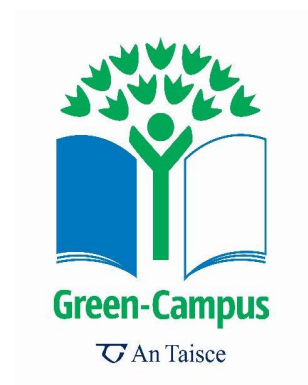




Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

An Taisce Green Campus Annual Report 2023/2024

July 2024



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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.

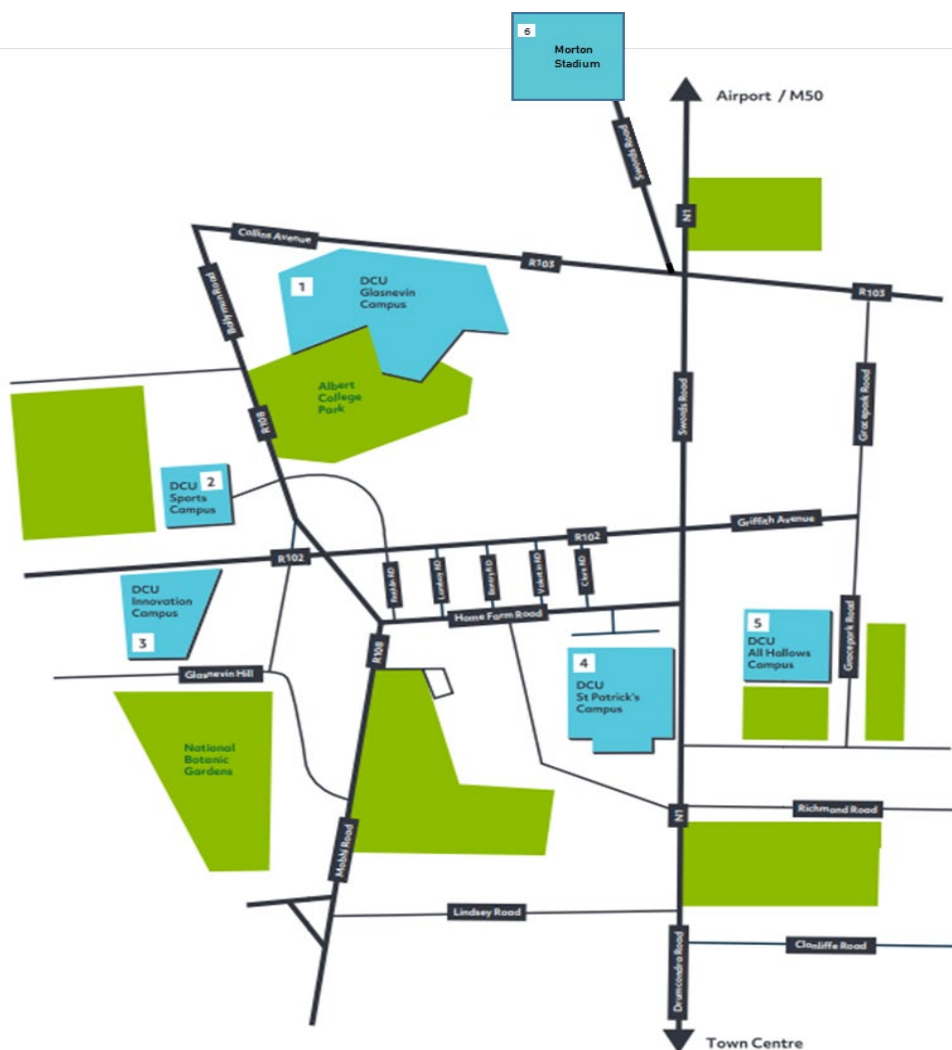


Figure 1: DCU Campuses

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 [DCU Strategic Plan 2023 – 2028](#) - '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 [sustainability website](#).

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.

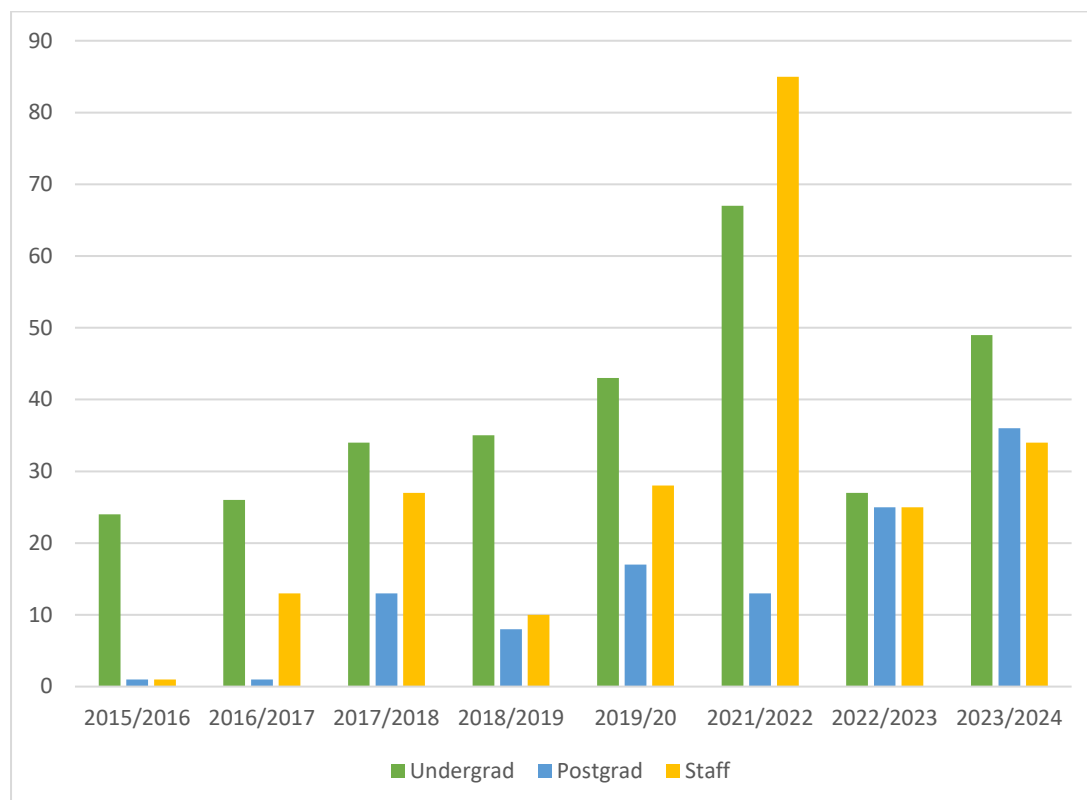


Figure 2: DCU Green Committee Membership 2015/16-2023/24

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 2023/24 surveys and outline the proposed focus for the year. There were 119 in 2023/24 from right across the university (figure 3/4).

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.

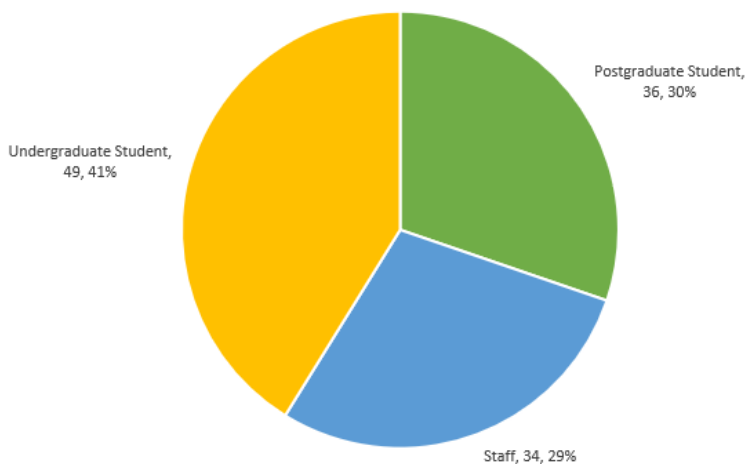


Figure 3: DCU Green Committee 2023/24

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.

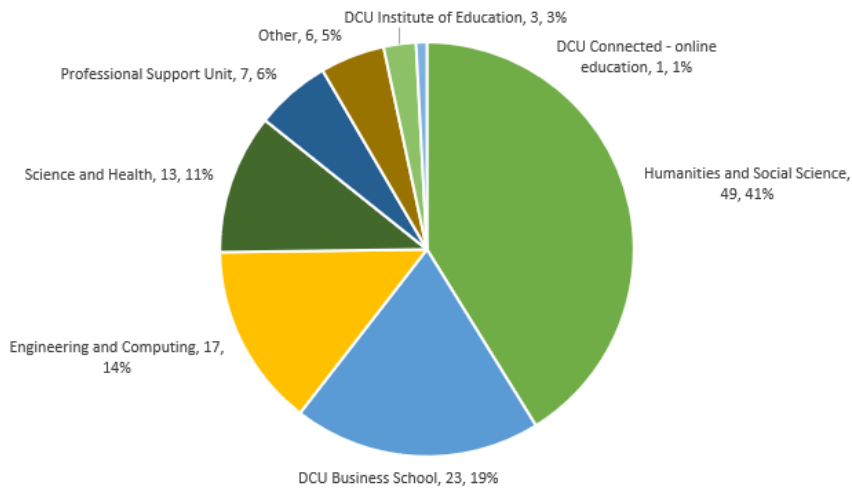


Figure 4: DCU Green Committee across faculties

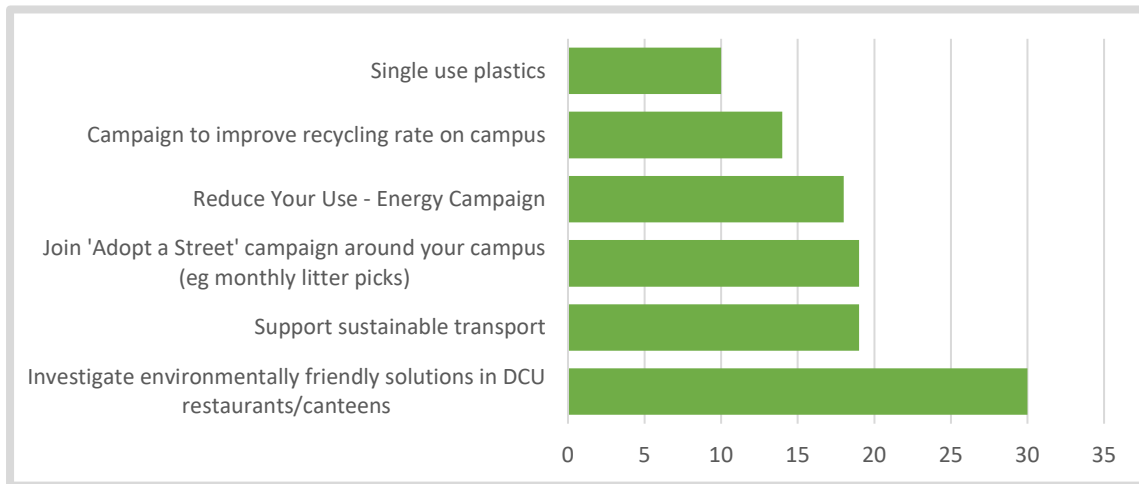


Figure 5: Priority projects in 2023/24

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 6: 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.

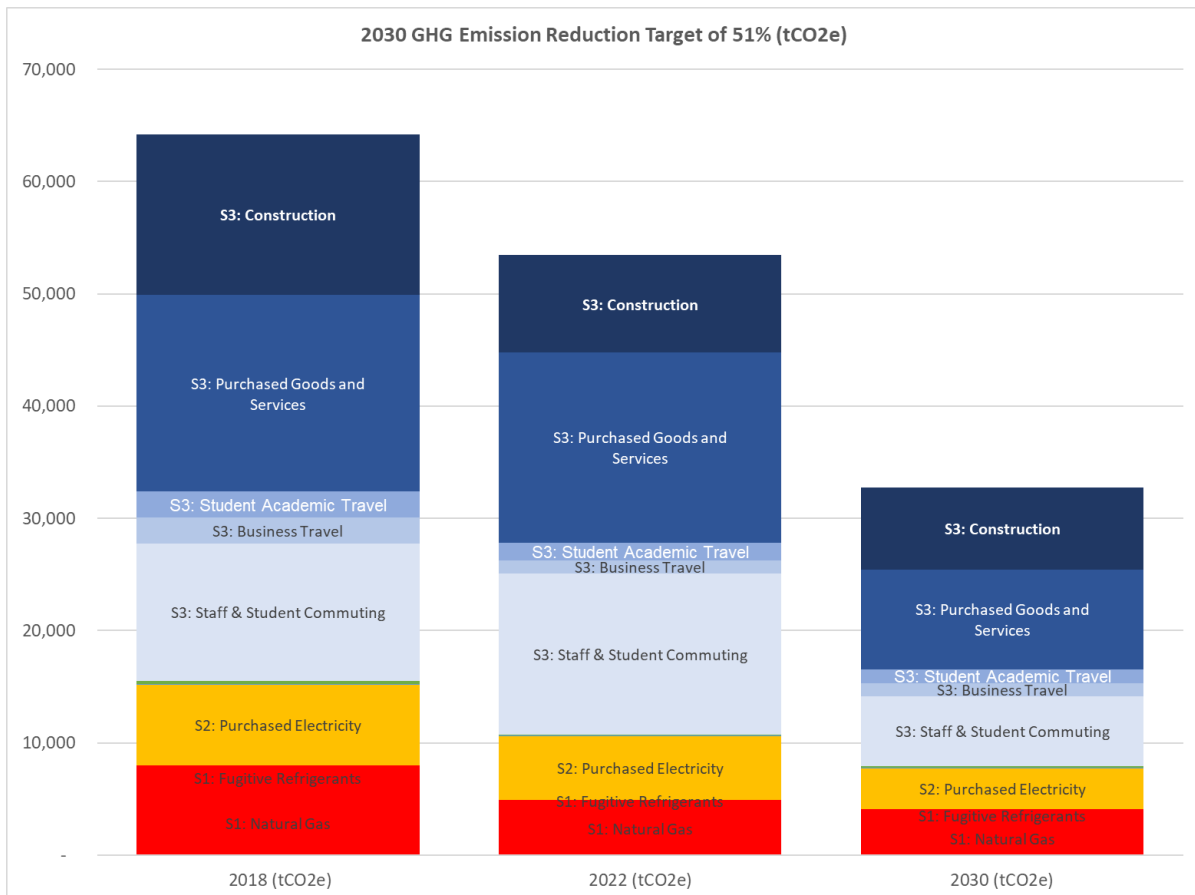


Figure 7: DCU GHG Emission reduction targets in line with National Legislation.

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 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 [DCU Climate Action Roadmap](#).

