Ollscoil na Gaillimhe
University of Galway

Waste Management Report

2025

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INTRODUCTION

University of Galway are on a journey to lead the transition to a sustainable future and have identified sustainability as one of four core values in our University Strategy 2020-2025. The Buildings & Estates team play a key role in achieving our goals and sustainable waste reduction and management is a core feature of these efforts.

Waste management is a key priority for students and staff and perhaps the most visible day-to-day environmental issue on campus. Over the years we have worked hard to put in place benchmarks, collect accurate data and start monitoring how we use, recycle and dispose of waste on campus. In line with Sustainable Development Goal 12 (SDG12) we are committed to responsible consumption & production.

We are proud to have retained 1st place in Ireland and top 10 globally in the Times Impact Rankings for SDG 12 in 2024, the third year in a row!

Prior to 2021, our waste data was not presenting a full picture of waste on campus, as it did not include our Canteens and Student Residences, as these are managed by separate companies. However from the start of 2022 we have incorporated these figures to develop a whole of campus picture of the waste usage. As such a large increase in the volume of waste from 2022 onwards will be recorded.

We have also added a new 675 bed complex to our student accommodation capacity, further increasing the volume of waste managed. A number of initiatives have been put in place to improve the recycling rate of these residences which we will outline below.

This report outlines the University's performance in the calendar year 2024, current policies, future initiatives and commitments with regards to sustainable waste management. By improving waste practices and behaviors we aim to conserve natural resources, make cost savings and improve waste awareness amongst our students and staff.

Performance Overview

Since 2022 we have unified all waste data collection across the entire campus. Before this we monitored the waste data at the Main Campus (Teaching venues, offices and labs) separately to the catering venues and student residences. This is enabling us to view the full picture of waste on campus and identify areas for improvement. As can be seen below, the recycling rate is going in the wrong direction over the last couple of years. Reasons for this include a reduction in organic/ green waste produced and also an increase in total volume of waste due in most part to the addition of the new student residences complex Dun Linn.

Whole Campus

We experienced a drop in our recycling rate across campus in 2024: this bring primarily down to a drop in the recycling rate across the Main Campus (teaching venues, labs, offices). We will be analysising this further to understand the drop and how to improve for 2025.

Overall Recycling Rate		
2022	2023	2024
52%	51%	47%

Ollscoil na Gaillimhe University of Galway

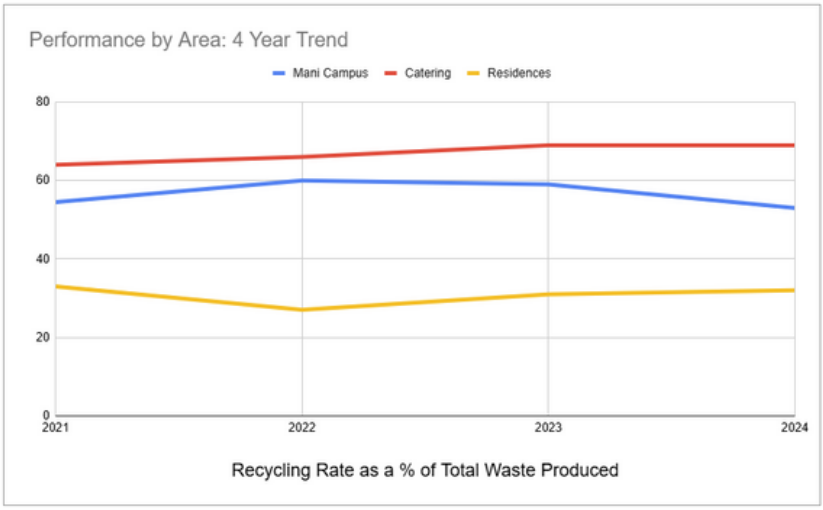
University of Galway Waste Data 2024 — **Overall Recycling Rate:** 47.30%

