

National Waste Statistics

Summary Report for 2020

2020



ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

THE WORK OF THE EPA CAN BE DIVIDED INTO THREE MAIN AREAS:

Regulation: We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.

Knowledge: We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.

Advocacy: We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.

OUR RESPONSIBILITIES

Licensing

We regulate the following activities so that they do not endanger human health or harm the environment:

- > waste facilities (e.g. landfills, incinerators, waste transfer stations);
- > large scale industrial activities (e.g. pharmaceutical, cement manufacturing, power plants);
- > intensive agriculture (e.g. pigs, poultry);
- > the contained use and controlled release of Genetically Modified Organisms (GMOs);
- > sources of ionising radiation (e.g. x-ray and radiotherapy equipment, industrial sources);
- > large petrol storage facilities;
- > waste water discharges;
- > dumping at sea activities.

NATIONAL ENVIRONMENTAL ENFORCEMENT

- > Conducting an annual programme of audits and inspections of EPA licensed facilities.
- > Overseeing local authorities' environmental protection responsibilities.
- > Supervising the supply of drinking water by public water suppliers.
- > Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- > Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- > Prosecuting those who flout environmental law and damage the environment.

WATER MANAGEMENT

- > Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- > National coordination and oversight of the Water Framework Directive.
- > Monitoring and reporting on Bathing Water Quality.

MONITORING, ANALYSING AND REPORTING ON THE ENVIRONMENT

- > Monitoring air quality and implementing the EU Clean Air for Europe (CAFE) Directive.
- > Independent reporting to inform decision making by national and local government (e.g. periodic reporting on the State of Ireland's Environment and Indicator Reports).

REGULATING IRELAND'S GREENHOUSE GAS EMISSIONS

- > Preparing Ireland's greenhouse gas inventories and projections.
- > Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland. Environmental Research and Development.

STRATEGIC ENVIRONMENTAL ASSESSMENT

- > Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

ENVIRONMENTAL RESEARCH AND DEVELOPMENT

- > Assessing the impact of proposed plans and programmes on the Irish environment (e.g. major development plans). Radiological Protection.

RADIOLOGICAL PROTECTION

- > Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- > Assisting in developing national plans for emergencies arising from nuclear accidents.
- > Monitoring developments abroad relating to nuclear installations and radiological safety.
- > Providing, or overseeing the provision of, specialist radiation protection services.

GUIDANCE, ACCESSIBLE INFORMATION AND EDUCATION

- > Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- > Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (e.g. My Local Environment, Radon Maps).
- > Advising Government on matters relating to radiological safety and emergency response.
- > Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

AWARENESS RAISING AND BEHAVIOURAL CHANGE

- > Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- > Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

MANAGEMENT AND STRUCTURE OF THE EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- > Office of Environmental Sustainability
- > Office of Environmental Enforcement
- > Office of Evidence and Assessment
- > Office of Radiation Protection and Environmental Monitoring
- > Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

NATIONAL WASTE STATISTICS SUMMARY REPORT FOR 2020

Waste reporting in Ireland is a complex system with changing reporting methodologies and extensive validation which impacts on the delivery of the data. The EPA recognises the need for timely data and continues to strive to reduce the time between collection of the data and reporting on it.

Published by:

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil
PO Box 3000
Johnstown Castle Estate
County Wexford, Ireland

Telephone: +353 53 9160600

E-mail: info@epa.ie

Fax: +353 53 916 0699

Website: www.epa.ie

LoCall: 1890 33 55 99

© Environmental Protection Agency 2022

Although every effort has been made to ensure the accuracy of the material contained in this publication, complete accuracy cannot be guaranteed. Neither the Environmental Protection Agency nor the authors accept any responsibility whatsoever for loss or damage occasioned or claimed to have been occasioned, in part or in full, as a consequence of any person acting, or refraining from acting, as a result of a matter contained in this publication.

All or part of this publication may be reproduced without further permission, provided the source is acknowledged.

ISBN: 978-1-80009-080-4

December 2022

web only

CONTENTS

Key Messages for 2020.....	6
Key Actions for 2023	8
1. Introduction	10
2. Waste Management in Ireland.....	12
3. Progress to EU Targets	18
4. Municipal waste	20
5. Household waste.....	27
6. Food waste	32
7. Packaging Waste	36
8. Hazardous Waste	41
9. Waste Electrical & Electronic Equipment (WEEE).....	45
10. End-of-Life Vehicles (ELVs)	50
11. Waste Tyres	52
12. Construction and Demolition Waste	56
13. Municipal Waste Treatment and Collection Infrastructure	62
14. Further Information	68
Appendix 1: Progress to EU Waste Targets	70

LIST OF FIGURES

Figure 1:	Increasing waste affects the achievement of EU targets and endangers our circular economy, climate, biodiversity, human health and well-being objectives.	6
Figure 2:	Recycling Rate is tonnes recycled over total tonnes. If both increase there's no increase in the recycling rate.	7
Figure 3:	The waste hierarchy, showing the order of preference for actions to reduce and manage waste Source: EPA	13
Figure 4:	Priority Areas for the Circular Economy Programme.	14
Figure 5:	Municipal Waste Generated in Ireland per person 2010-2020.	22
Figure 6:	Municipal waste generated per person in various European countries in 2020.	22
Figure 7:	Treatment of municipal waste in 2020. Source: EPA	23
Figure 8:	Changes in municipal waste management from 2010 to 2020. Source: EPA	24
Figure 9:	Quantity of Biodegradable Municipal Waste disposed to landfill, compared with Landfill Directive limits. Source: EPA	25
Figure 10:	Trend in the generation and recycling of municipal waste 2010-2020 and future EU targets for 2020 to 2035. Source: EPA	25
Figure 11:	Trend in household waste from 2010 to 2020 compared with CSO data on personal consumption of goods and services. Source: EPA and CSO	29
Figure 12:	Collection of household waste in Ireland in 2020.	30
Figure 13:	Organic bin waste kg per capita and per local authority 2020.	31
Figure 14:	Regional variations in the quantity of household waste collected per person, by bin type, in 2020.	31
Figure 15:	Food Supply Chain. Source: EPA	33
Figure 16:	Estimated food waste generated in Ireland in 2020. Source: EPA	34
Figure 17:	Food Waste Hierarchy. Source: EPA	35
Figure 18:	Trend in packaging waste generation in Ireland compared with GNI. Source: EPA and CSO	37
Figure 19:	Breakdown of packaging waste generated in 2020. Source: EPA	38

Figure 20:	Trend in recovery and recycling of packaging waste, 2009 to 2020. Source: EPA	38
Figure 21:	Recycling of packaging waste in 2020, relative to current and future recycling targets. Source: EPA	39
Figure 22:	Recycling of packaging waste in Ireland and abroad, 2020. Source: EPA	40
Figure 23:	Hazardous Waste Generation in Ireland.	42
Figure 24:	Types of hazardous waste generated in Ireland in 2018 to 2020. Source: EPA	43
Figure 25:	Generation and location of treatment of hazardous waste in Ireland, 2009 to 2020. Source: EPA	44
Figure 26:	Breakdown of WEEE collected in 2020. Source: EPA	47
Figure 27:	WEEE Collected, Recovered and Prepared for Reuse 2008-2020 compared with personal consumption of goods and services.	48
Figure 28:	ELV reuse, recycling and recovery 2009-2020. Source: EPA	51
Figure 29:	Final treatment of waste tyres collected in Ireland in 2020. Source: EPA	54
Figure 30:	Overview of the collection and treatment of Ireland's waste tyres in 2020. Source: EPA	55
Figure 31:	Quantity of construction waste managed in Ireland, compared with CSO construction index 2014-2020. Source: EPA, NWCPO and CSO	57
Figure 32:	Composition of C&D waste collected in Ireland in 2020. Source: EPA	58
Figure 33:	Treatment of C&D waste in Ireland in 2020. Source: EPA	59
Figure 34:	Final treatment operation by C&D waste stream in 2020. Source: EPA	59
Figure 35:	Soil and stone by-product notifications submitted 2018-2020.	60
Figure 36:	Waste Treatment Infrastructure in 2020, compared with 2010. Source: EPA	64
Figure 37:	Types of wastes treated by composting/anaerobic digestion in 2020. Source: EPA	65
Figure 38:	Waste Collection and Treatment in 2020, compared with 2010. Source: EPA	66
Figure 39:	Proportion of households with kerbside waste collection services by bin service type.	67
Figure 40:	Municipal biowaste treated by composting/anaerobic digestion, 2005 to 2020. Source: EPA	67

KEY FINDINGS FOR 2020

WASTE GENERATION

MUNICIPAL WASTE increased by



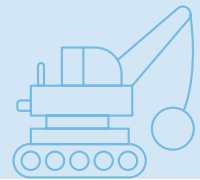
Waste from **HOUSEHOLDS** accounted for **1.8m** tonnes



CONSTRUCTION AND DEMOLITION WASTE



correlating with **decreased construction activity nationally due to COVID**



PACKAGING WASTE decreased by



HAZARDOUS WASTE decreased by



WASTE GENERATION IN IRELAND continues to be closely **LINKED WITH ECONOMIC ACTIVITY** indicating limited progress towards a circular economy



WASTE TREATMENT

WEEE collection rate is **60%** in 2020 missing the new collection target of 65%

MUNICIPAL WASTE RECYCLING is at **41%** and must reach 55% by 2025.

PACKAGING RECYCLING RATE dropped by <1% to **62%**

The trend towards **INCINERATION** continued



almost half of **MUNICIPAL WASTE** incinerated **43%**

a large majority of **PLASTIC PACKAGING WASTE** incinerated **71%**

16% of **MUNICIPAL WASTE** was disposed to **LANDFILL**

64% of **HOUSEHOLDS** had a **BROWN BIN**



Municipal biowaste treated by **COMPOSTING** or **ANAEROBIC DIGESTION** increased slightly



Ireland **RELIED ON EXPORT** for treating a number of key waste streams:



39% of **MUNICIPAL WASTE** and **55%** of **HAZARDOUS WASTE** was exported for final treatment

only **18%** of packaging waste was **RECYCLED** in Ireland (mainly glass and wood)

27% of waste treated by composting / anaerobic digestion took place at facilities in **NORTHERN IRELAND**



COMPLIANCE WITH EU TARGETS

Ireland **CONTINUED TO MEET ALL CURRENT RECYCLING AND RECOVERY TARGETS** for packaging waste



However **SIGNIFICANT IMPROVEMENTS** in municipal recycling will be required to meet the target of **55%**



Ireland **MET ALL RECYCLING AND RECOVERY TARGETS** FOR WEEE



however Ireland **FAILED TO MEET THE NEW WEEE COLLECTION TARGET** of achieving a separate collection rate of **60%**



Ireland **CONTINUED TO MEET ALL REUSE AND RECYCLING RATE TARGETS** for end-of-life vehicles



RECYCLING RATES REMAIN WORRYINGLY LOW

for plastic packaging at **29%** with a continuing trend towards **ENERGY RECOVERY** **71%**



FUTURE PLASTIC RECYCLING targets of



50% by **2025**

55% by **2030**

will be **VERY CHALLENGING** for Ireland to meet

Ireland **MET THE 2020 RECOVERY TARGET** of

70%

for **C&D waste**, achieving a material recovery rate of **78%** in 2020



OUTLOOK

The latest EPA data highlight that **URGENT ACTION IS NEEDED**

- to reverse the rise in waste generation
- significantly improve recycling rates
- and increase Ireland's self-sufficiency in treating our waste

Ireland needs to transform current **BUSINESS MODELS** into

CIRCULAR ones that promote **WASTE REDUCTION, REUSE AND RECYCLING**

CIRCULARITY ROADMAPS are needed for key economic sectors, supported by clear policy, legislation and targets



KEY MESSAGES FOR 2020

1. In 2020, the waste created (generated) by Ireland's linear economy increased¹ to 16.2 million tonnes (3.25 tonnes per person), up from 12.7 million tonnes (2.77 tonnes per person) in 2012.
2. Ireland is in danger of missing future EU waste targets:
 - a. Municipal waste recycling rate is 41% in 2020 and must reach 55% by 2025.
 - b. Plastic packaging recycling rate is 29% and must reach 50% by 2025.
 - c. WEEE² collection rate is 60% in 2020 missing the new collection target of 65%.
 - d. Figure 1 shows the wider implications of increasing waste generation.

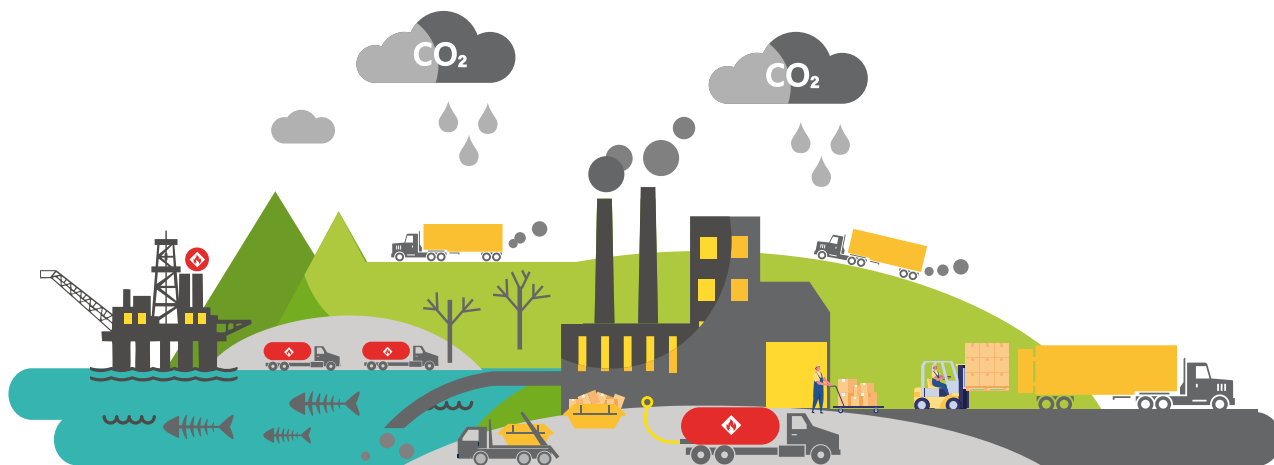


Figure 1: Increasing waste affects the achievement of EU targets and endangers our circular economy, climate, biodiversity, human health and well-being objectives.

3. The amount of municipal waste recycled has increased by 11% since 2016, but total waste generated also increased by 11%, so the recycling rate has stagnated at 41% (Figure 2).
4. Household waste has grown by 27% equivalent to over 400,000 tonnes in the last five years. Our kerbside system is key to improving our recycling rate with focused efforts on reducing the quantities of residual waste collected needed.
5. Food waste across the entire supply chain has been calculated to be over 770,000 tonnes. The challenge to reduce this amount to the target level of 50% is significant.

¹ CSO Waste Statistics Waste Generation 2020. Overall waste generation figure calculated biennially by CSO using EPA waste data in this report and scale up for other industries/businesses. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste_statistics

² Waste Electrical and Electronic Equipment (WEEE)

6. For the fourth year in a row the total packaging waste generated in Ireland exceed 1m tonnes. The overall packaging recycling rate is 62% with a target of 65% to be met by 2025.
7. Construction waste is the largest waste stream in the state amounting to over 8.2 million tonnes in 2020. Soil and stone is the largest waste fraction of this stream, accounting for 82% of the stream, and can be avoided through the greater use of the by- product regulation.
8. Ireland remained heavily reliant on export for the treatment of a number of key waste streams in 2020; 27% of biodegradable waste, 39% of municipal waste, 55% of hazardous waste, 50% of packaging waste and almost all WEEE were exported for the final treatment step. However, 70% of WEEE pre-treatment was carried out in Ireland.
9. In 2020, Covid restrictions impacted several waste streams, including:
 - > Household waste increased by 18%, due to changes in householder behaviours.
 - > Bulky skip waste increased by 60,000 tonnes due to domestic clear-outs.
 - > Construction and demolition (C&D) waste decreased by 7%, due to reduced C&D activity.
 - > The number of cars scrapped decreased by 21%.
 - > The amount of telecommunications equipment including screens placed on the Irish market increased by around 30% as people spent more time using screens for communication, work, education and leisure activities.

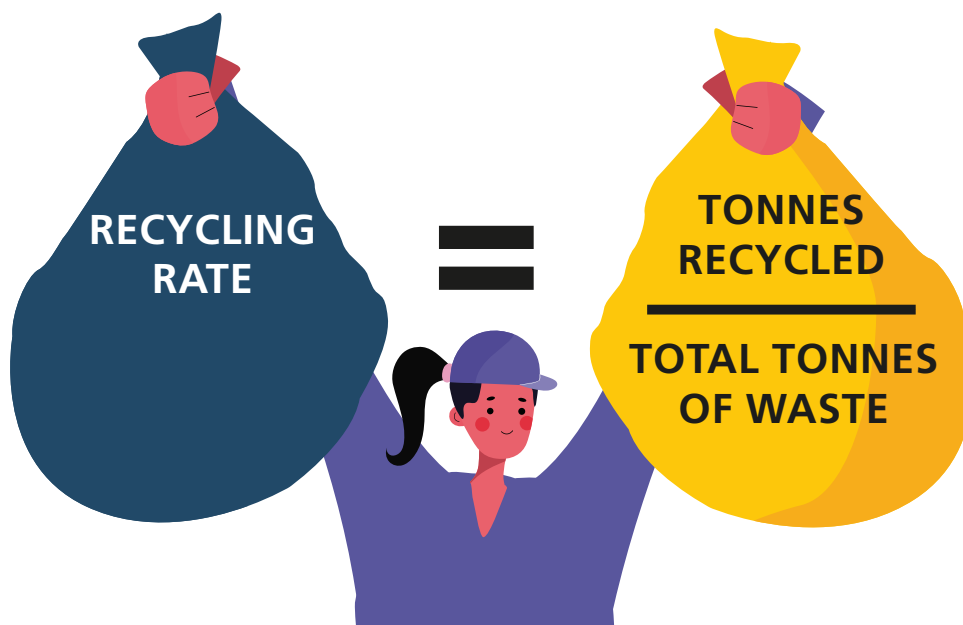


Figure 2: Recycling Rate is tonnes recycled over total tonnes. If both increase there's no increase in the recycling rate.

KEY ACTIONS FOR 2023

To fundamentally move Ireland's performance in managing waste to a predominantly circular approach the following key actions are needed. These actions are measures outlined in *A Waste Action Plan for a Circular Economy, Ireland's National Waste Policy 2020-2025* prepared by the Department of Communications, Climate Actions and Environment (DECC) and need to be implemented immediately.