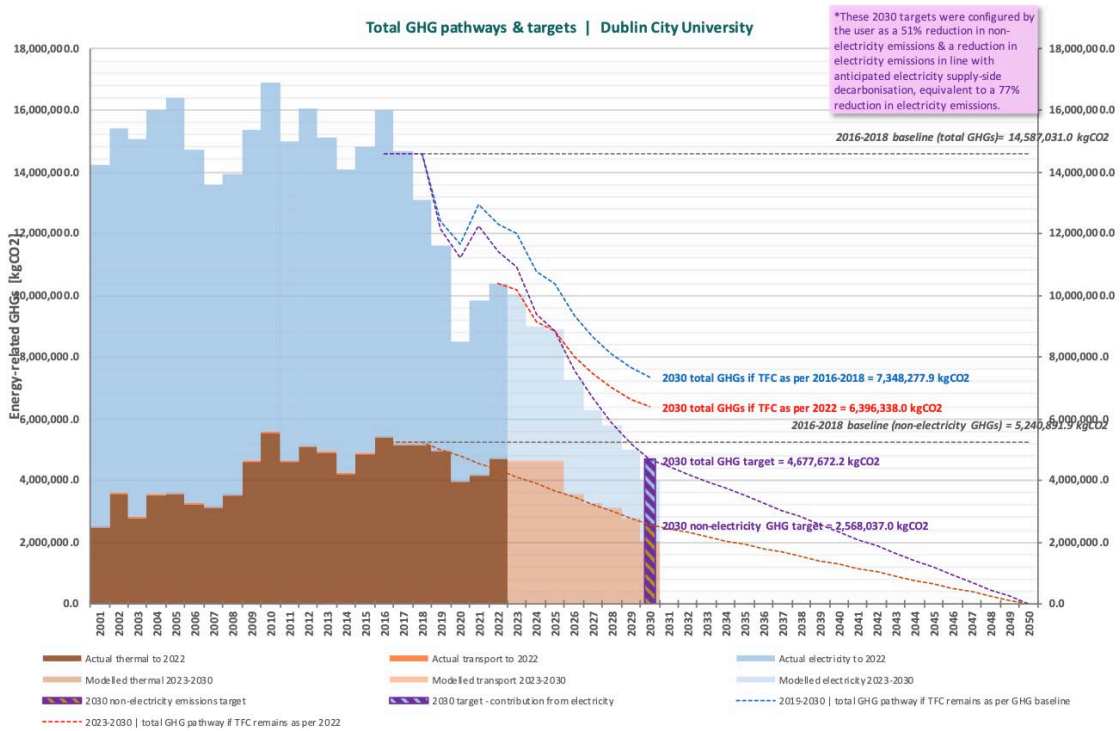


Figure 8: DCU Energy Decarbonisation Target Glidepath towards 2030

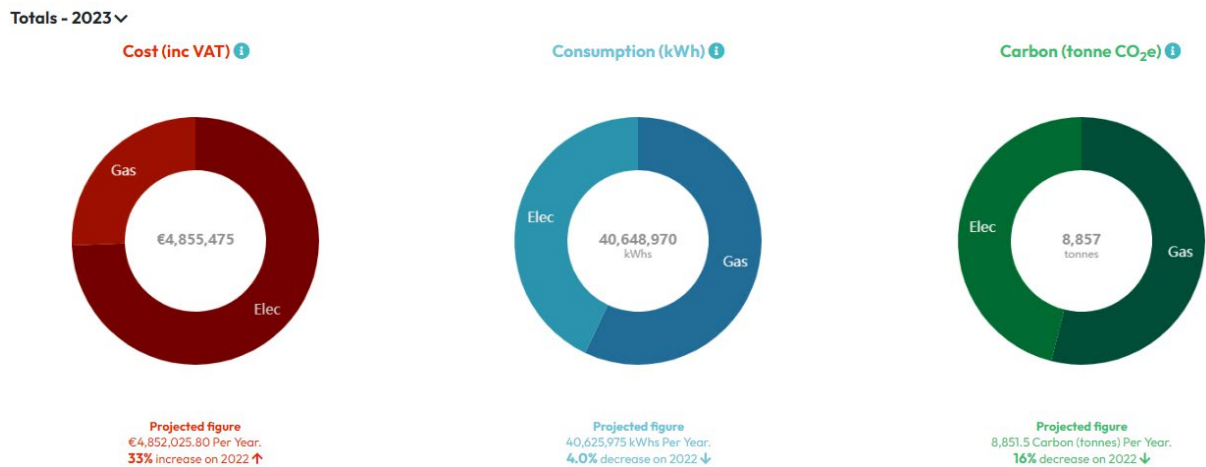


Figure 9: Energy costs, consumption, and carbon for 2023

The figure below shows our CO₂e emission for Electricity and Natural Gas consumption for 2018 – 2023. We can see the COVID dip in 2020 and the resultant bounce back in 2021/2022 followed by a gradual reduction in emissions in 2023.

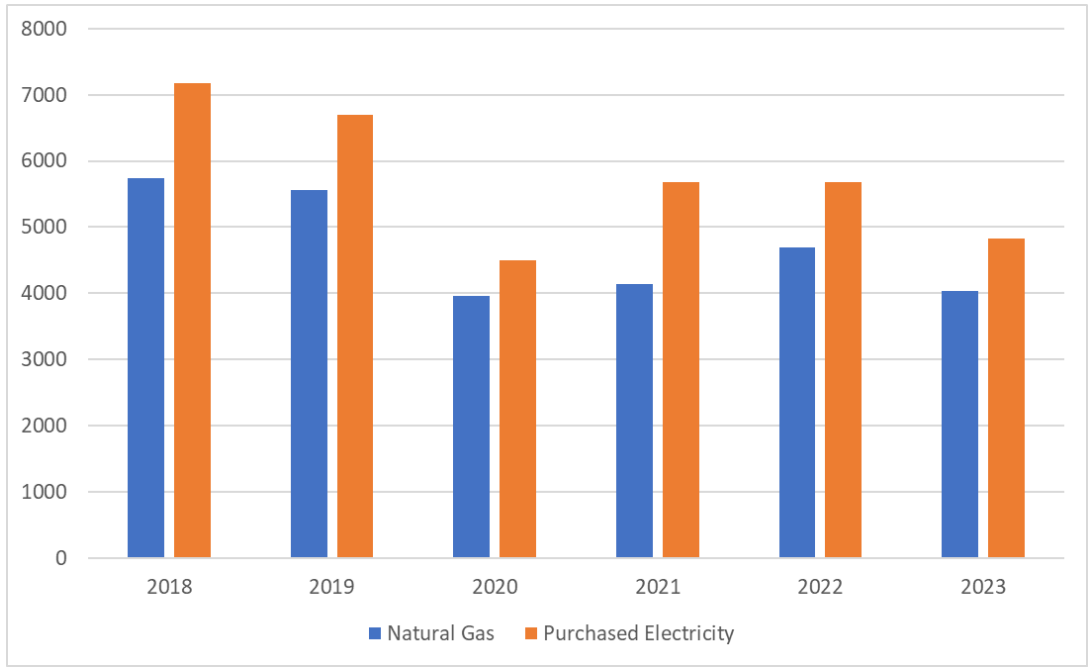


Figure 10: Energy consumption at DCU 2018- 2023

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.

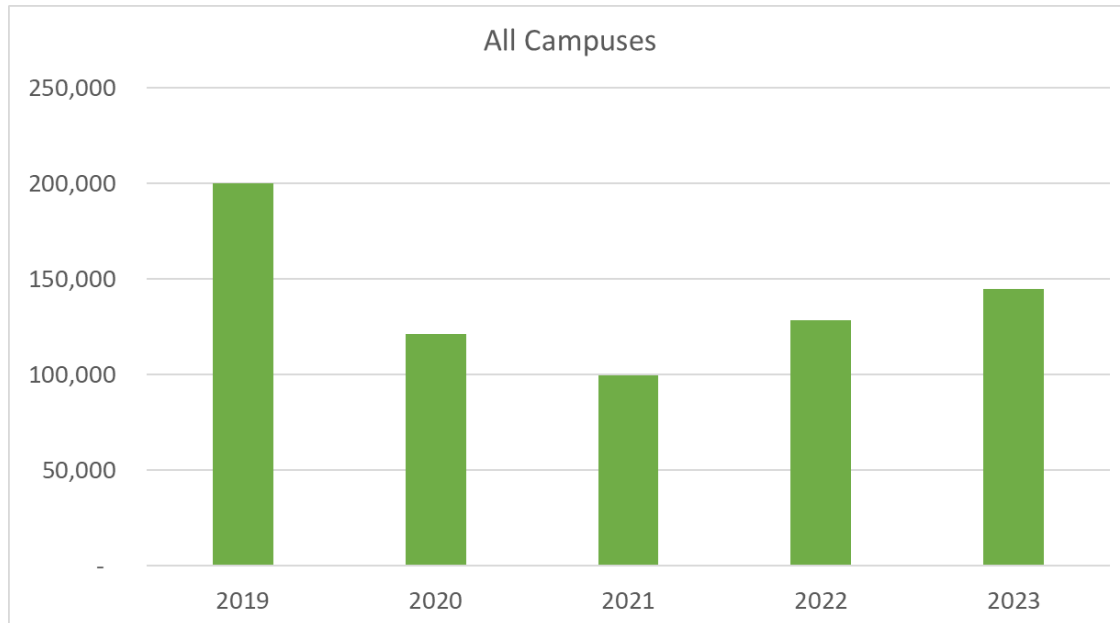


Figure 11: Water consumption on DCU campuses 2019 - 2023 for all DCU campuses

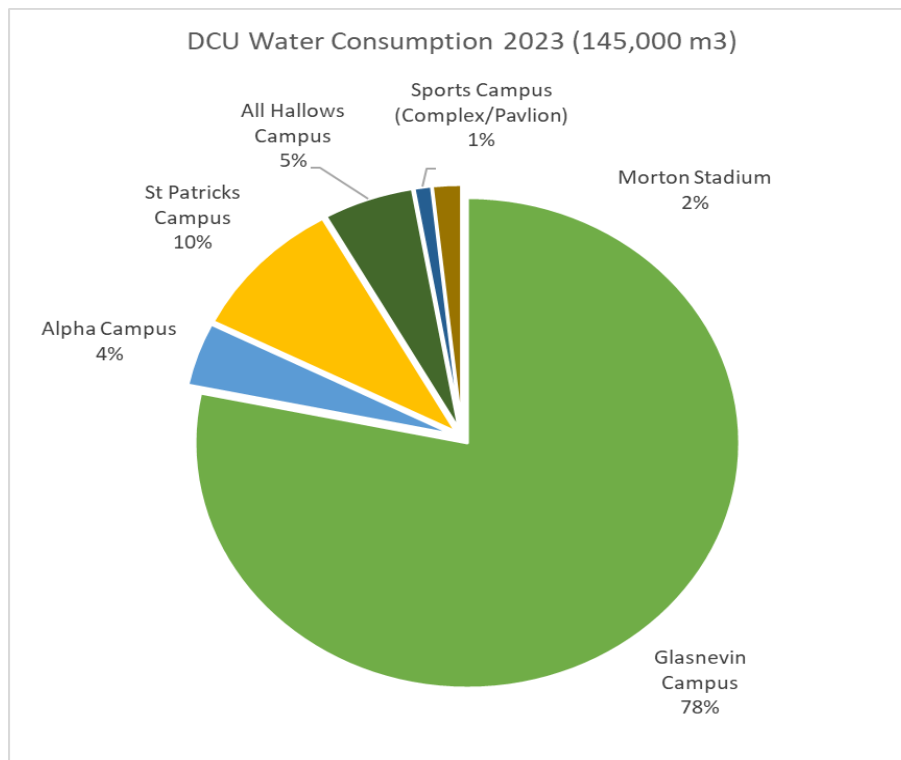


Figure 12: Water consumption in 2023 by DCU campuses.

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 – 2023. 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.

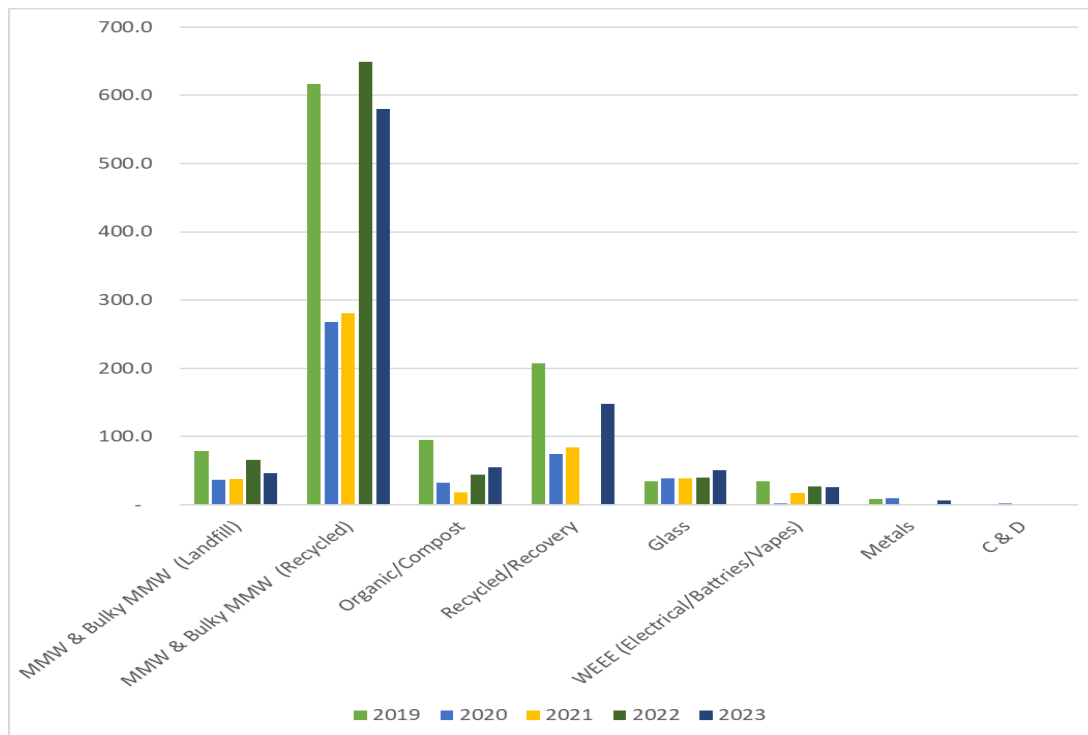


Figure 13: Waste segregation at DCU 2017 – 2023



Figure 14: Total Waste (tonnes) and Resultant CO2e emission (tonnes)

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 [Nature Positive University](#).

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 15: Map of the DCU Glasnevin Campus



Key:	
	Regular Green space
	Key biodiversity Area

Figure 16: Map of DCU St Patricks campus

¹ <https://pollinators.ie/partners/>



Key:	
	Regular Green space
	Key biodiversity Area

Figure 17: Map of the DCU All Hallows Campus

Table 1: Summary of areas across DCU Academic Campuses

Campus	Regular GS (m ²)	KBA (m ²)	Gardens (m ²)	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

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.

Table 2: DCU Transport Data Surveys

Year	# Respond	Response Rate	Foot	Bike	Bus	Rail	Car	Carpool	WFH
2024	1920	12%	11%	8%	40%	13%	22%	6%	>1%
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%	

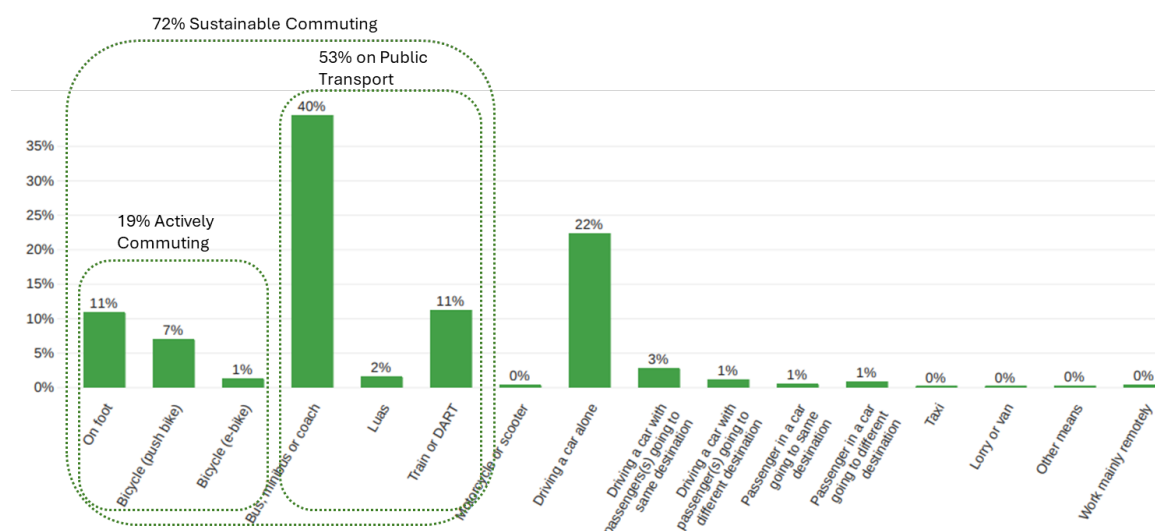


Figure 18: Response to regular mode of transport used to travel to DCU in 2023 survey.

	Active Commuting		Public Transport		Sustainable Commuting	
2023	24.7%	5.7% ↓	48.5%	4.5% ↑	78.6%	1.6% ↓
2024	19%		53%		77.0%	

The main reasons given for modal choice was the lack of alternative (31%), the quickest (30%) and most affordable (17%). It is difficult to know if the lack of an alternative is known or perceived. The 'occasional modal choices' responses indicate that there is the potential for more sustainable commuting with walking going from

11% regular walker to 28% occasional walkers and those using bus, minibus or coach going from regular users at 40% to occasional users at 53%.

