

Citizens Science Water Project

DCU Water Institute run an annual citizen science project in collaboration with EarthWatch that aim to incorporate the entire community into monitoring and safeguarding our freshwater bodies like canals, lakes, rivers, streams, and ponds. They run an annual event in Autumn called the WaterBlitz. This is where free water testing kits are provided to get a broad snapshot of all the freshwater bodies in Dublin and its surrounding counties.

The Water Institute also has citizen scientists who live by or regularly use the river Liffey. These people help provide data for consistent monitoring of the water quality for the water they live by and use.

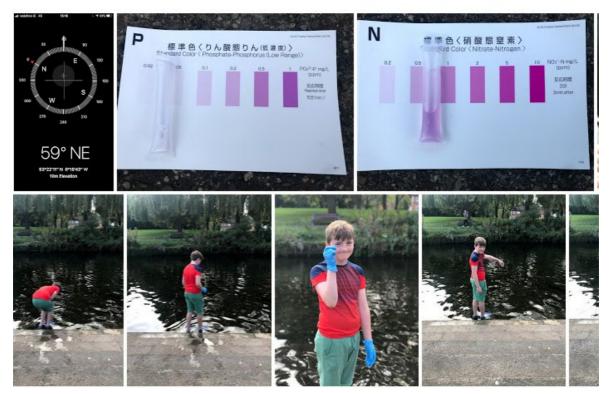


Figure 37: Local participating in WaterBlitz

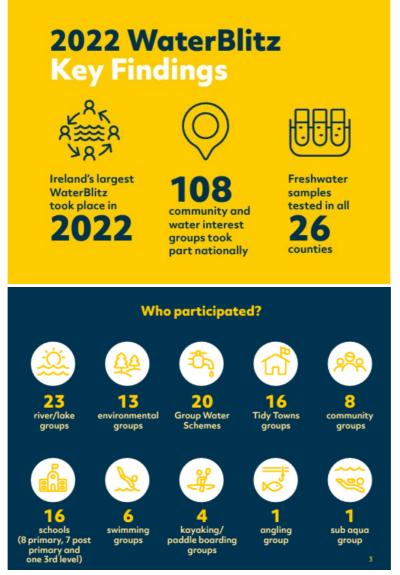


Figure 38: Infographic on key finding and who participated in the DCU Water Blitz 2022

The full DCU-WaterBlitz Report 2022 can be found on the DCU Waste Institute website here: https://dcuwater.ie/water-blitz/.

Water Fountains

Over the past number of years DCU has installed several additional external and internal water fountains. These fountains not only provide students and staff access to potable water at all times but also significantly reduce the amount of waste from single use plastic water bottles.

There are now several of these external water fountains on the Glasnevin Campus with plans to install similar fountains on the All Hallows and St Patricks Campuses over the coming period.

There is, of course, free potable water available on all campuses in restaurant/canteen and coffee dock areas as well as at some water stations internally across the campuses.



Figure 39: Example of external water fountain at DCU.

Waste

The breakdown of DCU waste for 2017 - 2022 across all categories is shown in figure 41 below. It is also clear to see that overall total volumes of waste are reducing although student numbers continue to rise at DCU – figure 40 shows that the full 'back to campus' waste in 2022 is higher than the pandemic impacted 2021 data, but it is 22% lower than the 2019 waste in absolute volume. This is good particularly as there was nearly a 9% increase in student numbers between 2019 & 2022.

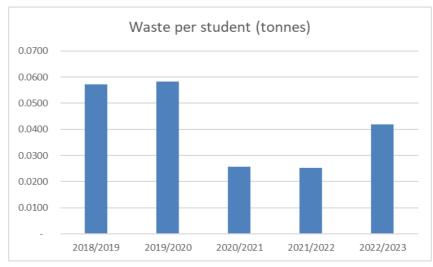


Figure 40: Waste per student 2018- 2022

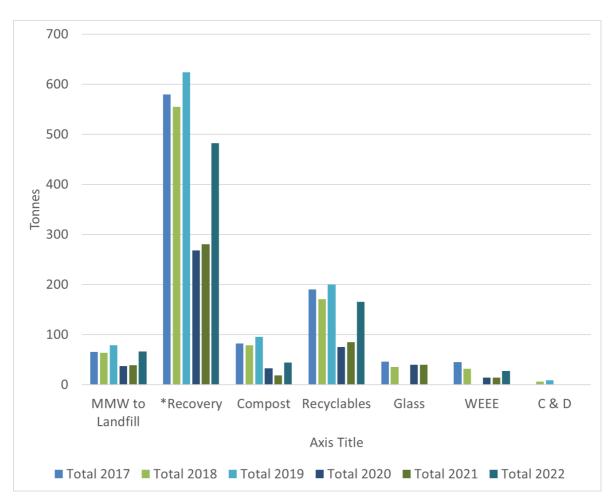


Figure 41: DCU Waste Data 2017-2022 broken down across campuses and waste type.

Below is a summary of some of the projects being undertaken to address waste at DCU:

Zero Waste to landfill

For many years DCU has worked to minimise our overall waste and our waste to landfill. In 2023, following much work and an independent audit DCU has been certified as zero waste to landfill.



Figure 42: DCU Certificate of Zero Waste to Landfill (Apr 2023)



Figure 43: Jane Barker, DCU General Services Manager (centre), being presented with the universities Zero Waste to Landfill Certification, with Maggie Renwick, MBR Consultants and Niamh Clonan, Thorntons Recycling

Promoting Appropriate Segregation @ DCU Green Week

As part of Green Week 2023, Thorntons Recycling set-up and information stand in the student centre at DCU Glasnevin. In additional to lots of valuable information and some easy tips and tricks to reduce waste there was also a waste quiz, students completed the quiz, and two winners were selected. The figure below shows the winners of the smart watches provided by Thorntons Recycling.



Figure 44: Two DCU final year student nurses, winning smart watches presented by Niamh Clonan from Thorntons Recycling

Compost Waste & Lab Plastics



DCU Head of Sustainability and Researchers from Faulty of Science and Health visit the Thorntons Compost Facility to understand how DCU's organic/bio waste is composted and distributed to farmers & gardeners as compost. (1) Initial stage involves the mixing of raw bio/organic waste with woodchip, (2) The mixture is agitated and loaded into bays, (3) over a 12 week period the mixture is rotated through a series of aerated bays (4) following processing through a separator to remove any none organic material (kept to the final stage rather than the start to ensure all compostable bio-plastics are broken down), the mixture is then pastured and several test on continuation and quality undertaken prior to release to farmers/growers.

This is part of an SFI funded Plastic Challenge project – Grain4Lab (more info in links with research).

Single use canteen materials/Single use plastics Ban

DCU continues to work on the removal of single use cups and other single use canteen materials. In 2018/2019 the DCU student body voted to work with the University to remove all single use canteen materials. In early 2020 every coffee dock/restaurant area in DCU had reusable cups/bowls/plates/cutlery available – unfortunately COVID

had a negative impact with many reversions to single use for health and safety reasons. Post pandemic and with the introduction of the Climate Action Mandate to remove all canteen single use materials DCU is again back on the path to more sustainable restaurants/canteens and coffee docks. Over the years DCU has piloted several models for reusable cups, from our own Keep Cups to the cross Dublin City Cup sharing and currently to an app-based Vytal reusables.

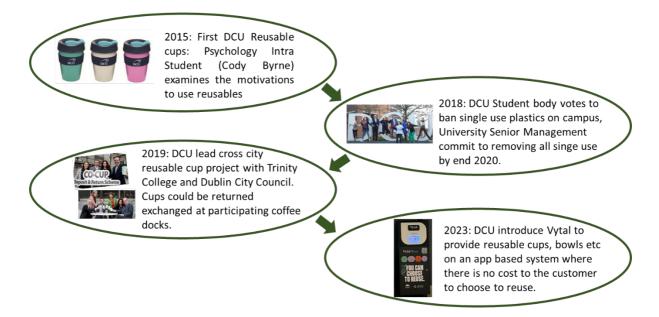


Figure 45: Summary of our progress towards reusables

Additional soft supports are also in place to support the move to 100% reusable by the end of 2023 in line with the Climate Action Mandate and DCUs Climate Action Roadmap commitments. These include smart return bins, cups rinsers and the reusable cups beside the coffee docks.

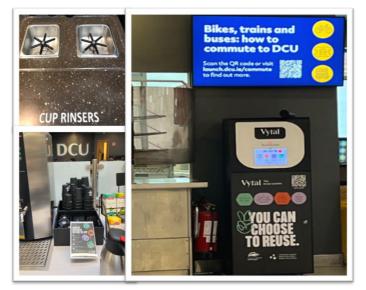


Figure 46: Measures to help the transition to reusable cups.

DCU now also had branded reusable DCU cups available for anyone to purchase. The reusable water bottles and cups are often used as prizes for initiatives and events across the university.



Figure 47: DCU branded cups and bottles available on campus.

Fast Fashion/Swap Shop @ DCU



Figure 48: Call for the DCU Swap Shop from DCU SU

To educate, inform and attempt to mitigate the impact of the fashion industry DCU Sustainable Living Society established a fashion swap shop in 2018/2019. The DCU Students Union have now taken over the organisation of the Swap Shop to ensure continuity. The Swap Shop run on a weekly basis during term time on the Glasnevin campus and has regular excursions to the All Hallows and St Patricks campuses. To support this initiative and to help the with upcycle/repair needs of the student body, DCU works with the Rediscovery Centre who have delivered fashion workshops/upcycle and repair workshops to allow students to learn how to fix or alter their fashion pieces, how to use a sewing machine etc. In 2023/24 it is planned to enhance this further by including a *DCU Commons Facility* i.e., where upcycling/repairing tools and accessories like a sewing machine, materials, threads etc will be available for students to borrow from the SU. This will be supported with additional training from the Rediscovery Centre.

The DCU SU also run regular vintage clothes sales in the Students U on the Glasnevin Campus to support reusing fashion rather than buying new.



Figure 49: DCU SU organise regular vintage clothes sales on campus.

Campus Living Labs

As an active participant of the Irish Universities Association (IUA)/Environmental Protection Agency (EPA) Campus Living Lab project, DCU has worked, cross sectorally, with other IUA universities to co-create waste/circular economy solutions for deployment across our on campus living lab microcosms. Over the two-year partnership several collaborative projects have been undertaken and the results and outcomes openly shared.



Figure 50: IUA/EPA Campus Living labs.

As part of the project 'The Waste Game' – was developed through the Campus Living Labs project in collaboration with IUA universities, The Behaviouralist, a project appointed behavioural change company and with support from MyWaste.ie and regional waste authorities. The resultant app was tailored to specific campuses and rolled out across the staff and student bodies. In DCU, 884 people participated over the three-week pilot with 369 completing the entire game (Fig 51), as can be seen the participation rate was high to start but declined significantly in the final week – much of this was due to promotion at the start. Of those who completed the game 62% declared as female and 36% as male.

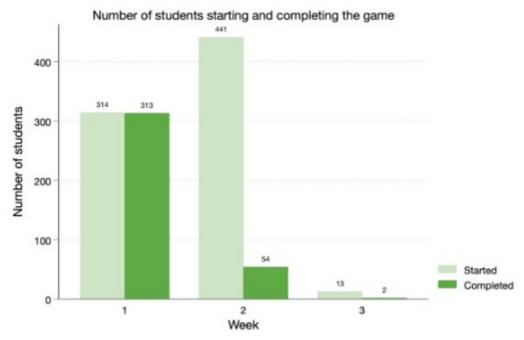


Figure 51: DCU participation rates in the Waste Game Pilot

Almost all who completed the game found the game useful, with 73% finding it very useful and 24% finding it somewhat useful (Fig 52). Participants were also asked how important they felt it was to live a sustainable lifestyle – all respondents felt it was important with 83% saying it was extremely or very important.

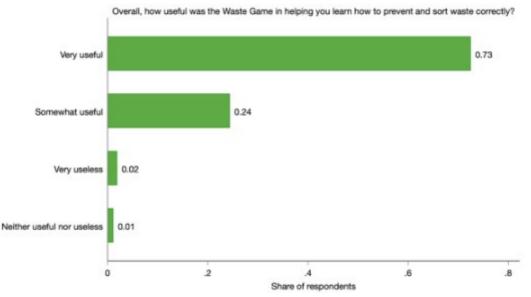


Figure 52: Response to how useful was the Waste Game

The Key findings of the pilots were:

- The Game effective in improving knowledge and key predictors of waste prevention and recycling behaviours, both in the short and the long-term.
- Compared to the full version, the simplified version is more effective and engaging.