Municipal Recycling Targets

There is an **urgent need to increase the municipal recycling rate which is not on track to meet the 2025 targets**. Key actions include:

1. Introduction of mandatory incentivised charging for the collection of non-household municipal waste (Implementation Lead – DECC);
2. Rollout of brown bins to rural areas with no population exemptions and businesses who are currently not on a collection service (Implementation Leads – DECC and Industry);
3. Targeted and co-ordinated awareness and education campaigns focused on improving the capture of food waste from businesses and households (Implementation Leads – Local Government and Industry);
4. Targeted enforcement campaigns to lower contamination rates in the recyclable bin (Implementation Lead – Local Government); and
5. A review of the effectiveness of the waste charging system to householders to incentivise and reward waste reduction and recycling (Implementation Lead – DECC).

Plastic Packaging Recycling Targets

Targeted financial, regulatory and awareness measures are urgently needed to drive a step change improvement in plastic recycling in order to meet the 2025 targets. Key actions include:

6. Accelerated implementation and monitoring (of the impact) of eco fee modulation for the production of high-quality recyclable plastic packaging (Implementation Lead – REPAK);
7. Setting recycling subsidies to incentivise the collection of plastic packaging rewarding waste collectors to improve the rates of recycling of these materials (Implementation Lead – REPAK);
8. Examining the potential for fiscal measures to incentivise increased manufacturing and use of reusable plastic packaging and other packaging products and (Implementation Lead – REPAK);
9. Targeted and co-ordinated awareness and education campaigns on improving the separate capture of plastic packaging materials from businesses and households (Implementation Lead – REPAK).

National Treatment Infrastructure

Ireland remains overly reliant on export markets for the treatment of specific waste streams including residual municipal waste, hazardous waste, packaging waste and more recently biowastes. There is limited resilience in the system to deal with market shocks and unforeseen events which can give rise to additional quantities of wastes. By addressing waste infrastructure deficits, Ireland can develop circular economy opportunities and **reduce the emissions associated with transporting** waste over long distances. Key actions include:

10. Completion of the national waste treatment capacity register to allow for monitoring and tracking of the capacity market (Implementation Leads – National Waste Collection Permit Office and EPA);
11. Assessment of the biological treatment capacity and current market to improve Ireland's self-sufficiency and minimise the loss of biowaste resources to export markets Implementation Leads – EPA and DECC);
12. Complete business continuity and contingency assessment for the management of hazardous wastes (EPA);
13. Identify opportunities to develop circular economy solutions and build resilience for the recovery of non-hazardous and hazardous waste (Implementation Leads – EPA and DECC); and
14. Progress work on the national contingency treatment facility (Implementation Leads – Local Government).



1



INTRODUCTION

The EPA compiles national statistics on the generation and management of waste in the Republic of Ireland. National waste statistics are prepared to fulfil a number of statutory and non-statutory European and international reporting obligations including:

- > the EU Waste Framework Directive (2008/98/EC as recast by 2018/851/EC);
- > the EU Waste Statistics Regulation (2150/2002/EC as amended);
- > EU producer responsibility initiative directives: the Packaging Directive, WEEE Directive and ELV Directive;
- > the Basel Convention on hazardous waste movements, incorporated into EU law via the Waste Shipment Regulation (1013/2006);
- > the OECD/Eurostat Sustainable Development Indicator SDI on Municipal Waste.

The EPA's Circular Economy and Waste Statistics team also fulfil a number of other important roles, including informing Ireland's waste management and prevention policy, tracking Ireland's transformation to a circular economy, supporting enforcement activities and keeping the public informed about trends in waste generation and treatment.

The chief outlet for national waste data is the EPA's National Waste Statistics web resource, a dedicated area of the EPA's website where data on individual waste streams is published as it becomes available. See www.epa.ie/nationalwastestatistics

This summary report collates the key findings from the 2020 data published on the National Waste Statistics website. For detailed tables on individual waste streams and the latest available data for Ireland, always check the EPA website.



2



WASTE MANAGEMENT IN IRELAND

Ireland's waste management practices, infrastructure and regulation have matured significantly over the last two decades. This change has been driven by EU legislation which in turn has shaped national policy and economic instruments. European waste policy has long been centred on the concept of the waste hierarchy (Figure 3), with EU directives setting targets for the recovery and recycling of waste and its diversion from landfill with the aim of moving waste management policies and practices further up the waste hierarchy.

Policy progress has moved towards a life cycle-driven 'circular' economy, reusing resources as much as possible and bringing unavoidable waste close to zero. This change from a linear to a circular economy approach is required for us to reach statutory requirements under climate, biodiversity, human health and wellbeing. The problem with waste is not just about waste generated, it's about the land-use, resources,

chemicals and energy that is involved in the creation of products that become waste and the management of that waste. In line with UN Sustainable Development Goal 12 on responsible production and consumption³, the essence of a circular economy entails reducing both the input of materials and the output of wastes by closing economic and ecological loops of resource flows.

Ireland's national waste policy was reviewed in 2020 to strengthen the focus on the circular economy. *A Waste Action Plan for a Circular Economy* was published in September 2020 and updated in September 2021. It contains over 200 measures across various areas including the circular economy, municipal waste, consumer protection and citizen engagement, plastics and packaging waste, construction and demolition waste, textiles, green public procurement and waste enforcement.



Figure 3: The waste hierarchy, showing the order of preference for actions to reduce and manage waste. Source: EPA.

³ Eurostat (2021) Sustainable development in the European Union: Monitoring report on progress towards the SDGs in an EU context. 2021 edition. Luxembourg: Publication Office of the European Union, 2021. Doi: 10.2785/195273

RECENT NATIONAL POLICY AND LEGISLATION

The first whole of government Circular Economy Strategy, published in 2021, provides a national policy framework for Ireland’s transition to a circular economy. The move to sustainable consumption and production requires a fundamental shift in how we live our lives, run our businesses and conduct Government and provides opportunities for job creation, financial savings for consumers and a focus to inclusive, balanced and sustainable development.

The Circular Economy Act 2022 places the Circular Economy Strategy, and Ireland’s commitment to a circular economy, on a clear statutory footing and provide the necessary underpinning for relevant measures. The Act defines the Circular Economy for the first time in Irish domestic law. It incentivises the use of reusable and recyclable alternatives to a range of wasteful single-use disposable packaging and other items. It introduces mandatory segregation of commercial waste, bringing it in line with the household market to support increased recycling rates.

WASTE PREVENTION AND THE CIRCULAR ECONOMY

The EPA-led Circular Economy Programme 2021-2027⁴ is driving Ireland’s move to a circular economy and the programme supports the whole of government Circular Economy Strategy⁵. This national programme incorporates the National Waste Prevention Programme and has a statutory basis under the Circular Economy Act.⁶

The EPA’s Circular Economy Programme is a driving force for Ireland’s move to a circular economy. It supports national-level, strategic programmes to prevent waste and drive the circular economy in Ireland. The vision for the programme is an Ireland where the circular economy ensures that everyone uses less resources and prevents waste to achieve sustainable economic growth.

Consumption and production patterns impact on greenhouse gas emission levels, so moving to a circular economy – changing how we make and use materials – is at the core of the transition to a low-carbon economy. The Circular Economy Programme supports waste prevention and circularity in seven priority areas (aligned to the EU Green Deal)

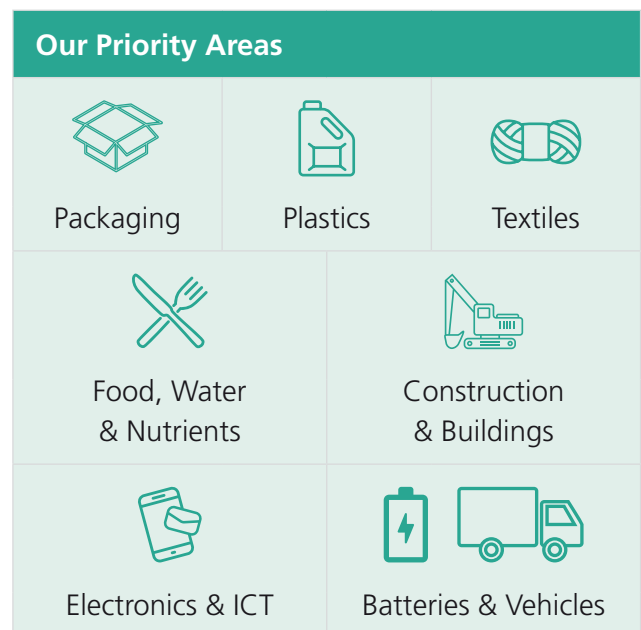


Figure 4: Priority Areas for the Circular Economy Programme.

⁴ EPA_Circular_Economy_2021_Programme_Apr22_Web.pdf

⁵ Whole of Government Circular Economy Strategy 2022-2023 ‘Living More, Using Less’ (www.gov.ie)

⁶ The Circular Economy and Miscellaneous Provisions Act 2022

The Circular Economy Programme is made up of three teams :

- > **Circular Economy Regulation**, which focus on removing legislative barriers to the use of materials through end of waste decisions and by product notifications. This team are also responsible for drafting and co-ordinating implementation of the National Hazardous Waste Management Plan 2021-2027 as well as issuing authorisations for historic landfills.
- > **Circular Economy Implementation** – works through partnerships with national organisations (e.g. **CirculÉire**, **Rediscovery Centre**, **Community Resources Network Ireland**, **Irish Universities Association** and **Smart Farming**); through providing innovation and demonstration funding supports (e.g. **Green Enterprise** and the **Local Authority Prevention Network**); advocating for, and providing insights and data for circular economy (e.g. delivering the **Stop Food Waste** campaign, published revised best practice guidelines for construction and demolition projects)
- > **Circular Economy and Waste Statistics** – Responsible for a range of official statistics on waste generation and management in Ireland. These are used for reporting on Ireland's performance in meeting its legal obligations, for policy and waste management planning purposes and to inform the general public. Waste statistics are compiled from surveys and administrative data sources.

MEASURING WASTE AND THE CIRCULAR ECONOMY

While Ireland has made strides in many areas of waste management, the latest EPA data show that further improvements are needed. Ireland has not yet succeeded in breaking the link between economic growth, consumption levels and waste generation and is missing valuable opportunities to maximise the beneficial and efficient use of waste materials. The latest waste data underscore the need for Ireland to do far more to prevent waste, improve levels of reuse and recycling and transition to a circular economy.

Table 1: Ireland's Circularity Rate

Total Waste Generated (2020)	Ireland's Circularity Rate (2020)
16.2m Tonnes	1.8% (EU Average 12.8%)

The purpose of a circular economy is to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle after they have reached the end of their lifecycle, while minimising the generation of waste.

The circularity rate or circular material use rate is a measure of material reused, recycled and recovered and fed back into the economy. A higher circularity rate means more secondary materials are in use replacing primary raw materials, thus reducing the environmental impacts of extracting primary material. Circularity in Ireland currently lags behind its EU peers. In 2020, Ireland's circularity rate was 1.8%, whilst the average circularity rate in the EU was 12.8% (Table 1).

There are significant opportunities for producers in Ireland to increase the levels of reuse and recycling activities in the economy and reduce rates of extraction particularly for construction materials.

REUSE

Reuse is one of the main elements of the EU's Circular Economy Package and Member States must take appropriate measures to prevent waste generation and monitor and assess progress in the implementation of such measures. Reuse is a key element of the waste hierarchy as it keeps products in the economy for longer and reduces consumption of raw materials.

In 2020, the EPA funded research into the reuse sector in Ireland.⁷ A total of 1,276 reuse operators were identified. Of these, almost half were commercial businesses or charity/not-for-profit organisations and a smaller proportion were public bodies. A sample of operators were surveyed and interviewed. The products most frequently handled by these operators were bric-a-brac, clothing, media (e.g. books), other textiles, non-antique jewellery and bicycles.

The quantitative data obtained was primarily the number of units exchanged and this was converted to kilograms using product weight conversion factors. The results estimated 26.186 million units were sold or exchanged for reuse, representing 31,990 tonnes of reused products. Based on a population of 4.904 million people in 2019, the average weight of materials reused (within the scope of this study) per person in Ireland is:

- > 5.71kg per person in 2019
(range 5.41–6.0kg per person);
- > 6.52kg per person in 2020
(range 6.17–7.09kg per person)⁷

The outputs of the research provide Ireland with a methodology to effectively measure reuse in the future, including the point at which to measure, the data to be collected, the product categories and conversion factors for measurement. The study identified that there are data gaps but, it does provide Ireland with a starting baseline for reporting. A key outcome is that any requirement to measure or report reuse data will introduce a burden on the sector and will need financial support.

WASTE MANAGEMENT PLANNING

The making of a waste management plan is an obligation of EU Member States as required by the Waste Framework Directive. In line with the *Waste Action Plan for a Circular Economy*, the three Regional Waste Management Planning Offices are preparing a combined National Waste Management Plan for a Circular Economy. The Plan will contain targets for reuse, repair, resource consumption and reducing contamination levels and is due to be published for consultation in early 2023.

In 2021, the EPA published the fourth National Hazardous Waste Management Plan 2021-2027.⁸ This Plan sets out recommendations to be actioned within the lifetime of the plan to strengthen protection of the environment and human health through best-practice management of hazardous wastes. It includes recommendations relating to policy and regulation, prevention, collection and treatment, and implementation. Each recommendation is accompanied by an 'owner' and specific actions to be implemented in the first half of the plan period.⁸

⁷ https://www.epa.ie/publications/research/waste/Research_Report_405.pdf

⁸ <https://www.epa.ie/publications/circular-economy/resources/national-hazardous-waste-management-plan-2021---2027.php>

EXTENDED PRODUCER RESPONSIBILITY

Extended producer responsibility (EPR) schemes are based on the 'producer pays' principle, whereby producers of waste materials have responsibility to finance the collection and environmentally sound waste management of their products at the end of life. Ireland currently has six of these schemes in place to cover the financial cost of managing the following wastes; packaging, batteries, Waste Electrical and Electronic Equipment (WEEE), end of life vehicles, tyres and farm plastics.

Self compliance was an option open to packaging producers, however Government is currently consulting on the removal of the self-compliance option for packaging producers. This will strengthen the Extended Producer EPR model for packaging and all packaging producers will join Ireland's packaging compliance scheme Repak.

The Single Use Plastics (SUP) Directive introduces new producer responsibility initiatives as follows:

- > By January 2023, producers of SUP packaging will be required to pay for the costs of litter clean-up for the following SUPs; food containers, packets, wrappers, beverage containers, cups, light weight carrier bags.
- > Producers of tobacco products containing plastic will be required to establish and join an extended producer responsibility schemes by January 2023.
- > By December 2024, producers of plastic balloons, wet wipes and fishing gear will also be required to join an Extended Producer Responsibility Scheme.

This report identifies a need to decrease the amount of waste generated in Ireland. Extended producer responsibility schemes are not currently used to address the amount of products placed on the market. There is a need to reassess these schemes to see how they could contribute to the circular economy, for example by subsidising reusable products, or products designed for longevity.



3



**PROGRESS TO
EU TARGETS**

Ireland must meet a range of EU targets for recycling and recovery of different waste streams, including municipal waste, construction and demolition waste, packaging waste, waste electrical and electronic equipment (WEEE), waste batteries and end-of-life vehicles (ELVs). *Appendix 1* summarises Ireland's performance in relation to its current targets. It shows that Ireland met all current targets in 2020, except for the new WEEE collection target (Chapter 14).

Various targets are set to become far more challenging over the coming years following recent updates to EU Regulations and Directives.

KEY NEW EU TARGETS



Municipal Waste Recycling

Ireland's municipal waste recycling rate was 41% in 2020, however the Waste Framework Directive recycling target will increase to 55% in 2025, 60% in 2030 and 65% in 2035. It will not be possible for Ireland to meet these challenging targets without changing to a circular economy.



Landfilling

The revised Landfill Directive requires member states to reduce the share of municipal waste landfilled to 10% or less by 2035. While Ireland has made significant progress in reducing disposal to landfill, with 16% of municipal waste disposed to landfill in 2020, meeting the 10% target still poses a challenge. It includes waste landfilled at each step along the municipal waste treatment process both in Ireland and abroad.



Packaging

The overall packaging recycling rate remained unchanged at 62%, surpassing the current EU target of 55%, which increases to 65% in 2025 and 70% in 2030.



Plastic Packaging

The Packaging Directive sets ambitious recycling targets for plastic packaging i.e. 50% by 2025 and 55% by 2030. However, plastic recycling rates remain worryingly low at 29% (up marginally from 28% in 2019). The share of plastic packaging treated by energy recovery increased to 71% (up from 69% in 2019). Almost two-and-a-half times more plastic packaging waste was sent for energy recovery than was recycled in 2020. Significant increases in plastic packaging recycling will be needed over the coming years to meet the new targets.



Waste Electrical and Electronic Equipment (WEEE)

Ireland failed to achieve the new WEEE Directive collection target of 65% in 2020, achieving a WEEE collection rate of 60%.



Other New Targets and Obligations

As well as tightening existing targets, the 2018 EU Circular Economy Package introduces a range of other targets and reporting obligations, including for food waste, single use plastics and re-use of materials such as furniture, textiles, electronic goods and construction materials.

4



MUNICIPAL WASTE

3,210,220	Tonnes of municipal waste generated in 2020, up 4% from 2019.
41%	Was recycled, 43% was thermally treated and 16% was landfilled
12,000	Tonnes of municipal waste were prepared for reuse
Key Message	Municipal waste has grown by 16% in the last five years. The quantities of materials collected for recycling is keeping pace with this growth profile and Ireland is collecting more recyclable material each year. However, recycling rates have not grown since 2016 and we are failing to make in-roads towards the EU recycling target.
Key Actions	<p>Key interventions needed to improve our municipal recycling rate include:</p> <ul style="list-style-type: none"> > Mandatory incentivised charging for the collection of non-household municipal waste. > Rollout of brown bins to rural areas and businesses who are currently not on a collection service. <p>Targeted awareness and enforcement campaigns to improve the capture of food waste and recyclables from non-households and businesses.</p>

Municipal waste consists of household waste, commercial waste and other waste that is similar in nature to household waste such as waste from schools, restaurants, businesses etc. Municipal waste is one of the largest waste streams and a key area of policy focus.⁹

GENERATION

Ireland generated 3.2 million tonnes of municipal waste in 2020, up from 3.1 million in 2019. The proportion of municipal waste from households has increased by 4%, which is likely due to national Covid restrictions that required most people to stay at home for months during 2020. Households generated 57% of municipal waste and 43% came from other sources. The largest increase in municipal waste was seen in the collection of bulky waste, which increased by more than 60,000 tonnes. This is consistent with information from waste operators who reported an increase in household clear-outs during the covid restrictions of 2020.