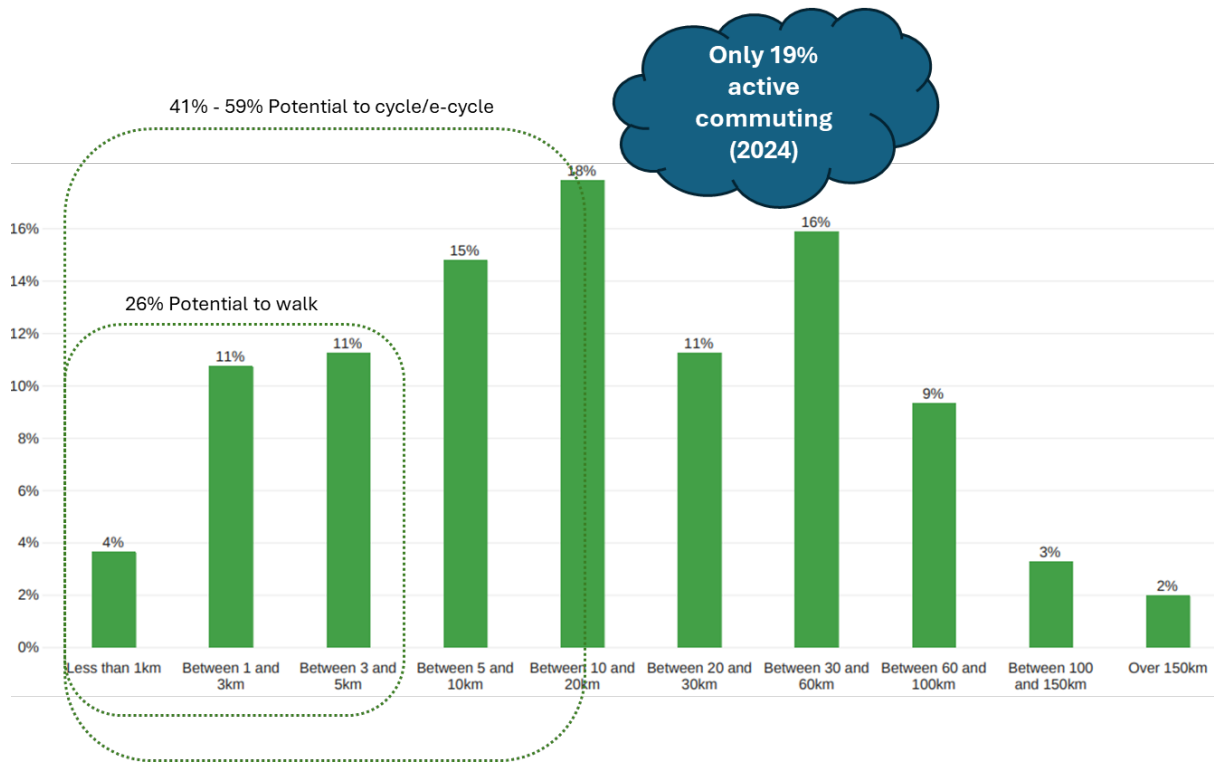


Figure 19: Distance travelled to campus.

The distance travelled by commuter to campus is shown in the figure above – it is thought that distance travelled in general is increasing potentially due to accommodation issues but the frequency of attendance on campus is reducing.

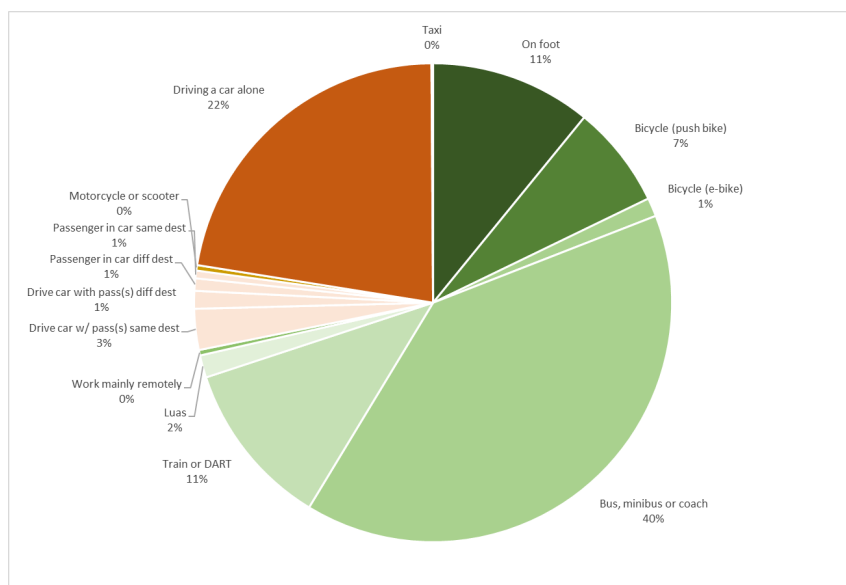


Figure 20: Percentage breakdown of each mode of transport for DCU commuters in 2024

DCU Smart Survey 2024 - Active Travel Requests



Figure 21: Summary of requests from staff and students on measure that would help encourage them to actively commute to DCU.

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 21.

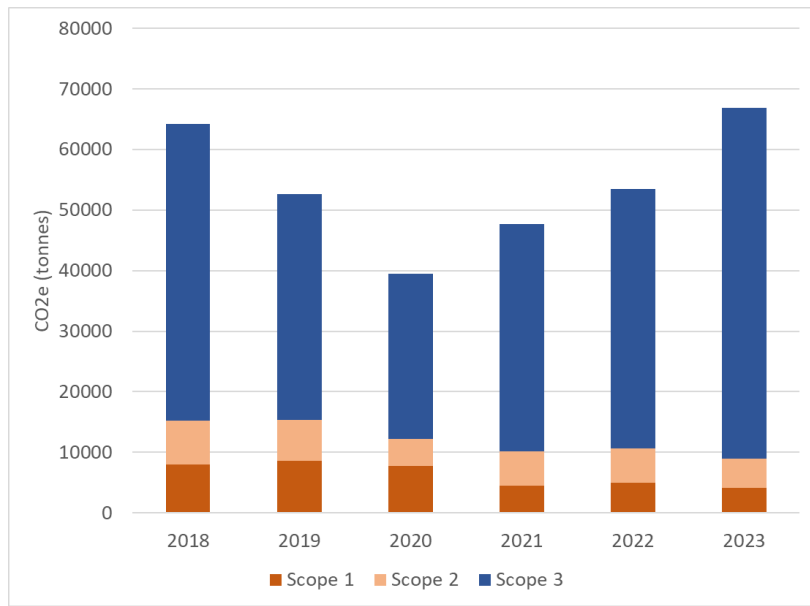


Figure 22: DCU Carbon Footprint across Scope 1, 2 and 3 from 2018 to 2023
 (NOTE: the methodology for estimating procurement has changed from the Quantis EEIO tool to the UK EAUC / HEPA tool HESCET)

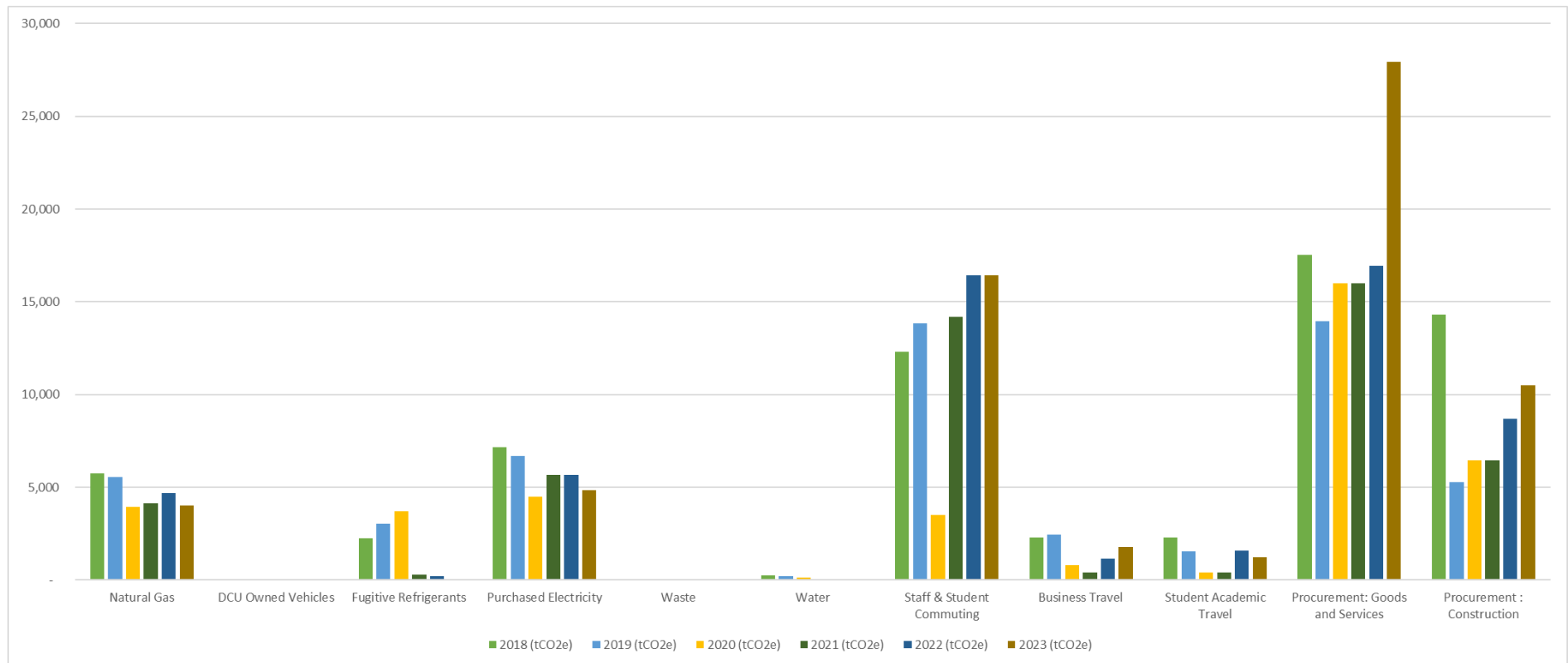


Figure 23: DCU Carbon footprint 2018 – 2023 (NOTE: the methodology for estimating procurement has changed from the Quantis EEIO tool to the UK EAUC / HEPA tool HESCET)

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.

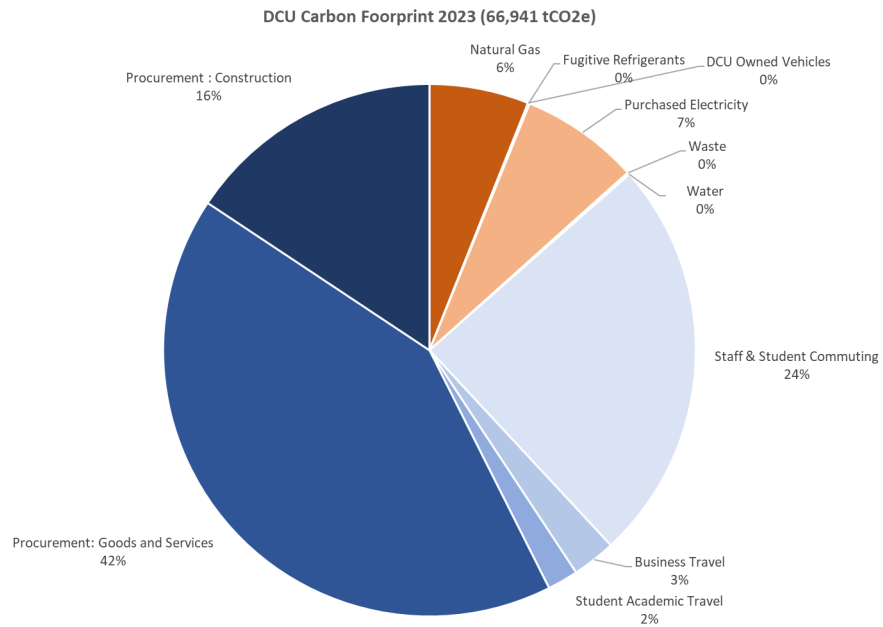


Figure 24: Total breakdown of DCU CO₂e emissions in 2023 - total GHG emissions were 66,941 tonnes of CO₂e. (NOTE: the methodology for estimating procurement has changed from the Quantis EEIO tool to the UK EAUC / HEPA tool HESCET)

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 figure below show the voting response from the Green Committee for 2023/24.

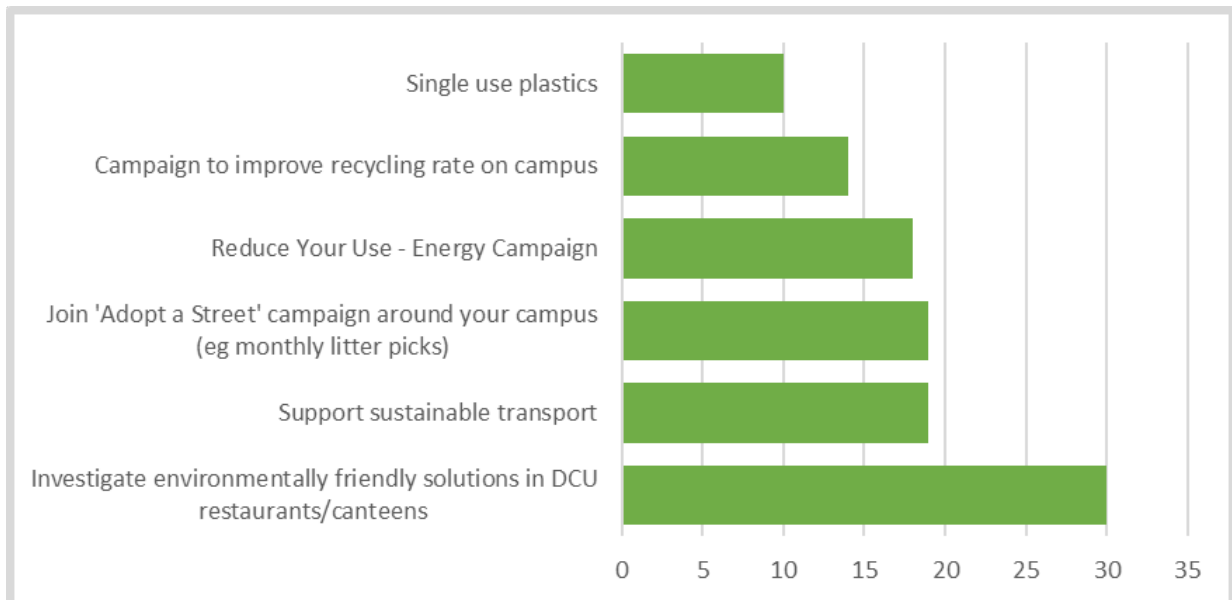


Figure 25: Vote from those who also agreed to participate in green committee (2023/24)

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 (Ongoing in 2023/2024)

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.