Whole Campus Combined - 2024 Data

	January	February	March	April	May	June	July	August	September	October	November	December	Year To Date	Avg. Monthly Weight
Waste Recovered	33,136	34,553	38,472	36,289	28,383	27,767	36,795	32,215	37,725	40,633	40,291	30,655	416,914	35,613
Mixed Recyclables	22,666	19,747	22,000	20,639	15,628	10,785	12,382	15,655	20,204	15,454	18,598	11,092	204,850	21,263
Glass	3,931	5,590	5,912	5,551	5,192	3,776	3,776	3,097	6,082	3,612	5,288	5,014	56,821	5,246
Organic / Green Waste	4,381	4,176	4,470	6,893	4,124	3,539	7,525	4,391	6,765	7,281	7,567	5,202	66,314	4,980
Confidential Shredding	4,392	1,866	3,210	2,223	4,035	3,159	1,617	2,627	3,219	2,097	2,756	1,497	32,698	2,923
WEEE	1,880	720	1,445	1,150	1,650	0	2,150	0	2,577	1,570	0	400	13,542	
Total	70,386	66,652	75,509	72,745	59,012	49,026	64,245	57,985	76,572	70,647	74,500	53,860	791,139	70,024
Recycling Rate	52.92%	48.16%	49.05%	50.11%	51.90%	43.36%	42.73%	44.44%	50.73%	42.48%	45.92%	43.08%	47.30%	

Breakdown of Performance by Area/Zone:

This chart shows the recycling rate per area over the past 4 years.



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Main Campus (Teaching, Research, Labs & Staff Offices)

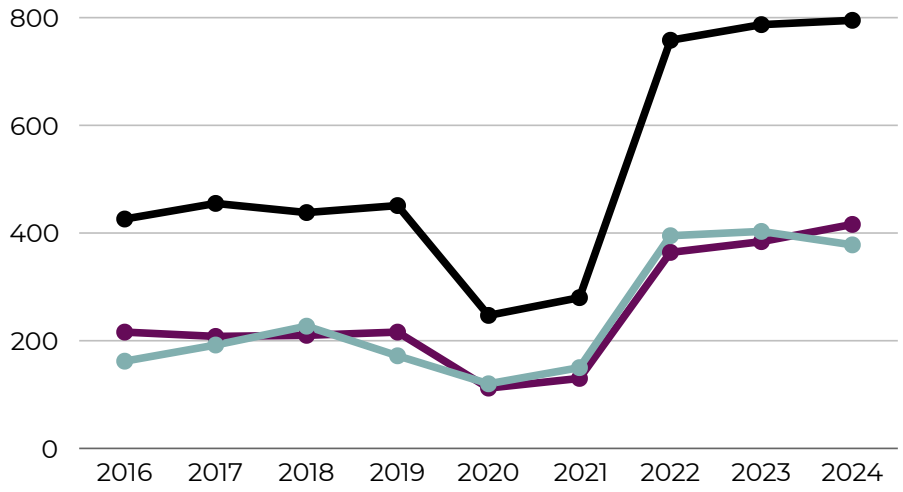
On the main campus, there has been a dissapointing drop in the recycling rate to 52%, down from 59% in 2023. We are working with our waste contractors and facilities staff to investigate the likely causes, and put in place more effective measures to improve for 2025.

General Campus	January	February	March	April	May	June
Waste Recovered	16,277	15,946	18,635	16,332	14,582	14,025
Mixed Recyclables	15,718	13,261	14,805	13,632	10,773	6,930
Glass	2,337	2,426	2,034	1,946	2,833	1,641
Organic / Green Waste	0	0	0	0	0	0
Confidential Shredding	4,392	1,866	3,210	2,223	4,035	3,159
WEEE	1,880	720	1,445	1,150	1,650	0
Total	**40,604**	**34,219**	**40,129**	**35,283**	**33,873**	**25,755**
Recycling Rate	59.91%	53.40%	53.56%	53.71%	56.95%	45.54%

July	August	September	October	November	December	Year To Date
19,728	15,385	21,209	19,439	18,707	12,401	202,666
7,524	10,419	13,432	8,224	11,682	6,317	132,717
2,376	1,965	3,052	775	1,718	2,866	25,969
1,820	0	0	0	0	0	1,820
1,617	2,627	3,219	2,097	2,756	1,497	32,698
2,150	0	2,577	1,570	0	400	13,542
35,215	**30,396**	**43,489**	**32,105**	**34,863**	**23,481**	**395,870**
43.98%	49.38%	51.23%	39.45%	46.34%	47.19%	**52.23%**

General Campus Waste

Annual weight in tonnes (note - from 2022, residences and restaurants added for the first time)



Total Waste
Total amount of waste producted on campus

Waste to Recovery
General Waste sent to energy recovery facility

Mixed Recycling
Mixed recycling, glass, organic waste & WEEE

Restaurants, Bars & Cafes

Catering partners are required to abide by our Waste Management Policies and track the amount of waste they produce as well as the recycling rate. Each venue must provide for food & mixed recycling bins as well as general waste at a minimum and provide adequate signage. A lot of hard work has gone in to increasing the recycling rate across the bars, cafes and restaurants and this rate has remained steady at 69% in 2024.