Municipal waste generated in Ireland per person is now 645 kg and has grown, in line with Gross National Income, by 11% per-capita since 2016. It is now 128 kg above the EU 27 average of 517 kg per person (figure 6). Figure 5 below shows total municipal waste generated in Ireland from 2010 to 2020



⁹ The data presented are provisional data for 2020 and still subject to Eurostat validation. 2020 data represents a break in the data as the rules for the reporting of municipal waste have changed – always check the EPA Waste Statistics webpages for the latest data (www.epa.ie/nationalwastestatistics).

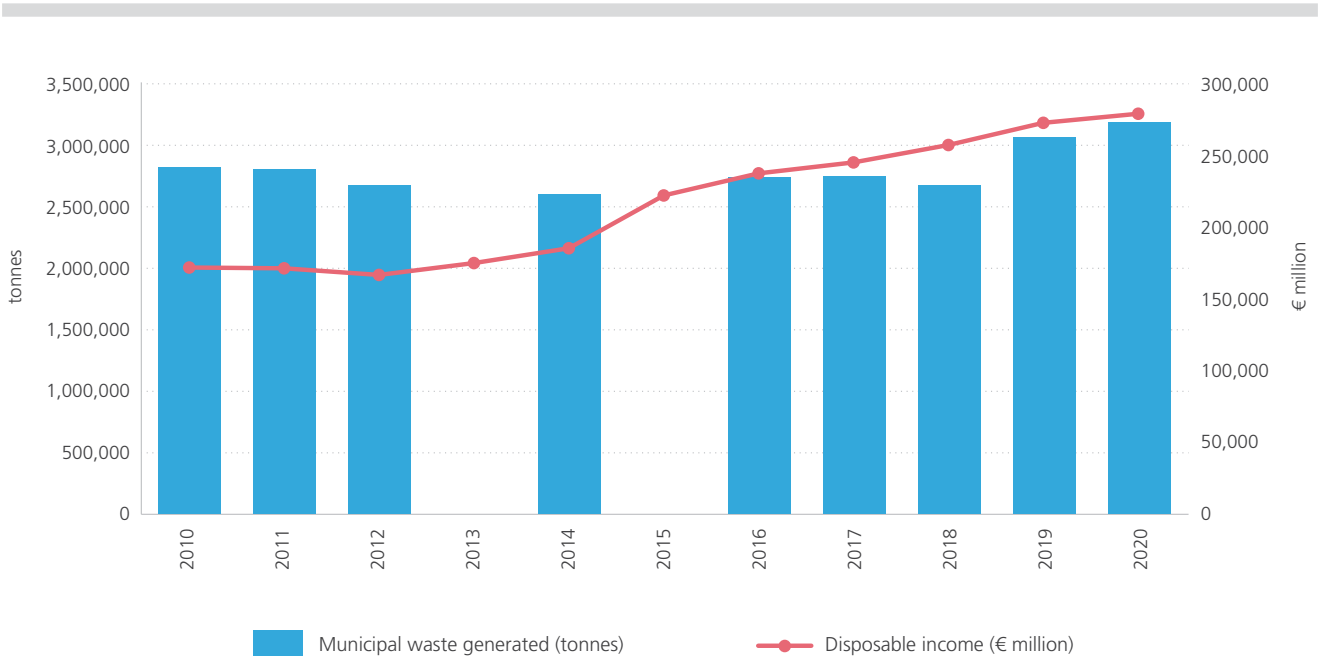


Figure 5: Tonnage of municipal waste generated and gross national disposable income, 2010 to 2020.

Average municipal waste generation in the EU increased from 496 kg per person in 2018 to 502 kg per person in 2019 to 517 kg per person in 2020 (EU-27 average). The large differences between countries in reported municipal waste generation (Figure 6) reflect variations in economic wealth and consumption patterns, but also differences in how countries collect, manage and report municipal waste. Harmonised methodologies have been introduced at EU level to address these differences and improve comparability.

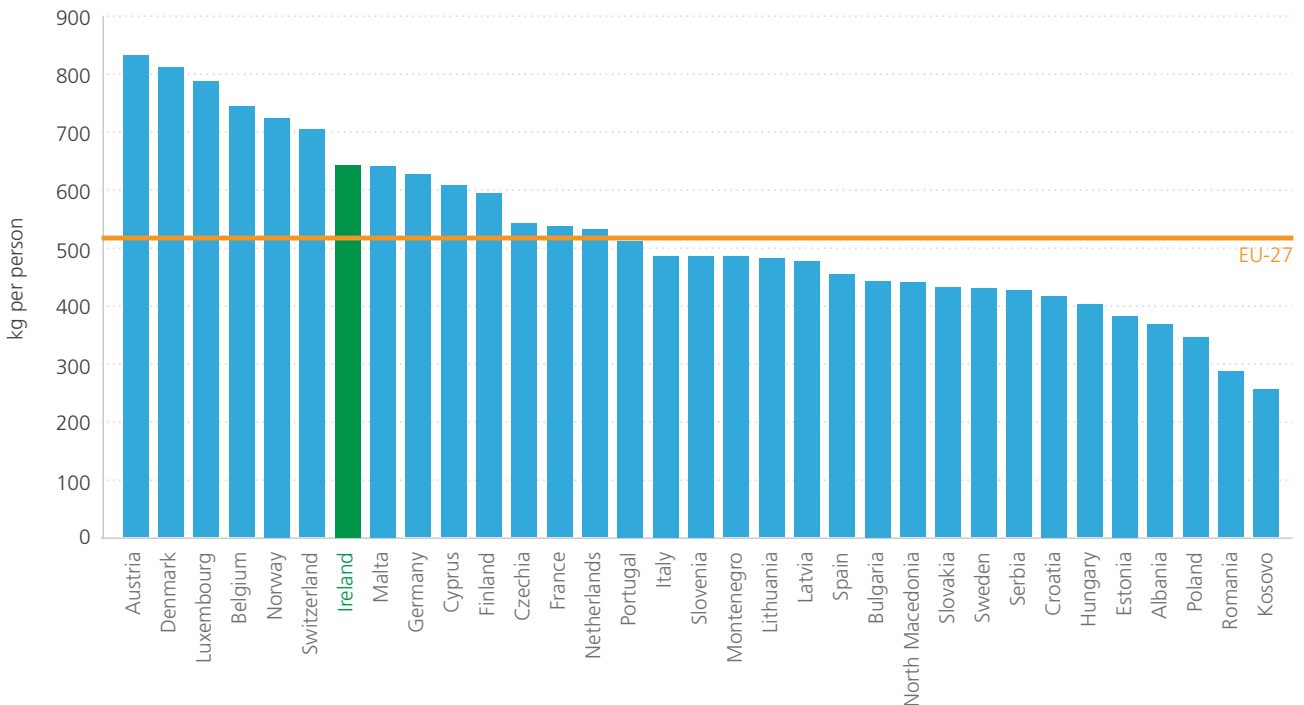


Figure 6: Municipal waste generated per person in various European countries in 2020.

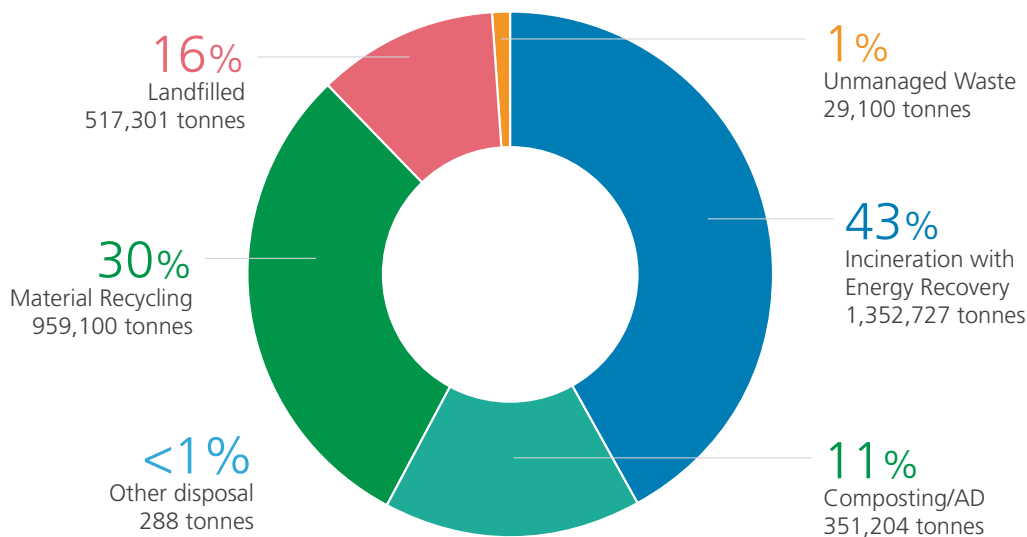


Figure 7: Treatment of municipal waste in 2020. Source: EPA..

Check www.epa.ie/nationalwastestatistics for latest data.

TREATMENT

Figure 7 shows how the 3.2 million tonnes of municipal waste generated in Ireland in 2020 was treated. Recycling accounted for 41%¹⁰, this includes material recycling (30%) and organic waste treated by composting and anaerobic digestion (11%¹¹).

Thermal treatment, which includes incineration and cement kilns¹² accounted for 43% of municipal waste treatment reduced from 46% in 2019 and 43% in 2018.

The landfill rate of 16% was virtually unchanged from 2019.

Figure 8 below illustrates the very significant changes that have occurred in the management of municipal waste in Ireland since 2001. There has been a dramatic fall-off in landfilling of municipal waste over the past two decades in Ireland.

The shift away from landfill was accompanied by increased levels of recycling in the early 2000s and more recently significant increases in the share of municipal waste sent for energy recovery.

Recycling by contrast had largely plateaued since 2010, following strong improvements in the early 2000s. Ireland's recycling rate for municipal waste was 41%. This puts Ireland's recycling rate well below the European average of 49% in 2020 and significantly behind the leading EU country, Germany, where 70% of municipal waste was recycled in 2020¹³.

An estimated 39% (1.3 million tonnes) of all municipal waste generated was exported abroad in 2020, down from 40% in 2019. Of the waste exported, most went for recycling (57 per cent) or energy recovery (33 per cent) while 8 per cent went for composting or anaerobic digestion (these rates are similar to those reported in 2019).

¹⁰ The recycling rate of 41% was calculated using new municipal reporting rules and roughly corresponds to 39% when adjusted to the rules that were in place for 2019 and suggests a moderate improvement on the 37% of municipal waste Ireland recycled in 2019.

¹¹ Includes home composting.

¹² Thermal treatment in Ireland takes place at two municipal incineration with energy recovery facilities and three cement kilns.

¹³ ec.europa.eu/eurostat/databrowser/view/cei_wm011/default/table?lang=en

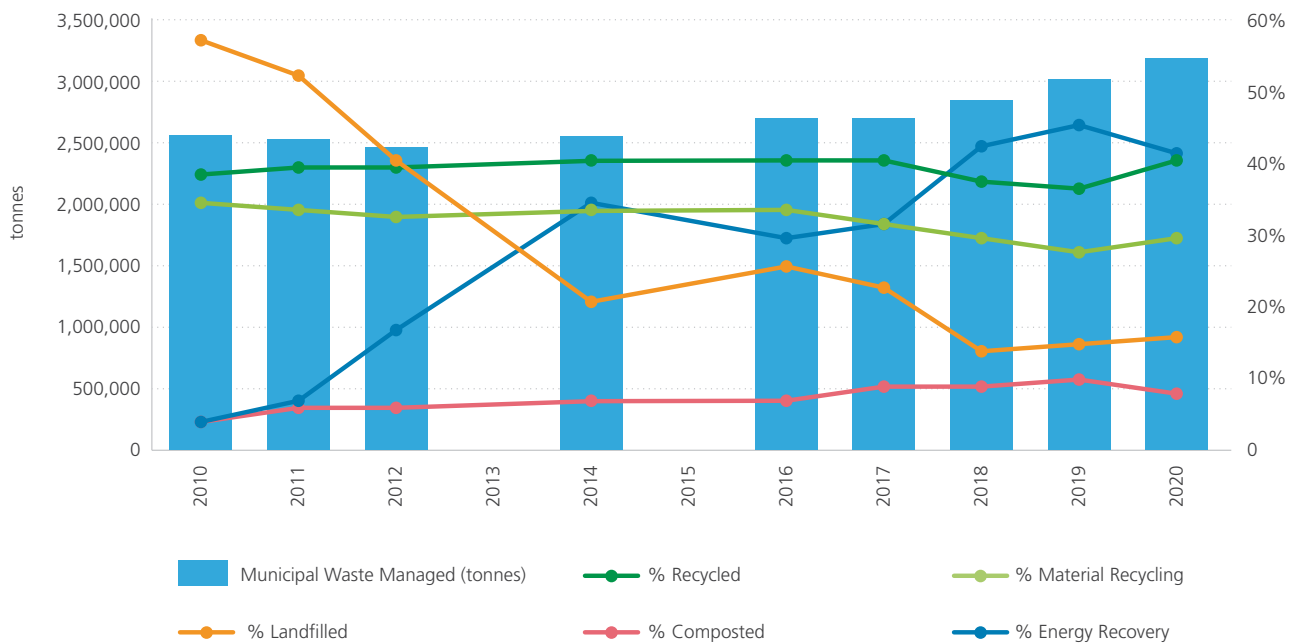


Figure 8: Changes in municipal waste management from 2010 to 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

Of the municipal waste diverted from landfill in recent years, the majority went to energy recovery (Figure 8). The share of municipal waste sent for energy recovery increased from 0% in 2007 to 46% in 2019 and dropped to 43% in 2020. Ireland's first municipal waste incinerator with energy recovery came into operation in 2011 and the second during 2017. In addition, three cement kilns are now licensed to co-fire municipal waste as an alternative to fossil fuels.

Disposal to landfill has fallen sharply in Ireland over the past decade; a welcome development since this is the least desirable option in the waste management hierarchy. There was almost no change in the municipal waste landfill rate in 2020, some 16% of municipal waste was landfilled, down from 58% in 2010 and over 80% in 2001.

MUNICIPAL BIOWASTE

The bulk of biodegradable municipal waste consists of food waste and garden/park waste. Two key pieces of EU legislation deal with biodegradable municipal waste:

- > the Landfill Directive, which requires the diversion of biodegradable municipal waste from landfill, and
- > the Waste Framework Directive, which requires measures to encourage the separate collection and recovery of food waste and garden park waste (biowaste).

The Landfill Directive sets a limit on the quantity of biodegradable municipal waste going to landfill. By 2020, Ireland must reduce biodegradable municipal waste going to landfill to 35% of and the total quantity (by weight) of biodegradable municipal waste produced in 1995. Ireland has been in compliance with this target for some time (Figure 9).

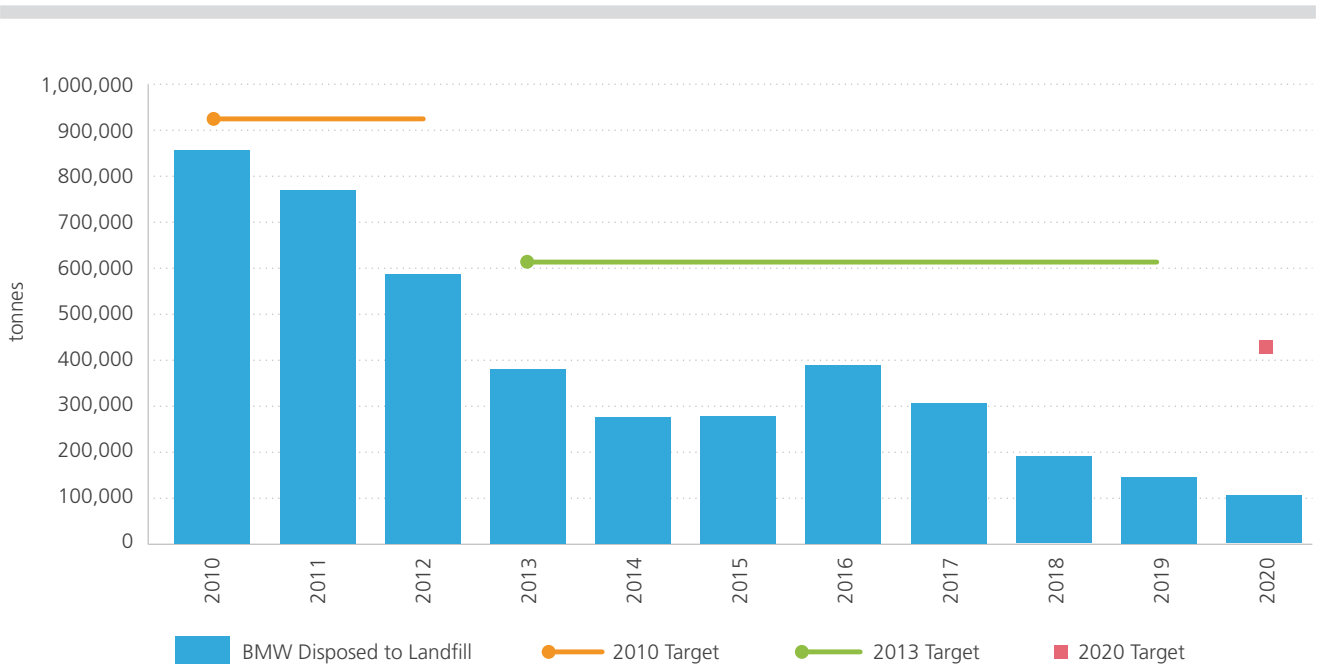


Figure 9: Quantity of Biodegradable Municipal Waste disposed to landfill, compared with Landfill Directive limits. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

FUTURE FOCUS

Future Waste Framework Directive targets for 2025 onwards, shown in Figure 10 will use the new calculation methodology, which put Ireland’s municipal recycling rate at 41% in 2020, with five years to meet a recycling target of 55%. The 2020 data highlight the urgent need for implementing policy measures to:

- > Prevent municipal waste growth and break the link between linear economic growth and waste generation and shift to a circular economic model.
- > Implement an effective waste charging system for non-households.
- > Increase the capture of food waste from households and business.