- Most students and staff found the game useful and rated the topics addressed in the game highly.
- Most participants are female students in post-graduate studies with strong proenvironmental identities.
- Pringles tubes, disposable coffee cups and packets of crisps are the most challenging waste items to sort. Future educational campaigns should focus on composite packaging and soft plastics.

After the pilots there was a full review, and it was agreed that the game need to be simplified and it was also adapted to be generic for future use across all campuses. The Waste Game is available on the IUA website for anyone to use – it can be found here at https://thewastegame.iua.ie/.



Figure 53: Icon for the Waste Game

Also, as part of this project a series of repair/upcycling workshops were undertaken across participating campuses include Bike Repair workshop, Textile Repair workshops, and Bulky waste workshops. To finish out the project each of the IUA university participated in the development of promotional videos - Eights videos, one for each IUA university, were created with a view to showcase the CLL initiatives and broader university efforts to prevent waste, increase recycling, reuse & repair and to drive the circular economy on campus. You can find these videos on the Campus Living Labs webpage: www.iua.ie/campuslivinglabs.

The success of this project demonstrates the need for collaboration across the sector to reduce the consumption of unnecessary resources and reinvention of wheels. To meet the climate and biodiversity challenges we much move from incremental change to system change, and we can only do that together. There is no first mover advantage in becoming a sustainable institution but as higher education we must lead. We need to provide the evidence, support, and courage to government to ensure that the appropriate legislation and regulation is implemented. We must engage with our enterprise and societal partners and while communicating the scale of the challenges identify the nature based, tech or behavioural change solution that can and will need to implement broadly across our society and our economy. More centrally encouraged and funded projects/initiative along these lines would be fantastic.

DCU Waste Segregated

There are a broad range of bins, both internally and externally, across the DCU campuses. While it might be ideal to replace all with the same style bin, this is very difficult due to resource constraints and that many of the existing bins are perfectly functional and therefore it would not be sustainable to simple seek to replace them for aesthetic purposes. DCU is therefore working on a *consistent message* approach where our three bins system of black/red for general waste, green for clean dry recycling and brown for organic waste is supported with consistent signage. We have worked with mywaste.ie and are in the process of rolling out bilingual waste signage across both the internal and external bins at DCU (fig 54).



Figure 54: External and Internal bins in DCU with consistent mywaste.ie signage.

The implementation of these signs across all bins on campus will support a consistent message and hopefully lead to better segregation levels. It is, however, difficult to ensure that all bins can take the agreed signage for example DCU has recently install some new solar powered belly bins and there are certain internal bins that are not the correct shape to take the same signs (Fig 55 below).



Figure 55: Some internal and external bins at DCU that do not conform to consistent signage.

Litter survey

In 2022 the DCU Green Committee (with particular thanks to Malene Lyngso Larsen) undertook an in-depth litter survey across our three academic campuses (See figure below).



Figure 56: DCU Campuses and the litter data collection points identified on each campus.

As can be seen from the campus maps above (figure 56) several locations were identified on each campus and over May and June 2022 data was collected on a weekly basis for these locations. To aid report a template of common waste items was created (see table 5).

Table 4: A single sample audit sheet for DCU SPC campus

Date & Time : Auditor: 26.05.22 Malene

	SPC1. Main Recpetion/Inner car park		SPC2. Outside Library			SPC3. Pitchside			SPC4. Campus Residences			
Waste Category	No.	Scale	Comment	No.	Scale	Comment	No.	Scale	Comment	No.	Scale	Commen
Number of bins												
Plastic Bottle	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A
Paper coffee cups	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A
Paper food wrappings	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A
Plastic food wrappings	2	2	N/A	1	1	N/A	0	0	N/A	1	1	North pat
Newspaper	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A
Metal cans	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A
Food waste	0	0	N/A	0	0		0	0	N/A	0	0	N/A
Cigarette butts	10+	10	By bin by the grass	10+	10	Edge between stairs & doors	10+	10	Edge by windows	10+	10	Far left
Piece of paper	0	0	N/A	0	0		0	0	N/A	1	1	North pat
piece of plastic	5	5	Right end of car park	0	0		0	0	N/A	0	0	N/A
Piece of metal	2	2	Right end of car park	0	0		0	0	N/A	0	0	N/A
Number of bins	4		1 double	2		Hidden behind entrance walls	0		N/A	2		N/A
Type of bins (pics if possible	1	•	•									
Comments												
General Comments												
Scale 1-10 (1 : no litter 10 : m	ore than 10	samples)										

Figure 44 below provides a summary breakdown of the identified litter across all the campuses. As can be seen cigarette butts are by far the greatest in quantity with small bits of plastic being the second largest. The volume of cigarette butts while not surprising is disappointing given that DCU has declared that it is a smoke free campus and has install smoking shelters away for campus buildings. Further work is needed to address the general awareness the cigarette butts are litter and should be disposed of appropriately.

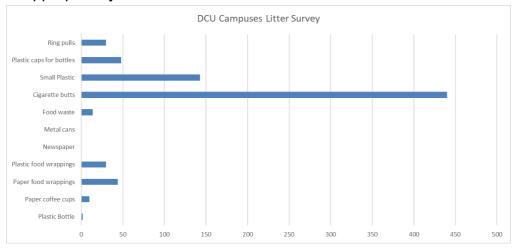


Figure 57: Summation of DCU campus litter survey

Considering locations, cigarette butts were identified at all locations. On the Glasnevin campus outside the Campus shop (#4 on map) was the most littered followed by outside the Helix (#2 on map) – both of these locations also have the most bins. On SPC the main reception area (#1 on map) was the most littered and outside ODonnell house (#3 on map) on the AHC campus. Overall, the AHC campus came out the least littered and while it probably has the least number of staff and students, there are a lot of visitors to this beautiful campus. Perhaps the beautiful lawns and buildings encourage people not to litter. Further audits will be undertaken in 2023/2024 as part of the Towards Zero Carbon Module.

DCU Green Committee also ran litter pick during Green Week in 2022/23. While these litter picks were mainly on the roads between our campuses it was interesting to note that there was a large amount of litter due to vapes. To help create awareness and reduce the impact of these vapes DCU SU have include Vape recycling bins with the Student Union building.



Figure 58: Vape Recycling in DCU SU

Upcycling/Recycling

The DCU All Hallows campus has had several buildings refurbished since DCU took over the site and in these refurbishments several pieces of redundant furniture etc were identified. These were stored on the campus and over the last while some of the members of staff including members of the DCU Community Employment scheme have undertaken the restoration or upcycling of some of these pieces. Training has been provided by the Rediscovery Centre and it is hoped to continue this work into 2020/2023 and potentially provide students with an opportunity to learn new skills.



Figure 59: Examples of refurbishments and upcycling including upcycled chairs and tables alone with a hand-crafted chess set.

Also, in the upcycling/recycling are Anne O'Farrell, DCU Chaplin coordinate and supports The Crafty Ladies, a group of local Drumcondra residents that meet weekly on St. Patrick's campus along with DCU students from clubs and socs like the Raising and Giving Society. Since they formed in March 2022, they have put their amazing creative skills to work raising funds for the Ukraine Red Cross Appeal and recently embarked on their most ambitious charitable project to-date, 100 'Fidget Mitts' which are made from recycled materials (wool, buttons, ribbons, beads) and repurposed into Mitts for hospital patients with Dementia and donated to the Mater Hospital. They also undertook a fundraising appeal with the Muslim Sisters of Eire by making little chicks from recycled wool and popping a little chocolate egg inside!



Figure 60: Some of the wares from the Crafty Ladies at DCU.

Carbon Food labelling

In 2022 Carbon rating labels have been created to be displayed on menus, which were piloted in DCU during Green Week. These ratings give customers perspective on the carbon footprint of each meal on the menu, in turn raising awareness and potentially influencing more eco-conscious meal decisions. If this were to be proven to influence customer decisions, it would reduce the demand on high emission food items and consequently reduce the kitchens' procurement carbon footprint. Therefore, this intervention may have great potential and there are plans to implement the labels as a permanent feature on the restaurant menus. In 2023 the DCU Green Committee is focusing action on working with the DCU Restaurants, who are very willing to engage and work with the student body. The aim of the project will be to provide carbon ratings for restaurant meals and to work together to improve the environmental impact of the food being served.

Bulky Waste

There continues to be a challenge in relation to bulky waste and its reuse on campus. When there are large scale office moves within the university there is a trend to encourage the move by committing to a complete refurbishment of the new space. This in turn leads to the removal of all existing furnishings within the new space – as can be seen in the image below. It should be noted that while these materials are in skips, they do not go to landfill but are taken away, broken into their constituent parts, and recycled. It would, however, be significantly better if these materials were upcycled or recycled internally. There are some efforts being made to address this such as the bulky waste workshop with the CRNI under the IUA/EPA Living Labs project and the Upcycled/Refurbished Offices project at DCU (see below).



Figure 61: Skip with office furniture

Upcycled/Refurbished Offices

Working with the Rediscovery Centre in Ballymun, Sustainability DCU and the Centre for Climate and Society had their office refurbished in the pilot programme. The project is running in two phases, with the purchase order in place for the first phase where the designers in the Rediscovery Centre will create new designs for the two office spaces. Overall, the project will assess if with the design expertise and input from the Rediscovery Centre will create upcycled office space that can meet the perceived appropriate aesthetic needs of staff/students. More to come on this.

Biodiversity

As part of our <u>Climate Action Plan</u>, DCU is committed to science based targets and to enhancing and protecting biodiversity, and to ensure that every member of the DCU community understands its importance in our lives. To further advance this, DCU has pledged to be a Nature Positive Campus.

DCU is committed to protecting biodiversity and embedding this protection into decision making across all sectors of the University including building and grounds management, public realm spaces and in the construction of new buildings. The use values associated with biodiversity are immense and can be categorised as economic, socio-cultural and health values, with each category having several benefits associated with it.

- Habitats for pollinators: To provide habitats where pollinators and can survive and thrive, DCU will reduce the frequency of mowing and collect clippings, introduce artificial solitary bee nests, and bird boxes and introduce and maintain a wildflower meadow (see fig 61 below).
- Invasive alien species: DCU aims to identify and monitor all medium and high impact invasive plant species and remove where feasible. This measure will align with the DCC Climate Actions plan.
- Landscape management: to maintain and enhance biodiversity DCU will Prioritising native plants in new planting schemes (at least 75% of plants to be pollinator friendly), reduce hedge cutting and cut between November and January and keep fertilisers, pesticides and herbicides well away from trees, hedges and verges, identify at least 10 locations that are mown under a pollinator friendly regime (5 cut and lifts per year after 15th April), and identify at least 4 areas that can be converted to perennial planted boarder.
- Dublin City Council's Climate Action Plan: DCU will work with DCC and other local stakeholders such as Drumcondra Tidy Towns, local residence associations etc and will assess the feasibility of further green walls, potential for wetland. Seek to create and promote a DCU Tree Trail.
- Biodiversity Team: DCU will seek to build a biodiversity team with representatives from the student body, expert academic and professional staff. This team would continue to log existing and new 'Actions for Pollinators' on the mapping system (pollinators.ie) and promote these across all campuses, provide or facilitate training on biodiversity and how to take action to protect it.



Figure 62: Rewilded area for Bees and Trees on the DCU All Hallows Campus.

To support biodiversity on campus and enhance and promote greater engagement DCU has established a **Biodiversity Working Group**. This working group is composed of interested academic staff, professional staff including member of the DCU Estates Team (Facilities & Grounds) along with any interested students. It is focused on ensuring that where teaching/research or engagement interacts with the DCU grounds then there is a platform to discuss and agree how such interactions are best manages for the campus users and the campus biodiversity.

This working group will draw on the expertise available within the university and Dr. Thomas McCloughlin and colleagues has been very active in working with the group enhancing the biodiversity on campus (figure 63).



Figure 63: Enhancing the ecosystem with Dr. Tom McCloughlin and his ecology class.