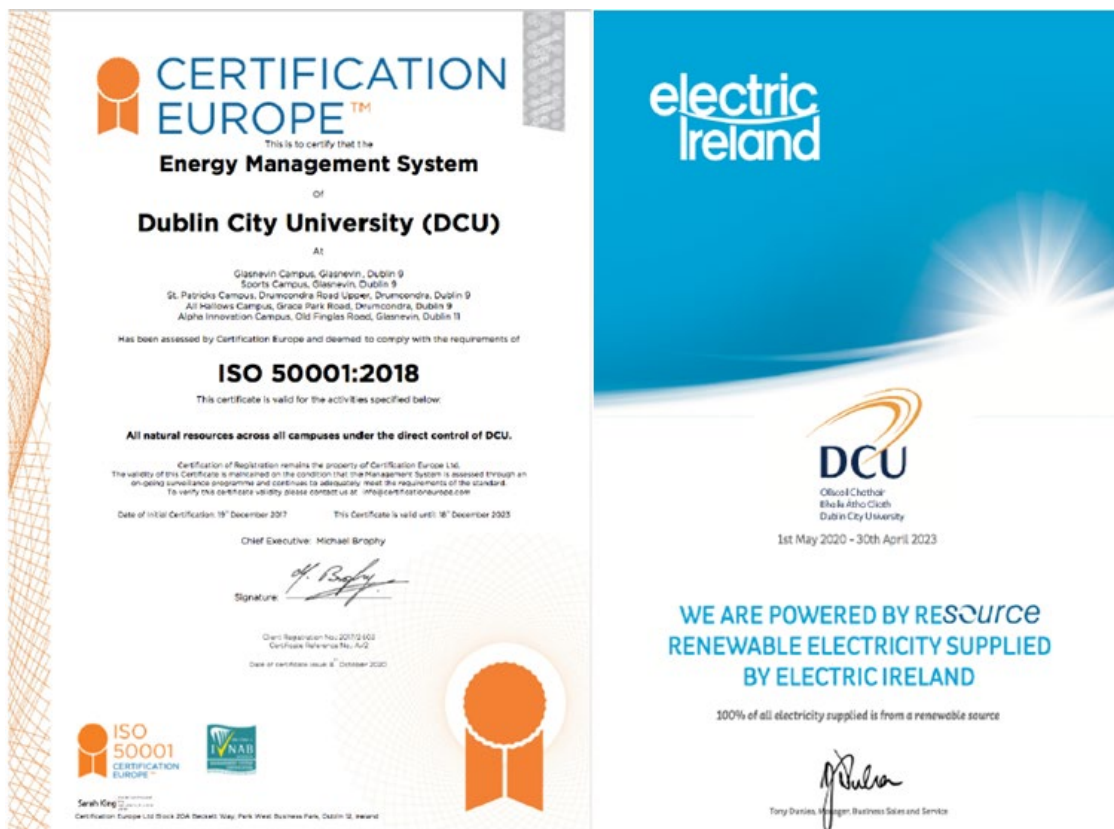


Figure 25: DCU ISO 15001:2018 Certification – Valid to 2023 and the Renewable Electricity Cert for DCU

DCU Sustainable Energy Community (Ongoing in 2023/2024)



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.

REDUCE YOUR USE



Figure 26: 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).)

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.

Total Energy Consumption Performance Comparison October 2022 vs October 2019 (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%

Along with the emails further information is available on the [DCU unplugged website](#). 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 27: Graphic of the measures and improved performance of the DCU Marconi Building following its deep retrofit.

Towards Zero Carbon Lights

“20% of the world’s energy usage is estimated to be consumed by lighting. If we could switch all of the lights to LED technology, this amount could be reduced by over 75% – representing a huge decrease in emissions of CO2 and other pollutants currently released into our atmosphere.”²

This project focused on reviews of the different types of external light fittings around the area of the DCU Glasnevin campus and to see the difference of:

- Annual carbon emission reduction
- Annual energy saving
- Total annual saving




between the traditional lightings and the Light-Emitting Diode (LED). The student, working with the DCU Estates Energy team, carried out a survey and research on the external lightings situated on DCU campus as this year’s focus for the DCU light department was to review and upgrade the external lightings.



Figure 28: Survey area for external lighting.

² <https://mountlighting.co.uk/led-lighting-vs-fluorescentlighting/#:~:text=Compared%20to%20fluorescent%20bulbs%2C%20LED,output%20at%20a%20lower%20wattage.>

Table 4 : Examples of survey results

Present/Existing Lighting System - 2024/03/01				Comment	
Building Classification					
Area Description	Lighting Type	Number of Fitting	Night Time Hours		
The Helix - The Hub	Flood Light	6	9	I'm not quite sure if they are fluorescence or not from just visualisation. The lights were not on at the morning time.	
Larkin Building - Around the Building	LED	8	9	Cannot confirm if they are actually LED lights cause it had covers on the lights.	
McNulty Building (1) - Corridor	Fluorescence Light	12	9	Could visualise from the photos that I've took. You can clearly see that it's the old fashioned lightings.	

From the estimated summary, we can see that:

- Annual carbon emission reduction – **23.117 tonnes**
- Annual energy saving – **22,609 kWh**
- Total annual saving - **€12,261**

The results shown above represent very significant values, especially for the Annual carbon emission reduction, 23.117 tonnes. From just replacing the traditional lighting to LED lighting within just one section or area of the university. The results would definitely be more impressive if we could adopt LED lighting to entire DCU Glasnevin campus.

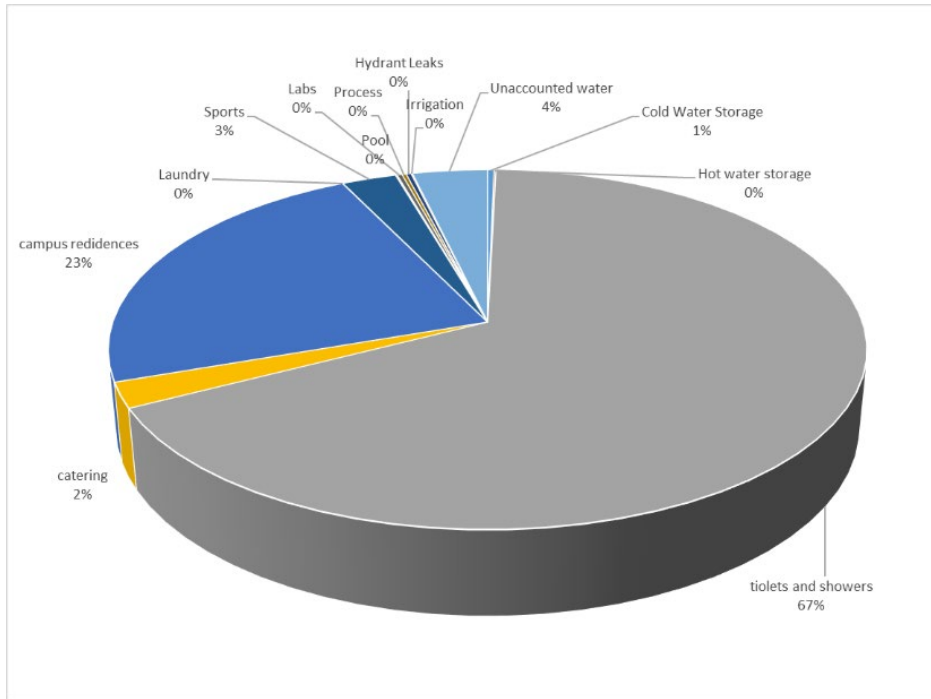


Figure 30: Breakdown of water consumption at DCU (2019)

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 31: DCU certified Water Steward Badge from Irish Water.

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.

Dublin City University Water Stewardship Charter						
Created By		Revision		Approved By		Date
Richard Kelly		0		Richard Kelly/Gerald McElroy		28th May 2019
Business Priorities/ Targets for Water Stewardship						
Item	Business Priority/Target Statement	Priority	Metering and Monitoring	Water Bill Analysis	True Cost of Water	
1	Commit to Water Conservation and Continual Water Management Improvement	High	Water Mapping & Significant Water Users (SWU) identification to guide and generate future sub-metering installation and conservation targets. In addition a multi-Campus Water Benchmarking and real-time dashboard	Water Bills Analysis and Summary for: Rosanna Campus 100,000lit (€ 200,000) St James Campus 200,000lit (€400,000) St Patrick's Campus 200,000lit (€400,000) St Michael's Campus 200,000lit (€400,000) Sports Campus 5,000lit (€10,000)	Additional Costs associated with Water Consumption: Water Metering circa € 100,000; Water Meterance costs circa € 50,000; Replacement of Water, circa €25,000. Future Efforts will have significant cost increases across all Campuses.	
2	Set Aggressive Targets to Reduce Water Consumption and Costs	High				
3	Promote Water Conservation throughout the DCU Community and Engage with Research and Learning Activities	High				
4	Project a Water Conservation Friendly Image, Demonstrate Stewardship Commitment and Lead by Example	High				
5	Compliance with Regulations and Legal Requirements	High				
6	Continuously Review Water Conservation Strategy, Planning and Progress	High				
Water Stewardship Action Plan/ Targets						
Item	Description	Action Type	Impact/Targets	Who	Next Step	Target Completion
1	Complete Irish Water Stewardship Programme	Just Do It	Knowledge, Competence and Expertise	Estates Office	Complete Water Charter	May-19
2	Complete Region and Campus Level Water Balance Mapping	Water Event	Understand Water Consumption across all Campuses and Facilities	Estates Office	Final Checks & Sign Off	Jun-19
3	Complete Campus Water Audits	R3 Project	Locate Leaks and Unaccounted for Water	Estates Office	Initiate Audits	Sep-19
4	Obtain Senior Management Commitment, Approve, Sign & Launch Water Management Policy and Plan	R3 Project	Senior Management Commitment	Estates Office	Complete Policy	Sep-19
5	Set Aggressive Reduction Targets for 2020 and 2025	R3 Project	Cut Water Consumption and Costs	Estates Office	Set targets	Aug-19
6	Design and Implement a Water Conservation Awareness Campaign	R3 Project	Awareness of where Water is used and how we can Conserve it	Estates Office	Appoint Water Team	Oct-19
7	Repair Underground Water and Hydrant Leaks	Just Do It	Reduced Water Consumption and Quick Wins	Estates Office	Complete Leak Testing	Oct-19
8	Install Sub Metering	R3 Project	Tracking and Monitoring of Significant Water Users (SWU)	Estates Office	Sub Metering Strategy	Sep-19
9	Trial and Install Efficient Sanitaryware Fittings and Controls	R3 Project	Good Water Conservation Facilities	Estates Office	Complete Trial	Jun-19
10	Maintain Register of Opportunities and Action Plan	Just Do It	Prioritised and Effective Water Management Action Planning	Estates Office	Set Up Register	Jun-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 Stewardship 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.

Waste

The breakdown of DCU waste for 2019 – 2023 across all categories is shown in figure below. The covid dip is apparent and it is worth noting that while total waste volumes increased slightly from 22/23 to 23/24

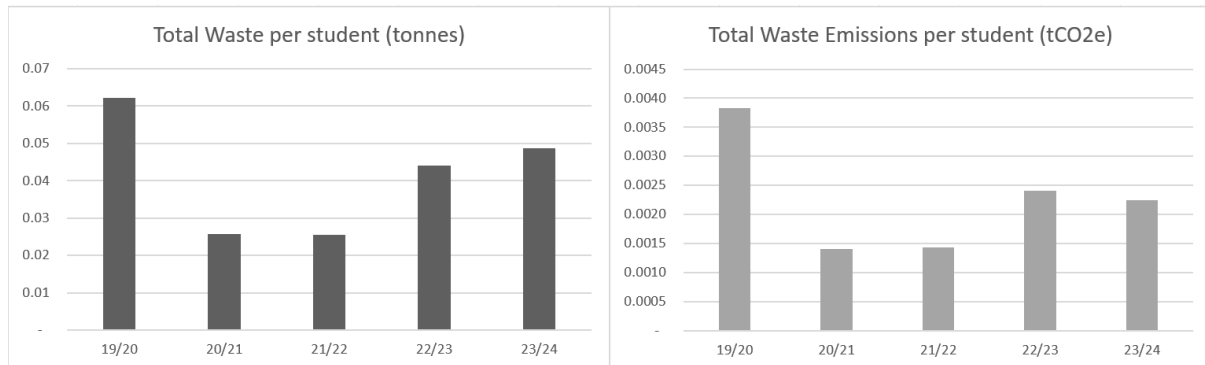


Figure 32: Waste volume and waste related emissions per student 2018- 2023

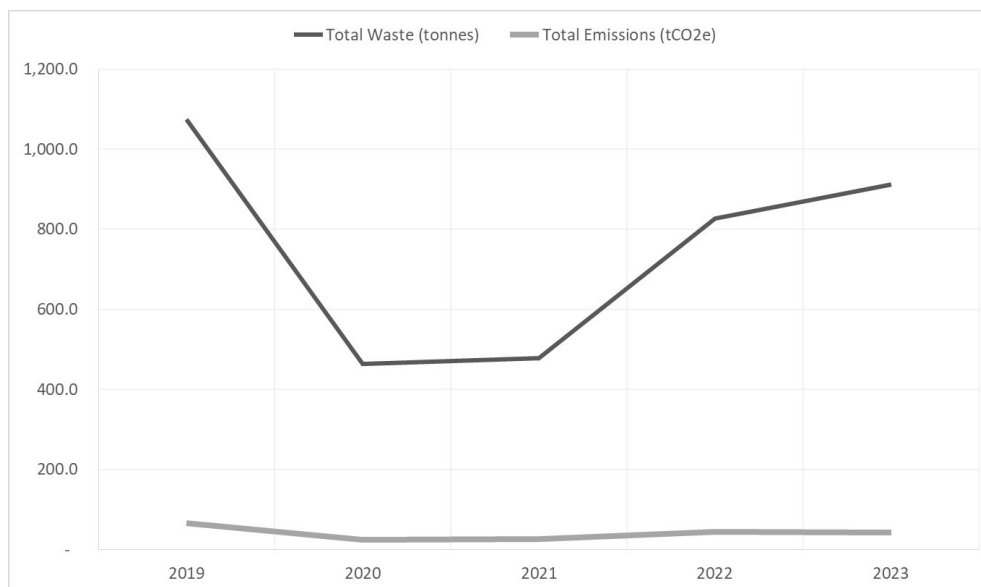


Figure 33: Total Waste (tonnes) and Total Waste Related Emissions (tCO2e) from 2019 – 2023.

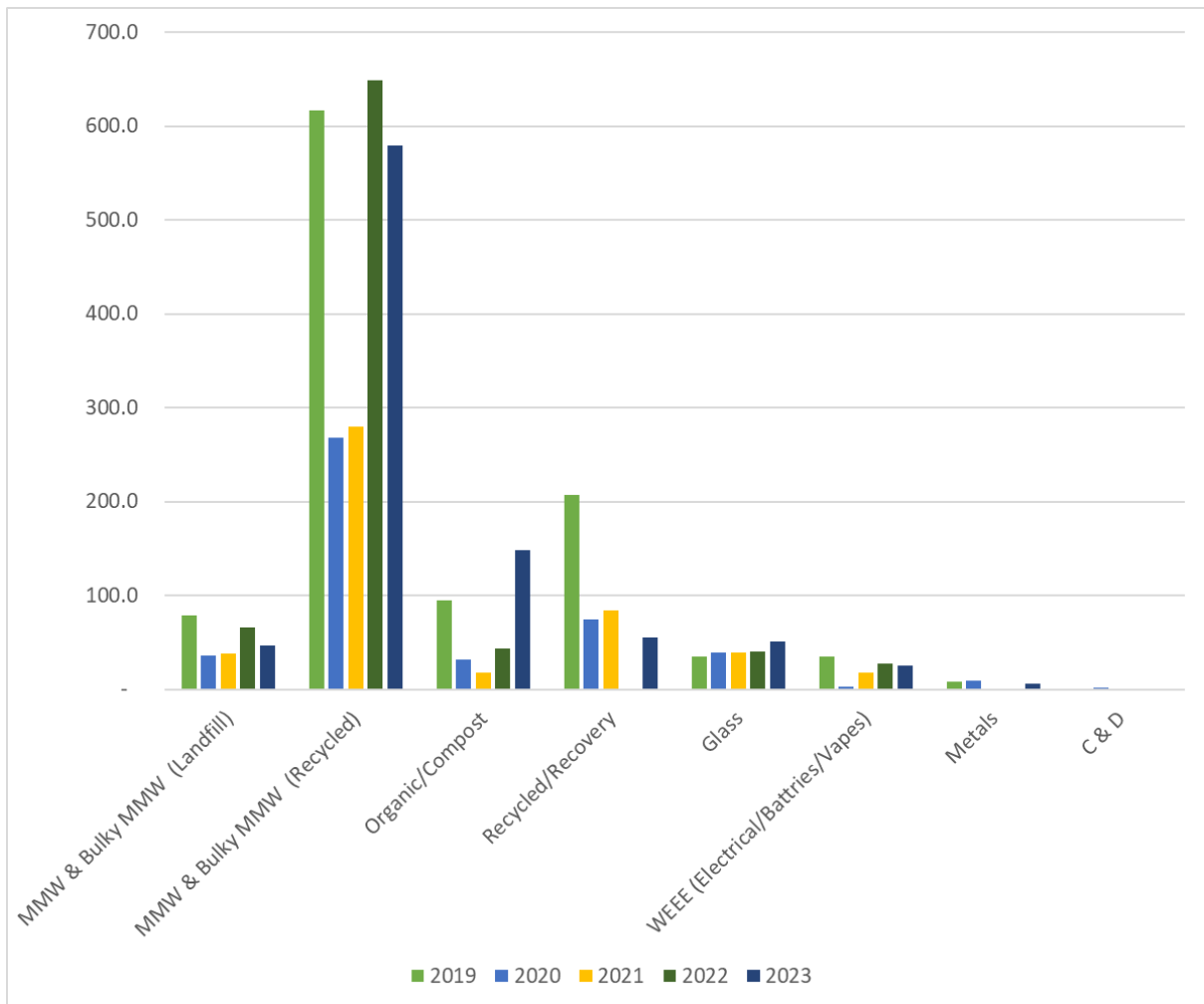


Figure 34: DCU Waste Data 2019-2023 broken down across campuses and waste type.