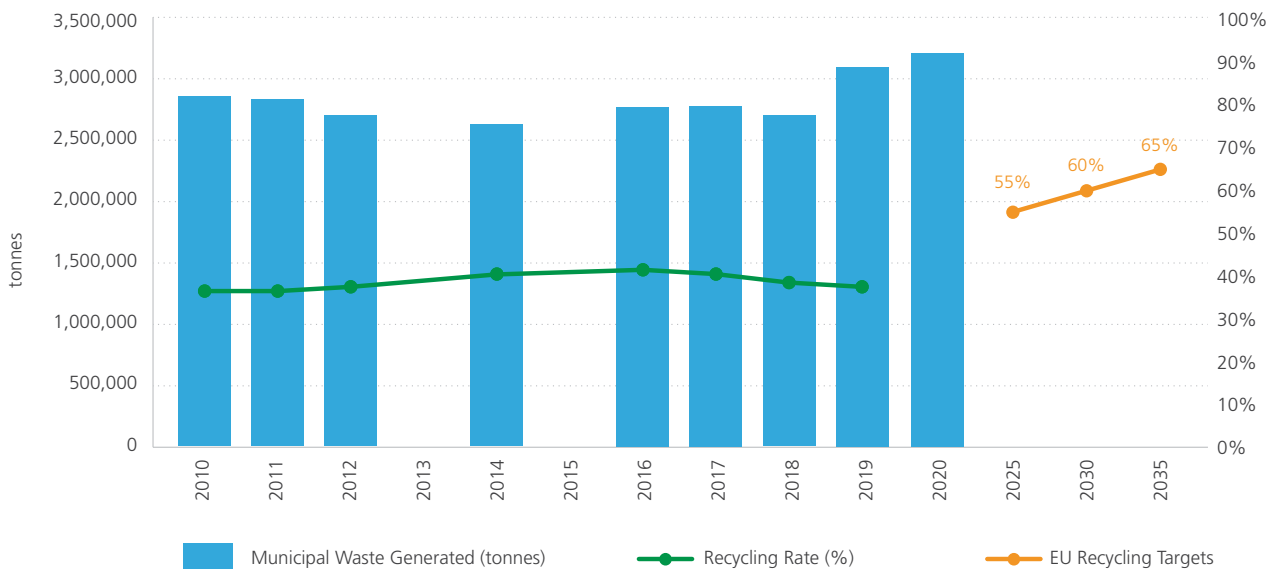


Figure 10: Trend in the generation and recycling of municipal waste 2010-2020 and future EU targets for 2020 to 2035. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

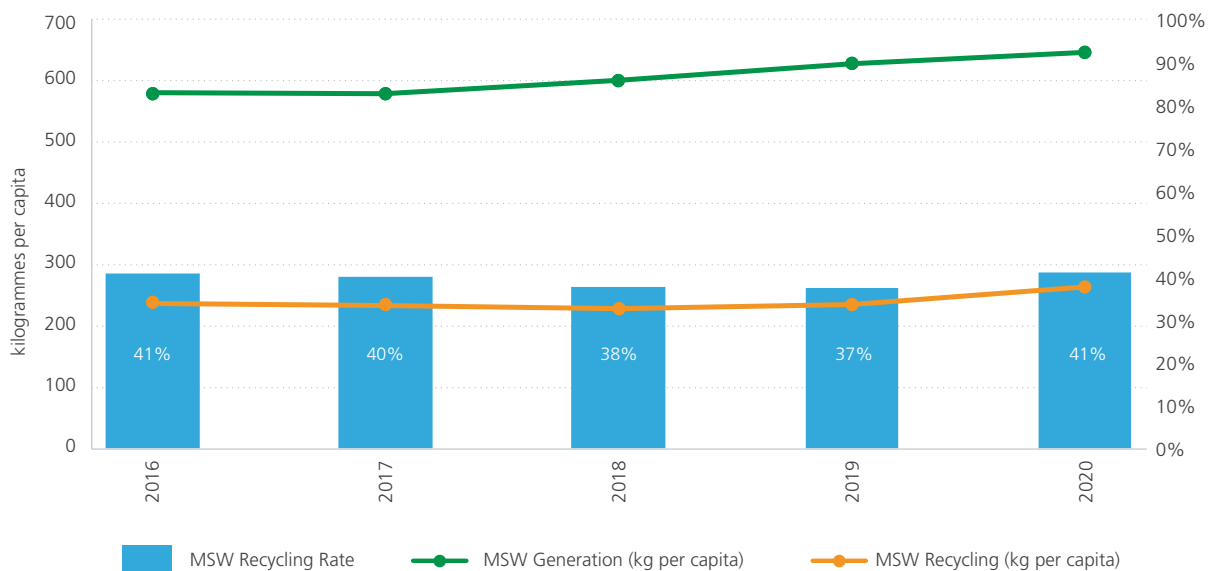
The most recent data shows the municipal waste generation trend (in quantity terms) is going in the wrong direction and increasing steadily. Over the last 5 years of reporting, municipal waste generation has grown by over 440,000 tonnes, a 16% increase on the quantity reported in 2016. The generation per capita data (shown in Table 2 and accompanying graph below) takes account of population growth over the same period and shows a growth profile of 11%. Population growth over the same period is

estimated to be 5% highlighting that the linear economic model has been the primary driver of waste growth.

The quantity of material being recycled over the period has kept pace with the increases in generation. So, although more materials are being collected for recycling, the overall rate of recycling is not increasing. The gap to the 2025 target is considerable and will not be achieved without targeted interventions.

Table 2: Municipal waste generation per capita 2016 to 2020

Year	Generation	+/-	Recycling	+/-	Population	+/-	Per capita generation	+/-	Per capita recycling	+/-
2016	2,763,167		1,125,124		4,761,865		580		236	
2017	2,768,043		1,118,196		4,792,500		578		233	
2018	2,912,353		1,096,776		4,857,000		600		228	
2019	3,085,652	↓	1,152,553	↓	4,921,500	↓	627	↓	234	↓
2020	3,210,220	16%	1,310,304	16%	4,977,400	5%	645	11%	263	11%



5



HOUSEHOLD WASTE

1.89m	Tonnes of household waste generated in 2020
65%	Of household waste was collected at kerbside
64%	Of households with a bin service had a brown bin
Key Message	Household waste generation has increased by 27% since 2016 with an 18% jump in tonnages recorded in 2020, primarily due to the national Covid-19 restrictions requiring householders to remain at home. Since 2016 the quantities of kerbside residual waste (black bin) collected have remained over 60% as a proportion of the total kerbside waste. Tonnages collected through the organic (brown) bin have grown but recycling (green) bin tonnages have been relatively stable. Continued efforts are needed to accelerate the segregation of appropriate materials to the recycling bins.
Key Actions	<p>Key actions needed to improve our prevention and management of household waste include:</p> <ul style="list-style-type: none"> > A review of the effectiveness of the household waste charging system to incentivise waste reduction and recycling. > Rollout of brown bins to all rural areas with no population exemptions. <p>Targeted awareness and enforcement campaigns to lower contamination rates in the recycling bin and improve the capture and collection of food waste from households</p>

Household waste includes residual (black bin) waste, recyclable waste and organic waste collected directly from households and waste brought by householders to waste collection centres such as bring banks, civic amenity sites, and pay-to-use compactors.

GENERATION

A total of 1.89 million tonnes of household waste was generated in Ireland in 2020; 1.85 million tonnes of household waste was managed and an estimated 31,700t was unmanaged.

The amount of managed household waste has grown from 1.57million tonnes to 1.85 million tonnes in 2020 an increase of 18% (Figure 11). The quantity of household waste generated in Ireland has increased from 325 kilogrammes per person in 2018 to 379 kilogrammes per person in 2020

The large increase in household waste generated in 2020 is linked to a change in householders' behaviours caused by the Covid-19 pandemic. Public health guidelines required most of the population to remain at home for several months in 2020 which led to an increase in household waste generation. The largest percentage increases in household waste compared to 2019 were bulky waste collections via skips (35% increase) and glass bottles brought to bring banks (36% increase).

As Figure 11 shows, the general trend in household waste correlates closely with CSO data on personal consumption of goods and services, both of which have shown a predominantly upward trend since 2012. These data indicate that waste generation in Ireland continues to be closely linked with consumption patterns. However, it is notable that, personal consumption of goods and services fell significantly in 2020 as the pandemic

changed the spending habits of Irish consumers due to widespread closure of many commercial and economic sectors, while household waste generation increased significantly, as more people stayed at home.

The estimated 31,700 t of unmanaged household waste is an estimate of waste that is not collected by kerbside collections or brought to waste collection centres and is therefore likely to cause pollution in the environment because it may be fly tipped or disposed of through backyard burning.

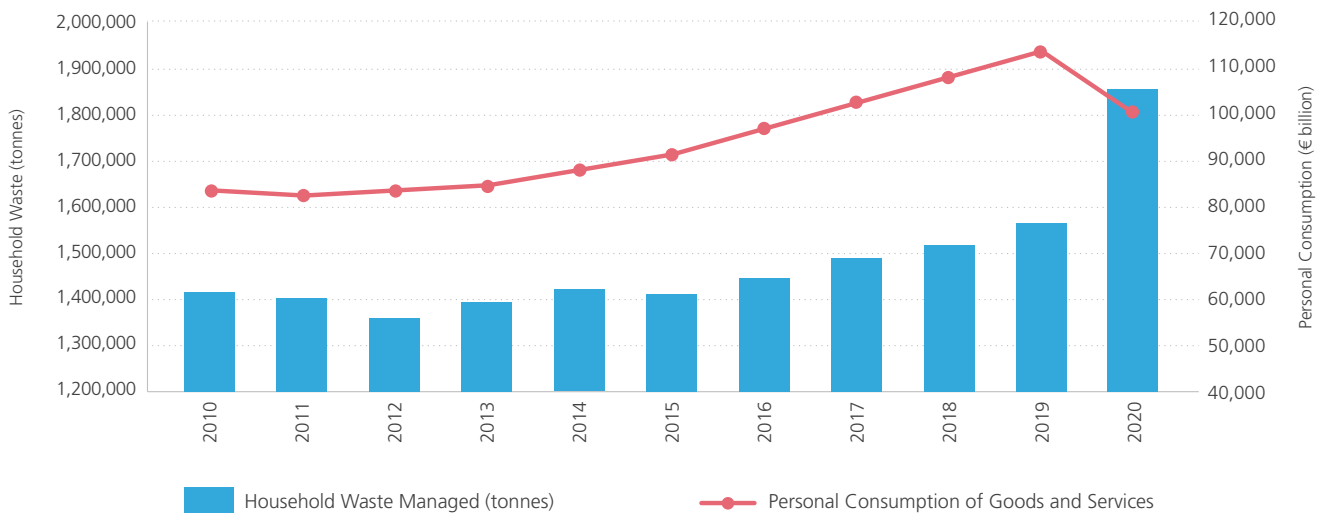


Figure 11: Trend in household waste from 2010 to 2020 compared with CSO data on personal consumption of goods and services. Source: EPA and CSO. Check www.epa.ie/nationalwastestatistics for latest data.

COLLECTION

As shown in Figure 12, the majority (65%) of household waste managed in Ireland in 2020 was collected at kerbside (1,199,111 tonnes), down from 66% in 2019 (1,044,973 tonnes). Increases were seen in the share of bulky household waste collected via skips (up from 11% in 2019 to 13% in 2020) and waste collected

Over a third (39%) of all household waste managed in 2020 was collected in the residual waste (black) bin, amounting to 722,911 tonnes. This represents a 14% increase from the 635,000 tonnes of residual waste collected in 2019. Residual waste in Ireland is generally incinerated for energy recovery. The EPA estimates that the amount of residual waste could be reduced by approximately 50% with proper segregation of recyclable and organic waste.



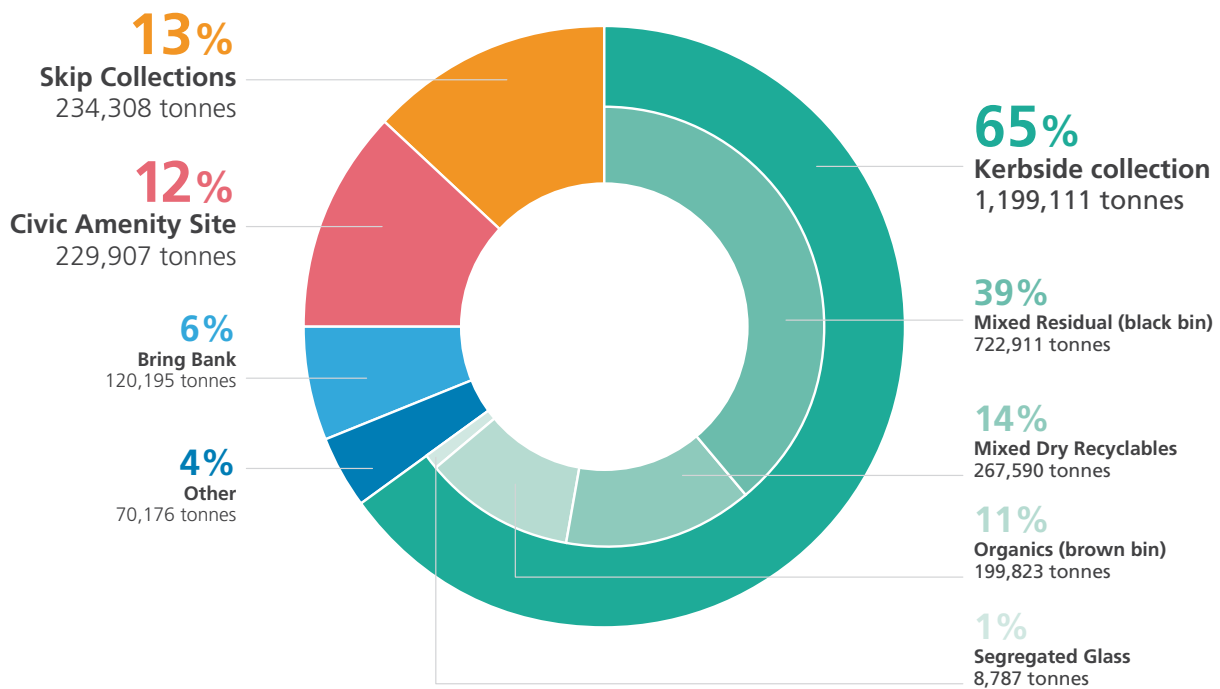


Figure 12: Collection of household waste in Ireland in 2020.
Check www.epa.ie/nationalwastestatistics for latest data.

Almost 267,600 or 14% of household waste was collected in the recycling bin in 2020 (an increase of 10% on the 244,000 tonnes collected in 2019). The EPA's most recent waste characterisation¹⁴ study found that about a third of the waste placed in household recycling bins is not recyclable and belongs in the residual waste or organic bin.

When properly separately collected organic waste (food and garden waste) is composted or digested to make biogas. The continued rollout of the brown bin to households is the essential first step to increasing our composting rate of organic waste.

Organic waste collected in the brown bins accounted for 11% of all household waste managed in 2020 (159,400 tonnes), up from 10% in 2019 (159,000 tonnes). The number of households with brown bins increased by approximately 64,000 in 2020 to 882,249. Despite this increase, there was not a proportionate increase in the tonnes of organic waste collected.

Figure 13 shows there is a wide range in the capture of organic waste according to Local Authority data. The average weight recorded nationally is 35kg per capita with weights ranging from as low as 4kg per capita in some local authorities to as high as 92 kg per capita in one local authority. The inconsistencies in the capturing of organic wastes highlights the need to focus on the use of brown bins and capture higher quantities of organic waste. Actions including targeted awareness campaigns, enforcement activities and optimised charging are needed if EU and national targets are to be met. New EU waste legislation means that the separate collection of biowaste will be mandatory from end of 2023.

¹⁴ Waste characterisation reports are available at: www.epa.ie/pubs/reports/waste/wastecharacterisation/

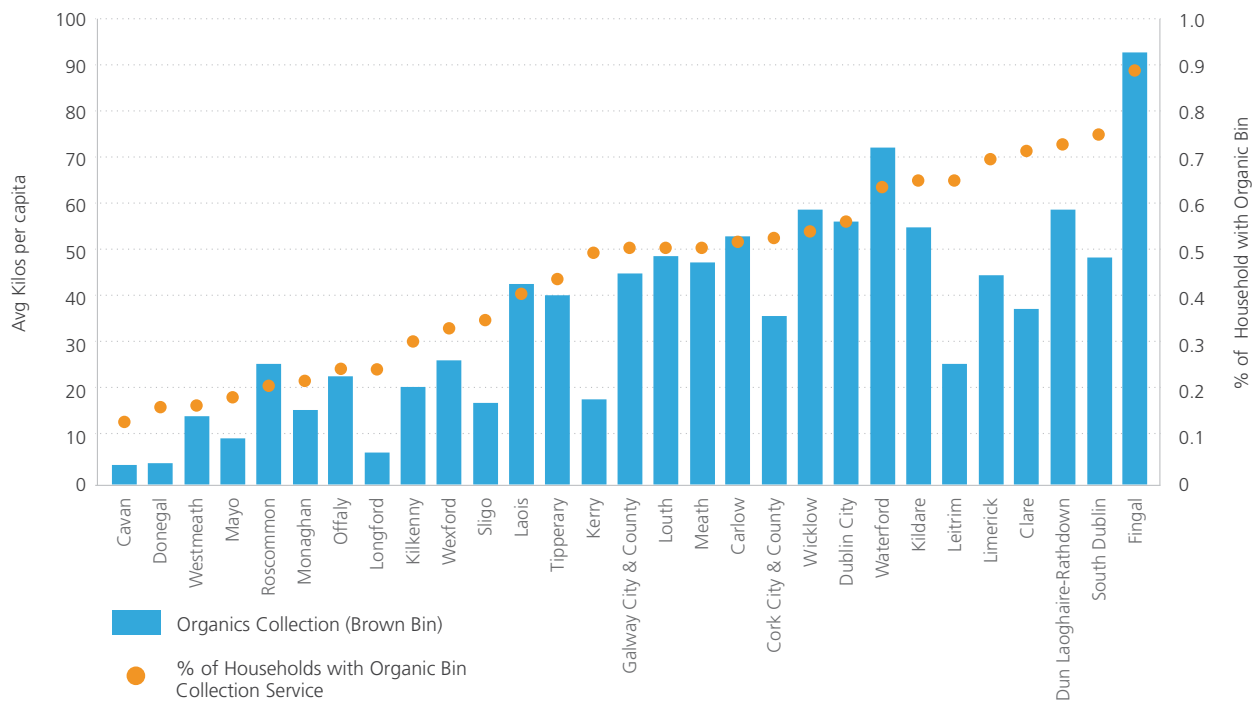


Figure 13: Organic bin waste kg per capita and per local authority 2020.

Figure 14 below shows clear regional differences in the quantity of household waste collected per person by bin type. These variations can be attributed to differences in the types of waste collection services and infrastructure provided (for example, prevalence of 2-bin or 3-bin systems in rural vs. urban areas), large variations between counties in the share of the population using authorised waste collectors, and behavioural factors such as bin sharing.