Biodiversity and Pollinator Plan

DCU support the national pollinator plan and several measures to protect and restore nature and biodiversity on our campuses have been implemented including

designated 'no mow' areas and pollinator friendly areas with signage as can be seen in the fig below. DCU have identified green areas across all campuses that are allowed to grow during the growing season. While we have in the past participated in seed bombing such areas following discussion with the National Biodiversity Centre, we have agreed to allow nature to restore itself and are moving to a 'No Mow No Sow' approach.



Figure 64: No Mow areas and designated pollinator plan signage on the DCU campuses



Figure 65: Bee just about to enjoy some pollen outside the DCU Albert College (pic Kyran O'Brien)

The DCU Grounds team have also implemented several measures to reduce the level of artificial herbicide and pesticide used on campus. With limited resources it is very difficult now to deliver the desired campus appearance without some use of artificial herbicide and pesticide, however it is kept to an absolute minimum and targeted at very specific areas while working to protect and restore biodiversity. For example, all flowering plants including dandelions (Taraxacum) are allowed to flower to support pollinators before being removed. In 2023 it is hoped to investigate the possibility of getting student group to support the limited Grounds team with some 'weed' picking to further minimise other interventions.

DCU Community Gardens

The Community Garden on the Glasnevin campus continues to flourish. There are two enterprises based on the campus – the Gnomes and The Grow Dome. The Garden Gnomes cultivate a large variety of fruit and vegetables and sell the produce at farmers markets and through a subscription box scheme. DCU catering also avail of some of the produce for inclusion in targeted event, for example a Climate Ambassadors meeting was held on the DCU campus, and the food provided was from the DCU community garden as well as providing food for the DCU Senior Management Climate Action Leadership Training in October 2023.



Figure 66: Images from the DCU community garden - basil plants in the Grow Dome that is powered by solar panels and a Garden Gnomes celery bed.

In early 2023, with support under the DCU Quality Improvements and Development Funding 2022/23, a new community garden was established on the DCU All Hallows Campus. The All Hallows Community Garden has provided quality enhancement for staff and students by developing an area, and collaborative project, that allows engagement and cooperation between staff, students, community employment personnel and local community groups. These groups can learn practical skills, in

relation to horticulture and sustainability, and feel a sense of being part of a community-driven initiative.



Figure 67: Images from the new All Hallows Community Garden

DCU goes Wild for Cruinniú na nÓg

To celebrate Cruinniú na nÓg 2023, Dublin City University ran a mini-arts and environmental festival for young families with hundreds of participants. This festival explores creative ways to make room for nature in our city, highlighting the urban wildlife and habitat of DCU All Hallows campus situated in Drumcondra, Dublin 9. The events included a Scholars and Squirrels Nature Trail/Scavenger hunt with Sustainability DCU (copy of the hut is attached in the appendix).

DCU was delighted to be joining in on the hundreds of events taking place countrywide to celebrate Ireland's National Day of Creativity for children and young people.



Figure 68: Some images from the Cruinniú na nÓg in June 2023

Making DCU a Nature Positive University

Being nature positive involves taking actions to promote biodiversity and the natural world, with an emphasis on environmental planning, maintenance, and qualitative analysis of green spaces. As such, this final year research project focused on the impact of Dublin City University (DCU) becoming a nature-positive university, emphasising the crucial role of urban green spaces (UGS) in addressing biodiversity loss in urban areas, which are particularly affected by high carbon emissions and elevated temperatures.

The study employed various methods, including a student survey, observational walks, and an interview with the groundskeeper, to assess the advantages and disadvantages of this transformation.

The student survey revealed a lack of knowledge and understanding among students about biodiversity and biodiversity loss, with most students being just somewhat familiar with the terms "biodiversity," and "biodiversity loss". Reference Figures 1 and 2 below. And while the survey revealed 74% of students were very concerned about climate change, only 32% expressed the same level of concern about biodiversity loss. Reference Figures 3 & 4 below. This all suggests a limited awareness and knowledge of the impact of biodiversity loss on humanity amongst students and highlights a need for greater education on the topic. The study thus suggests that teaching methods should include experimental learning, lectures, field trips, and technology use to improve students' knowledge of biodiversity. It also emphasizes the importance of hands-on interaction with students, particularly in environmental courses.

How familiar are you with the term biodiversity (I.e., could you confidently provide a definition?) 100 responses

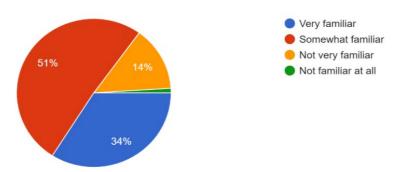


Figure 69: Pie chart showing the number of students familiar with the term 'biodiversity'.

Have you heard of biodiversity loss before?

100 responses

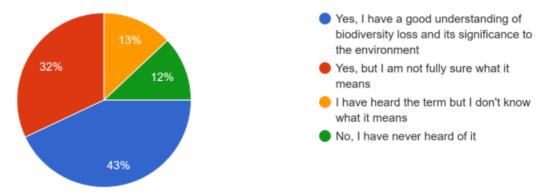


Figure 70: Pie chart showing the number of students familiar with the term 'biodiversity loss'.

How concerned are you about biodiversity loss? 100 responses

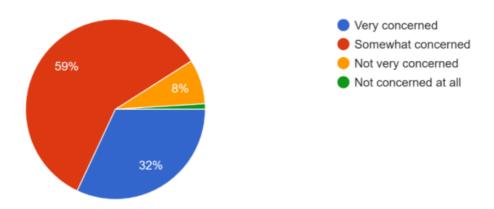
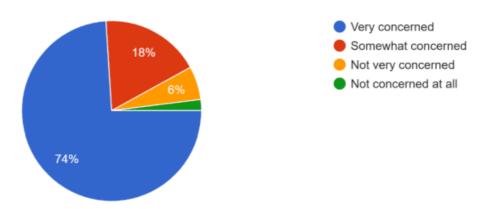


Figure 71: Pie chart showing the level of concern students have regarding biodiversity loss.

How concerned are you about climate change?

100 responses





The observational walks evaluated the quality and accessibility of green spaces on DCU's campuses. Areas of strength included rewilded areas and the positive impact of green spaces on well-being. Areas of concern included invasive/non-native species and the use of artificial grass.



Figure 73: Rewilded area outside the library, Glasnevin Campus, 2023.



Figure 74: Signpost on rewilded area outside of the library on Glasnevin Campus.



Figure 75: 'The Benefits of Nature' chart according to a Brisbane study on positive effects of mainstream green spaces.

The interview with the groundskeeper provided insights into environmental planning, herbicide/pesticide use, and efforts to promote biodiversity on campus. The interview highlighted the importance of involving the community, spreading awareness, and implementing initiatives like rewilding signs and QR codes as seen in Figure 6s and 8.



Name & Authority: Quercus cerris (L. 1753) English name: Turkey Oak Leaf shape: lobate Type of flower: catkin Type of fruit: nut in cupule ("acorn") Origin / Provenance: Asia Minor Use: horticulture Coll. T. McCloughlin https://en.wikipedia.org/wiki/Quercus_cerris

Figure 76: QR Code attached to treen on St. Patrick's campus next to information provided when scanned

Overall, the study emphasized the need for universities like DCU to reevaluate their environmental planning, maintenance practices, and educational efforts. Implementing a biodiversity action plan and actively working towards becoming nature positive were identified as crucial steps. Consistency and periodic evaluations were emphasized, along with conducting further surveys to gauge progress. By following the proposed action plan, DCU could make significant progress towards becoming a nature-positive university.

Transport

A significant focus has been placed on sustainable transport theme by the DCU Green Committee over the past number of years. DCU is an active partner in the National Transport Authority (NTA) Smarter Travel Campus Programme. In Oct 2023 we were delighted to gain the NTA Smarter Travel Mark in recognition of prioritising sustainable and active commuting. The Smarter Travel Mark recognises and celebrates organisations that support active and sustainable travel on the commute and beyond for their workforce and visitors, resulting in a reduction in single-person car usage.



Figure 77: NTA presents DCU with its first Smarter Travel Mark. (L-R) Prof. Daire Keogh, DCU President, Samantha Fahy, Head of Sustainability, Anne Graham, CEO National Transport Authority, Thomas O'Dowd, President DCU SU, Siobhan Hamilton, Smarter Travel Programme Manager, Cathal Pendred, DCU Sustainable Transport Officer.

Our regular surveys help us to understand the modal choices of staff and students commuting to DCU. The DCU Mobility Management Plan aims to have 90% of commuters to DCU avail of a sustainable form of transport.

A huge leap towards DCU's aim was made in 2023. The annual travel survey, which is used as a tool to measure the commuting habits of staff and students, indicated an 8% reduction in the use of single-occupant cars as the primary transport mode in travelling to DCU campuses. This reduction coincided with a 9.5% increase in the use of public transport and a 1.5% increase in the use of bikes as primary transport modes used.

A comparison between modal choices from the 2023 survey results and the 2022 results (in red) can be seen in the figure below.

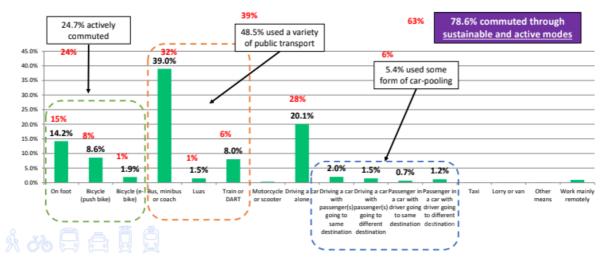


Figure 78: Travel survey results Modal Choices in 2023 with comparison to 2022 results (in red)

We also are continuing to work with the NTA on the development and roll-out of the Bus Connects Programme and were delighted to launch the N4 and N6 Orbital routes with the NTA in 2022.



Figure 79: Launch of the N4 and N6 Bus Connects orbital routes. Prof Daire Keogh with Anne Graham, CEO NTA with DCU student unions officers.

Smarter travel initiatives

Examples of some of the initiatives to support staff and students to make a more sustainable modal choice include:

- free shower facilities on all campuses
- secure cycle parking on all campus

- cage cycle parking on GLA and being installed on both SPC and AHC
- free bike clinics on all campuses
- access to shared car scheme on all campuses both GoCar and pilot scheme for shared ecar with Renault
- public transport real-time information on campuses
- access to shared bike schemes (ebikes & push bikes) on all campuses
- promotion and participation in Smarter Travel Challenges
- promotion of pre-owned bikes for students through our bike clinic's partner, the Rediscovery Centre
- revision and updating of the DCU webpages with information to assist students in planning their commute the DCU Campuses and information on the available means of travel to DCU, including public transport services and the active commuter facilities available on each campus.

Smarter Travel Challenges

The DCU Sustainability office regularly participates and promotes in the NTA Smarter Travel Challenges. As can be seen from figure 55 below there has been growing engagement in these challenges across the university from staff and students. During COVID we had a significant push to engage staff and students who were working remotely, and we teamed up the DCU Healthy Office to run a joint programme of engagement. We also had many internal challenges, and the impact of the effort was evident with the number of DCU participants reaching over 600 for Marchathon 2021. The event concluded with an online prize giving ceremony with awards presented by the DCU President Prof. Daire Keogh.

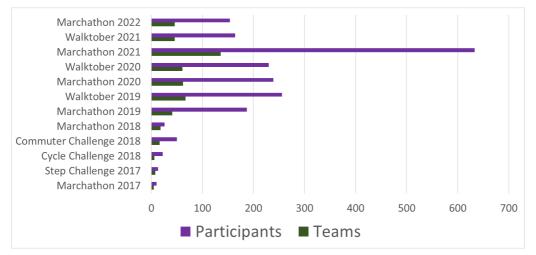


Figure 55: Smarter Travel engagement 2017 – 2022

Innovative solutions



Figure 80: Ecar sharing pilot with Renault

We also seek to innovate and have in the past number of years by working with several partners in the piloting and demonstration of novel new technologies such as the first hydrogen public bus in Ireland (figure 57).



Figure 81: Campus Living Lab initiatives to promote sustainable transport modal choices including piloting with CIE and Dublin Bus the first hydrogen fuelled public bus in Ireland.

We are also currently working with Tier on an escooter pilot. We recognise that escooters are not currently legally permitted on public roads and so DCU has been working with partners in our Innovation campus to demonstrate new centimetre precision GPS tracking technology. This tech will enable escooter providers to ensure that when users have finished their trip that they appropriately park the escooter and do not leave it as an obstruction.