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



Figure 36: 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 addition 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 37: Two DCU final year student nurses, winning smart watches presented by Niamh Clonan from Thorntons Recycling

Compost Waste & Lab Plastics



Figure 38: Images of visit to the Thorntons compost facility

DCU Head of Sustainability and Researchers from Faculty 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 non 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 reversion 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.

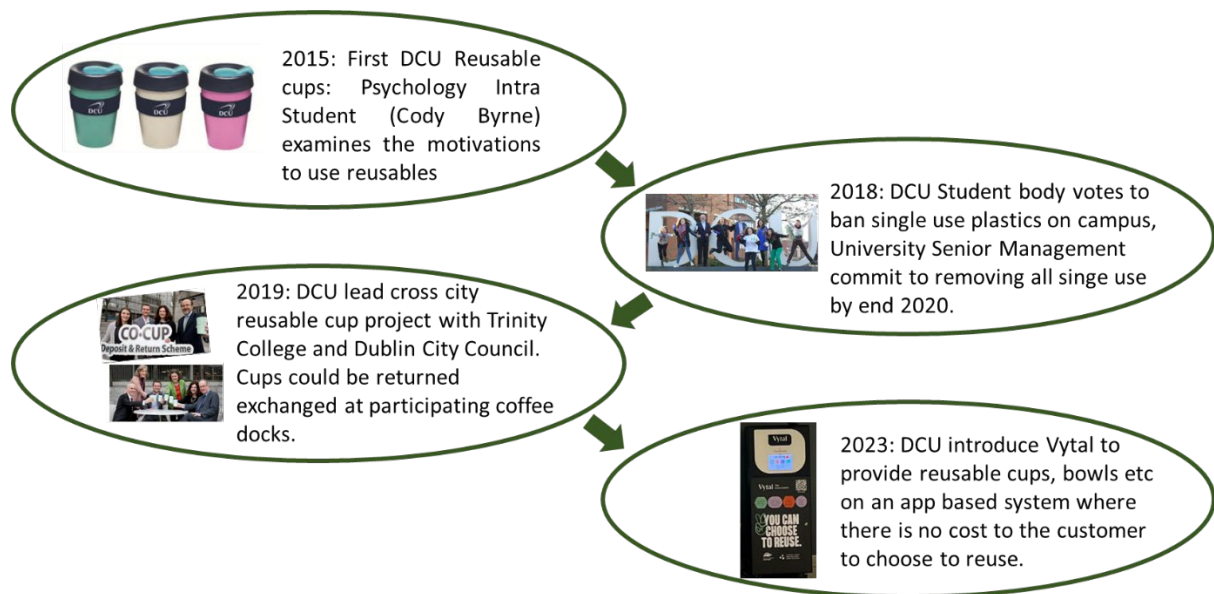


Figure 39: Summary of our progress towards reusables

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.

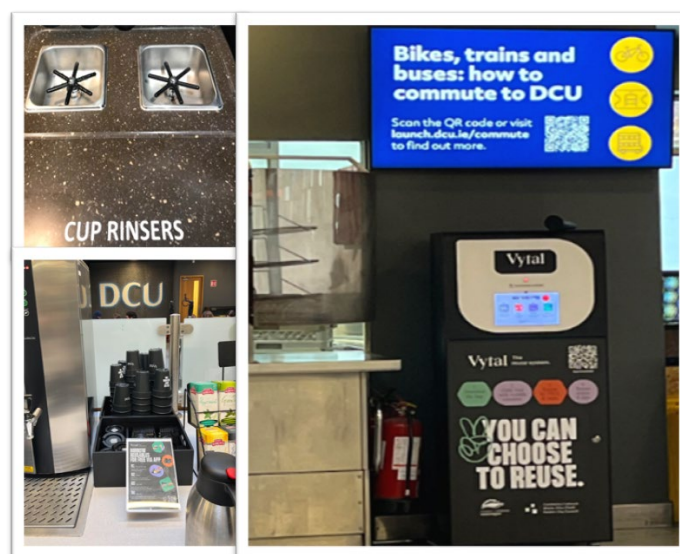


Figure 40: Measures to help the transition to reusable cups.

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 41: DCU branded cups and bottles available on campus.

The 'Vytal' Project (2023/2024)

The wastes patterns on DCU's three campuses, Glasnevin, St. Patricks, and All Hallows were observed focusing on canteens/restaurants. For the analysis of waste from the restaurant's packaging, research was done into the Vytal scheme that is run in the restaurant. This scheme allows customers to make use of reusable take away containers instead of disposable ones if they wish. For this project, research was done into the uptake of it by students on Glasnevin and St. Pat's campuses. Work was also done to encourage and incentivise students to sign for Vytal.



Figure 42: Students (Aisling and Aoife) hosting information stands on the Glasnevin and AHC/SPC campuses to promote the Vytal system for reusables.

In summary there was low awareness and usage of the Vytal system among students in DCU, as revealed through information stands and a survey.

- Information stands were set up on two campuses to raise awareness about Vytal, but few students were familiar with the system.

- A survey of 30 students showed that only 43.3% had heard of Vytal, and only 2.67% used Vytal products in the restaurant.
- Students suggested increasing awareness of the scheme to encourage more usage.

Paper Printing @ DCU (2023/2024)

This project investigated the current levels of paper printing on the DCU campuses. Meetings were held with the Information Systems Services to analyse printer usage by students and posters were created to encourage paper reduction.

THINK BEFORE YOU PRINT

Have you thought about the impact the pages you print have on the environment? As we work towards reducing the carbon emissions from the DCU campus, we ask students to consider if what they are printing is really necessary. Before you print, we ask you to stop and think about the habits we need to change to save the environment.

DO YOU KNOW HOW MANY PAGES WERE PRINTED IN 2023?

In 2023 alone, on the Glasnevin campus, a total of 327,316 pages were used for printing. This is a significant increase on 2022, where a total of 306,350 were printed.

HOW DOES THIS EFFECT THE ENVIRONMENT?

The total number of prints made on campus last year accounts for 14.8 trees being cut down, and 22,891.06 L of water being used to create your prints.

STATISTICS

In 2023 59.95% of the pages printed were A4 sheets with black and white ink, 21.39% were A4 colour prints. The rest of the data is comprised of printing on A3 paper and making copies of a print.

The following bar chart displays the monthly usage of the printers on campus. It can be seen at the peaks, that the printers are used heavily around exam times, and during points of the semester when coursework is due.

RESULTS/FINDINGS

The results from the data display a huge usage of the printers across the year 2023. This high number contributed to 213.34 kg of CO2 being released into the atmosphere. If the use of printers continues at the same rate, the goal of reaching a zero carbon campus will become even more challenging.

CONCLUSION

As we can see the campus produces a huge amount of prints every year. We ask you to consider if your printing is absolutely necessary. Online notes and submitting projects digitally are a great alternative to avoid increasing the number of prints.

Always remember
THINK BEFORE YOU PRINT!
PLEASE MAKE PRINTING THIS PAGE WORTH IT

Let us know how you would reduce printer usage!

THINK BEFORE YOU PRINT

The paper that we use has a major impact on our environment. Work is being done by many groups within the university, including EST students and the Sustainability Office, to reduce the university's carbon footprint.

We are asking staff and students to consider their impact and think twice before printing to avoid unnecessary waste. Data shows that this time of year are the worst months in the academic year for printing on this campus.

How much was printed?

In 2023, a total of 184248 sheets of paper were printed between St Pats and All Hallows campuses. This is a 4% increase from 2022 when 176994 sheets were printed here. This is approximately 49 sheets per student!

What are the effects?

The amount of paper printed by students on these campuses in 2023 is equivalent to:
141kg CO2
9 trees
13991L water

How were all these sheets printed?

80% of these sheets were printed, while the other 20% were copied.
99.3% of the sheets were A4 and 0.6% were A3.
68% were printed in black & white, with 32% of the sheets printed in colour.

We urge you to consider if printing notes or assignments is absolutely necessary. Submitting an assignment online or viewing your notes digitally are great alternatives to creating waste by printing additional paper that is not required.

We would love to hear your suggestions also for what the university could do to help students reduce their paper usage. Please scan the QR code to give us your feedback!

Please make printing this page worth it!

Authors: Aoife Connolly, Aisling Copeland, as part of the Towards Zero Carbon module (CS221) from BSc Environmental Science and Technology

References: All information was provided by ISS. More information can be found at <https://www.ysoft.com/en/blog/2020/6-ways-y-soft-can-help-you-go-green>

Figure 43: Think before you print posters for GLA and SPC campuses.



Figure 44 : Think before you Print poster on GLA and SPC campuses.

Summary of results :

- Data on printer usage by students showed that March and November had the highest paper consumption.
- Black and white printing was more than twice as common as colour printing.
- More paper was printed than copied, with March and November being peak months.
- The data also provided information on the environmental impact of paper usage, including CO2 emissions, trees used, water consumption, and energy usage.

Fast Fashion/Swap Shop @ DCU (Continued in 2023/2024)



Figure 45: 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 46: DCU SU organise regular vintage clothes sales on campus.

Campus Living Labs (Continued in 2023/24)

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.

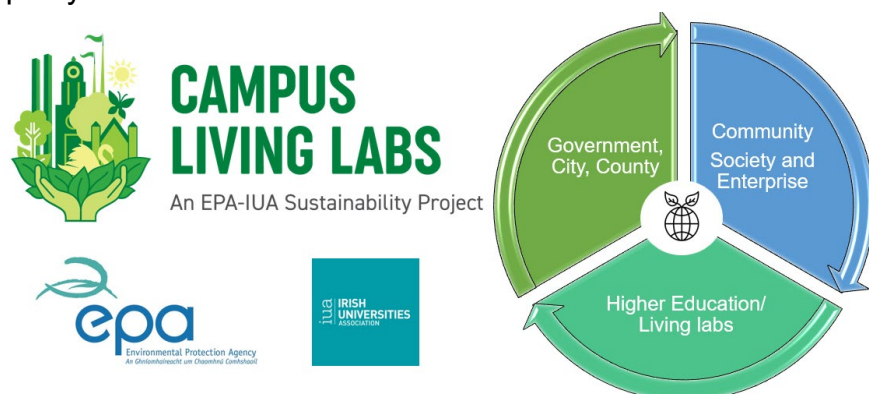


Figure 47: IUA/EPA Campus Living labs.

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.

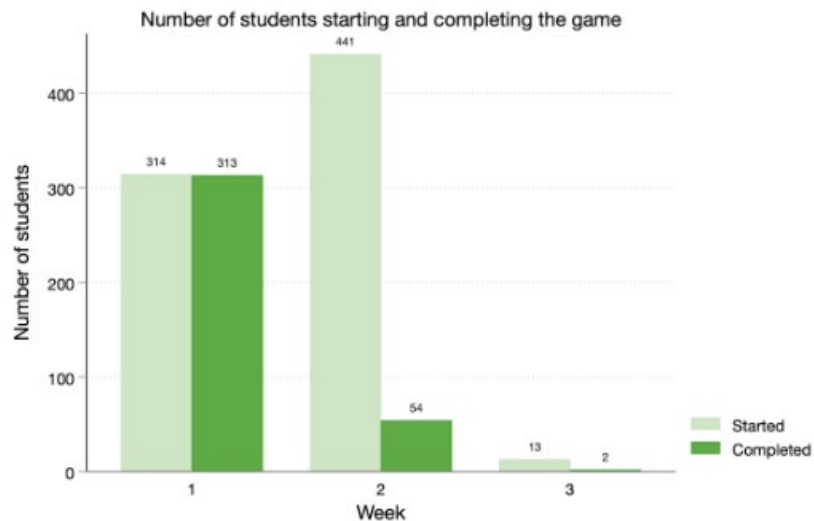


Figure 48: DCU participation rates in the Waste Game Pilot

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.

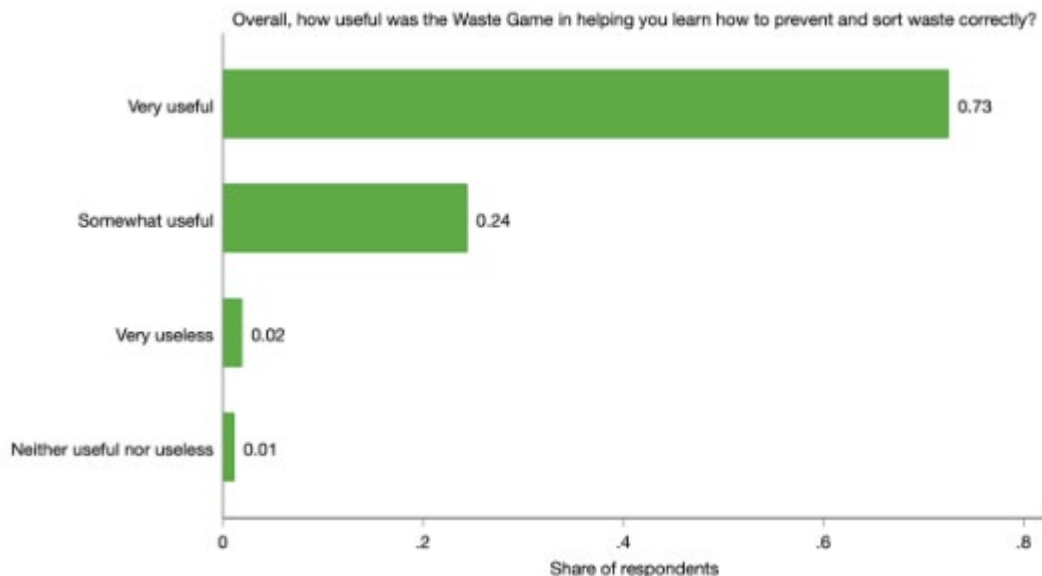


Figure 49: Response to how useful was the Waste Game

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 pro-environmental 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/>.

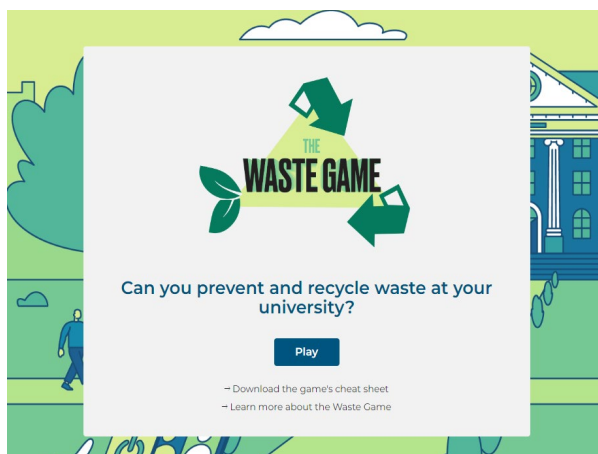


Figure 50: Icon for the Waste Game

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.

Litter survey (Continued in 2023/2024)

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 51: 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). Further litter surveys are being undertaken in Summer 2024.

Table 5: A single sample audit sheet for DCU SPC campus

Date & Time : 26.05.22
 Auditor: Malene

Waste Category	SPC1. Main Reception/Inner car park			SPC2. Outside Library			SPC3. Pitchside			SPC4. Campus Residences		
	No.	Scale	Comment	No.	Scale	Comment	No.	Scale	Comment	No.	Scale	Comment
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 path
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	N/A	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 path
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
	4		1 double	2		Hidden behind entrance walls	0		N/A	2		N/A
Number of bins												
Type of bins (pics if possible)												
Comments												
General Comments												

Scale 1-10 (1 : no litter 10 : more 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.