More needs to be done to support Irish householders to use bins and waste collection centres correctly, to expand waste collection and recycling infrastructure and to prevent and minimise waste all along the supply chain. Early implementation of the policy commitments in Ireland’s Waste Action Plan for a Circular Economy will be instrumental in driving this change.

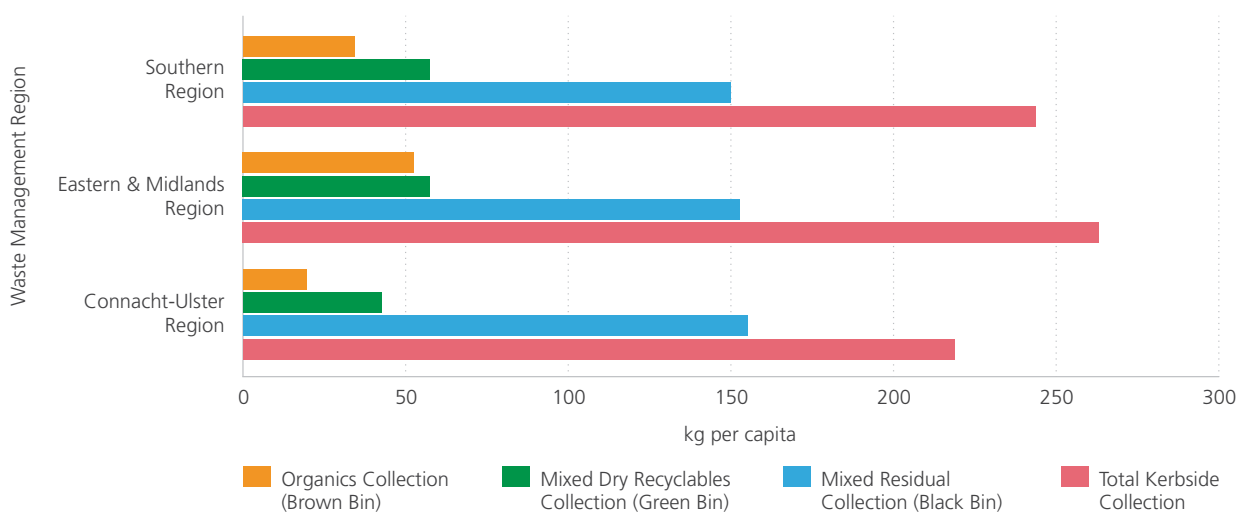


Figure 14: Regional variations in the quantity of household waste collected per person, by bin type, in 2020. Check www.epa.ie/nationalwastestatistics for latest data.

6



FOOD WASTE

770,300	Tonnes of food waste was generated in Ireland in 2020
50%	Is the reduction target by 2030
€700	Is the amount of food waste the average Irish household wastes per year, about €60 per month.
Key Message	2020 is the first year that Ireland has official food waste statistics along the food supply chain. The Irish Government has committed to reduce food waste by 50% by 2030, a significant challenge requiring a reduction of over 380,000 tonnes of waste.
Key Actions	The introduction of the new National Food Waste Prevention Roadmap and implementation of activities under the Stop Food Waste Campaign, implementation of the revised Food Charter and application of the Food Waste Measurement Protocol for manufacturers.

Food waste is a global problem that has environmental, social and economic consequences. More than one quarter of food produced is wasted globally. It is a significant contributor to climate change, as food loss and waste contribute to 8-10% of greenhouse gas emissions¹⁵.

The urgency and challenge of addressing food waste is highlighted by international, EU and Irish commitments to reduce food waste. The Irish Government has committed to reduce food waste by 50% by 2030 in the Ireland's Climate Action Plan and Waste Action Plan for a Circular Economy (CE Waste Action Plan), in line with UN Sustainable Development Goals (12.3) and EU targets.

The EPA's Food Waste Prevention Programme is implemented through the Agency's **Circular Economy Programme**. It aims to raise awareness of food waste and target behavioural change through a number of activities including: **Stop Food Waste, Food Waste Charter** and soon to be published Food Waste Measurement Protocol and Food Service Pathway.

EU Member States (MS) are obliged from 2022 to annually report the amount of food waste generated at the different stages of the food supply chain (see Figure 15). The aim of annual reporting is to enable MS to monitor food waste using a common methodology and assess food waste prevention measures.



Figure 15: Food Supply Chain. Source: EPA.

¹⁵ During 2010-2016, global food loss and waste contributed 8-10% of total anthropogenic GHG emissions (medium confidence).” Source: (Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, (2019)) <https://www.ipcc.ch/srcccl/>

GENERATION

The EPA estimate that Ireland generated 770,300 tonnes of food waste in 2020 (Figure 16). The tonnage of food waste generated in Ireland in 2020 is lower than previous estimates (1.1 tonnes in 2019) due to differences in the food waste measurement methodologies. The 2019 methodology included wastes which are excluded under the new EU FW measurement methodology.

Households were the biggest producers of food waste, accounting for 31% of the total in 2020 (241,000 tonnes). This is equal about 130 kg of food waste per household or 48 kg per person. Food waste costs the average Irish household about €60 per month or €700 per year.

The food and beverage manufacturing and processing sector was the second biggest producer of food waste, accounting for an estimated 29% of all food waste produced in Ireland in 2020 (219,500 tonnes).

Restaurants and food services generated approximately 178,500 tonnes of food waste (23% of total) in 2020. The **Reducing Commercial Food Waste in Ireland** report published in 2019, found that over 66% of food waste from the food services sector is avoidable (i.e. edible food).

An estimated 70,400 tonnes of food waste (9% of total) was generated at the primary production stage in Ireland in 2020. Of this, horticulture accounted for the largest share. The main cause of food waste at the primary production stage is that products are not saleable due to outside quality specifications or lack of customer demand.

The retail and distribution sector accounted for approximately 60,900 tonnes of food waste (8% of total) in 2020.

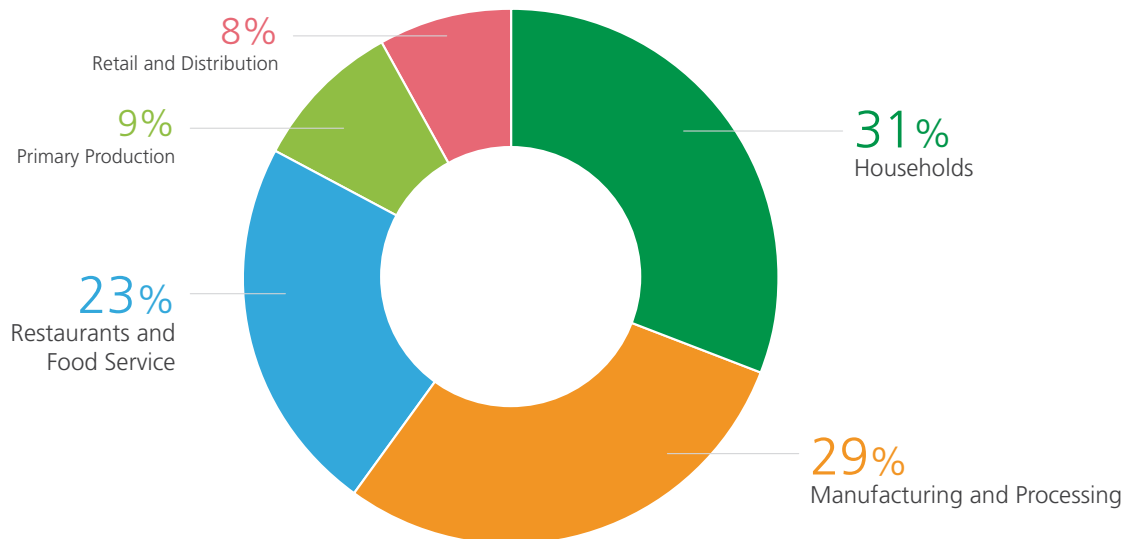


Figure 16: Estimated food waste generated in Ireland in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

FOOD WASTE PREVENTION AND TREATMENT

In line with the food waste hierarchy (Figure 17 below), prevention is the best way to address food waste. A National Food Waste Prevention Roadmap was published by the Irish Government in 2022, with details of actions to halve Ireland's food waste by 2030.

Robust and consistent measurement of food waste is the first step in food waste prevention, as it provides quality data to monitor food waste generation, support food waste prevention initiatives and report on progress to reduction targets.

After prevention, redistribution of surplus food is the next preferred option in the Food Waste Hierarchy and is an important way to avoid food becoming waste and to support charities who help feed people living in food poverty.

Even if all 'avoidable' food waste was eliminated entirely, there will still be a need to manage 'unavoidable' food waste such as peel, bones and animal tissue. Therefore, it is important to ensure any food waste that arises is segregated and separately collected so that it can be treated by composting or anaerobic digestion (Figure 17), rather than being mixed general waste and disposed to landfill or incinerated with energy recovery.

Ireland's implementation of the Food Waste Regulations since 2010 and the associated roll out of brown bins to commercial and household premises, along with accompanying awareness raising activities to promote better segregation, have contributed to an upward trend in the quantity of food waste being separately collected and treated by composting/anaerobic digestion. However, there is still room for improvement as a large proportion of Ireland's food waste continues to be disposed of in mixed waste bins. New EU waste legislation means that the separate collection of biowaste will be mandatory from end of 2023.

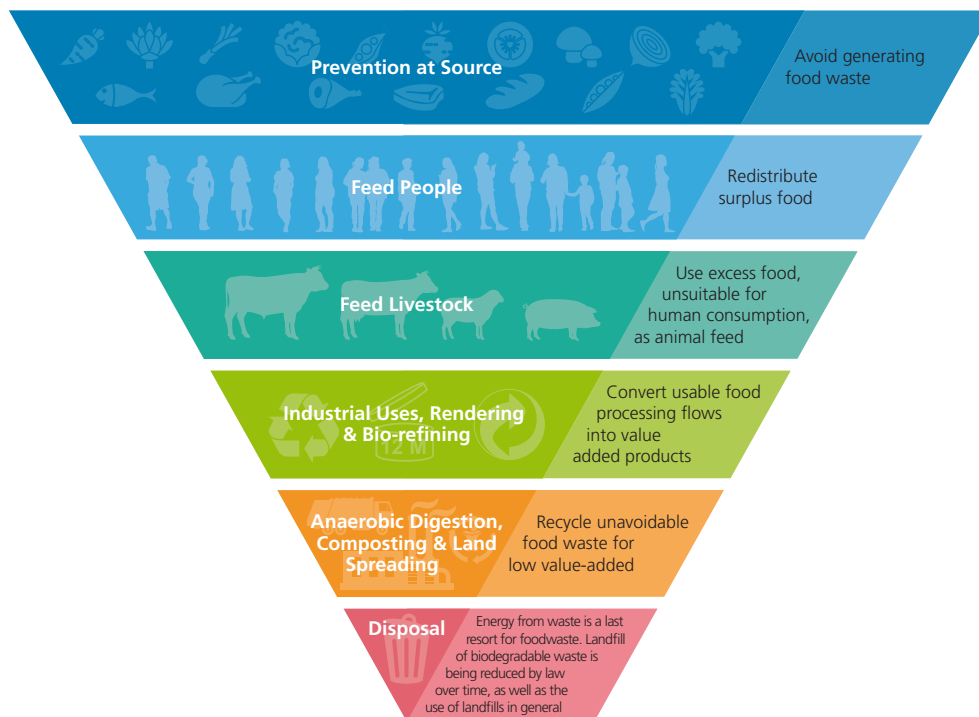


Figure 17: Food Waste Hierarchy. Source: EPA.

7



1.1M	Tonnes of packaging waste generated in 2020
62%	Of all packaging waste was recycled
71%	Of plastic packaging waste was thermally treated, 29% was recycled
Key Message	For the fourth year in a row the total packaging waste generated in Ireland exceeded 1m tonnes. The overall packaging recycling rate is 62% with a target of 65% to be met by 2025. The current recycling rate for plastics is 29% and achieving the target of 50% by 2025 at risk.
Key Actions	Urgent action is needed to reduce packaging waste generation such as: incentivising prevention and reuse measures through provision of subsidies, financial and regulatory measures to improve segregation and performance targets on waste operators.

GENERATION

Ireland generated 1,118,596 tonnes of packaging waste in 2020, a decrease of less than 1% on 2019 and the fourth year in a row when the quantity of packaging waste exceeded 1 million tonnes. The general trend in packaging waste generation in Ireland correlates with economic indicators such as Gross National Income GNI, as evident in Figure 18, both of which showed an upward trend between 2013 and 2019 before dipping in 2020 due to the Covid-19 pandemic. The data highlight that Ireland has not yet decoupled economic activity from packaging waste generation and the consumption of finite resources.

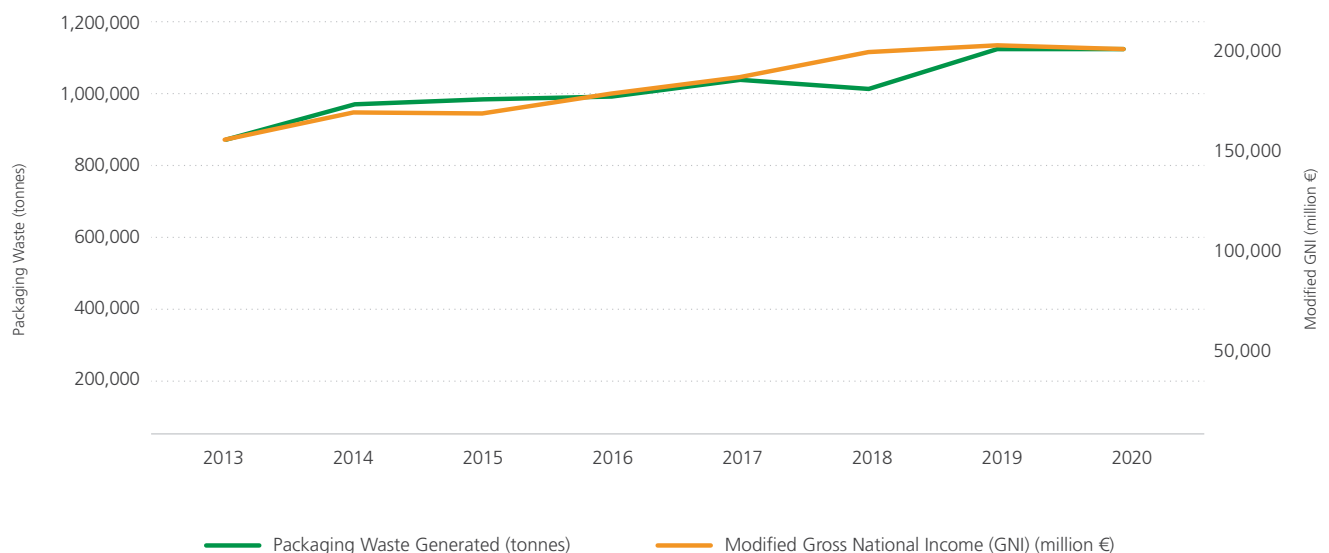


Figure 18: Trend in packaging waste generation in Ireland compared with GNI. Source: EPA and CSO. Check www.epa.ie/nationalwastestatistics for latest data.

The majority of packaging waste in 2020 consisted of paper and cardboard (40%) and plastic (27%), with smaller amounts of glass, wood and metal and textiles (Figure 19).

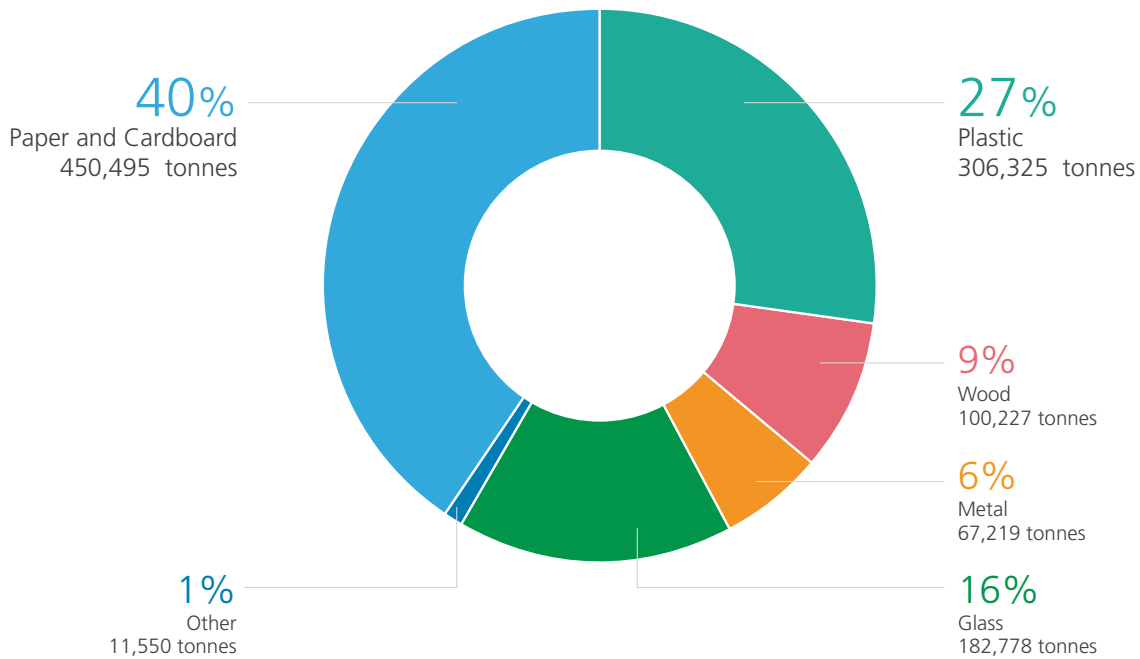


Figure 19: Breakdown of packaging waste generated in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

TREATMENT

In 2020, Ireland recycled 62% of all packaging waste generated (some 0.69 million tonnes). Ireland has been in compliance with packaging recycling and recovery targets since their introduction in 2011, as shown in Figure 20. However, it is evident that packaging recycling rates have been declining since 2012.



Figure 20: Trend in recovery and recycling of packaging waste, 2009 to 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

Under the revised Packaging Directive, the recycling target for packaging waste increases to 65% by 2025 and to 70% by 2030 (Figure 20) and there are also ambitious new targets for individual packaging streams, as shown in Figure 21. In particular, the new recycling targets for plastic packaging (50% by 2025 and 55% by 2030) will present a significant challenge for Ireland, considering only 29% of plastic packaging was recycled in Ireland in 2020.

In addition to the 690,000 tonnes of packaging waste that was recycled in 2020, 350,000 tonnes of packaging waste was sent for energy recovery at either municipal waste incinerators or cement kilns that co-incinerate packaging material to generate energy. The share of plastic packaging waste sent for thermal treatment increased from 69% in 2019 to 71% in 2020. In 2020, two times more plastic packaging waste was sent for thermal treatment than was recycled (217,000 tonnes versus 89,000 tonnes).