Figure 82: DCU Campus living lab demonstrating new technologies

Communication and Engagement

A major initiative over the past year has been the re-development of the DCU Travel and Transport pages. The information on how to get to campus was disjointed at best - the new website provides clear and concise information on how to get to campus, clearly promoting the more sustainable forms of Transport.

Travel To DCU		Travel To DCU	
Active Commuting	9.9	By Bus	
Active commuting (walking/cycling) to DCU, wh shower facilities a valiable, ample cycle parking service chnics for all students and staff during te	on all campuses and weekly free bicycle	Use the TRI Journey Moner to plan your bus top 1 The DCU Composer (public transport services are p Dublin Bac, Go Ahead, Bus Execution and private how	rimarily bus based services, with services from
Active travel has health and sustainability benefit: For those who cycle or would like to cycle to DCU, possible routes.		For the most up to date information on the available Planner and TFI Live App.	
There are cycle lanes on the approach routes to th and upgraded.	e compuses, many of which are being extended	DCU Bus Stops	
Campus Shower Facilitie	ës	DCU Ban Steps - The ray service and heads in Name, Fourier service service and heads -	<
	nd changing facilities are available to active is at the locations below.		Concert from Original and Concerts from Origina

Figure 83: DCU's renewed Travel and Transport webpages (https://www.dcu.ie/travel-to-dcu)

To encourage more students to look at the website in Oct 2023 as students returned to campus, the DCU SU, in collaboration with Sustainability DCU and the Rediscovery centre ran a competition for a free bike (provided by the Rediscovery Centre).

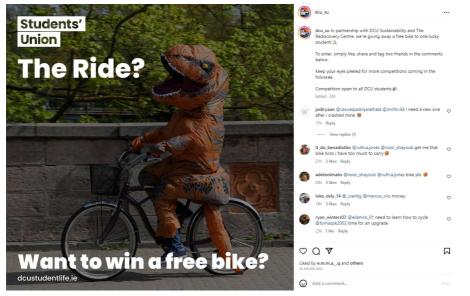


Figure 84: Instagram post launching the free bike competition.

Commuting Infographics

To encourage and promote sustainable commuting the DCU Sustainability Team draft infographics on how to get to DCU from specific locations and the impact of the difference modes of travel. This information is available for major surrounding commuting towns to DCU including Dundalk, Lucan, Mullingar, Portlaoise, Tallaght and Wicklow. Examples can be seen in figure below.

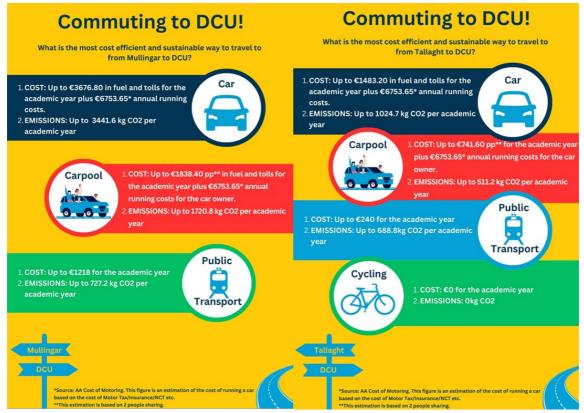


Figure 85: Commuting to DCU Info Graphics

Carbon Footprint

DCU continues to monitor its carbon footprint. We follow the Greenhouse Gas (GHG) Protocol Corporate Standard setting our organisational boundaries as our financial boundaries. We then work to capture as accurately as possible our Scope 1, 2 and 3 emissions (figure below).

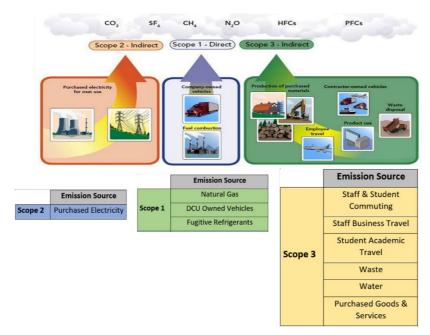


Figure 86: GHG Protocol model for DCU Carbon Footprint (image source : https://www.eauc.org.uk/)

Our carbon footprint allows us to understand where all our GHG emissions are coming from and forms the basis of our Climate Action Plan 2021-2026. Figure 77 below shows our footprint from 2018 – 2022. There are several points to note:

- the impact of COVID is evident in 2020 but we can see emission levels rebounding in 2021 and 2022,
- the scale of our Scope 3 emission significantly outweighs Scope 1 and 2 emissions,
- while we have nominally direct control on the consumption of energy that produce our scope 1 and 2 emissions (i.e., gas and electricity mainly) we do have significant influence on our other activities that contribution to our scope 3 emissions.

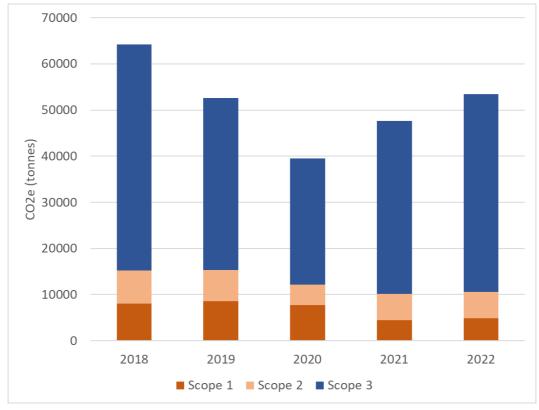


Figure 87: DCU Carbon Footprint 2018- 2022

A breakdown of the 2022 emissions is shown in figure 78, from which it is clear that 'purchased good and services' and 'staff and student commuting' have a significant impact on our emissions.

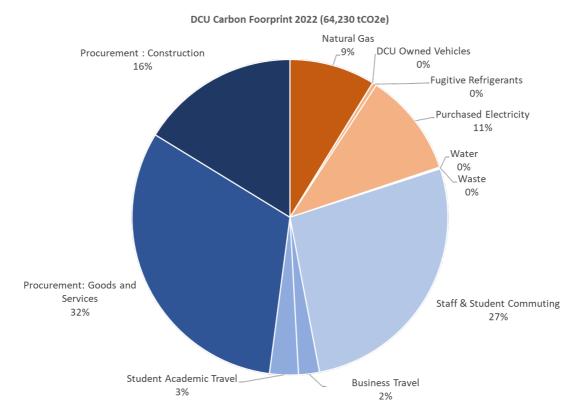


Figure 88: Total breakdown of DCU CO2e emissions in 2022

The DCU Climate Action **Roadmaps** identify actions DCU is undertaking to meet our emission reduction **targets**. It is worth noting that while our current national legislation - *Climate Action and Low Carbon Dev. (Amendment) Bill 2021* – required that all public sector bodies reduce their total ghg emissions by 51% by 2030 and climate neutral by 2050, at the moment that decarbonisation targets for public sector bodies such as universities is based solely on their energy emissions i.e., Scope 1 (excluding Fugitive refrigerants) and Scope 2 emissions. For DCU these emissions account for 20% of our total ghg emissions.

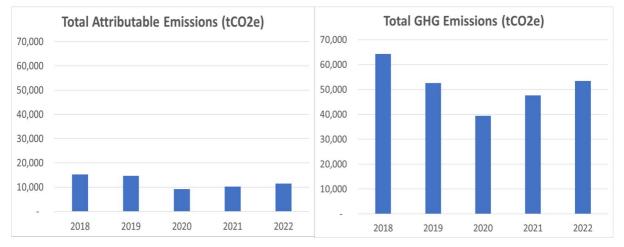


Figure 89: Comparative chart of DCU total attributable emissions and DCU total GHG emissions for 2022.

7. Link to Learning on Campus

Over the past year the linkages to education programmes on campus have continued to grow with the ever increasing in sustainability. We are still not at the point where sustainability is embedded into all modules so that all graduates of DCU understand the meaning of sustainability and the interrelationship between the social, cultural economic and environmental factors that need to be balanced to ensure a sustainable future for all BUT we are making progress! In 2021 DCU undertook a radical restructuring of the DCU undergraduate curriculum to future-proof and enhance capacity. The 'DCU Futures'² programme is transforming the learning experience of undergraduate students at DCU, reconceptualising learning opportunities, creating authentic connections between the classroom and enterprise, and embedding the digital literacies, disciplinary competencies, and transversal skills (including sustainability competencies) required to truly future proof our graduates for the rapidly changing workplace.

A key element of the DCU Futures plan will, in the first instance, be to pilot a radically redesigned undergraduate curriculum across a suite of new and redesigned programmes including the following new programmes.

- BEng in Sustainable Systems and Energy (started in 2021/2022)
- > BA in Climate and Environmental Sustainability (started in 2021/2022)
- BSc in Global Challenges (started in 2022/2023)

Each of these will have a strong sustainability theme throughout the curricula but in addition, a sustainability competency has been co-created with input from DCU experts from all faculties and units including the Sustainability Office. In addition to these new specific undergrad programmes there are also specific post grad programme with a specific emphasis on the future sustainability challenges including the *MSc in Climate Change: Policy, Media and Society* which has been growing in popularity since it commenced 2019/2020.

Sustainability Office Projects

The DCU Sustainability office works closely with several academic programme across the university to provide students with an opportunity to undertake a project that can directly influence and impact the sustainability efforts within DCU, below is a list of several of these projects:

Project title	Student	Project	Year	Programme		
Reducing the Quantity and increasing the recycling of waste in DCU	Sean Daly	Final year thesis	2014/15	Environmental Science and Health		

² <u>https://www.dcu.ie/sites/default/files/inline-files/15698_dcu_futures_singles.pdf</u>

Project title	Student	Project	Year	Programme		
campus Residences						
The Viability of DCU's community garden	Alan Rigney	Final year thesis	2014/15	Environmental Science and Health		
Water usage and reduction in DCU's Sports Complex	Clionadh Williams	Final year thesis	2014/15	Environmental Science and Health		
Feasibility Study of Rainwater Harvesting on the DCU Campus	Mohammed Alotaibi	Master's Thesis	2015	MM544 Sustainable Energy		
Biodiversity at DCU	Joe Cornish	Final year thesis	2014/15	Horticulture		
The use of potable water in DCU	Ellen Kelly	Final year thesis	2015/16	Environmental Science and Health		
Paper consumption at DCU	Bernadette Leng lan Lo	Final year thesis	2015/16	Environmental Science and Health		
Soil analysis in the DCU Community Garden	James Platt	Final year thesis	2015/16	Environmental Science and Health		
Food Waste	Margaret Cronin	Master's Thesis	2015/16	Open Education		
DCU Carbon Footprint	Sean Walpole	Intern	2015/16	Environmental Science and Health		
Transport and Behavioural Change	Stephen Dowling	Intern	2015/16	Psychology		
INSULATION PRODUCTS, FOCUSING ON GLOBAL WARMING	Natalie Farrell	Master's Thesis	2015/16	Open Education		
Carbon Neutral Interfaiths	Brendan Deehan	Final year lit review	2016/17	Environmental Science and Health		

Project title	Student	Project	Year	Programme
Coffee Cups and Beh Change	Cody Byrne	Intern	2015/16	Psychology
Horticulture Histories	Ann Christin Aaras	Intern	2015/2016	Sustainability DCU
Renewable energy in Community Garden	Tadhg Meaney	Final year thesis	2016/17	Environmental Science and Health
Hot Water in public Sanitary Facilities	Oisin Foley	Intern	2016/17	Psychology
Flying Less	Conal Ó Dubihir	Intern	2017	Sustainability DCU
Decoupling environmental impacts from economic activity, what it means and how it relates to the concrete sector in Ireland.	Andrew McGrane	Master's Thesis	2016/17	Open Education - MASTER OF SCIENCE IN MANAGEMENT FOR SUSTAINABLE DEVELOPMENT
A study on the adoption of clean technologies within the Irish seafood processing industry	Tomas Cooper	Master's Thesis	2016/17	Open Education - MASTER OF SCIENCE IN MANAGEMENT FOR SUSTAINABLE DEVELOPMENT
University Transport management	Ann Whyte	Master's Thesis	2017/18	Open Education - MSc IN MANAGEMENT FOR SUSTAINABLE DEVELOPMENT
Food Waste and our legal requirements	Anorai Rooney	Final year thesis	2017/18	Environmental Science and Health
Impact and potential alternatives to hot water supply in public buildings.	Colin Cleary	Final year thesis	2017/18	Environmental Science and Health