Canteens	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	Year To Date
Waste Recovered	2,441	2,719	2,856	4,408	3,650	3,881	3,906	3,487	5,767	6,356	6,254	3,823	49,548
Mixed Recycling	3,116	3,244	3,147	3,760	2,583	1,984	2,746	2,524	3,632	3,927	3,366	2,479	36,508
Organic / Food Waste	2,456	2,655	2,806	4,919	3,210	3,200	5,271	4,136	5,106	4,666	4,856	3,025	46,306
Glass	357	777	1,414	217	511	441	434	280	980	980	910	420	7,721
Cardboard	62	50	79	740	340	280	600	640	860	1350	1030	570	6,601
Total	**8,432**	**9,445**	**10,302**	**14,044**	**10,294**	**9,786**	**12,957**	**11,067**	**16,345**	**17,279**	**16,416**	**10,317**	**140,083**
Recycling Rate	71.05%	71.21%	72.28%	68.61%	64.54%	60.34%	69.85%	68.49%	64.72%	63.22%	61.90%	62.94%	**69.34%**

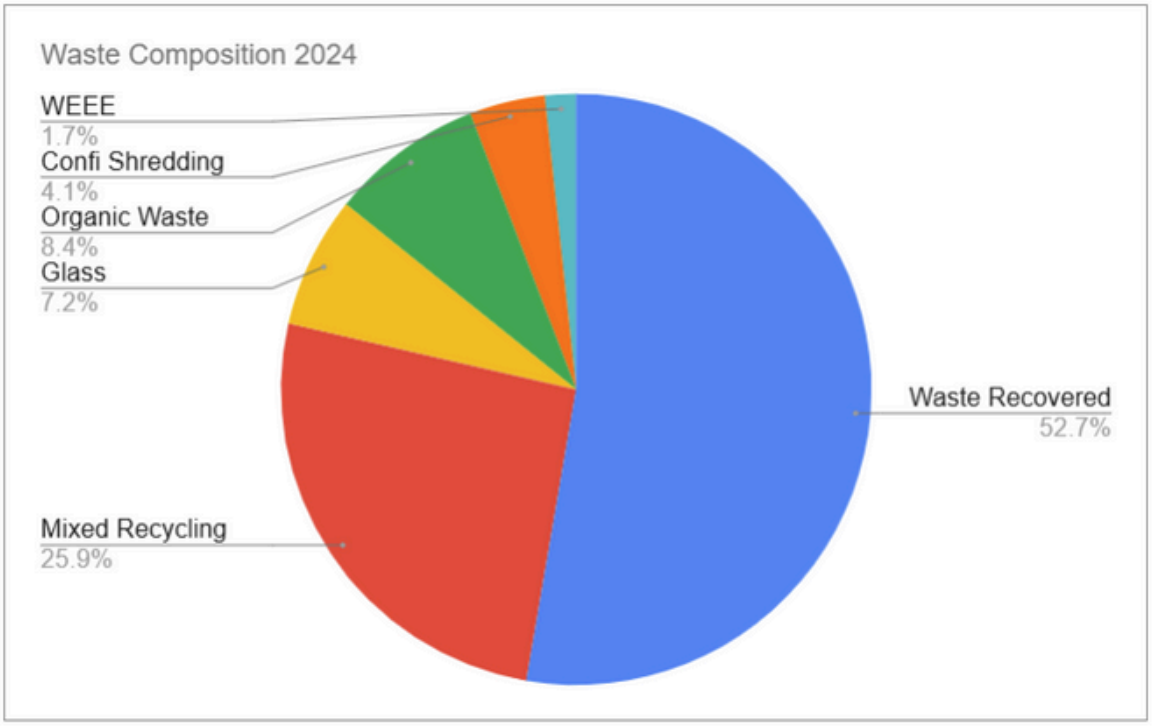
Student Residences

The student residences were included in our overall waste data for the first time in 2022. A new complex of 625 beds was added in September 2023 which increased the waste volumes produced. The recycling rate has remained low at 32% this year, a slight improvement on 31% last year, however the management team Atalia are currently implementing several initiatives which should see this rate increase over the coming years.