Figure 21: Recycling of packaging waste in 2020, relative to current and future recycling targets. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

Of the 1.1 million tonnes of packaging waste generated in Ireland in 2020, 50% was exported for treatment this includes 44% for recycling. Just 18% of packaging waste was recycled in Ireland (Figure 22). Glass and wood packaging accounted for most of the packaging waste that was recycled in Ireland while almost all of Ireland's paper/cardboard and plastic packaging that was recycled in 2020 was exported. This increases the emissions associated with the recycling of Ireland's packaging waste and misses an opportunity to capture the resource potential of materials in Ireland and the associated opportunities for a circular economy.

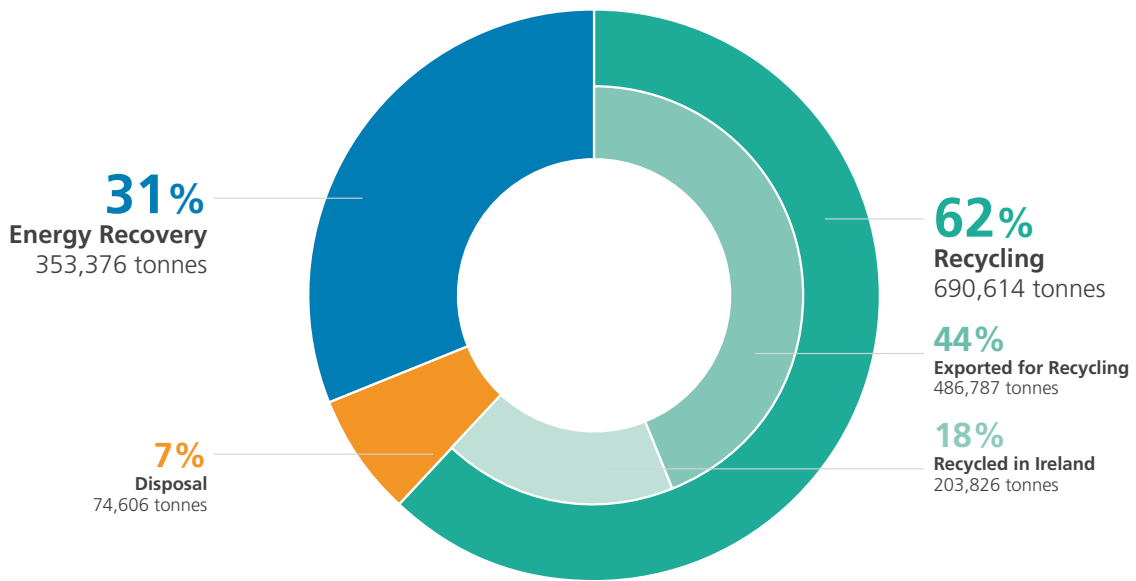


Figure 22: Recycling of packaging waste in Ireland and abroad, 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

View the EPA’s Infographic on Packaging Waste in Ireland in 2020: <https://www.epa.ie/our-services/monitoring--assessment/waste/national-waste-statistics/packaging/>

FUTURE FOCUS

It is clear from the EPA data that measures to improve packaging recycling need to be combined with measures at policy and industry level to halt the rise in packaging waste and ensure businesses place less packaging on the market. Addressing this challenge holistically requires rethinking how we make, transport and use products right along the supply chain, moving to a system where unnecessary packaging is avoided and any remaining packaging placed on the market is designed either for re-use or recycling.

The impact of the inclusion of soft plastics in household recycling bins is not seen in 2020 figures and along with other measures such as eco-modulation and improved subsidies for prevention and reuse will help to improve Ireland’s packaging recycling rates and close the gap to new EU targets.

Preventing packaging waste will have positive knock-on effects on the achievement of Household waste and Municipal Waste reductions.



8



HAZARDOUS WASTE

557,221	Tonnes of hazardous waste generated in Ireland in 2020,
65%	Came from industrial sources, 32% from construction and demolition. 3% from municipal sources
20%	Health care risk waste increased by almost 2,500 tonnes (20%), likely due to the Covid-19 pandemic.
Key Message	National capacity to treat hazardous soils has increased reducing the export of hazardous waste from 65% on the total generated in 2019 to 55% in 2020.
Action	The lack of national capacity dedicated to the treatment of hazardous waste remains to be addressed. A study on the national treatment infrastructure for hazardous waste as called for by the National Hazardous Waste Plan needs to be completed.

GENERATION

Hazardous waste was generated in Ireland (Figure 23) decreased from almost 581,000 tonnes in 2019 to just over 557,000 tonnes in 2020. This is a decrease of 4% and the first decrease since 2015. The reduction in hazardous waste generation was driven by the EPA’s approval of reclassification following testing of incinerator bottom ash, which was then changed from hazardous to non-hazardous waste. This caused a reduction of over 67,000 tonnes.

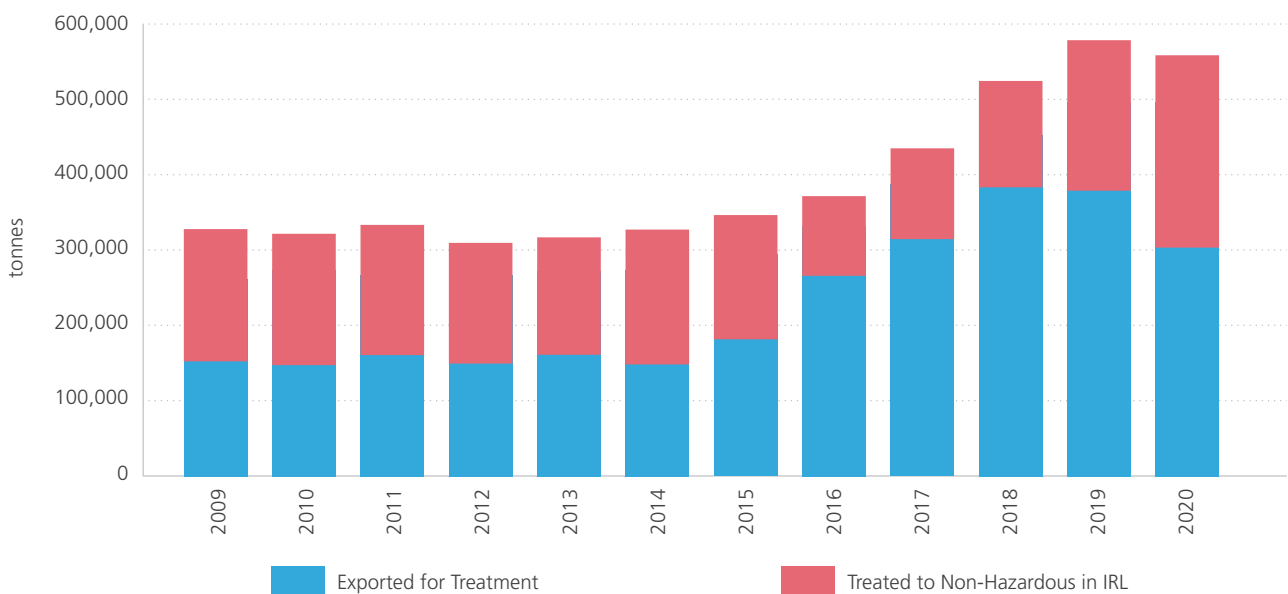


Figure 23: Hazardous Waste Generation in Ireland.

Hazardous waste is produced from a wide variety of sources and covers many waste types. Of the hazardous waste generated in Ireland in 2020, approximately 65% came from industry, 32% from the construction sector and 3% from municipal sources, such as households, small businesses, educational facilities etc.

- > Figure 24 illustrates the main types of hazardous waste generated in Ireland in 2020. The top four categories that made up 53% of hazardous waste generated were:
 - > Dredging Spoil – from licenced dredging activity at Dublin Port Co. accounted for 90,000 tonnes
 - > Incinerator bottom ash (IBA) and other wastes from waste treatment accounted for 84,000 tonnes
 - > Contaminated Soil from the development of old industrial facilities and brownfield sites accounted for 78,000 tonnes
 - > Solvents accounted for 41,000 tonnes

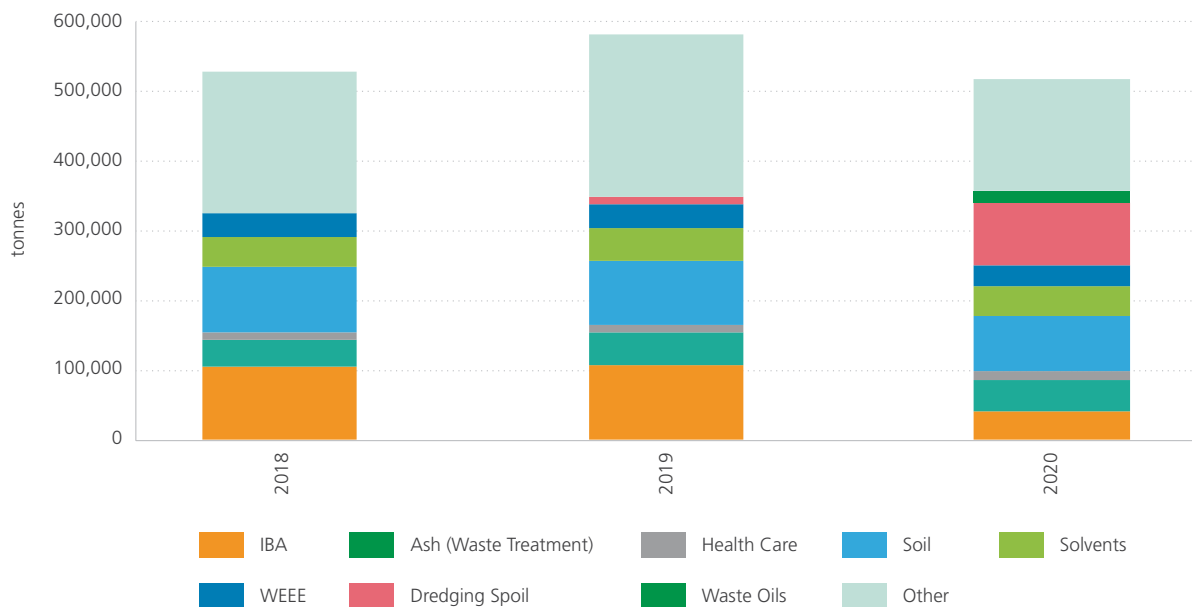


Figure 24: Types of hazardous waste generated in Ireland in 2018 to 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

WASTE OILS

Article 37 of the revised Waste Framework Directive introduced new mandatory reporting on oils and waste oils, for reference year 2020. Waste oils were previously reported as part of ‘other’ hazardous waste reporting under the Basel Convention. The new reporting provides a structured distinct list of oil types to be reported and harmonises reporting for in-scope oils for all Member States.

The categories of waste oils that come within the scope of the new reporting include any mineral or synthetic lubrication or industrial oils¹⁶ which have become unfit for the use for which they were originally intended. Examples include used combustion engine oils and gearbox oils, lubricating oils, oils for turbines and hydraulic oils. A total of 17,645 tonnes of waste oil arose in Ireland (Figure 24).

¹⁶ Edible and food oils are not included

TREATMENT

The majority (55%) of Ireland’s hazardous waste was exported for treatment in 2020 (Figure 25, this compares to 65% exported in 2019). The improvement in treatment in Ireland is due to the increased treatment of soil and dredging spoil on site (Figure 24). Exports for treatment were to Norway, Great Britain, Netherlands, Belgium, Northern Ireland, and Germany. Striving for more self-sufficiency nationally in the management of Ireland’s hazardous waste is a key action of the National Hazardous Waste Management Plan.

In 2021, the EPA published a fourth National Hazardous Waste Management Plan for the years 2021-2027.

Under the National Waste Prevention Programme, the EPA promotes the use of cleaner technologies and the prevention of waste, including hazardous waste.

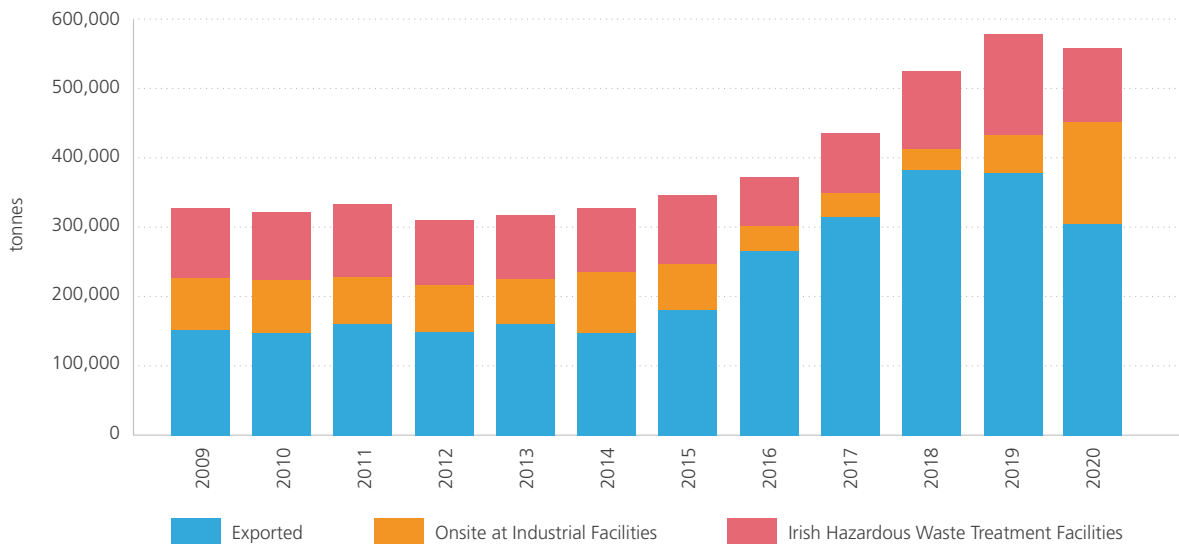


Figure 25: Generation and location of treatment of hazardous waste in Ireland, 2009 to 2020. Source: EPA.



9



WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

65k	Tonnes of WEEE collected for treatment in 2020
60%	Ireland's WEEE collection rate in 2020, which failed to meet the new EU target of 65%
56%	Consisted of 'large equipment' such as cookers, washing machines etc
Key Message	Ireland's collection of WEEE continues to increase with over 64,800 tonnes collected in 2020 the highest ever recorded. The rate of collection of WEEE is 60% in 2020 missing the collection target of 65%. Recycling discarded electrical items is good for the environment and human health, it also makes economic sense. Many devices contain precious metals and valuable components such as glass and plastic. Improving the collection and, treatment of WEEE can increase resource efficiency, through reuse and recycling, and support transition to the circular economy.
Key Action	Focused awareness campaigns are needed to inform householders of the available channels to return WEEE. Targeted messaging on this issue will help to support efforts to meet the European collection target of 65%.

Waste electrical and electronic equipment (WEEE) is one of the fastest growing waste streams worldwide, and one of the most hazardous if not managed properly. It includes everything from discarded household appliances (such as fridges) to electronic devices (such as computers and mobile phones).

The EU WEEE Directive (2012/19/EC) aims to ensure that WEEE is collected and managed in an environmentally friendly way. It sets an overall WEEE collection target of 65% and sets individual targets for reuse, recovery and recycling of six different categories of WEEE including large and small household appliances, IT and telecommunications equipment, and medical devices. Ireland's extended producer responsibility system for WEEE consists of two approved bodies (ERP Ireland and WEEE Ireland) covering private households.

The WEEE Directive is a Producer Responsibility Initiative (PRI) Directive, where the producers of EEE (manufacturers, importers, resellers) have responsibility for the environmentally sound management of products at their end of life. Most collection and treatment of WEEE in Ireland is organised and financed by the two approved producer compliance schemes, WEEE Ireland (www.weeeireland.ie) and European Recycling Platform Ireland (www.erp-recycling.ie). These schemes cover private household WEEE (referred to as Business-to-Consumer or B2C WEEE). Industry is directly responsible for management of non-private household WEEE in Ireland (referred to as Business-to-Business or B2B WEEE).

The collection rate is calculated based on quantity of WEEE collected relative to the average weight of EEE put on the market in the three preceding years.

COLLECTION

Ireland collected a record 64,856 tonnes of WEEE for treatment, a 4% increase on the quantity collected in 2019 (62,600 tonnes) and the highest quantity ever collected in the State. Figure 26 shows a breakdown of WEEE collected in Ireland in 2020.

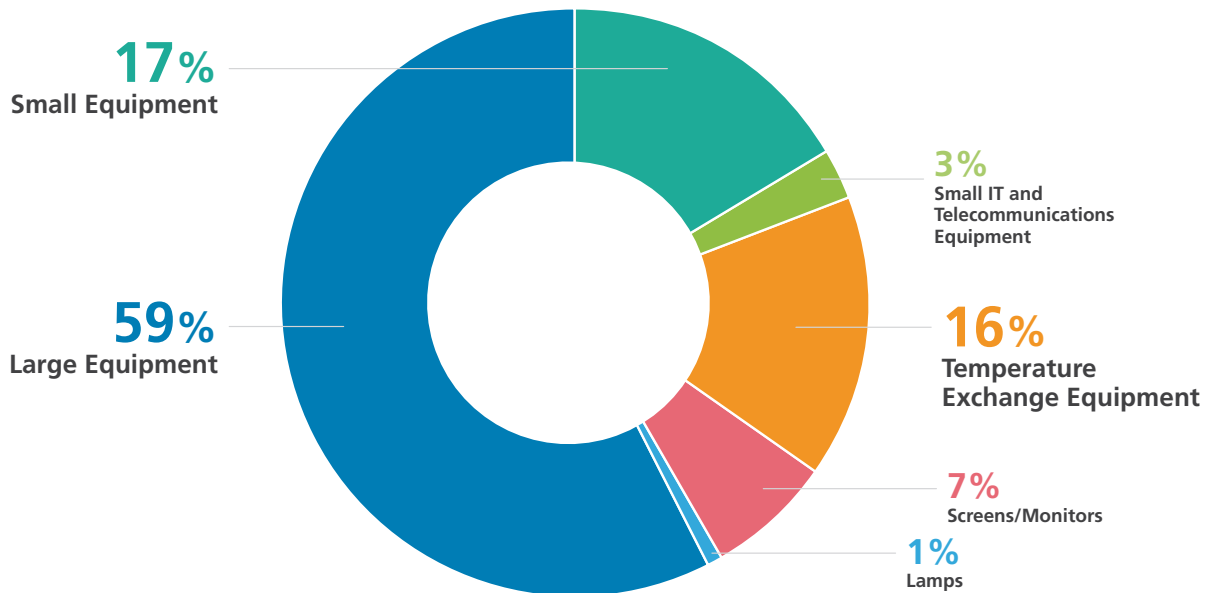


Figure 26: Breakdown of WEEE collected in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

It is well established that trends in the consumption of electronic goods are closely linked to economic wealth. This is reflected in the WEEE data for Ireland for 2008-2020 shown in Figure 27. It is evident that the economic recession between 2008 and 2011 led to a decrease in the quantity of WEEE collected and recovered, as Irish householders and businesses did not replace electrical and electronic equipment as frequently as before. The growth in the Irish economy since 2012 has led to large rises in WEEE collected and recovered, which reached record highs in 2020.