Project title	Student	Project	Year	Programme
DCU Exemplar Carbon Neutral Campus	Safa Al Mashaikhi	Final year thesis	2017/18	Environmental Science and Health
Getting DCU Campus Residents to Use Less Energy	Dominic Ó Gallachóir,	Psychology INTRA Placement	2017/2018	Psychology
DCU's Carbon Footprint for the 2018 Calendar Year	Gráinne McIvor	Final year thesis	2018/19	Environmental Science and Health
DCU Smoke Free Campus	Ciaran Ramsbottom	Psychology INTRA Placement	2018/2019	Psychology
Flyless Initiative	Alison Young	Psychology INTRA Placement	2019/2020	Psychology
Digital vs Face- to-Face Studying	Enia Simac	Final Year Thesis	2019/2020	Environmental Science and Health
Waste to Energy Using Biofuels at DCU	Cormac Hughes	Final Year Thesis	2019/2020	Environmental Science and Health
Green Toolkits for GAA	Mark Plunkett	Final Year Thesis	2019/2020	Environmental Science and Health
Green Toolkits for GAA	Michael Burke	Final Year Project	2019/2020	Mechnical Engineering
Carbon Management Strategy for HEIs	Anna Doyle	Final Year Thesis	2020/2021	Environmental Science and Health
Carbon Emission Offsetting – Genuine Solution or Green Washing?	Daisy Earle	Final Year Thesis	2020/2021	Environmental Science and Health
Paper to Digital, Wins & Challenges	Francis Flynn	Final Year Thesis	2020/2021	Environmental Science and Technology

Project title	Student	Project	Year	Programme
Flyless Initiative	Joshua Mallin	Psychology INTRA Placement	2020/2021	Psychology
To Buy or Not to Buy –That is the Question	Colm Flynn	Final Year Thesis	2022/23	Environmental Science and Technology
Making DCU a Nature Positive University	Gráinne Donlan	Final Year Thesis	2022/23	Environmental Science and Technology

Centre for Climate and Society



DCU Centre for Climate & Society focuses on research insights, analysis, and solutions from policy, media, politics, communications, education, business, and other social science and humanities disciplines.

Established in 2021, the Centre is Ireland's first academic research center to bring perspectives and analysis from the social sciences and humanities to bear on the climate crisis.

The work of the Centre reflects DCU's own commitment to sustainability in its research, teaching, and operations. The Centre was formally launched in May 2022 by the President of Ireland, Michael D. Higgins.

Towards Carbon Zero

In 2022/23, Dr. Brian Kelliher, DCU School of Chemistry established, with support for the Sustainability DCU office, a novel second year module called 'Towards Carbon Zero' as part of the Bachelors in Environmental Science and Technology (DC166). This unique module allows students to get involved and explore practical on campus actions that can contribute to DCU meeting its Climate and Biodiversity targets.



Selma Hoxha, Keelin McEvoy and Jack Ryan with supervisors Brian Kelleher(L) and Samantha Fahy(R) and on the completion of the new "Towards Zero Carbon" module. The module, which is unique to DCU, allows students to work with cross campus stakeholders and contribute to efforts to meet our Climate and Biodiversity targets.

Figure 90: The first 'Towards Zero Carbon' Module Cohort 2022/2023

Project summaries:

Evaluating and Communicating the Carbon Footprint and Impacts of an Average DCU Student: Keelin McEvoy

This Zero Carbon Project at DCU aimed to evaluate and communicate the carbon footprint of 15 students. Using an online carbon footprint evaluator, individual footprints were calculated based on energy consumption, transport habits, flights, and other secondary actions. The average carbon footprint was found to be 3.444 tonnes per year, with secondary actions contributing to 51% of the carbon footprint of these student with flights being the second highest contributor, accounting for 23% of their carbon footprint. To effectively communicate reduction measures, verbal and visual methods including face-to-face conversations, infographics and pictures proving to be more impactful than social media for the provision of information. Based on the results of this study the recommendations to reduce the carbon footprint of DCU students include incorporating an incentivized carbon footprint evaluation into the student orientation programme in DCU and consolidating lecture schedules to reduce the carbon footprint associated with commuting. The implementation of broader changes like improving public transport and creating more affordable sustainable options in clothing and diet were also suggested as a means for students to better improve their carbon footprint. However, this will require external changes outside of DCU.

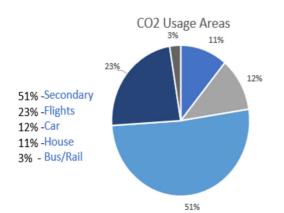


Figure 91: Breakdown of an average DCU students carbon footprint.

Waste produced by the DCU student in the canteen: Marwa AlRashdi

This project explored the practices that led to poor waste management among DCU students in the canteen. Quantitative and qualitative methods are used, such as observation, interviews, and online survey. The following are the main factors of improper waste segregation in the canteen: lack of education, no means of minimizing waste, unattractive signages, laziness, and lack of awareness regarding the waste materials that should go in each bin. Observation of bins revealed that students could not correctly sort waste in the appropriate bin, which might be due to unclear signage, or they don't practice waste segregation in their households. The survey revealed that some DCU students have never been educated on waste management and have difficulty identifying what type of waste goes into each bin. In short, considerable amount of waste in DCU canteen is neither recycled nor composted due to contamination.

Mapping of Green Spaces on DCU Campuses: Réidín Myler

This Zero Carbon Project in DCU aimed to map and calculate the area of green spaces across the three main DCU campuses including Glasnevin, All Hallows and St. Patrick's which would then allow for easier mapping of both native and invasive plant species across DCU in the future. Measurement of the green space across all campuses was carried out using the 'measure distance and area' tool on Google Earth. The DCU Biodiversity Plan was then used to identify the key biodiversity areas on each campus. The DCU Glasnevin campus was found to have a total green space area of 56,070m², 2,205m² of which was subsequently designated as a key biodiversity area. The All Hallows campus was then calculated to have a green space of 26,310m² of green space, 140m² of which was subsequently designated a key biodiversity area. Finally, the St. Patrick's campus was found to have 35,885 m² of green space of which 6,000m² was subsequently designated as a key biodiversity area. Based on this research, potential projects include more accurate measurements and enhanced graphical representations of green spaces across all campuses, a comparison of green space to concrete paved areas, a comparison of green space to other higher level educational institutions, and exploring the link between mental wellbeing, green spaces, and academic success.

Evaluation of Pollinator Support on DCU Green Spaces: Selma Hoxha

The evaluation of green space on DCU's Glasnevin campus was conducted to assess its capacity to support native pollinators, which are currently endangered in Ireland. The research focused on the campus's pesticide and herbicide usage, as well as the general maintenance practices affecting green space in DCU, to determine their impact on plant species and pollinators. The study identified the continued use of two pesticides on campus, likely contributing to the decline in pollinator numbers as flora and fauna on campus are exposed to many toxins in these chemicals. Additionally, the accessibility of green space for pollinators was hindered by frequent grass cutting, which removed pollinator plants and increased emissions on the Glasnevin campus. It was found that only approximately 9% of the Glasnevin campus green space, which falls below the urban target of 15% green space coverage. Based on these findings, the recommendation was made to conduct soil quality testing and implement soil improvements on campus to promote greater plant growth and enhance pollinator support.

Living Sustainably in Dublin: Setting up a Commons in DCU: Jack Ryan

This zero-carbon project specifically focused on how to reduce the carbon footprint of DCU students and the university by addressing consumption and waste habits. This study revealed that students tend to overconsume and lack sustainable behavior. To address this, the project proposed a commons area on campus where shared resources like sewing machines, hardware tools, and seed swaps could be utilised. Workshops would also be held in this area to educate students on resource utilisation. Additionally, a website was designed to inform students about currently available resources within DCU, including the swap shop, bike clinic, and sustainable options in the North Dublin area which include charity shops, clothes banks, recycling centres and bottle banks. The website's goal is to provide accurate information and empower students to actively reduce their carbon footprint.

Sustainability Guest Lecturer

Over the past number of years there has been an increasing demand internally within DCU from academic requesting a Sustainability Guest Lecture as part of their modules. Typically delivered by the Sustainability Office these lecturers cover the holistic perspective of the poly-crisis and measure/actions that are necessary to address these challenges, include the Green Committee actions and how all members of DCU need to undertake action.

Here is a list of some of the programmes that receive an annual Sustainability Guest lecture:

- Master in Climate and Society
- Executive MBA (See figure below!)
- BSc in Environmental Science and Technology
- BSc in Global Challenges
- EF305 International Finance
- BSc in Biotechnology

- BSc in Climate and Environmental Sustainability
- BEng in Mechanical and Sustainability Engineering





Figure 92: Guest Lecture to Executive MBA Oct 2023

Prof Yuhui Gao, posted the following on Linked In following the guest lecture.

"<u>Samantha Fahy</u>, Head of Sustainability at <u>Dublin City</u> <u>University</u> delivered a very informative and powerful talk to the <u>DCU</u> <u>Executive MBA</u> class at <u>DCU Business School</u> as part of the 'Sustainability - Putting Words into Actions' guest lecture series (MT5811A Sustainability and Strategic Consultancy). Samantha has played a pivotal role at DCU by designing and implementing critical sustainability strategies and initiatives. The staggering scientific evidence and facts serve as an urgent wake-up call, leaving no room for resistance or ignorance in the face of the global polycrisis. To reach our carbon budgets and secure a sustainable future, we must embrace transformative changes in both our society and economy. https://lnkd.in/ewuKdvNF"

DCU Business School

Over the past number of years, the DCU Business School has continues its 'Hack4Change' initiative which in 2022 involved over 700 first year business school students in addressing societal challenges. For the past couple of years, the initiative has been run on the Gather Town platform where student can meet and chat with external experts to give lighting talk on the challenges and students groups work to identify novel sustainable solutions.



Linkages to MG334 Business and Society:

This module addresses the key environmental and sustainable development issues facing organisations today. It focuses on the links between corporate social responsibilities, management of the organisation and the environment and on how these may be integrated through strategy and operations. The module assignment require student to research and write a report on one of the following:

- How to make the New Hub sustainable
- Reduce waste production on DCU Campus
- National No Smoking Day on Campus
- Car Sharing Initiative
- Energy Awareness Campaign for Students
- DCU in the Community
- Education integrating sustainability.
- Social Enterprise Model for the DCU Community Garden
- Intercampus bike scheme for students

Space to Grow Module

This module ran in St Patricks and focused on providing student teachers with an understanding of biodiversity and the development and implementation of outdoor teaching tools and methodologies. The module has undertaken several interesting projects including establishing and maintaining its own growing space on the SPC campus. Within this project trainee teachers also went to work in a preschool in Drumcondra to establish a growing space for the preschool children.



Figure 93: Grow space on the SPC campus

Grain4Lab

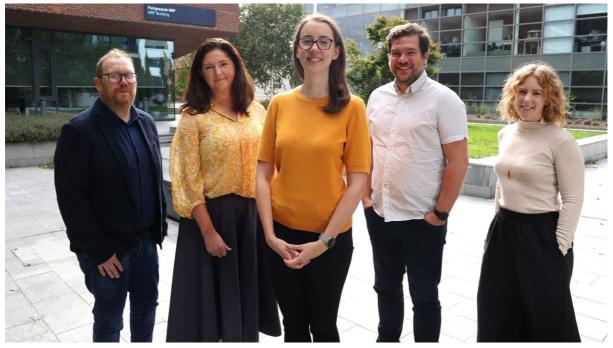


Figure 94: The Grain-4-Lab PIs - Dr. Brian Freeland, Samantha Fahy, Dr. Jennifer Gaughran, Dr. Keith Rochfort. and Dr. Susan Kelleher

Grain-4-Lab was started by lead investigators Dr Jennifer Gaughran, Dr Brian Freeland and Ms Samantha Fahy. They were soon joined by Dr Susan Kelleher and

Dr Keith Rochfort. The team saw that vast quantities of plastic waste produced by life science laboratories around the world, along with the waste produced by breweries and distilleries and saw an opportunity to address two problems simultaneously. Their solution: A biodegradable plastic, generated using the waste from breweries and distilleries. Funded under the SFI Plastics Challenge and eventually winning the prize phase funding of over €2Million euro the project has set about the task of developing a compostable alternative to lab plastics from a sustainable source. Our team has expanded, and we are currently conducting research to further improve our solution and the ways in which that solution can be scaled up. We are also looking at the carbon footprint of our project, to ensure that the solution is not worse than the problem. More info at: https://grain4lab.ie/

My Green Lab

With significant early promotion of green labs from the Biotech students there are now four DCU labs have gained MyGreenLab Certification. The <u>MyGreenLab</u> certification is a short engagement programme for all lab users that support practice and behaviour change to reduce the environmental impacts of labs as well as in most cases saving resources. The Sustainability Office has given several presentations on MyGreenLab across DCU and while there is significant enthusiasm at these presentations, the challenge comes with getting labs to sign up. These programmes can have significant impacts on our labs from the Freezer challenge of moving from -80 to -70 and saving up to 30% energy costs where a low temp freezer can consume as much energy as an average home per day to better practice with fume hoods that can have similar energy consumption levels to 3.5 average homes per day. More efforts are needed going forward to get labs to sign up.