Residences	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	Year To Date
Waste Recovered	14418	15888	16981	15549	10151	9861	13161	13343	10749	14838	15330	14431	164,700
Mixed Recycling	3832	3242	4048	3247	2272	1871	2112	2712	3140	3303	3550	2296	35,625
Glass	1237	2387	2464	3388	1848	1694	966	852	2050	1857	2660	1728	23,131
Organic / Food Waste	1925	1521	1664	1974	914	339	434	255	1659	2615	2711	2177	18,188
Total	**21412**	**23038**	**25157**	**24158**	**15185**	**13765**	**16673**	**17162**	**17598**	**22613**	**24251**	**20632**	**241,644**
Recycling Rate	32.66%	31.04%	32.50%	35.64%	33.15%	28.36%	21.06%	22.25%	38.92%	34.38%	36.79%	30.06%	**31.84%**

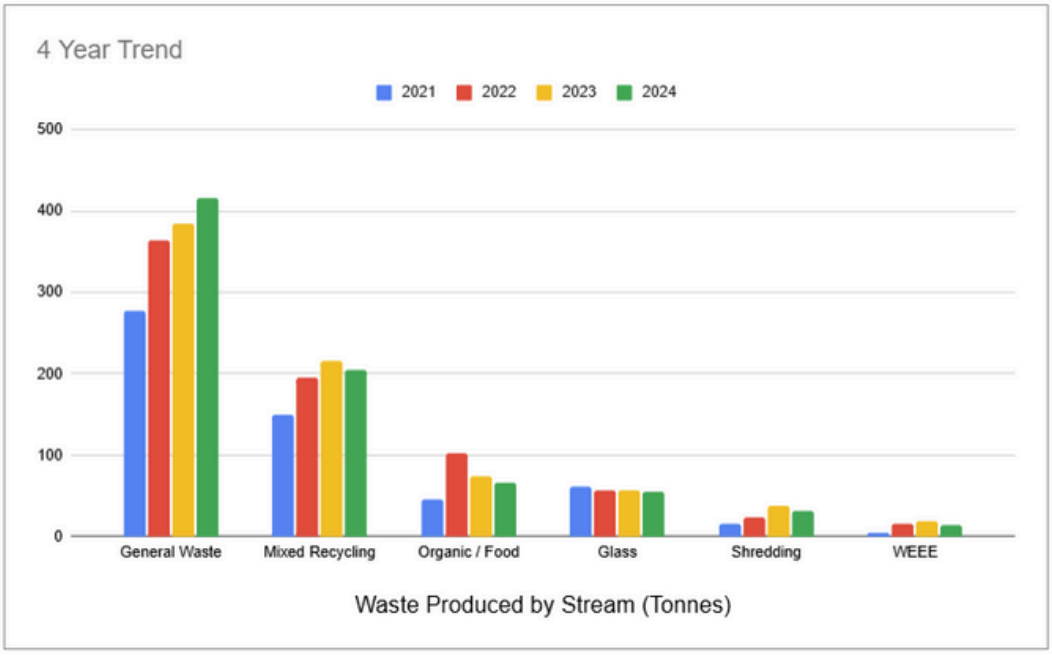
Waste Composition 2024

Breakdown of Waste Streams



Trend Analysis

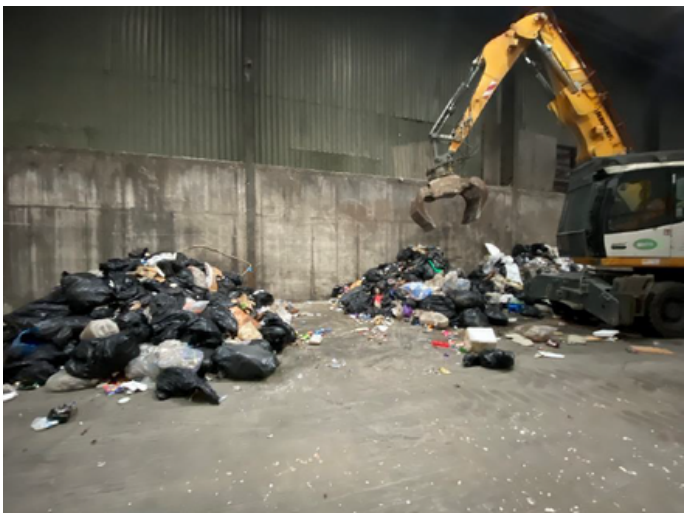
Review of performance over the past 4 years by waste stream



47% Our average recycling in 2024

Waste Characterization Study

In February 2024 University of Galway commissioned a Waste Characterization Survey through MKO Environmental Consultants and our waste contractors Barna Recycling. We carry out this survey every two years as an important research project to determine the breakdown of different waste streams that are going into the General Waste stream. This then enables us to take action to divert these streams into the correct recycling stream through on site initiatives and awareness campaigns.