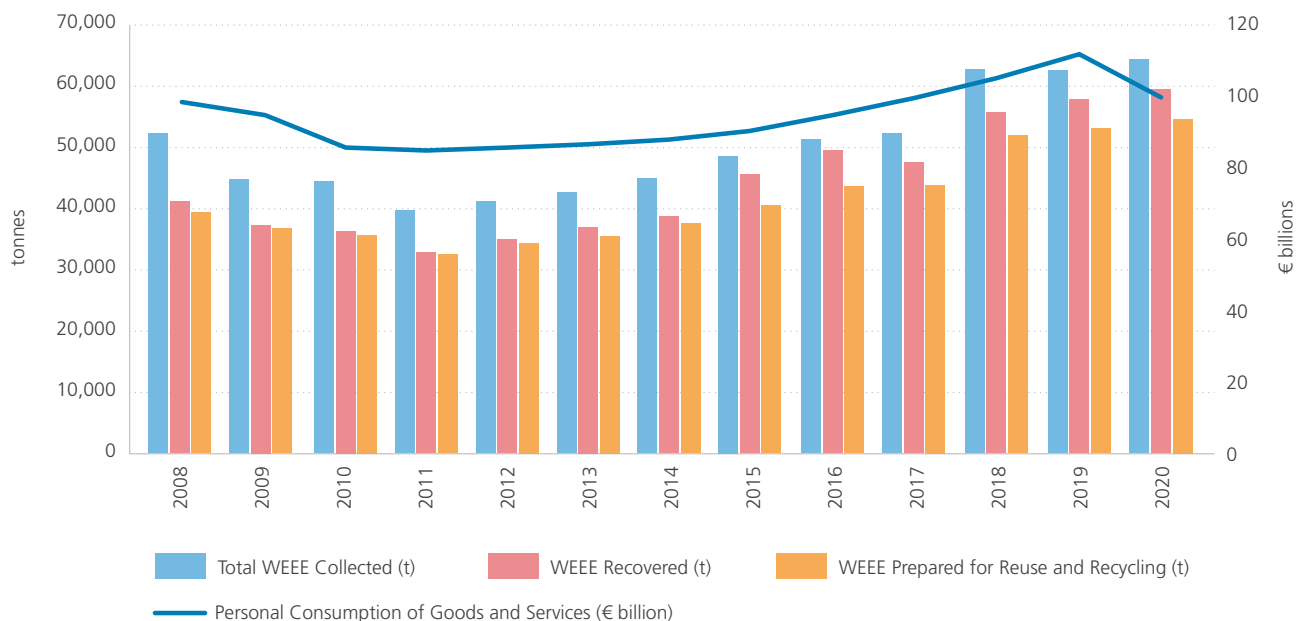


Figure 27: WEEE Collected, Recovered and Prepared for Reuse 2008-2020 compared with personal consumption of goods and services. Check www.epa.ie/nationalwastestatistics for latest data.

The rise in WEEE collected in 2020 mirror significant reported increases in retail sales of electrical goods in 2020. The trend is likely attributable to changes brought about by the Covid-19 pandemic such as the widespread shift to remote working and a surge in household clear-outs. Based on data provided by the Producer Register Limited, Ireland’s national register of EEE, there was an increase of 11% in overall EEE placed on the market in Ireland in 2020 compared with 2019 across all categories. There were considerably larger increases in quantities of ‘small IT and telecommunications equipment’ and ‘screens and monitors’ which rose by 32% and 31% respectively

Ireland achieved a WEEE collection rate of 60% in 2020 (compared with 61% in 2019). Therefore, despite the increased tonnage of WEEE collected in 2020, Ireland continues to fall short of meeting the new EU collection target of 65% that came into effect from 2019, as efforts to increase collection were outpaced by the growth in EEE placed on the market.

TREATMENT

Some 59,404 tonnes of WEEE were recovered and 55,012 tonnes were prepared for reuse or recycling in 2020, both up 3% on the 2019 quantities. Ireland surpassed the EU recovery and recycling/reuse targets for all six categories of WEEE in 2020 (Table 3). The majority of the targets were surpassed by a considerable margin (greater than five percentage points), with the exception of the preparation for reuse and recycling target for lamps, which was met by a narrow margin (two percentage points).

FUTURE FOCUS

Recycling discarded electrical items is not only good for the environment and human health, it also makes economic sense. Many devices contain precious metals and valuable components such as glass and plastic. Improving the collection and, treatment of WEEE can increase resource efficiency, through reuse and recycling, and support transition to the circular economy.

Table 3: WEEE Tonnage collected and recycling and recovery rates for 2020

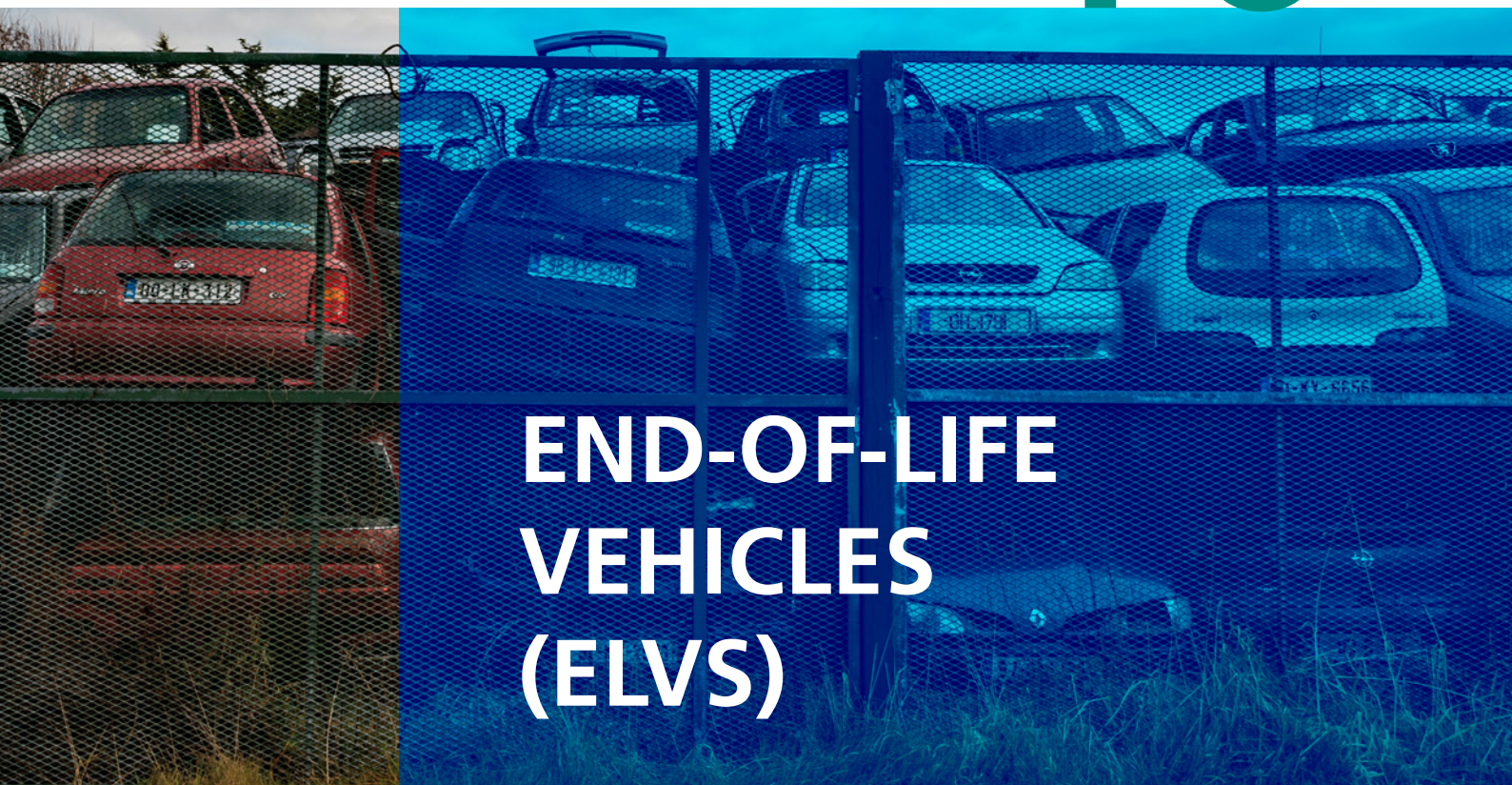
	Categories	WEEE Collected Tonnes	EU Recovery Target	Ireland's Recovery Percentage	EU Preparation for Reuse and Recycling Target	Ireland's Preparation for Reuse and Recycling Percentage
1	Temperature exchange equipment	10,673	85%	96%	80%	86%
2	Screens, monitors, and equipment containing screens having a surface greater than 100cm ²	4,803	80%	98%	70%	85%
3	Lamps	321	Not applicable	88%	80%	82%
4	Large equipment (any external dimension more than 50cm)	36,232	85%	90%	80%	86%
5	Small IT and telecommunication equipment (no external dimension more than 50cm)	10,799	75%	89%	55%	78%
6	Small IT and telecommunication equipment (no external dimension more than 50cm)	2,028	75%	88%	55%	86%
	Total WEEE Collected (tonnes)	64,856	Not applicable	Not applicable	Not applicable	Not applicable

Despite the improvements in the collection of WEEE in Ireland, there is evidence from the EPA's waste characterisation analysis that substantial amounts are still present in household bins. These accounted for 0.9% of waste in the residual bin and 0.7% of waste in the recycling bin in 2017-2018. These items should never go in household bins as they are hazardous. It's free to bring electrical items and waste batteries to recycling centres and participating electrical retailers. Raising awareness and ensuring that WEEE is separately collected through available channels will help to further improve Ireland's collection rate and allow for the maximum extraction of valuable and scarce materials in the WEEE.

Achieving the new EU WEEE collection target of 65% will require continued stakeholder engagement and targeted efforts to improve the collection of both household and professional (business-to-business or B2B) WEEE. An EPA-led multi-stakeholder WEEE Collection Working Group is driving this effort.

Ultimately, transitioning to a circular economy requires breaking the link between economic activity and resource consumption. Improvements in product design to allow for repair, refurbishment and reuse are needed to ensure that electrical products remain in circulation for longer and can be fully recycled at the end of their life.

10



END-OF-LIFE VEHICLES (ELVS)

118k

ELVs treated in Ireland in 2020

90.3%

Rate of ELV reuse and recycling, compared with target of 85%

Key Message

Ireland met the current reuse and recycling target and reuse and recovery target for ELVs in 2020 which is the third year in row full compliance was achieved.

End-of-Life Vehicles (ELVs) refer to cars or light commercial vehicles weighing less than 3.5 tonnes that are no longer suitable for use and are discarded as waste. The ELV Directive (2000/53/EC) sets binding targets for the reuse, recovery and recycling of ELVs. The current targets, effective from 1st January 2015, require a minimum 85% reuse and recycling and a minimum of 95% reuse and recovery.

TREATMENT

The latest data indicates that an estimated 118,867 ELVs were treated in Ireland in 2020, a decrease of 21% on the previous year when 150,800 were treated. This is the third year that Ireland achieved full compliance with the ELV Directive targets which were fully met for

the first time in 2018. Ireland achieved a reuse and recycling rate of 90.33% and a reuse and recovery rate of 97.12% (Figure 28) in 2020.

While Ireland's rates of reuse, recycling and recovery of ELVs have shown gradual year-on-year improvement since 2010, the rate of improvement has slowed in recent years (Figure 28). Ireland must continue to improve the reuse, recycling and recovery of valuable material from end-of-life vehicles as part of our transition to a circular economy. Ireland's ELV producer compliance scheme, ELV Environmental Services (ELVES), was established in 2017 and works behalf of vehicle manufacturers, distributors and importers to improve the ELV processing in Ireland and enable its member to meet their regulatory responsibilities.

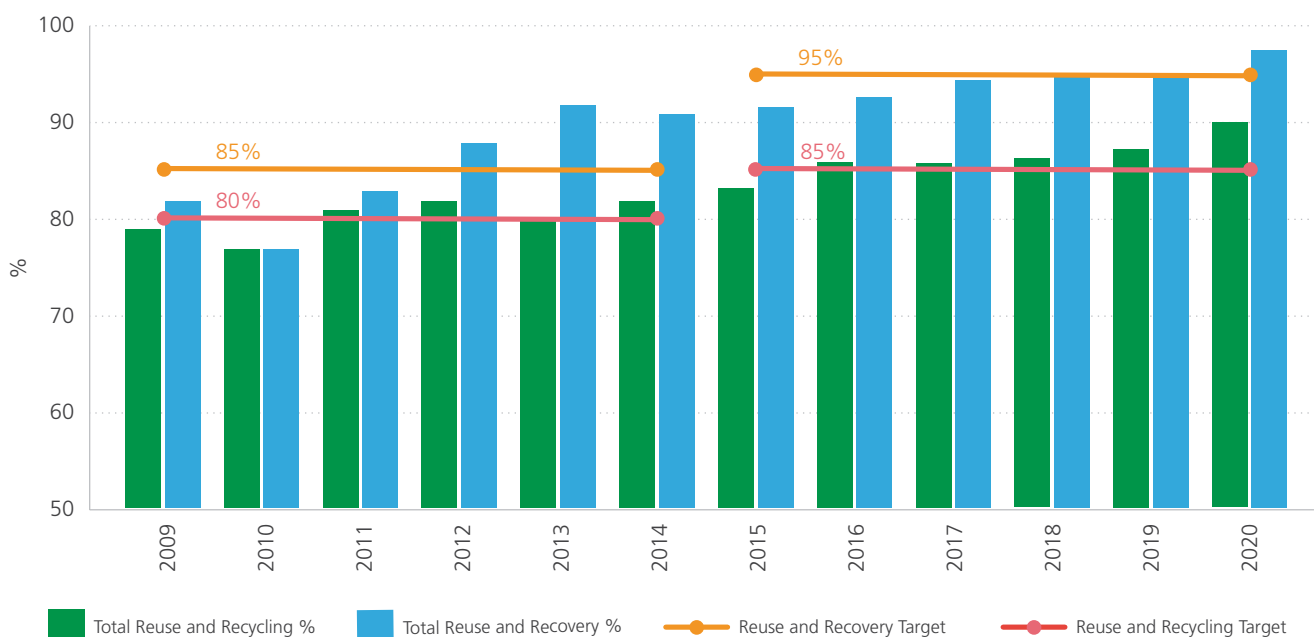


Figure 28: ELV reuse, recycling and recovery 2009-2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

11



WASTE TYRES

40k	Tonnes of waste tyres were collected and treated in Ireland in 2020
68%	Were recycled
81%	Were exported for final treatment
Key Message	In 2020 Ireland reused 3% of tyres collected, recycled 68% and sent 27% for energy recovery.
Key Action	Extend the tyres EPR to include all categories of tyres provided for in the Eighth Schedule of the Tyres Regulations;

Waste tyres pose a threat to the atmosphere, to land, soil, water, plants and animals if they are not managed properly. Where they are dumped in our environment, they have a significant negative visual impact on our landscape. Tyres become waste when worn-out tyres on a vehicle are replaced; and, unless reused, they become waste when the vehicle they are on is transferred to an authorised treatment facility. Our section on end-of-life vehicles provides more information on end-of-life vehicles arising in Ireland, and reuse, recycling and other recovery of this waste.

The EPA data on waste tyres draw on multiple data sources including EPA surveys, data from the National Waste Collection Permit Office, data on exports from the National Transfrontier Shipments Office, and information from the tyres producer compliance scheme Circol ELT. It should be noted that these figures exclude large quantities of historic waste tyres that remain outside the waste management network and waste tyres that did not enter the waste management network in 2020.

There are no statutory recycling or recovery targets set down in the Tyres Regulations. However, Circol ELT's Ministerial approval obligates the compliance scheme to meet minimum targets for the type of tyres it covers. By the end of 2019, and each subsequent year, it must achieve:

- > A recovery rate of 70% of all tyres collected, and
- > A recycling rate of 30% of all tyres collected.

TREATMENT

A total of 40,393¹⁷ tonnes of waste tyres were collected and treated in Ireland in 2020,¹⁸ This represents a decrease of 13% on the 46,424 tonnes managed¹⁷ in 2019. The trend is likely attributable to the Covid-19 pandemic. The national movement restrictions on householders and business and shift to remote working led to less vehicle usage during the year as reported by the CSO¹⁹.

Figure 29 shows that, in 2020, the majority (68%) of waste tyres that entered the waste management network in Ireland were recycled (either in Ireland or abroad); down from 88% in 2019.

There was a decrease in the tonnage of waste tyres crumbed for recycling in Ireland, down from 12,061 tonnes (26%) in 2019, to 5,825 tonnes (14%) in 2020.

A large majority (81%) of waste tyres were exported for final treatment abroad in 2020 (mainly to Asian countries). Of the waste tyres exported in 2020, the majority were recycled (65%), 33.5% went for energy recovery and approximately 1.5% were prepared for reuse.

The share of waste tyres used for energy recovery increased significantly from 10% (4,761 tonnes) in 2019 to 25% (10,940 tonnes) in 2020. A high percentage of a waste tyre can be recycled, but there is a small portion that is non-recyclable. This non-recyclable material arising from the tyre treatment process is typically forwarded to waste facilities for energy recovery.