Figure 95: Four DCU labs with MyGreenLab Certification (all part of the Grain4Lab Project)

Following many years of on the ground action it was fantastic to see Science Foundation Ireland launch their first Sustainable Laboratory Certification Pilot Programme. Dr. Una Fitzgerald, University of Galway was the first Irish lab to gain MyGreenLab certification in late 2019 and together with Samantha Fahy and other members of the SEAI Public Sector Labs Working Group and the Irish Green Labs Network have encouraged and supported the introduction of this initial step to addressing the sustainability challenge in research in Ireland. This is a global first, as Ireland becomes the first country in which a national research funding agency has spearheaded a certification process in lab sustainability. This initiative is a key pillar of SFI's new Climate Action Strategy.



Sustainable Laboratory Certification Pilot Programme

Figure 96: Minister Simon Harris TD announces the launch of SFI Sustainable Laboratory Certification pilot programme in collaboration with MyGreenLab.

ECIU Climate Neutral Campus

DCU is a member of the European Consortium for Innovative Universities (ECIU). DCU is committed to placing sustainability at the core of all the University's activities - and this ECIU challenge-based project aligns with other college-wide sustainability actions.

As part of an academic year long project, students for partner universities including Shannen from the DCU Masters in Climate Change programme joined a workshop in Hamburg to focus on the climate neutral campus challenge. Other students came from the University of Trento (Italy), University of Aveiro (Portugal), Linköping University (Sweden), Kaunas University of Technology (Lithuania), University of Stavanger (Norway) and Hamburg University of Technology (Germany).

While most of the engagement over the year was by remote participation the face-toface meeting of the international group helped to develop ideas to reduce CO2 emissions, increase behavioural awareness among students and staff and develop proposals to avoid "greenwashing".

8. Informing and Involving the Campus and Wider Community

Encompassing such issues as equal access to social resources, corporate governance, community, diversity, culture and quality of life, social sustainability is one aspect of sustainability but one that is often the weakest in terms of representation. DCU has long recognised the merits and responsibilities of engaging with the wider community and contributing to the social and economic contexts of the community in which we are based. The development of a specific 'Civic Engagement' mission and the establishment of the DCU in the Community Outreach Centre in Ballymun is a solid expression of the commitment which DCU has made to community outreach projects.

The DCU Green Committee/ Sustainability Programme has leveraged several of these existing links to enhance our engagement with the local community. We have worked closely with several local organisations and intend to continue and build on these mutually beneficial linkages.

Green Flag for All Hallows

DCU All Hallows campus underwent its virtual assessment in May 2020 but with COVID there had been limited opportunity to celebrate and raise the flag with the DCU All Hallows community. Eventually in early 2022 we managed to get the flag raised on the campus.



Figure 63: Raising the Green Flag on the All Hallows Campus

Cruinniú na nÓg 2023

On Saturday the 10th of June we had the tremendous opportunity to contribute and partake in Cruinniú na nÓg 2023 at the Wild Neighbourhood mini arts festival in our own All Hallows campus! Since its advent in 2018, Cruinniú na nÓg has become a beacon of inspiration creating spaces all over the country where the unparalleled imagination and infinite creativity existent amongst the children of Ireland can be harnessed to shape the world of our future. This festival, nestled amidst the enchanting natural world of All Hallows was the perfect platform to celebrate and embrace the incredible environment and wildlife which surrounds us in Dublin.



There is no better way to learn about nature than through exploration and that is exactly what our 'Scholars and Squirrels Nature Trail' aimed to accomplish on the day. The children thus embarked upon an adventure, venturing all over the All Hallows campus to find out what nature and biodiversity really is and where it exists (Hint! It's all around you!). The excitement was palpable as they completed the tasks along the way. As a reward for their efforts, every child received a packet of SOW WILD wildflower seeds from Bí URBAN. These seeds, containing a mixture of annual and perennial native Irish wildflowers, will play a vital role in creating permanent foraging areas all over North Dublin, supporting bees, butterflies, hoverflies, moths, wasps, and other essential pollinators which are facing unprecedented threats.

The day was filled with joy and imagination. But perhaps most importantly, it allowed us to highlight the significance of biodiversity and the pivotal role we can all play in conserving our wildlife. Such occasions bring us one step closer to a more sustainable life, ensuring the enduring beauty of our natural environments for future generations. And who knows, perhaps on your next visit to All Hallows campus, you might just catch a glimpse of the resident badgers!

Dublin City Climate Action Roadmap



Figure 97: Panel Discussion at the launch of the Dublin (City and County) Climate Action Roadmaps. L-R Sabrina Decker, Climate Action Coordinator, DCC, Prof Brian Caulfield, TCD, Cllr Claire Byrne, Green Party, Gina Kelly, EPA, Samantha Fahy, DCU, Dr. Darren Clarke, DCU and Prof. Barry McMullin DCU. Oct 2023.

Launching the Dublin City and County Climate Action Roadmaps, several members of the DCU academic and professional community joined a panel discussion in the Mansion house to discuss several pressing questions including "Where does Dublin, Ireland, and the world currently stand when it comes to climate action?" "How do we become climate neutral?" The panels emphasised the urgency for swift and comprehensive action, the importance of innovative solutions that blend adaption and mitigation, and the significance of broad-scale collaboration and systems change to amplify our climate efforts. DCU is also support DCC in the role our of Decarbonisation Zone with Samantha Fahy sitting on the Ballymun Transition Team.

Children and Young People's Assembly on Biodiversity Loss

In October 2022, Ireland held its first Children and Young People's Assembly on Biodiversity Loss. Designed with children and young people, the Assembly brought together 35 randomly selected Members aged 7-17 from across Ireland to explore, discuss and create calls to action on how to protect and restore biodiversity in Ireland. This assembly was developed and implemented by a research consortium that included experts in children's participation, deliberative democracy, and biodiversity from Dublin City University, University College Cork, and terre des hommes, an international organisation with a focus on children's environmental rights.

More Info here: https://cyp-biodiversity.ie/

DCU and the CARO Offices

DCU is focused on transforming lives and societies and in doing so locally is working with the Climate Action Regional office to support our city's and our local society's need for change. DCU has signed an MOU with the CARO office to support this engagement. This work has included report on Local Government Climate Action Key Performance Indicators report, <u>A Profile of Local Government Climate Actions in Ireland</u>, Capstone dissertations as part of the MSc in Climate Change: Policy, Media and Society as well as engaging with DCC actions like <u>Eat the Streets</u>.



Figure 98: Socially distances pic at the outdoor signing of the MOU between DCU and CARO (L-R C. Reily (DCC), D. Keogh (DCU), D. Torney (DCU), L. Gilroy (DCU), S Decker (DCC), D. O'Brion (DCU), D. Dodd (DCC/CARO), C. Moran (DCU), D. Clarke(DCU), S.Fahy (DCU)

Green Weeks

Virtual GWs

During the lockdown there was some difficulty in getting engagement from the student body. To support and capture the students voice a virtual jamboard was created – see image below. Over the course of Virtual Green Weeks students has access to this board as well as physical board on each of the DCU academic campuses where students were encouraged to identify their concerns and proposed actions to address the Climate and Biodiversity emergency.

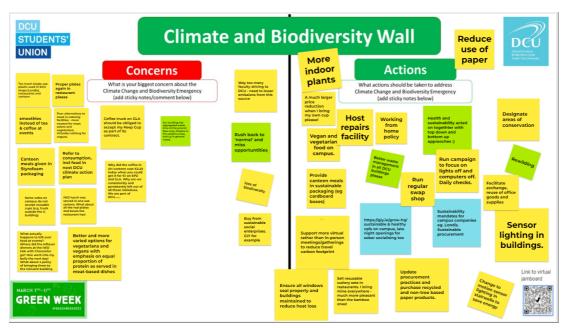


Figure 99: Green Week Wall during COVID lockdowns

Messages range from, on the concern side, the available of low impact food choices in the DCU restaurants, single use material use in DCU restaurants lack of on campus biodiversity, to swap shops and repair facilities and energy saving actions on the action side.

Dublin City University hosted Green Week 2023 from Monday, March 20th to Friday, March 24th that focused on Climate Justice. The week consisted of a host of activities and events organised and run by Sustainability DCU/Green Committee, the DCU Students' Union and the DCU Centre for Climate and Society. Some of the events had external partners including GOAL, An Taisce, Dublin City Council and the National Transport Authority.

Environmentalism, climate change, biodiversity, climate activism and sustainability are the topics and issues dealt with throughout DCU's annual Green Week. The aim of the week is to provide a programme of educational, awareness raising and engaging events for students and staff. The Green Week 2023 programme was developed with consideration to the theme of Climate Justice.

Programme of Events

DCU Green Week 2023 commenced on Monday morning, March 20th, with a talk from Samantha Fahy of Sustainability DCU entitled **Sustainability @ DCU - Where our Climate Action Plan is taking us?** The week concluded on Friday at midday with a workshop entitled **Our Sustainability Actions - What DCU and U can do!** which gave Sustainability DCU and DCSU the opportunity to give an overview of their sustainability-driven actions and allowed staff and students to highlight concerns or give feedback and suggestions.

A series of events and promotional activities ran throughout the course of the entire week. These included:

- Picturing Climate Justice: Centre for Climate and Society (CCS) Photography Exhibition: An exhibition that depicted the devastating impacts of climate change in Ireland and abroad as well as highlighting community initiatives that work to provide more equitable and inclusive responses.
- Students' Union Climate Change, Biodiversity and Justice Wall: These allowed students to highlight what the climate and biodiversity crisis means to them and what we can do about climate justice. There were physical posters that could be written on all three academic campuses. It was also possible to scan a QR code so the wall could be interacted with digitally to the online jamboard.
- Vape/ e-cigarettes device recycling: There was a Vape/e-cigarette recycling box at the DCU SU Reception desks on the Glasnevin and St. Patrick's Campus.
- Free bike lights & free trial ride on the Tier shared-bike scheme: In conjunction with the NTA's Ready, Set, Cycle programme, which aims to encourage more people to cycle; DCU staff and students could pick up free bike lights at the SU reception and they could also take a Tier Bike for a 30-minute free trial.

Summary of Events Monday

Sustainability @ DCU - Where our Climate Action Plan is taking us?

Location: Hosted on Zoom **Time:** 9am - 10am A talk with Samantha Fahy, DCU Sustainability

Climate Justice in Research and Practice: Three cases from India and Pakistan Location: Room C124, Henry Grattan Building, Glasnevin Campus

Time: 12.00 - 1.00pm

Joint CCS and Ireland India Institute research seminar exploring how extreme weather events disproportionately affect marginalised communities, such as farmers and lowincome households, who have limited resources to cope with the social and environmental impacts these disasters cause.

Commuting Consultation - This was a chance for students to talk to Sustainability Officer, Cathal, about the best smarter travel route and options to DCU.

Location: The Street, U Building, Glasnevin Campus

Time: 2pm - 3pm

This event garnered some attention and interaction by students. Five students discussed their commuting patterns, and they investigated the displayed 'time heat maps' that indicated travel times to the campus for both walking and cycling. The students were also advised to download the Transport for Ireland (TFI) apps - as resources to determine best routes to get to DCU via public transport and by bicycle. Unfortunately, there was more interest in the free goods (bike lights, high vis, etc) being handed out than the commuting information itself.