As highlighted on the previous section, the University provides hundreds of dual bin recycling/general waste bins as well as glass recycling stations throughout the campus with the goal of minimising the amount of material going to the general waste scheme. The previous survey highlighted a big increase in coffee cups in the general waste stream. This is in part due to the safety restrictions in place for Covid which meant cafes/restaurants did not accept reusable cups. We also noticed a large amount of health textiles and lab plastics owing to Covid19 mask use and testing devices.

2024 Results

Table 4-2 UG Waste characterisation Results

Waste Category	25/07/2014		17/10/2014		21/10/2016 (Adjusted)		10/02/2022		01/02/2024	
	(kg)	% of Total	(kg)	% of Total	(kg)	% of Total	(kg)	% of Total	(Kg)	% of Total
Organic Waste	21.1	15.5	23.9	14.1	16.3	12.4	17.9	10.8	31.29	17.36
Papers	18.5	13.6	25.2	14.9	16.4	12.5	35.9	21.6	14.59	8.09
Cardboards	5.2	3.8	15.8	9.4	15.65	11.9	8.1	4.9	15.6	8.65
Composites	26.0	19.1	19.2	11.4	13.85	10.5	16.8	10.1	14.78	8.20
Textiles	1.7	1.2	4.6	2.7	2.6	2.0*	3.1	1.9	5.56	3.08
Healthcare Textiles	9.0	6.6	0	0	0	0.0	8.2	4.9	0.14	0.07
Plastics	38.8	28.6	64.1	37.9	46.7	35.5	50.2	30.3	68.92	38.24
Glass	2.2	1.6	3.9	2.3	13.8	7.5	4.9	3	4.25	2.35
Metals	3.8	2.8	3.4	2.0	14.65	1.4	4.1	2.5	11.67	6.47
Special Municipal Waste	0	0.0	0	0	0	0.0	0	0	2.92	1.62
Unclassified Combustibles	3.6	2.6	0.9	0.5	0.2	0.0	1.7	1	0.86	0.47
Unclassified Incombustibles	1.9	1.4	3.8	2.3	0	0.0	0	0	0.28	0.15

The table above compares the results of this years survey with previous surveys.

Analysis

The results are broadly similar to previous surveys however there are a few things that stand out:

- Paper & Cardboard is still a very high proportion of the stream, although paper as a percentage has reduced significantly in 2024
- Organic waste is the single biggest contributor to the general waste stream, and while this was gradually decreasing in previous surveys, it is now increasing (although this may be due to a large amount of ash contained in the sample)
- Plastics are a persistent large proportion of the total, and increased 8% this year
- Coffee cup which make up the majority of the Composites category, remain stubbornly high despite the introduction of the 2GoCup scheme

Conclusion

It is clear further work is to be done to improve recycling efforts across the campus. Cardboard and paper especially should be looked at. The University will soon be banning disposable coffee cups from all outlets which will dramatically reduce this category. More efforts need to be made to reduce use of single used plastics such as bottles and food containers.

CURRENT PROCESSES

Across campus, a huge volume and variety of waste is produced and managed by our internal team and external partners.

General Waste

Our primary waste contractors Barna Waste collect the general waste streams across campus, extract valuable materials at their local processing facility, then ship the remainder to a 'waste-to-energy' facility in Europe. This energy is captured for electricity generation.

Recycling

There are hundreds of mixed recycling bins internally and externally across campus. These are collected and then sorted into cardboard, plastic and glass, before being broken down / baled and shipped to specialist facilities for reproduction into new goods.

Organic Waste

At present we provide for organic food waste collection in our canteens, cafes and restuarants. Much of this ends up back at our waste contractor Barna Waste who operate the only large composting facility in the area. A substantial volume of food waste is collected both from the kitchens during preparation and leftovers from customers in the canteens.

Glass & Cans

Glass bottle recycling banks and an aluminium recycling facility are located on South Campus opposite the Orbsen Building and North Campus beside the entrance to Corrib Village. Our waste contractor collects and processes these locally.