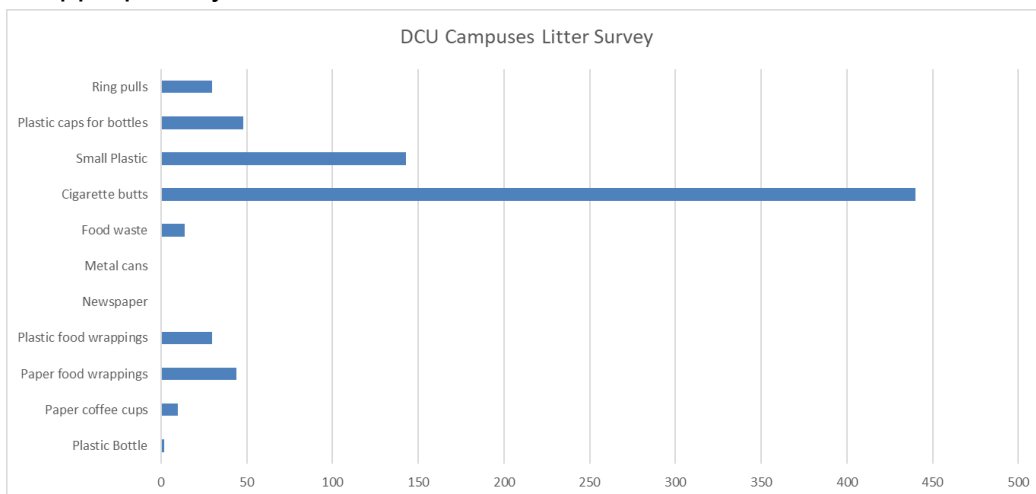


Figure 52: Summation of DCU campus litter survey.

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 O'Donnell 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 included Vape recycling bins with the Student Union building.



Figure 53: Vape Recycling in DCU SU

Upcycling/Recycling (Continued in 2023/2024)

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 54: Examples of refurbishments and upcycling including upcycled chairs and tables along 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!






Help a great cause and eat some chocolate!



DCU Crafty Ladies Easter Chicks in aid of



Figure 55: Some of the wares from the Crafty Ladies at DCU.

Carbon Food labelling (Continued in 2023/2024)

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 2023/24 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.

This project aimed to increase awareness among the students of DCU about the carbon footprint of diet choices. It is based on calculating the carbon footprint of usual dishes served at the restaurant at Dublin City University, using an online calculator. All products are assumed to be imported from the European Union for simplicity. Additionally, a survey was created to learn more about students' knowledge of food production carbon emissions. This allowed insight that not many students have sufficient knowledge to make conscious diet decisions. The objective of the study was achieved as many students agreed that the project increased their awareness about food carbon emissions, and some even tried implementing changes to their diet.

WHAT IS YOUR CARBON FOOD-PRINT?

What is carbon food-print?	Why the change?
<p>A carbon footprint is the greenhouse gas emissions (GHG) associated with specific actions. The footprint of food is assessed based on the volume of emissions produced by growing, farming, processing transporting the food we eat.</p>	<p>To meet our 2030 emission reduction targets we all, including DCU, need to reduce our GHG emission/Carbon Footprint by 50% by 2030 and 100% by 2050. Being aware of our food and dietary carbon footprints is necessary to meet the target.</p>
Scale	
<p>in kg carbon dioxide emissions [kg CO₂e]</p>	
<p>Foodprints by Diet Type: t CO₂e/person</p> <p>Note: All estimates based on average food production emissions for the US. Footprints include emissions from supply chain losses, consumer waste and consumption. Each of the four example diets is based on 2,600 kcal of food consumption.</p>	<h3>What do the numbers mean?</h3> <p>Most dishes available in the DCU restaurant/canteen will be assigned a carbon food-print number based on the scale above. The higher the number the higher the carbon footprint of your chosen food. The food-print is based on the recommended serving portion of each dish.</p>
Additional resources	
<p>all footprints are estimated using the online calculator: https://assets.plateupfortheplanet.org/carbon-calculator/</p> <ul style="list-style-type: none"> all ingredients assumed to come from the EU <p>estimate your full carbon footprint:</p> <p>for any questions contact: sustainability@dcu.ie</p>	<p>Please fill out the survey</p>

Figure 56: Poster for the Canteen re Food choices.

In the poster (see figure above) all the calculated carbon emissions of the meals per portion (or per 120g in the salad bar). It implies a much higher emission for meat-based meals, especially red meats. For instance, the Thai beef curry has 6.51 kg CO₂e/portion, the chicken Thai curry has more than half less at 3.08 kg CO₂e/portion, and the vegetable option has almost 6 times less carbon emissions than the beef dish at 0.59 kg CO₂e/portion. The same dish with only a main ingredient swap, can have a huge impact on carbon emissions. Hopefully, students noted these differences and understood the idea behind the project. However as can be seen from the figure below the majority of students still appear to be meat eating – but this could be reflective of who used the on campus canteen.

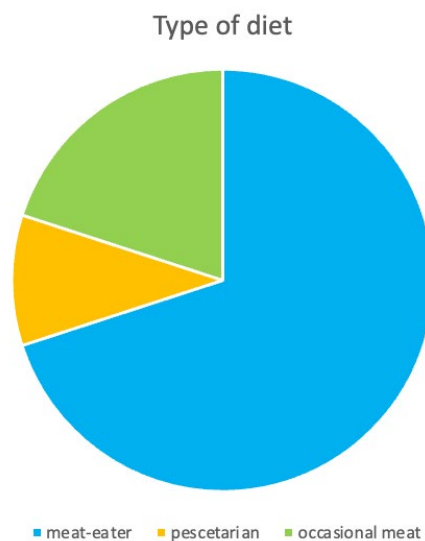


Figure 57: Survey response re type of diet, 70% Meat eating, 20% trying to limit their meat and 10% pescetarian - no vegans or vegetarians responded (the sample size was small @ 10 respondents)

Upcycled/Refurbished Offices (Continued in 2023/2024)

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. The design phase of the smaller office has been completed and reports and presentations undertaken (see figure below). Discussions are underway regarding implementation costs and timings.

Use of Plants

A study by the Agricultural University of Norway found that the introduction of plants to one office was linked to a 30% decrease in symptoms of ill health.

Office plants do more than just look pretty. Although greenery can add to the atmosphere of an office there are physical benefits to plants. Plants can reduce fatigue, headache, coughing and irritation of the eyes not to mention stress reductions among employees.

Office plants provide oxygen into an environment and scrub toxins from the air. They reduce noise levels, allowing people to work more effectively and efficiently. For those reasons alone, staff absence is reduced and therefore plants offer a great return on your investment.



Figure 58: Suggestion for office design.

Biodiversity

As part of our [Climate Action Plan](#), 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 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 59: 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 managed 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 60: Enhancing the ecosystem with Dr. Tom McCloughlin and his ecology class.

Biodiversity and Pollinator Plan (continued in 2023/2024)

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



Figure 62: 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.

Pollinators Action 2023/2024

The objective of this project was to improve DCU Glasnevin Campus green areas with a particular focus on pollinators. One-third of our wild bee species is threatened with extinction, as we have dramatically reduced their sources of food and nesting sites. There are many ways we can support pollinators, either in the workplace, at school, or in our garden. This project will focus on the implementation of pollinator-friendly plant species in DCU while increasing awareness on how we can personally contribute to pollinators’ preservation and their precious role in the food chain. During this project students have been able to actively contribute to the cultivation of native aromatic plants and wildflowers to support the community of pollinators around the Glasnevin Campus following DCU’s Biodiversity Action Plan and putting into practice the guidelines of “Pollinators.ie”. A small guide on how to help pollinators was also created and made accessible to students and staff.



Figure 63: Location and pollinator choice.



Figure 64: Students (Flavia and Deimantas) helping with the planting.

Rewilded Areas (Continued in 2023/2024)

Students from the Towards Zero Carbon modules worked with the DCU Estates team to improve the DCU Campus for pollinators and other native species.



Figure 65: Biodiversity areas on the DCU Glasnevin Campus (The purple/grey boxes are areas with untouched nature, so they are left to be.)

Surveys were conducted on animals on campus and their role in biodiversity on campus. As well as showing that the Glasnevin campus is capable of harbouring such wildlife, they help control the rodent population which in turn protects many flowers and bird species. Just behind the community gardens, there lives a family of European badgers which are native to Ireland as well as a red fox which roams the hedges to the southeast and Albert College Park. The invasive grey squirrels that can be found on Ballymun Avenue live in the same trees as certain native bat species. The survey

helped check the populations of these species and whether they cause damage which the grey squirrel has already unfortunately done to the local red squirrel. Students also helped build and spread some hangable bee homes around campus and at their homes which aim to house bees and any other pollinators. As evidenced by the pictures below



Figure 66: Bug hotels made by DCU students.

DCU Community Gardens (Continued in 2023/2024)

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 67: 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 68: 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 693: 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

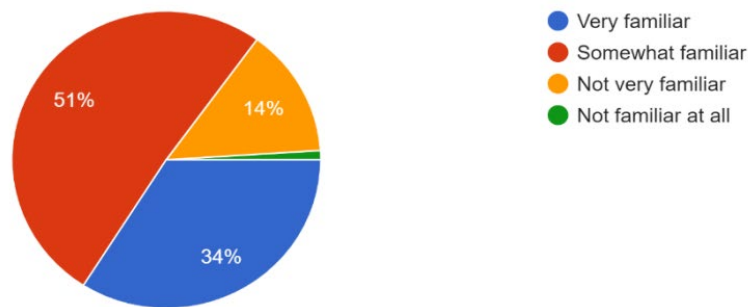


Figure 70: Pie chart showing the number of students familiar with the term 'biodiversity'.

Have you heard of biodiversity loss before?
100 responses

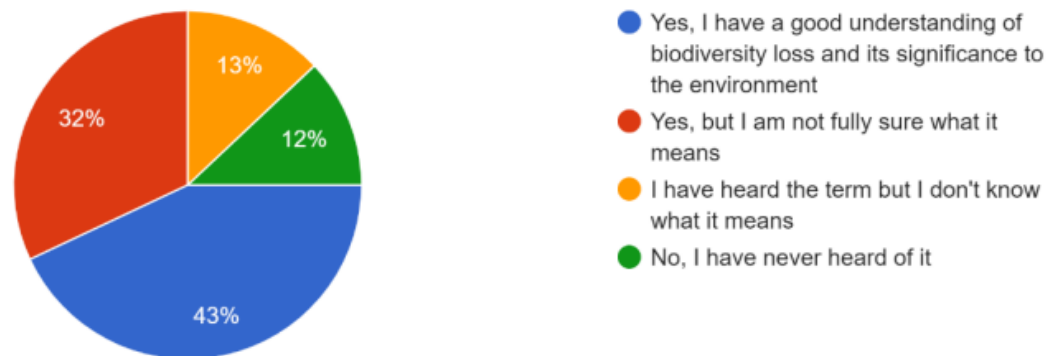


Figure 71: Pie chart showing the number of students familiar with the term 'biodiversity loss'.

How concerned are you about biodiversity loss?

100 responses

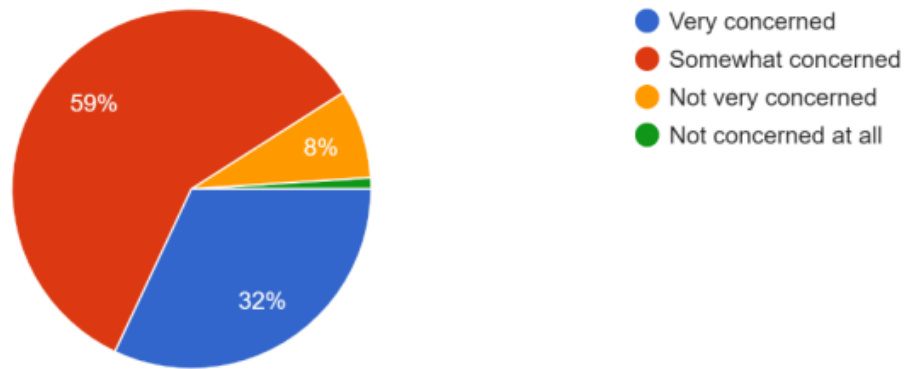


Figure 72: Pie chart showing the level of concern students have regarding biodiversity loss.

How concerned are you about climate change?

100 responses

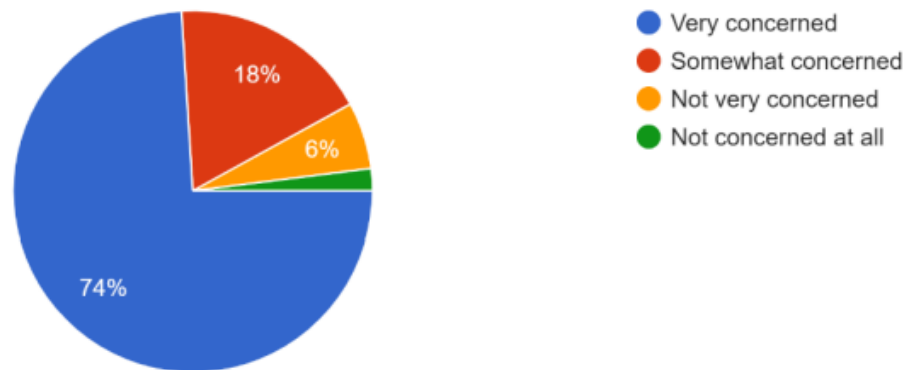


Figure 73: Pie chart showing the level of concern students have regarding climate change.

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 74: Rewilded area outside the library, Glasnevin Campus, 2023.



Figure 75: Signpost on rewilded area outside of the library on Glasnevin Campus.

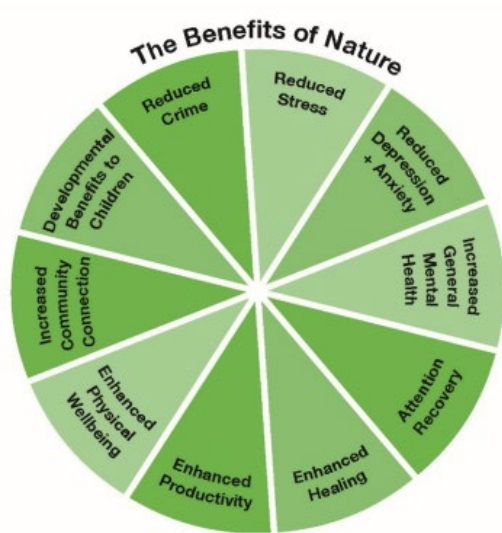


Figure 76: 'The Benefits of Nature' chart according to a Brisbane study on positive effects of mainstream green spaces.

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 77: QR Code attached to tree 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 78: 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.

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.

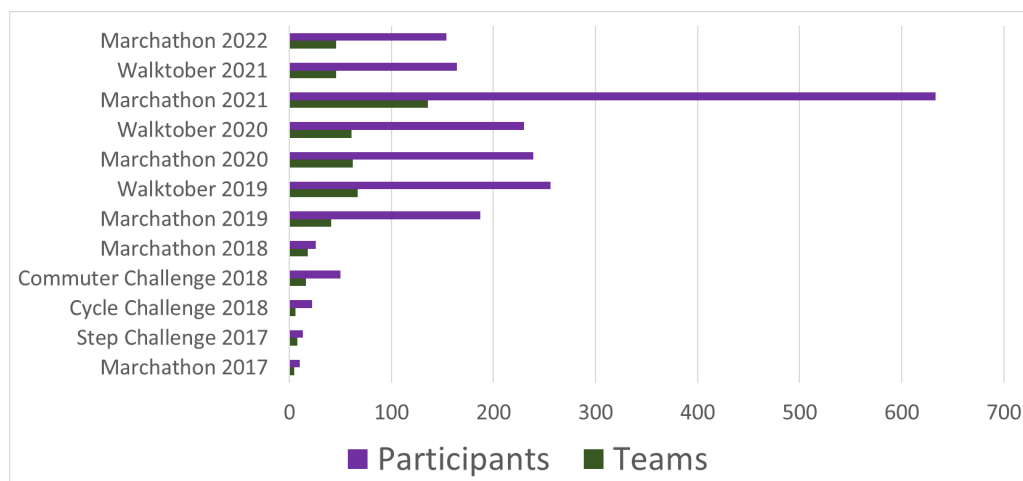


Figure 79: Smarter Travel engagement 2017 – 2022

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.