Losing Alaska

Location: Room CG86, Henry Grattan Building, Glasnevin Campus **Time:** 4:30pm Film and Talk with Film Director Tom Burke and Professor Pat Brereton

Tuesday

Irish Green Labs: Short talk & discussion on how to improve the environmental impact of labs.

Location: Hosted on Zoom Time: 10am – 11am

Snakes and Climate Justice Ladders Game: Quiz your way up the ladders or down the snakes in this engaging climate justice game. There might even be a small prize for those to participate!

Location: Cafe Java, St Patrick's Campus

Time: 10.30am-12.30pm

Comments & Feedback: Students were invited to fill out post-its, detailing the biggest obstacles, and the best actions that can be taken, as to the mitigation of the climate crisis. These post-it's were then placed on a wall. There were 30 students who filled out the post-its, below are the answers that were given:

The Biggest Obstacles				
Deforestation and overfishing				
Burning too much fossil fuels, overfishing, deforestation. accommodation crisis				
Being overly subscribed as humans - no time				
A lack of climate learning in secondary level teaching curriculums				
People mixing different types of waste (recycling)				
How to engage older people => habits set in stone				
The Willow Project				
Poor education around climate change in schools				
Lack of public transport in the west of Ireland				
Large global companies not trying to change for the benefit of the climate				
People not using bins correctly				
Microplastics & Fast fashion				
Poor transport infrastructure leading to dependency on a car				
Big companies				
Big industry				
Misinformation & Lack of education				
Over consumption of objects & Fast fashion				

	The Best Actions
	Educating about climate change
	Use public transport
	Recycle, reduce, reuse
	Reduce water waste
	Teaching about climate change in primary schools
	Electric cars
	Reuse and recycle rather than feeding into fast fashion
	Green tourism (slow travel, staycations)
	Veggie day in the DCU canteen
	Carpooling
	Clothes swap
	More education and workshops for older and younger generations
K	eeping in mind issues like inequality and poverty while designing policies
	Plant trees
	Changing habits for transport
Pc	plicies and investment that supports communities and natural ecosystems
	Renewable
	70% of Irish people care about climate change
	Promotion through charities
	Eating a plant-based diet
	Offering sustainable alternatives to unsustainable methods
	Making it a priority at senior management level
	Buying second-hand
	Local industry
	CBA climate projects

A total of 18 students played the snakes and ladders game itself. The facilitator of this event, Darragh Wynne of GOAL and DCU, had this to say about the engagement with the game: "there were some great conversations and learnings with students. It's a pity we couldn't make it work to have the game going on in the Glasnevin campus too."

Walking towards inclusion for the Traveller Community in Finglas CCS Guest Lecture by Winnie McDonagh & Doireann Crosson, Primary Health Care for Travellers Project, Pavee Point Traveller & Roma Centre Location: Room X101, Lonsdale Building, Glasnevin Campus

Time: 12.00 - 1.00pm

Adopt a Street Litter Pick with the DCU Green Committee & Young Greens - all welcome. Gloves, litter pickers, high vis vest etc all provided.

Location: Met at the Pedestrian entrance to DCU Glasnevin on Collins Avenue **Time:** 1.00pm - 2.00pm

Comments & Feedback: This event had a total of five participants including the two facilitators from Sustainability DCU. The volunteers were given the required equipment and separated into two groups. They carried out their duties on Collins Avenue and around the Albert College Park estate. Several pedestrians did approach the participants and express their gratitude for their efforts.



Figure 100: Volunteers of the Litter Pick at the Glasnevin Campus (Collins Avenue)

Bike Maintenance Clinic - Get you bike serviced for free - all parts extra.

Location: Foyer, AGOO, Albert College, Glasnevin Campus

Time: 12.30pm - 4.00pm

Comments & Feedback: The Rediscovery Centre staff that run the bike clinics noted an increase, from previous weeks, in the volume of bikes being dropped in for a service. The maximum number of bikes (13 bikes in time period) that can be serviced at one session of the clinic was reached. This indicates that the Green Week communications may have been a driver in the uptake of this service on the Glasnevin campus.

Bombay / Mumbai through the lens of time - A photographic journey by Ritesh Uttamchandani:

A joint Ireland India Institute and Centre for Climate and Society Guest Lecture **Location:** Room C115, Glasnevin Campus **Time:** 6.00pm

Wednesday

World Water Day - The DCU Water Institute will be in the U promoting World Water Day - Drop by the Water Hub for information on this year's theme Be the Change Location: DCU Water Institute Hub, Glasnevin Campus Time: 12.30 - 2.00pm

March towards a sustainable future at the Climate Activism Workshop

Join a Q&A with Climate Activists who will share their stories about how they got. involved with Climate Activism and what it means for them. **Location:** The Hive, Glasnevin Campus **Time:** 1pm - 2pm Bike Maintenance Clinic - Get you bike serviced for free - all parts extra.

Location: Undercroft/F Block, St Patrick's Campus

Time: 12.00 - 3pm

Comments & Feedback: The Rediscovery Centre staff noted that there was no change, from previous bike clinics held on St. Patrick's campus, in the volume of bikes being dropped in for a service.

Adopt a Street Litter Pick with the DCU Green Committee & Young Greens - all welcome. Gloves, litter pickers, high vis vest etc all provided.

Location: Met at pedestrian entrance to All Hallows Campus on Church Street **Time:** 1pm - 2pm

Comments & Feedback: This event had a total of five participants including the two facilitators from Sustainability DCU. The volunteers were given the required equipment and separated into two groups. They carried out their duties on Church Avenue, Ormond Road, and Grace Park Road. Similarly, to the Glasnevin litter pick, several pedestrians did approach the volunteers and express their gratitude for their efforts.

Crafty Ladies & the Fidget Mitts

Handover of approx. 200 mitts, made from recycled and/or repurposed wool, buttons and trimmings that are being gifted to those suffering from dementia. The mitts are being presented to the Director of Missions for the Mater Hospital, Dolores Heery. All welcome Also at this event the Crafty Ladies and the Easter Chicks! - Homemade chicks for sale @ \in 4 each in aid of Muslim Sisters of Eire. Either cash or qr scan. **Location:** The Well, D115 on St Patrick's Campus **Time:** 2pm - 4pm

Thursday

DCU Restaurants/Cafes incl Londis : All 12oz Hot Beverages for €1 if you bring your own cup - Location: All campuses

Time: All day

Climate Justice Fair

Curious about climate justice? Want to know more about climate activism? Come along to the Climate Justice Fair, where we'll have NGOs, civil society organisations and community groups on hand to talk about their projects and experiences of working on climate action. **Location:** The Street, U Building, Glasnevin Campus

Time: 11.30 - 2pm

#Connected2: Climate and Food

An interactive photo exhibit by young people from Ethiopia, Honduras, Malawi, Uganda, Zimbabwe, and Ireland. The exhibit emphasises the ways in which all people and communities are #Connected2 each other through experiences of climate change and global food systems and invites the participant to contribute a photo to describe how they are connected to the topic.

Location: U Building, Students Union Registry, 1st Floor, Glasnevin Campus

Time: 11.30 - 2pm

Food Cloud Kitchen talk & some free food

FoodCloud connects businesses that have surplus food with Charities and Community Groups that need it - in the process, they have prevented more than 81,000 tonnes of food from going to waste. This event allowed students and staff to hear their story and try some of their food. A talk was followed by some free lunches at the Food Cloud Food Truck.

Location: Talk was in the Santry Room in U building, Food Truck was in the Mall, Glasnevin Campus

Time: Talk at 12.00. Food from 12.30 - 2pm

Comments & Feedback: The FoodCloud talk was given by Karen Capcarrere, Food Safety Manager, of Food Cloud. This talk detailed Food Cloud's history and its mission in preventing food waste and providing food to those in need. This talk was held in the Santry Room in the U building with approximately 20 attendees. After the presentation, the FoodCloud Kitchen began to serve food from the Mall area in front of the U building. 70 meals were paid for by Sustainability DCU and the DCU Students' Union, these were allocated to attendees of the presentation and others - this was conducted by handing out vouchers that were redeemable for meals. All 70 meals were redeemed, leaving no food waste behind following the event.



Figure 101: Food Cloud kitchen serving meals at The Mall, Glasnevin Campus

Food Cloud provided feedback regarding their event and described the location that their FoodCloud Kitchen had been allocated as "ideal" and that student engagement and interaction was very positive.

Thornton's Recycling talk on Waste

Information stand for students/staff to come and ask questions on waste and how best to use the segregation bins @ DCU. Location: The Street, U Building, Glasnevin Campus

Time: 12.00 - 2pm

Biodiversity Talk with Lorraine Bell, Biodiversity Officer for DCC

This talk hosted by Loraine Bull, Biodiversity Officer for DCC, covered the following topics: Pollination by bee species; the All-Ireland Pollinator Plan; why we need it; the

importance of creating corridors; DCC's measures under the plan; honey bee keeping and wildflower meadows – new messages/direction due to scientific evidence; other top plants for pollinators, including trees.

Location: SG09, All Hallows Campus

Time: 3pm

Comments & Feedback: An insightful and engaging presentation with slides was delivered by Loraine Bull, with all questions from the attendees being answered. There were 21 attendees at this talk.

Tour of All Hallows rewilding area and community garden.

A walk around the rewilding area and pocket park.

Location: Starting from SG09, All Hallows Campus

Time: 4pm

Comments & Feedback: This tour followed the biodiversity talk. Unfortunately, several attendees of the talk were unable to attend the tour due to time constraints.

Access Society Swap Shop

Bring in clothes that are in good condition, but you don't wear anymore and swap for something new to you !!

Location: The Street, U Building, Glasnevin Campus

Time: 4pm - 6pm

Friday

Our Sustainability Actions What DCU and U can do !

To close out Green Week, the DCU SU and Sustainability DCU hosted an online workshop to discuss the challenges of climate change/ biodiversity loss/ climate justice and gather ideas and thoughts on actions that we can all take.

Location: Hosted on Zoom Time: 12.00 - 1pm

Overall Feedback, Comments & Learnings

The virtual and physical jamboards gathered information over the course of the week detailing people's concerns with regards to climate change and also the actions they would like to see from themselves personally, DCU and the Irish government.

The physical wall in The Street of the U building on the Glasnevin campus was quickly filled and seemed to have drawn much attention from the student body. The walls on the St. Patrick's and All Hallows campuses appeared to have been unnoticed or ignored.

Jamboards summary: Several concerns were highlighted several times but for the sake of clarity and conciseness have just been listed once. The artificial/plastic grass that has recently been installed on the Glasnevin campus was once such issue that was raised multiple times.

Concerns	Actions			
Concerns	You	DCU	Irish Gov	
- Single use materials	- Refocus values	- Remove plastic	- Fit for purpose	
- Emissions	away from 'stuff'.	grass on GLA.	public transport	
- Jets	- Reduce	- Remove	system.	
- Too much focus on	consumption.	plastic/single use	- Remove on	
personal	- Reuse/upcycle	from canteens.	street parking.	
responsibility	- Stop food waste.	- Improve	- Personal carbon	
- Capitalism	- Participate in	biodiversity.	credits	
- E Cars	Spring cleans.	- Solar/green roofs	- Reforestation	
- Environmental	- Lobby Local	- Car free campus	- Ban Jets	
degradation	politicians and	- Recycling bins	- Ban LNG	
- Rich v poor	Government	- Safe cycling and	- Park n' ride	
- Societal breakdown	- Car sharing	walking routes	locations	
- Greenwashing and	- Join Campaign	between		
ignoring the science.	groups.	campuses		
- Societal breakdown	- Exercise 'leave no	- Replace DCU		
- Deforestation,	trace'.	vehicles with e-		
savannization,	- Make your garden	cargo bikes.		
ocean desertification	insect and bird	- Less packaging		
- Is it too late to act?	friendly (not a	on products sold.		
	tarmac slab)	- Heating only		
	- Resist buying the	turned on in		
	newest gadgets	buildings when		
	and phones.	occupied.		
	- Minimalism			

Green Week Event Organisers

DCU's Green Week 2023 was the University's most heavily scheduled to date, with a multitude of events hosted each day. There was much positive feedback from eventgoers and each event was run seamlessly without any major issues.