WEEE Waste

WEEE (Waste Electrical and Electronic Equipment) is anything that has a plug or a battery and is at the end of its useful life.The B&E team collect WEEE waste across campus. This process allows valuable resources including plastics, metals and glass to be recovered for further use in manufacturing, and ensures hazardous waste is disposed of safely helping to protect our environment.

Hazardous Waste

A wide variety of work is carried on across campus, especially in research buildings where different varieties of hazardous waste are produced. As such, each unit uses their expertise and takes responsibility for organising the safe disposal of the hazardous / chemical waste they produce.

Shredding

DGD Shredding are our contractors who facilitate the disposal of confidential material across the campus. Locakable consoles are available in each building where staff can dispose of confidential material. This is collected and processed by DGD at their Limerick facility.

Recycling Initiatives

Campus Wide Ban on Disposable Coffee Cups

Eliminating all disposal cups from September 2024

In September 2024, University of Galway eliminated single-use cups from all campus catering outlets. This follows the Public Sector Climate Action Mandate which requires public sector bodies to "cease using disposable cups, plates and cutlery". As part of this process, dishwashers and self-wash stations were installed in key areas around the campus. We are encouraging the campus community to:

- Bring your reusable hot beverage cup to campus. Cup washers have been installed throughout campus to help you keep your cup clean. All incoming first years have received a free reusable cup. Travel mugs can also be purchased at the SU Shop.
- Order your beverage in a ceramic mug, available in most campus catering outlets. Please leave the ceramic mug in the catering outlet.

Wasted Week

Wasted Week was organised this year by the Students' Union in collaboration with several environmentally involved societies during the last week of January. A combination of informative and fun events took place, including a Paper Free Pub Quiz, workshops by GOAL and ECO-UNESCO and small-scale skill and information events. The Union also launched a new bottle deposit bins plan, where deposit bottles can now be donated for charity across the SU businesses on campus.

New Green Waste - Composting Iniative

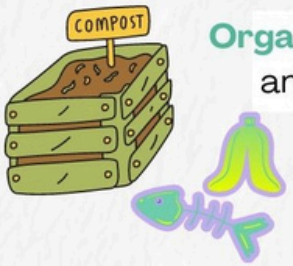
In 2022 the Buildings & Estates team collaborated with our waste contractor Barna Recycling to set up a new Green Waste recycling stream to collect green waste from our vast 105 hectare campus. This includes all leaves, grass cuttings and hedge trimmings which is valuable composting material. Barna operate the only large composting facility in the region and they also collect food waste from all the restaurants and cafes on campus. They then combine this food waste and our green waste and allow it to breakdown under specialised conditions in order to create a nutrient rich organic fertilizer. This fertilizer is then brought back to the campus for our grounds team to use on new flor and tree bedding instead of imported fertilizer. This creates a fantastic waste circular story.

The Buildings & Estates team were delighted to collaborate with Aurora Leyton, MSc Environmental Leadership and our waste contractor Barna Recycling to document and analyze the impact of this new process and the results were a fantastic video showcasing how this process works and a summary infographic and paper analyzing the process further

.You can watch the video here and the full infographic can be found on the next page.

ORGANIC WASTE MANAGEMENT ON CAMPUS

Waste management strategies can be **linear** or **circular.**
Circular strategies are found to be best for the environment.



Organic waste is biodegradable waste such as **food waste** and **green waste** (tree cutting, grass trimmings, etc).

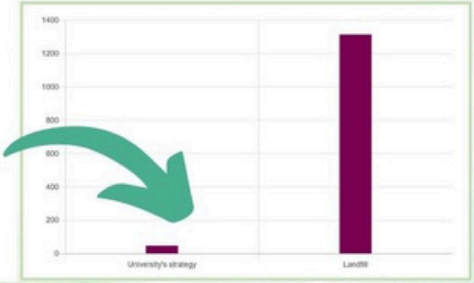
If left untreated, its decomposition can lead to many forms of **pollution**.

Circular strategies for organic waste are treatments like **composting** or **anaerobic digestion**, that produce fertilizer and biogas.


Use of compost on campus grounds

The university takes a circular approach. Organic waste is collected and sent to Barna Recycling to be **composted**. Part of the compost is then returned to campus to be used as a **fertilizer**.

The **Global Warming Potential** of this strategy was measured using **Life Cycle Assessment.**
It showed that **the university's approach is much more benefitial** than sending waste to **landfill** (graphic in kgCO2eq).



We can all make a difference!