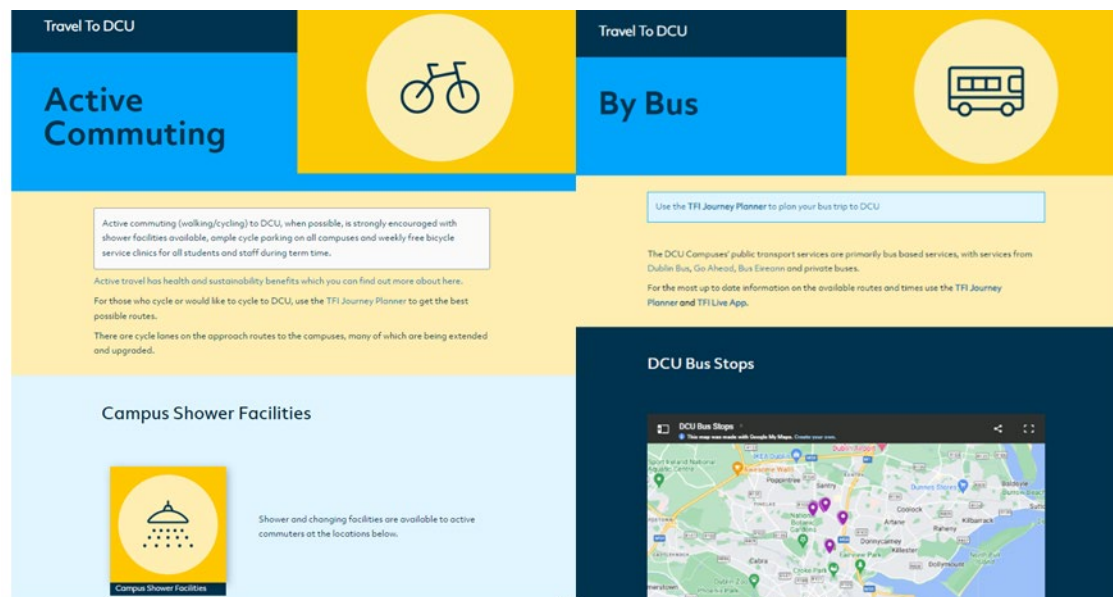


Figure 80: DCU's renewed Travel and Transport webpages (<https://www.dcu.ie/travel-to-dcu>)

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).

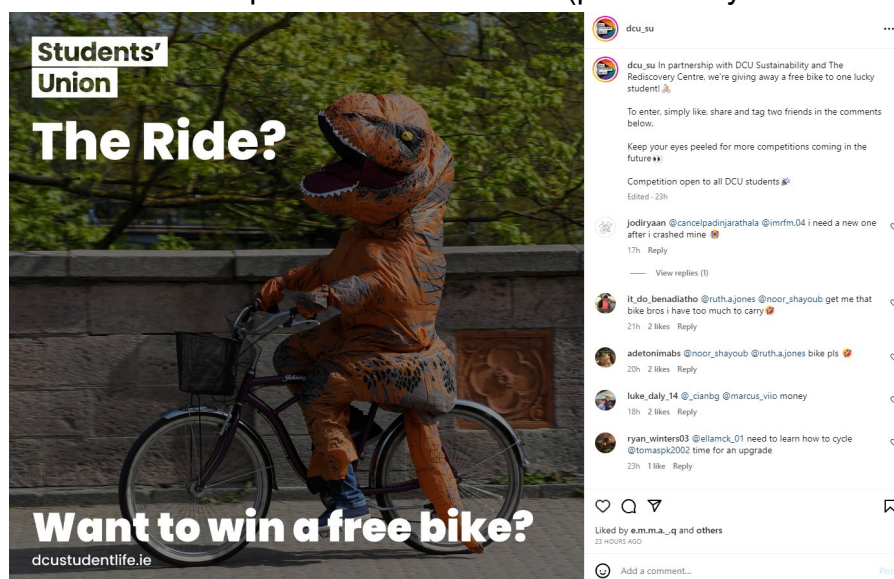


Figure 81: Instagram post launching the free bike competition.

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.

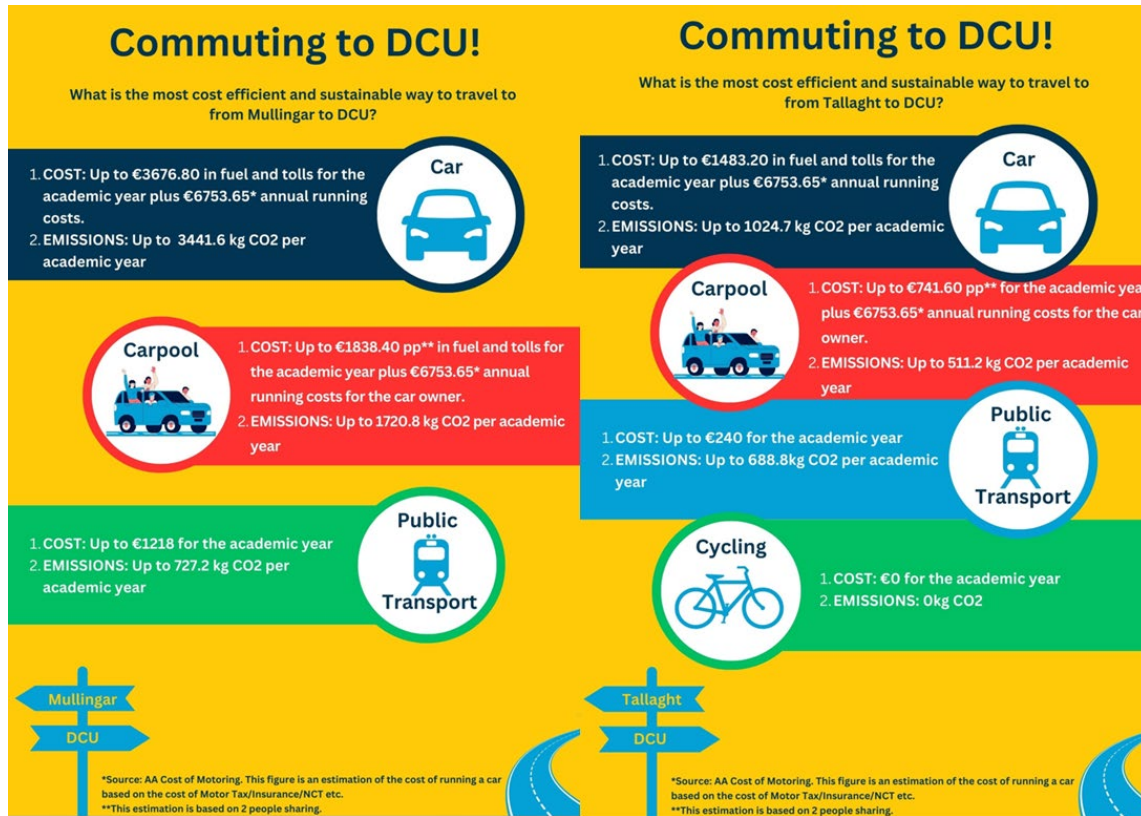


Figure 82: Commuting to DCU Info Graphics

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).

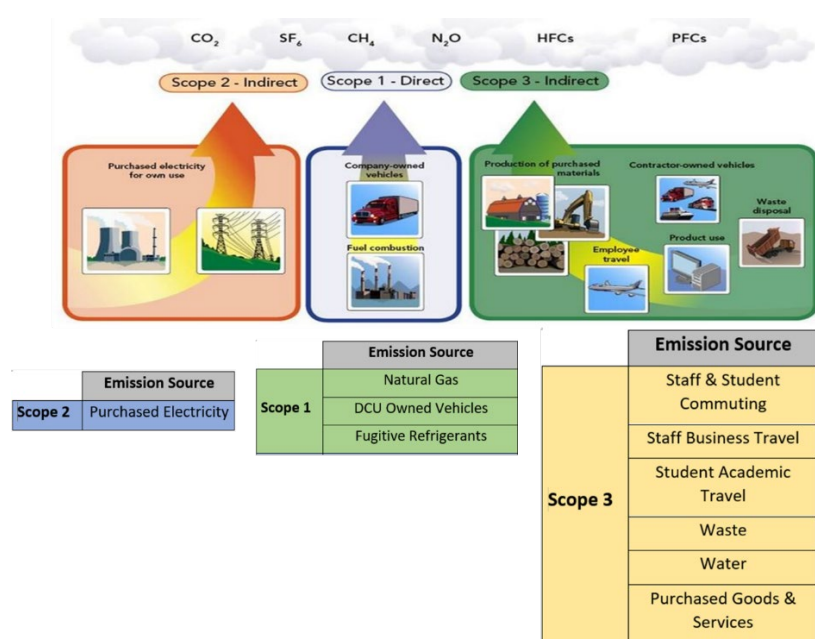


Figure 83: GHG Protocol model for DCU Carbon Footprint (image source : <https://www.eauc.org.uk/>)

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 – 2023. 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.

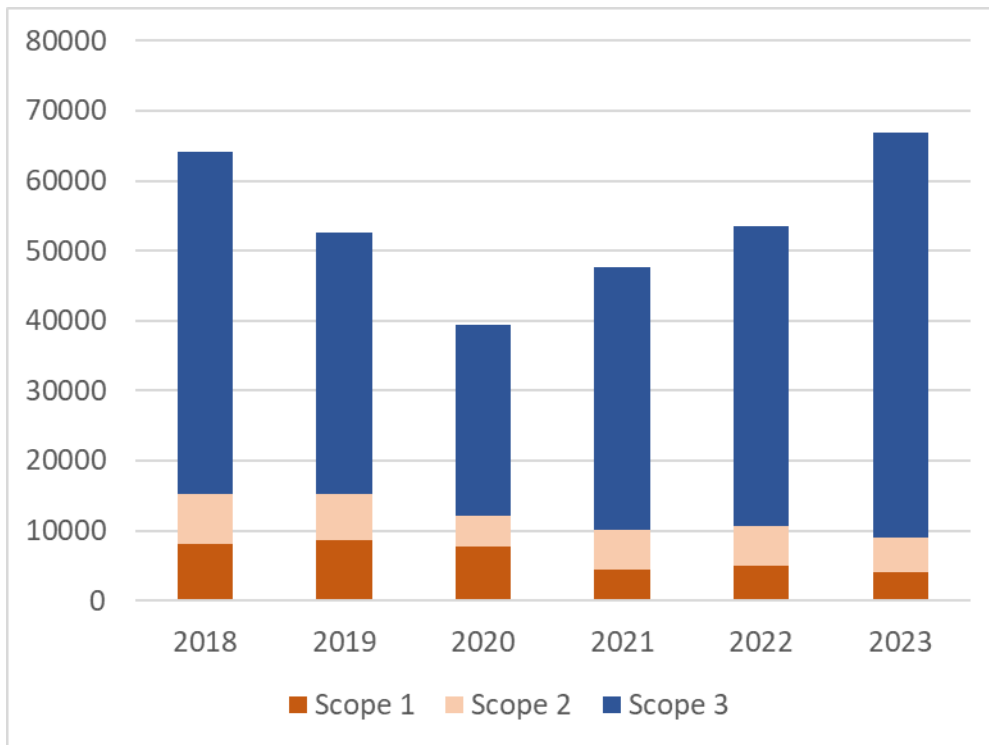


Figure 84: DCU Carbon Footprint 2018- 2023. (NOTE: the methodology for estimating procurement has changed from the Quantis EEIO tool to the UK EAUC / HEPA tool HESCET)

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.

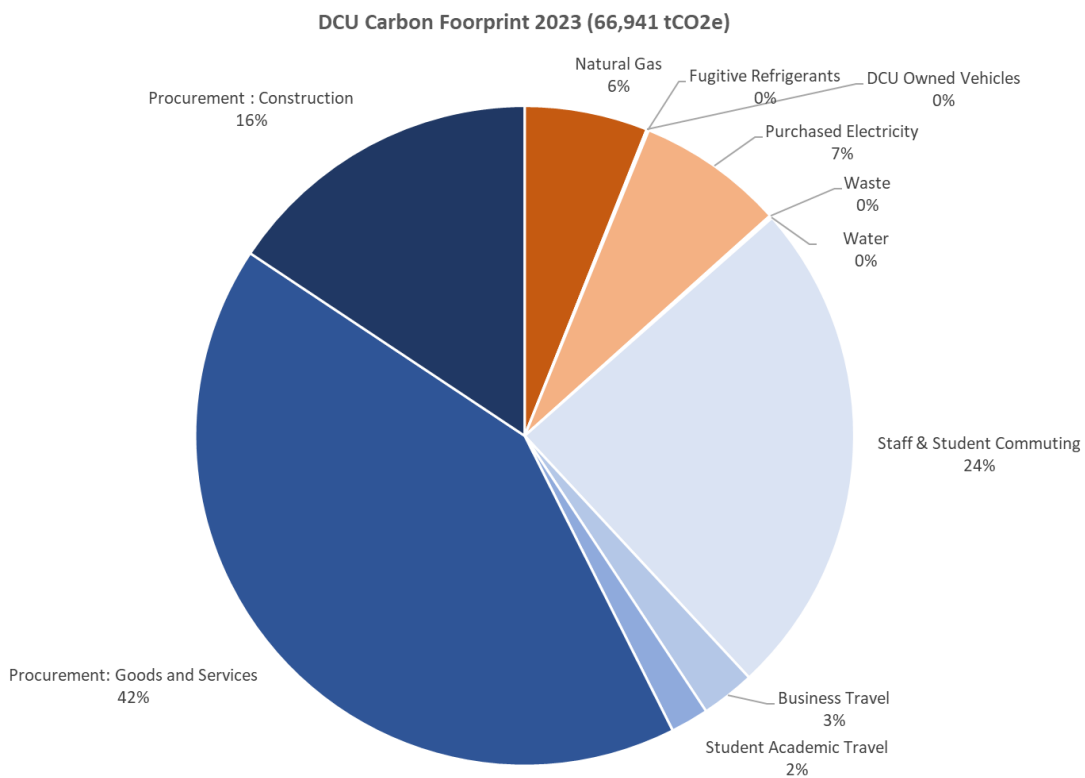
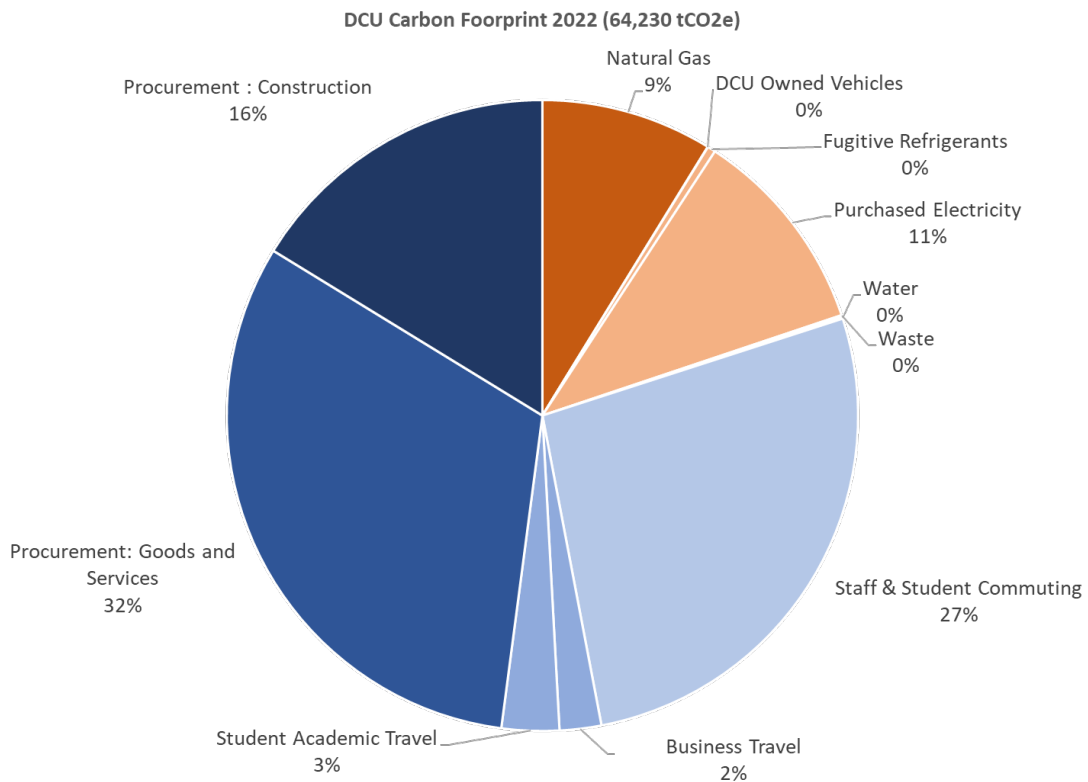


Figure 85: Total breakdown of DCU CO₂e emissions in 2022 and 2023

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.