It was noted by many of the event facilitators that there was more engagement at the events from staff than there was with students. With the university population consisting of approximately 90% and 10% staff, this observed trend does highlight an issue with student engagement. However, DCUSU Vice President, Nathan Murphy, highlighted that poor student engagement is currently being observed universally and

is not specific to the issues of sustainability and climate change. Nathan pointed to the cost of living and accommodation crises and probable reasons for this poor engagement.

Darragh Wynne, "Maybe going forward, having one core message about climate justice or one key ask for students and staff that is mentioned at all events, that lecturers could also be encouraged to discuss briefly in their lectures that week could help with the cohesion and impact of the week.

Reports/Engagement with Local Government

Local Government Climate Action -Key Performance Indicators, Literature Review.

This report supports the sector through documents the work that has taken place to date in the area of climate action, including policy developments nationally and internationally; develops a comprehensive literature review to identify national and international best practice regarding the development of action Key Performance climate Indicators (KPIs); compares climate action KPIs across jurisdictions; and opportunities explores for the development of KPIs for the Irish local government sector aligned to KPIs in other jurisdictions.

Full document available here.

Dr. Darren Clarke, School of History and Geography, DCU



Literature Review



LGMA

Capstone Dissertations

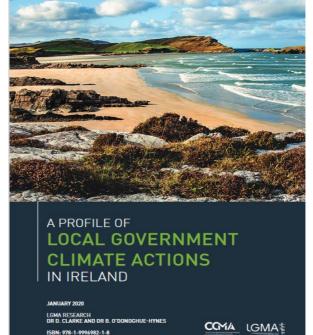
Dr. Diarmuid Torney – DCU Dr. Sabrina Dekker – DCC Et al As part of DCU's MSc in Climate Change: Policy, Media and Society students have completed their final dissertations on themes that were relevant to Dublin City Council's climate actions. Topics were jointly agreed upon by students and DCC. Topics include *Developing a climate action awareness programme with Junior Achievement Ireland, Fast Fashion and Textile Recycling and Re-Municipalisation of Waste Services.*

A Profile of Local Government Climate Actions in Ireland

This report provides a snapshot in time of local authority achievements with respect to climate action, the research finds that the local government sector has been proactive in many areas, providing a range of services to the public, including critical infrastructure, flood risk management and water resources, as well as nature-based solutions and public engagement, each of which have delivered positive climate actions.

Full document available here.

Dr. D. Clarke and Dr. B. O'Donoghue-Hynes



Eat the streets

At Eat the Streets! we are bringing together schools, farmers, urban growers, and neighbourhoods to celebrate Dublin's food in all its glory. We are going to grow, cook, create, and discover together, helping to dig up the city's rich food heritage. What we began in March will culminate in a 10day festival from the 11th to 20th June.



DCU and Cloughjordan Ecovillage

This collaboration continues to work together, the MSc in Climate Change have undertaken several field trips to Cloughjordan working together on several projects including the redevelopment of DCU's Sustainability Policy.

Fairtrade at DCU

DCU continues to be one of the only Universities in Ireland to hold the Fairtrade status for the campus.

Rankings/Metrics

There is much focus within academic institutions on ranking and metrics to measure performance and impact. Such rankings are seen as important communication tool to enable prospective students/staff to understand more their potential chosen institution. The higher the ranking the better but such rankings come with responsibilities and additional effort needs to be undertaken by those who are perceived to be leading in sustainability to demonstrate the leadership necessary to communicate the scale and urgency of the climate and biodiversity challenges and to work with all stakeholders to identify the actions necessary to deliver the best higher education system within our carbon budgets and planetary boundaries.

UI Green Metrics

DCU continues to report under the UI Green Metrics and has the past 6 years been ranking in the top 20 universities in the world in these rankings. As can be seen from the figure below it is very interesting to see the significant growth in the number of universities reporting under these rankings.



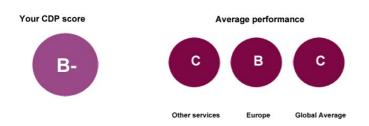
Figure 102: DCU top 20 in International Green Metrics

CDP Carbon Reporting

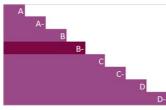
DCU also continues to be one of only universities in the world to report its carbon footprint under the CDP mechanism. This ranking/report undertakes a broad assessment of all aspects of organisational sustainability and provide feedback.



Figure 103: Launch of CDP Ireland Report where DCU were called out as only university in world to report.



UNDERSTANDING YOUR SCORE REPORT



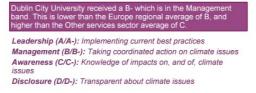


Figure 104: Breakdown summary of DCU CDP Report

CATEGORY SCORES

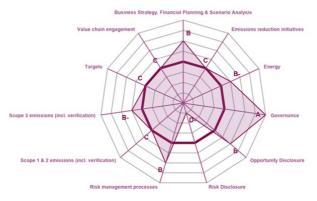


Figure 105: DCU CDP Score in 2022

Times Higher Education (THE) World Impact Rankings 2023

The Times Higher Education Impact Rankings are a global performance tables that assess universities against the United Nations' Sustainable Development Goals (SDGs). The 2023 Impact Rankings is the fifth edition, and the overall ranking includes 1,705 universities from 115 countries and regions.

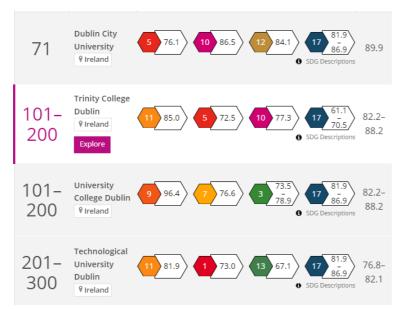


Figure 106: Summary of THE Impact Rankings for Dublin Universities in 2023

The THE Impact ranking claim to use carefully calibrated indicators to provide comprehensive and balanced comparison across four broad areas: research, stewardship, outreach, and teaching. As with all rankings it is prudent to critically evaluate the information. It is worth considering that while Ireland ranks no. 17th in the world out of 166 countries in the UN Sustainable Development Goals rankings in 2023 (<u>https://sdgindex.org/reports/sustainable-development-report-2023/</u>), according to Earth Overshoot Day, Ireland needs 3.3 Earths to maintain current consumption patterns, this is not sustainable near or long term.

Sustainable Kitchens

During September 2021, DCU commenced the Sustainable Kitchens project which involved assessing the environmental impacts of commercial kitchens and devising and implementing interventions to reduce the magnitude of those impacts. The aim is to reduce the environmental impacts of operating commercial kitchen and to develop a 'sustainability best-practice' for any enterprise operating within the foodservice industry. This work was undertaken with several partners including Intel Ireland and Carbon Positive. The results of the work were presented at Environs 2022 in Belfast.

DCU Community Garden and Social Enterprises

DCU Glasnevin Community Garden hosts two enterprises

The Grow Dome (http://www.thegrowdomeproject.com/)

Grow Dome are in the process are building an 11-meter aquaponics grow dome in the DCU Community Garden.

The Gnomes

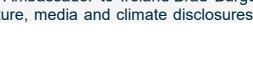
(https://marketgnomes.com/) who grow a wide variety of fruit and veg with no artificial herbicides, pesticides or fertilizers. Produce is available at select farmers markets and online.

Sustainability Delegations to DCU

There have been several delegations visit from the office of the Future Generations Commissioner over the past period.

Figure 107: Welsh delegation visits DCU (March 2020) and the Welsh Future Generations Commissioner, Sophie Howe visit in Oct 2022.

Figure 108: Event to host the New Zealand Ambassador for Climate Change, Kay Harrison, and New Zealand Ambassador to Ireland Brad Burgess to DCU to meet about climate policy, agriculture, media and climate disclosures in Ireland and New Zealand. (May 2022)











Raheny Rotary & the Peace Pole

Linking with our local community the Rotary Club in Raheny very kindly donated to DCU a Peace Pole as part of the international Peace Pole Project³. At a time of international turmoil with the war in Ukraine it was a very poignant donation, and it was noted at the unveiling that not meeting our sustainability challenges may have a major impact of future peace.



Figure 109: The DCU and Raheny Rotary community at the unveiling of the Peace Pole on the DCU All Hallows Campus.

Climate Ambassadors Meeting

Working with An Taisce, DCU sustainability organised a Climate Ambassadors meeting at DCU where presentations were made on sustainability activities at DCU include Green Committee activities, an activism presentation by XR. It was planned to take a tour of the DCU Community Garden however the weather was very foul and so we had to settle for the food for the event being supplied from the community garden – with thanks to DCU catering for making this possible.

³ <u>https://www.worldpeace.org/history/</u>



Figure 110: staff and student participants from across DCU at the Climate Ambassadors event (May 2022)



Figure 111: Vegan food from the DCU community garden

Climate Action Leadership Training

In October 2023, DCU commenced a series of training programmes that will provide climate action leadership training to members of the DCU community over the coming years. The programme commenced with our senior management team and was facilitated by Dr. Tara Shine and Dr. Ciarán O'Carroll from Change by Degrees.



Figure 112: DCU Senior Management Team after completing Climate Action Leadership Training with Change by Degree

IUA/EPA Campus Living Lab Webinar

Following the completion of the IUA/EPA Campus Living Lab Project there was a live webinar open to all to communicate the action and success of such a collaborative project. Fingers crossed such project will continue to be supported.



Figure 113: Campus Living Labs Webinar (Oct 2023)

9. DCU's Green Committees Green Charter

The Green Committee at Dublin City University, made up of volunteer staff and students, believes in a sustainable future that provides the fair and equitable balance that is needed to share the earth's resources between all its inhabitants. It believes that as an educational institution DCU much tackle this existential challenge through our teaching and learning, research and innovation and by operationally working toward reducing our carbon emissions. It is an enormous task that we must all tackle together.

Our Green Committee is committed to

- embedding sustainable practices across our University
- informing and educating other within the DCU Community about importance of sustainability and why we need to create a more sustainable future
- informing and educating other within DCU on what they can do to have a positive impact both on and off campus
- informing and educating our wider community, including family and friends about importance of sustainability and why we need to create a more sustainable future
- informing and educating our wider community, including family and friends about what they can do to have a positive impact the sustainability of our planet

DCU has also committed to a new Sustainability Charter:

Sustainability Charter

DCU is a young, dynamic and ambitious university with a distinctive mission to transform lives and societies through education, research and innovation. Since admitting its first students in 1980, DCU has grown in both student numbers and size and is now a multi-campus university located just north of Dublin city centre.

This charter includes the following principles and commitments:

- We will embed sustainability at the core of our university, in its teaching and learning, research, development and innovation, its operations and promoting it through its national and international engagements,
- We will communicate and promote the United Nations Sustainable Development Goals and will encourage all staff and students to engage in the delivery of these goals,
- We will actively advocate for climate action through all our circles of power and influence, encouraging and supporting our staff and students in their actions,
- We will **demonstrate our commitment** through our own actions,

- We will measure our environmental impact and publish an annual carbon footprint,
- We will establish and work to achieve them science-based targets to meet the 1.5 degree scenario requirements as per the Paris Climate Change Agreement,
- We will identify and implement, in so far as possible, all measures to reduce our carbon footprint,
- We will share knowledge and best practice with national and international partners and communities and work together to reduce all our impacts,
- We will encourage and promote progressive actions undertaken elsewhere and where possible emulate these,
- We will identify the carbon footprint of goods and services consumed by our university and work with our suppliers to reduce these,
- We will assess the institutional risk associated with climate change/sustainability and include where deemed necessary said risk on the DCU risk register and examine all our policies, practices and major decisions on a systematic basis to ensure that they do not lock us into future high carbon pathways but identify a pathway to a zero-carbon organisation,
- We will support our staff and students in the identification of their personal carbon footprints and identify and support appropriate measures to reduce our impacts,
- We will actively communicate, both internally and externally, about climate change and our actions to mitigate our impact and adaptation measures needed for a sustainable future for all.

With the return of students to campus is it proposed to run a workshop with the DCU Green Committee to review the existing Green Committee Charter along with the DCU Charter to co-create a joint charter to ensure a holistic approach. These charters can be found on our website :

DCU Green Committee Charter

DCU Sustainability Charter

Appendix : Scavenger Hunt Leaflet