Put your food waste on the designated bins con campus. Learn more. And why not try composting at home?

Evaluation and communication of the organic waste management strategy of UG.
Aurora Leyton, MSc Environmental Leadership. 2022.

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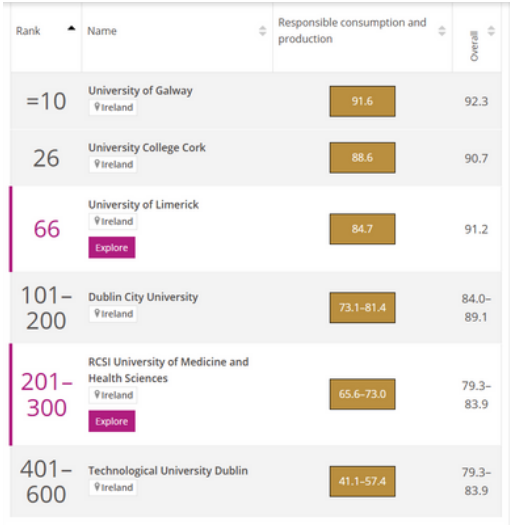
Student Residences Initiatives

Atalia Student Residences DAC, which manages the student residences at University of Galway, has been making substantial efforts in the area of sustainability. Its first Sustainability Champion programme was launched ahead of the 2024-25 academic year and is proving to be a success. The team's role is to support Atalia in achieving its sustainability targets by increasing awareness amongst its 1800 residents and encouraging best practice in the area of sustainability.

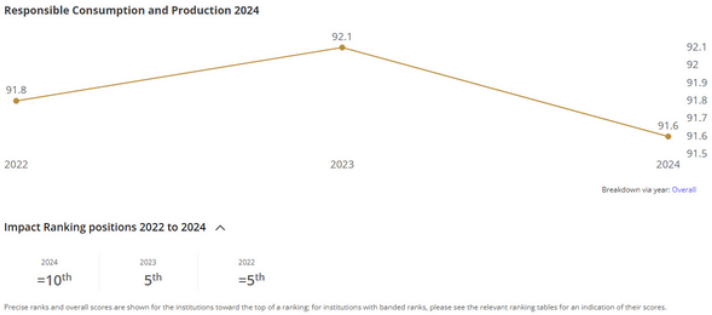
- **Brown Food bins** were added to Corrib Village apartments to help students segregate waste more effectively.
- **Green Glass bins** were added to Corrib Village block courtyards, to the Goldcrest Village courtyard and to one of Dunlin Village's bin compounds to help students recycle their glass and remove this from entering general waste bins.
- **Re-turn** bottle vending machine is up and running. Students can exchange their aluminum drink cans and plastic bottles for vouchers with can be exchanged for goods or cash in Day Today (Corrib Village shop).
- **Sustainability Champion** initiative: Four resident students have been enlisted to help our staff and other residents be more sustainable e.g. recycle, reduce energy usage etc. These 'champions' have gone door to door across the three villages teaching other students how to reduce waste, recycle in the correct bins etc.
- **Battery Recycling** stations introduced

It is believed that all of the above efforts combined are contributing to the improvements being observed in terms of waste levels. (waste levels are down by 7 tones on 2023 levels and we expect a much bigger reduction in 2025).

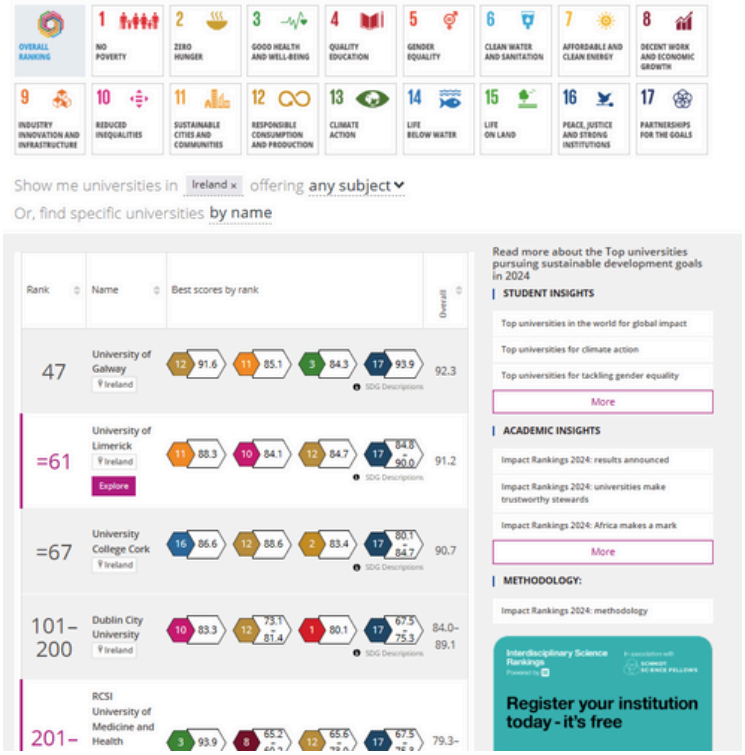
Times Higher Education Impact Rankings 2024