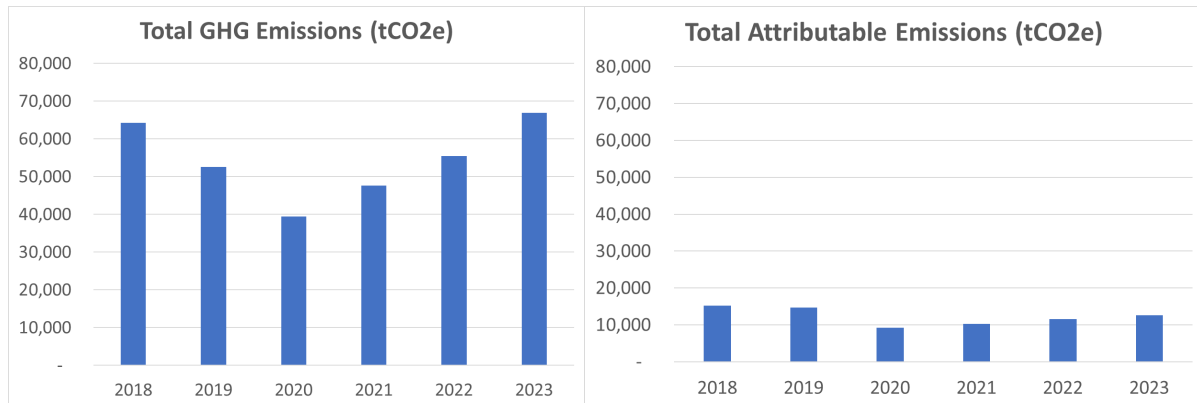


Figure 86: Comparative chart of DCU total attributable emissions and DCU total GHG emissions for 2018-2023.

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’³ 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

³ https://www.dcu.ie/sites/default/files/inline-files/15698_dcu_futures_singles.pdf

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 Ian 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 Change Beh	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	Oisín Foley	Intern	2016/17	Psychology
Flying Less	Conal Ó Dubhir	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 Mclvor	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	Mechanical 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.

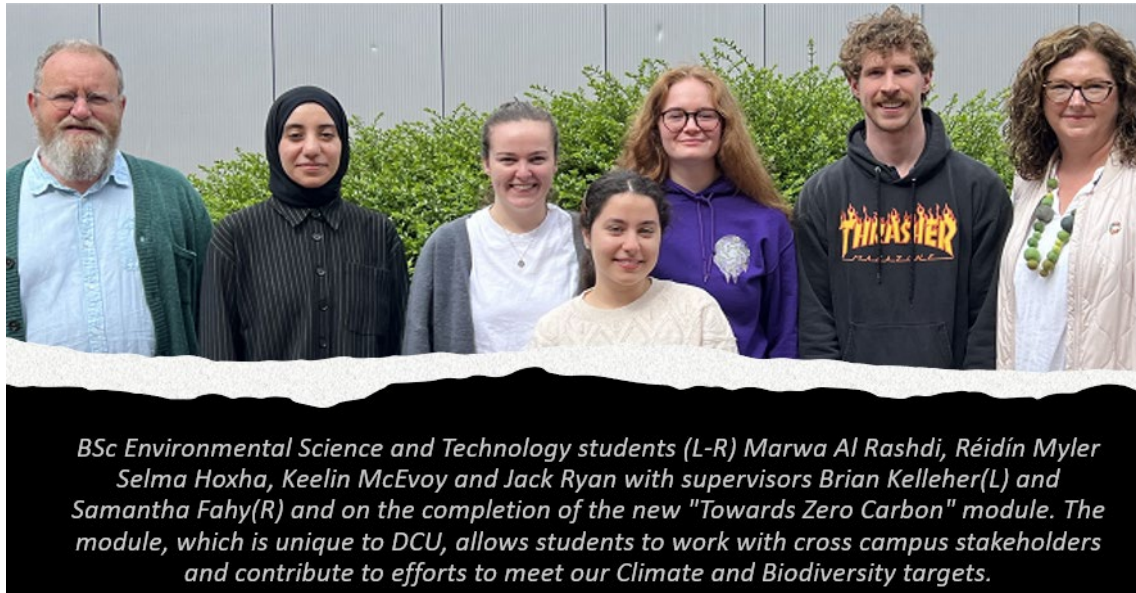


Figure 87: The first 'Towards Zero Carbon' Module Cohort 2022/2023

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.

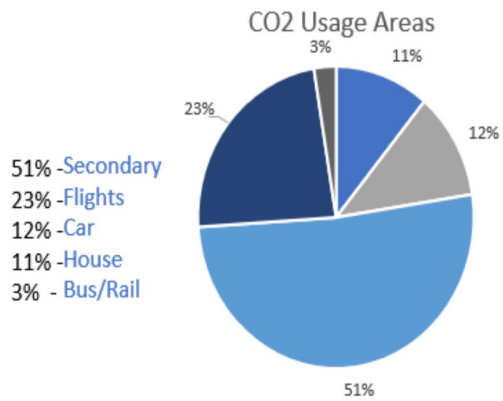


Figure 88: Breakdown of an average DCU students carbon footprint.

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 well-being, 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 89: Guest Lecture to Executive MBA Oct 2023

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

“[Samantha Fahy](#), Head of Sustainability at [Dublin City University](#) delivered a very informative and powerful talk to the [DCU Executive MBA](#) class at [DCU Business School](#) 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 continued 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 students 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 90: Grow space on the SPC campus

Grain4Lab



Figure 91: 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 [MyGreenLab](#) 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 92: 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.



Figure 93: 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-to-face 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.

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.

DCU

Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University



Wild Neighbourhood Festival

To celebrate **Crúnniú na nÓg**, a national day
of free creativity for children and young people.

1.00pm - 5.00pm | Saturday 10 June
DCU All Hallows Campus

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 94: 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/>

Green Weeks

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 low-income 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
Keeping in mind issues like inequality and poverty while designing policies
Plant trees
Changing habits for transport
Policies 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 95: Volunteers of the Litter Pick at the Glasnevin Campus (Collins Avenue)

Bike Maintenance Clinic - Get your 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 @ €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 96: 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		
	You	DCU	Irish Gov
<ul style="list-style-type: none"> - Single use materials - Emissions - Jets - Too much focus on personal responsibility - Capitalism - E Cars - Environmental degradation - Rich v poor - Societal breakdown - Greenwashing and ignoring the science. - Societal breakdown - Deforestation, savannization, ocean desertification - Is it too late to act? 	<ul style="list-style-type: none"> - Refocus values away from 'stuff'. - Reduce consumption. - Reuse/upcycle... - Stop food waste. - Participate in Spring cleans. - Lobby Local politicians and Government - Car sharing - Join Campaign groups. - Exercise 'leave no trace'. - Make your garden insect and bird friendly (not a tarmac slab) - Resist buying the newest gadgets and phones. - Minimalism 	<ul style="list-style-type: none"> - Remove plastic grass on GLA. - Remove plastic/single use from canteens. - Improve biodiversity. - Solar/green roofs - Car free campus - Recycling bins - Safe cycling and walking routes between campuses - Replace DCU vehicles with e-cargo bikes. - Less packaging on products sold. - Heating only turned on in buildings when occupied. 	<ul style="list-style-type: none"> - Fit for purpose public transport system. - Remove on street parking. - Personal carbon credits - Reforestation - Ban Jets - Ban LNG - Park n' ride locations

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.

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 10-day 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 7 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.

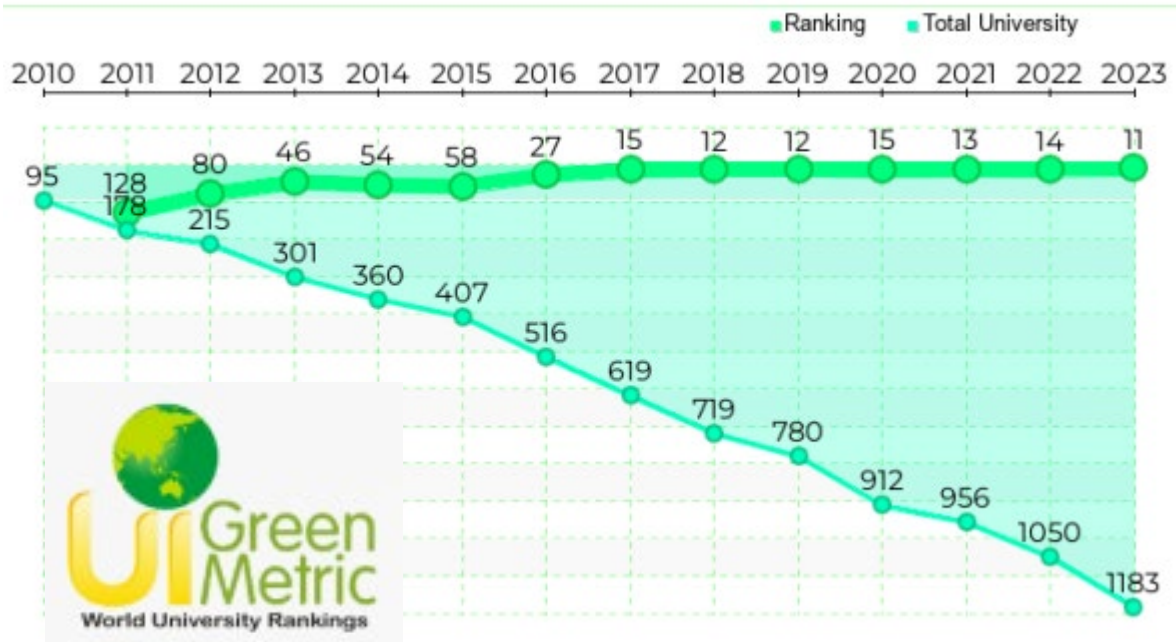


Figure 97: DCU top 20 in International Green Metrics

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.

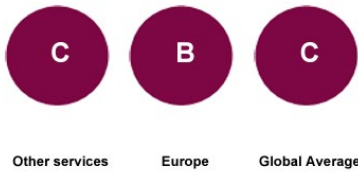


Figure 98: Launch of CDP Ireland Report where DCU were called out as only university in world to report.

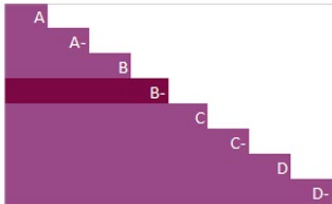
Your CDP score



Average performance



UNDERSTANDING YOUR SCORE REPORT



Dublin City University received a B- which is in the Management band. This is lower than the Europe regional average of B, and higher than the Other services sector average of C.

- Leadership (A/A-):** Implementing current best practices
- Management (B/B-):** Taking coordinated action on climate issues
- Awareness (C/C-):** Knowledge of impacts on, and of, climate issues
- Disclosure (D/D-):** Transparent about climate issues

2022

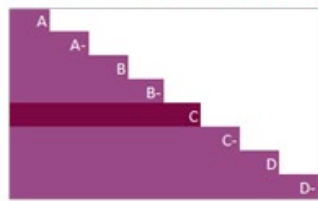
Your CDP score



Average performance



UNDERSTANDING YOUR SCORE REPORT



Dublin City University received a C which is in the Awareness band. This is lower than the Europe regional average of B, and the same as the Other services sector average of C.

- Leadership (A/A-):** Implementing current best practices
- Management (B/B-):** Taking coordinated action on climate issues
- Awareness (C/C-):** Knowledge of impacts on, and of, climate issues
- Disclosure (D/D-):** Transparent about climate issues

2023

Figure 99: Breakdown summary of DCU CDP Report from 2022 and 2023

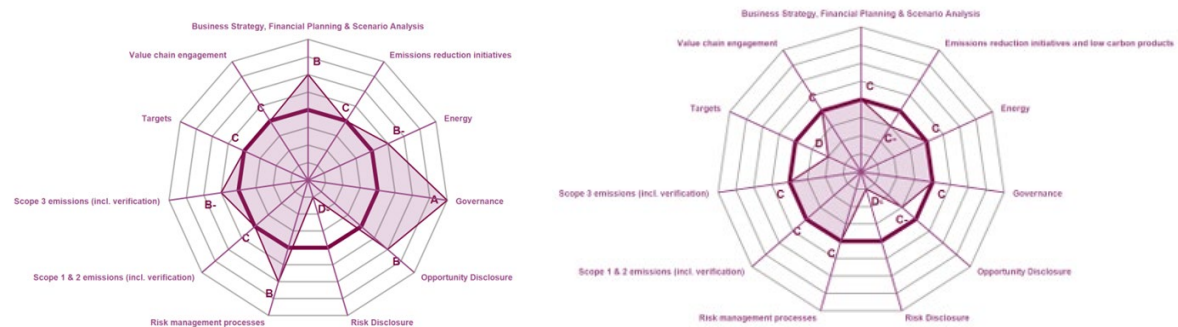


Figure 100: DCU CDP Score in 2022 (left) and 2023 (right)

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.

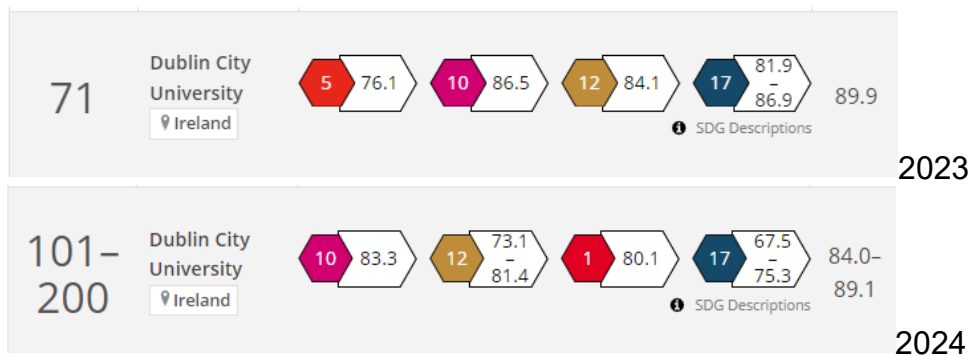


Figure 101: Summary of THE Impact Rankings for Dublin Universities in 2023 & 2024

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. 28th in the world out of 166 countries in the UN Sustainable Development Goals rankings in 2024 dropping 11 places from 2023, according to Earth Overshoot Day, Ireland needs 3.3 Earths to maintain current consumption patterns, this is not sustainable near or long term. Ireland scores poorly in the Sustainable Development Index that takes ecological impact into account when assessing the ecological efficiency of nations in delivering human development – Ireland ranks 144 out of 163 countries with Costa Rica topping these rankings.

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.



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.

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 102: 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.



CAMPUS LIVING LABS: UNIVERSITIES DRIVING THE TRANSITION TO A CIRCULAR ECONOMY

The EPA-IUA Campus Living Labs marked the first time IUA universities worked together to embed circular economy principles in campus operations. Learn more about the impact of Campus Living Labs and hear from Minister of State Ossian Smyth and our expert panel on the powerful role universities play in driving the transition to a Circular Economy.

MC



Ella McSweeney

KEYNOTE SPEAKER AND PANELLIST



Ossian Smyth TD
Minister of State with responsibility for Communications and Circular Economy

PANELLISTS



Warren Phelan
Circular Economy Programme Manager, EPA



Samantha Fahy
Head of Sustainability, DCU



Professor Tasman Crowe
VP for Sustainability, UCD

WEBINAR

OCT 25

TIME: 12:30 - 13:30

Figure 103: 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 must 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 1 :

Towards Zero Carbon Module (CS221) Project Report

Project Title	Student name
Waste on DCU Campuses: Waste from paper and disposable food and beverage containers.	Aoife Connolly
Reducing waste on Campus: How can we reduce waste by promoting the Vytal system and reducing printer usage in DCU	Aisling Copeland
Towards Zero Carbon Report : Biodiversity	Deimantas Jurcia
Towards Zero Carbon: Lights	Sehyun Oh
Biodiversity 2023/2024	Flavia Melati
Students Awareness of Food Choices: Food Carbon Footprint	Weronika Sobiesiak

All reports are available for review just email sustainability@dcu.ie