Rank	Name	Responsible consumption and production	Overall
=10	University of Galway, Ireland	91.6	92.3
26	University College Cork, Ireland	88.6	90.7
66	University of Limerick, Ireland, Explore	84.7	91.2
101–200	Dublin City University, Ireland	73.1–81.4	84.0–89.1
201–300	RCSI University of Medicine and Health Sciences, Ireland, Explore	65.6–73.0	79.3–83.9
401–600	Technological University Dublin, Ireland	41.1–57.4	79.3–83.9



The University of Galway retained its position as the number one University in Ireland for Sustainable Development and Responsible Waste Consumption in 2024. We retained a Top 10 position for Responsible Waste Consumption. Each year we submit to the Times Impact Survey our waste data and Waste Report, and from this they determine our performance in comparison to over 2000 other universities across the world.



We will be working hard to maintain and improve upon this ranking in the coming years, and becoming a global leader in the Responsible Production & Consumption category of the SDGs.

TARGETS

Review of 2024

University of Galway is committed to setting and achieving ambitious targets in terms of waste management. Lets start off by reviewing the targets set out in our 2022 Waste Management Plan:

Not there yet!

01

Increase Residences Recycling to 40% by 2025

At 27% the recycling rate at our student residences is far too low. We will be working with the management company to introduce new infrastructure and awareness schemes to improve this figure dramatically in the next couple of years.

Not there yet!

02

Increase Total Recycling Rate to 55% by 2025

As the recycling rate on the main campus and restaurants is 60% and 65% respectively, we believe that by improving recycling at the Residences will help us achieve this target in the next two years.

Not there yet!

03

Reduce Total Volume of Waste by 5%

We will be working with the catering partners and residences management to explore ways we can reduce the amount of waste across campus through various initiatives

TARGETS

Targets for 2025

Below is our top targets for the calendar year 2025 coming up. We have kept last years targets as none had been reached, and added a further target relating to organic / green waste:

01

Increase Recycling Rate

At 27% the recycling rate at our student residences is far too low. We will be working with the management company to introduce new infrastructure and awareness schemes to improve this figure dramatically in the next couple of years.

02

Increase Total Recycling Rate to 55% by 2025

As the recycling rate on the main campus and restaurants is 60% and 65% respectively, we believe that by improving recycling at the Residences will help us achieve this target in the next two years.

03

Reduce Total Volume of Waste by 5%

We will be working with the catering partners and residences management to explore ways we can reduce the amount of waste across campus through various initiatives

04

Increase Organic / Green Waste to over 10%

We note a big decline in the volumes of organic / green waste collected in 2024, so we would like to see this return to over 10% of total waste produced, as we had in 2022.

CONCLUSION

The results of the waste data for the entire campus in 2024 show a slightly disappointing picture, with a 4% reduction in the recycling rate on the previous year. A slight improvement was noticed in the Residences but this will be a big focus area over the next year and any improvements there will see a dramatic overall improvement for the total campus figures. The waste characterization survey illustrates that we have more to do in terms of diverting paper, cardboard and plastics to the correct recycling streams. A big effort will be main on the main campus which includes staff offices, teaching venues and labs to get our recycling rate back to 55-60% range.

The University has launched a new Sustainability Office in April 2024, and with this will bring a renewed focus on the waste produced on campus, and hopefully new enthusiasm and resources to introduce new waste reduction and recycling initiatives across the campus. We look forward to working with all stakeholders across campus to continue our improvements

We thank you for your continued cooperation in helping University of Galway to become a world leading green & sustainable campus through responsible waste practices

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BUILDINGS & ESTATES

For further information on the details within this report or to discuss how you or your department can help us in managing waste on campus please reach out below.

Michael Wallace
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