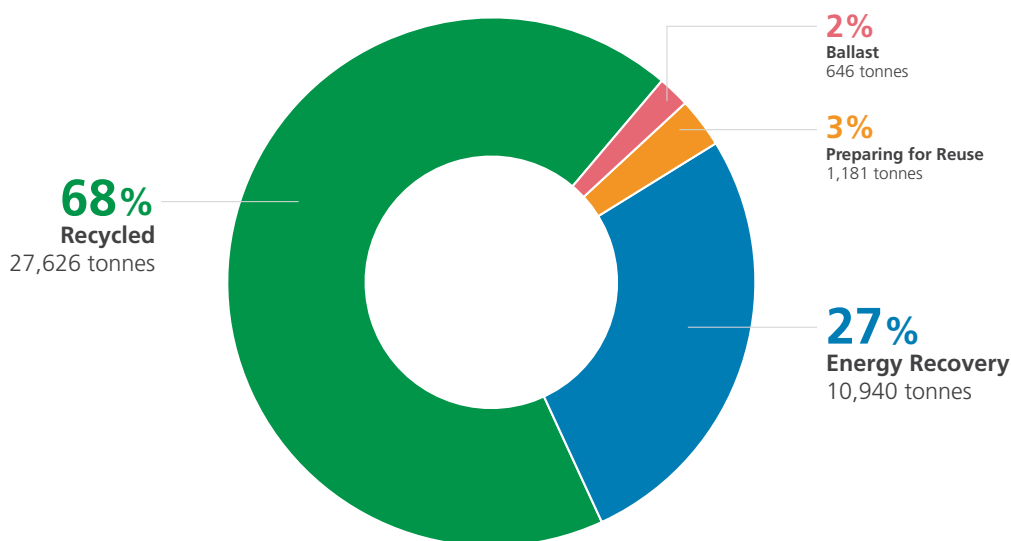


Figure 29: Final treatment of waste tyres collected in Ireland in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

¹⁷ This figure excludes tyres that were exported as a part of depolluted End-of-life vehicles.

¹⁸ This tonnage excludes an estimated 2,000 tonnes of waste tyres that went into storage in 2020.

¹⁹ <https://www.cso.ie/en/releasesandpublications/br/b-tb/transportbulletin01march2020to02january2021/>

Figure 30 shows how waste tyres moved through the waste treatment network in Ireland in 2020. Most waste tyres are collected by authorised waste collectors and brought to a waste facility; and, unless they are used as ballast, they are either baled or pre-treated before the final treatment step.

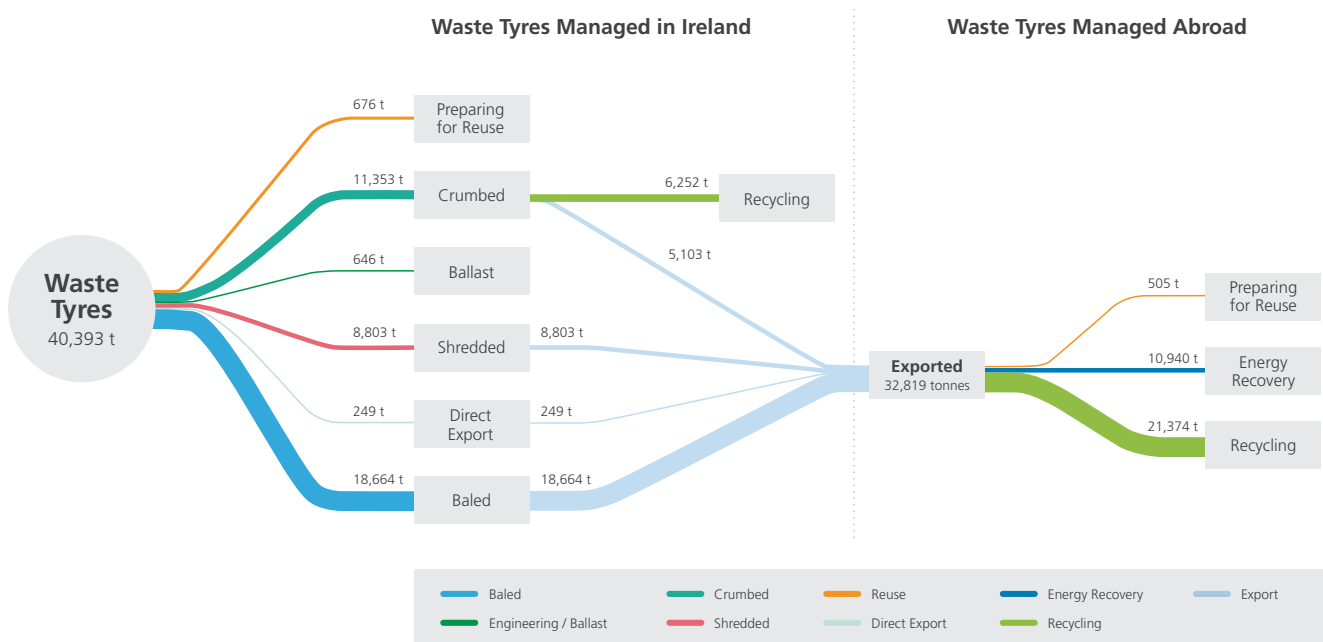


Figure 30: Overview of the collection and treatment of Ireland's waste tyres in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

The most common treatment route in 2020 was baling of waste tyres at Irish waste facilities followed by export and final treatment abroad. This accounted for 46% of the waste tyres managed in 2020. The second most common treatment route was crumbing of waste tyres in Ireland followed by recycling in Ireland and abroad. This accounted for 28% of waste tyres managed in 2020.

These data indicate that most waste tyres that enter the waste management network in Ireland end up being recycled either in Ireland or abroad (27,626 tonnes or 68% in 2020). Recycled tyres are typically used in equestrian arenas, sports pitches, rubber mat products, flower beds and various other products based on demand.

Figure 30 and Table 4 exclude tyres that were exported as a part of depolluted End-of-life vehicles.

Table 4: Waste tyres final treatment activities, 2020

Waste tyre final treatment activity, 2020	Quantity (tonnes)	Percentage of managed
Prepared for reuse	1,181	3%
Recycled	27,626	68%
Ballast	646	2%
Used as a fuel	10,940	27%
TOTAL	40,393	100%

12



CONSTRUCTION AND DEMOLITION WASTE

8.2m	Tonnes of C&D waste collected and managed in 2020, down from 8.8m in 2019, mirroring the downward trend in activity in 2020
78%	Recovery of non-hazardous, non-soil and stone i.e. metals, wood, paper, glass and plastic, thereby surpassing the 70% target for 2020
82%	Of C&D waste (soil and stone) was backfilled 8% was recycled and 10% was landfilled
Key Message	Construction waste is the largest waste stream in the state amounting to over 8.2 million tonnes in 2020. In the last five years it has increased by over four million tonnes and is the fastest growing waste stream in the States. The largest waste fraction of this stream is soil and stone, accounting for 82% of the stream, can be avoided through the greater use of the by-product regulation.
Key Action	Introduction and implementation of new National by-product criteria for asphalt road planings and greenfield soil and stone are planned for 2023. Implementation of these regulatory decision has the potential to prevent millions of tonnes of construction resources for beneficial reuse every year.

GENERATION

Construction and demolition (C&D) waste represents a substantial waste stream in Ireland in terms of both volume and weight. Approximately 8.2 million tonnes of C&D waste were collected by authorised waste collectors for treatment in 2020, down from 8.8 million tonnes in 2019 see Figure 31. This decrease mirrors the trend in construction activity indicated by the CSO's construction index. The slow down in construction activity is attributable to the Covid 19 restrictions on the building industry in 2020. As a result the generation of waste soil and stone, waste concrete, brick, tile and gypsum and waste bituminous mixtures decreased.

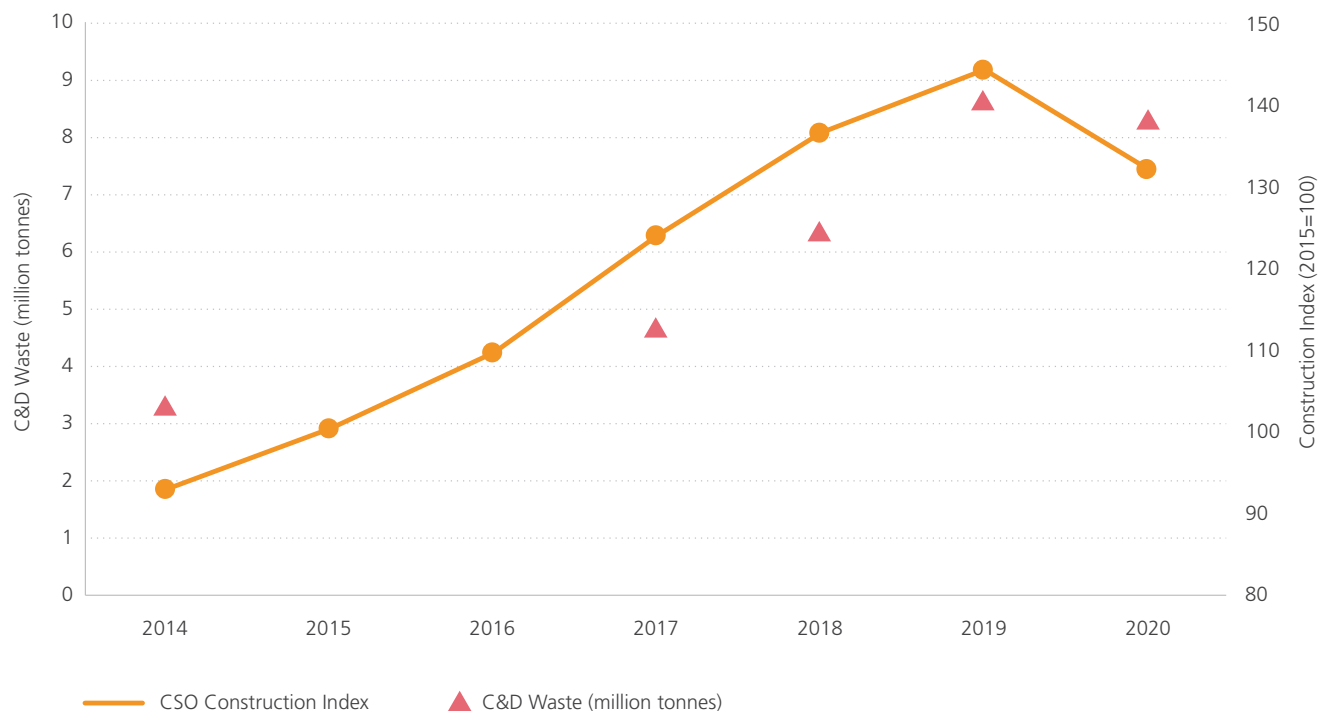


Figure 31: Quantity of construction waste managed in Ireland, compared with CSO construction index (2014-2020). Source: EPA, NWCPO and CSO. Check www.epa.ie/nationalwastestatistics for latest data.

Most of the C&D waste managed in Ireland in 2020 consisted of soil and stones (84%), followed by concrete, brick, tile and gypsum waste (6%) and mixed C&D waste (5%) see Figure 32. Even though only 3% of C&D waste was collected separately as single material streams (wood, glass, plastic or metal), it is encouraging to note the increase from 2.5% in 2019. Recycling rates could be improved by enhanced segregation of C&D waste into individual material streams.

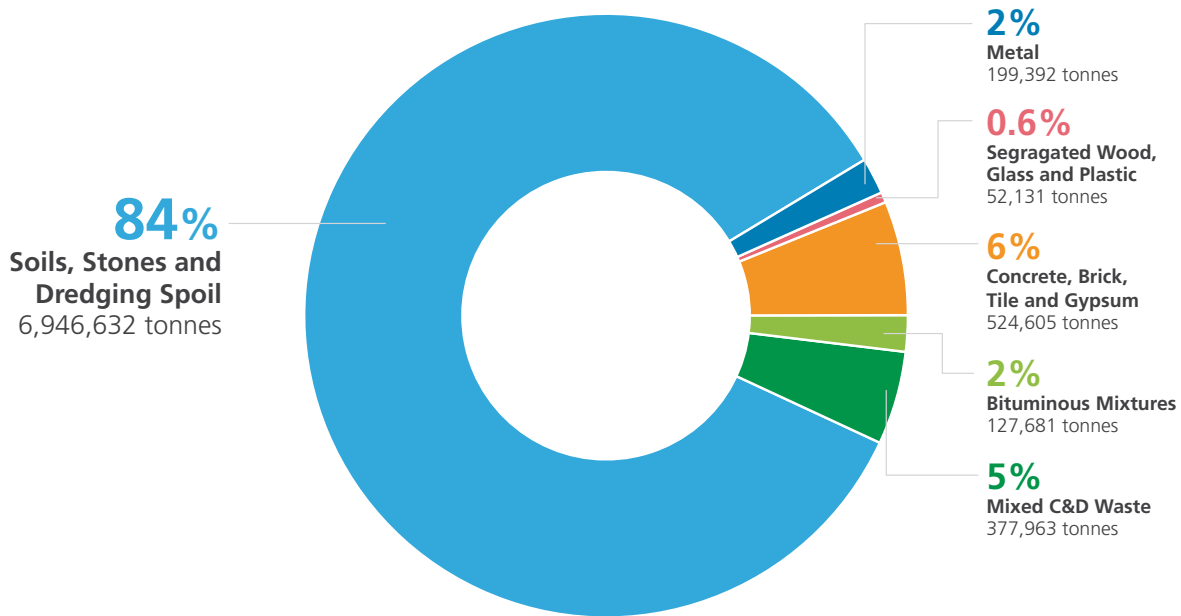


Figure 32: Composition of C&D waste collected in Ireland in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

TREATMENT

Most C&D waste was backfilled (82%) in 2020, while 10% went for disposal and only 8% was recycled (Figure 33). The dominance of backfilling as a treatment operation reflects the large proportion of soil and stones in the stream. Backfilling refers to a recovery operation, carried out at authorised facilities, where suitable waste is used for reclamation purposes in excavated areas or for engineering purposes in landscaping and where the waste is a substitute for non-waste materials. It includes worked out quarries that are in the process of being restored or sites where soil and stone is imported to the site to raise natural ground levels.

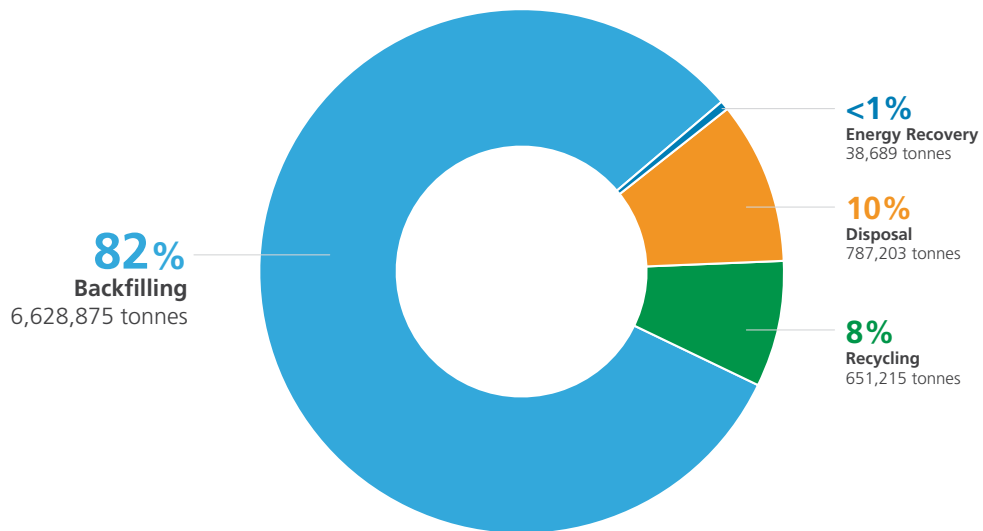


Figure 33: Treatment of C&D waste in Ireland in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

Disposal was the main treatment operation for C&D waste treatment residues and a smaller share of mixed C&D waste and soils and stones (Figure 34). Recycling was the main treatment operation for metals (100%) and segregated wood, paper, glass and plastic (79%) and waste bituminous mixtures (57%). There has been a notable reduction of segregated wood, glass and plastic waste arising in this sector that went for energy recovery from 54% in 2019 to 20% in 2020.

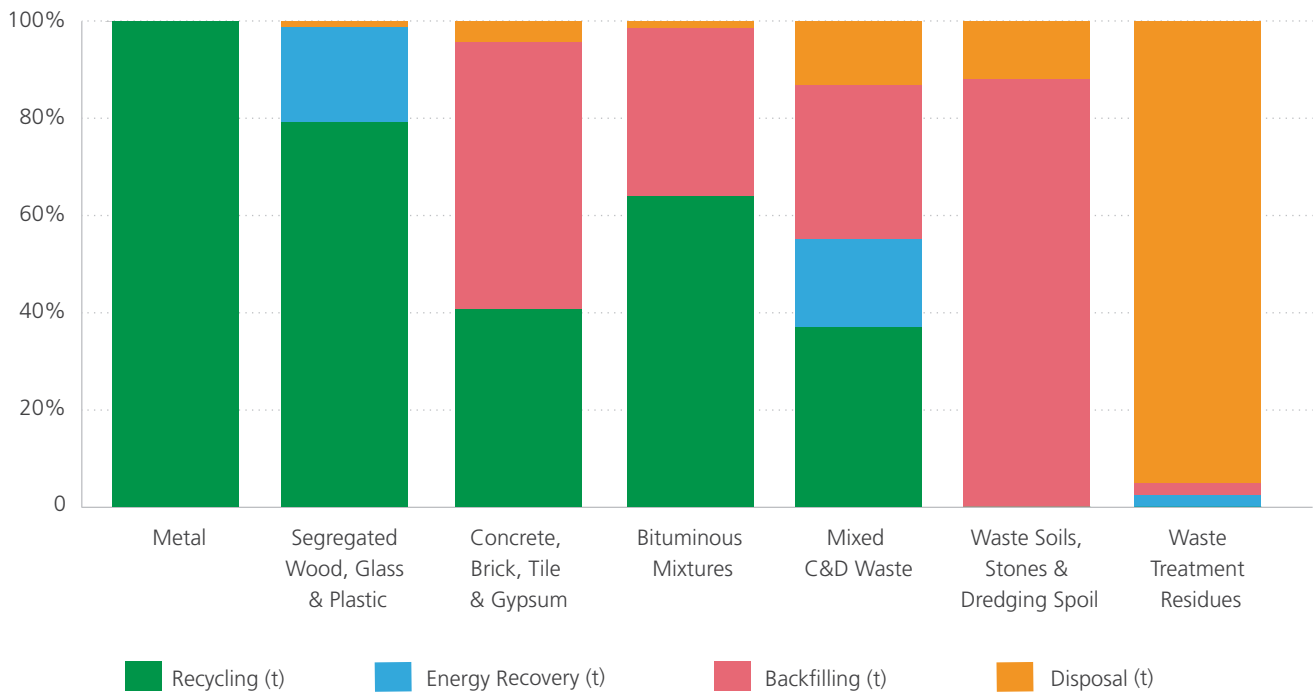


Figure 34: Final treatment operation by C&D waste stream in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

Improved recycling and prevention of C&D waste could be achieved by employing best practice circular construction activities, such as designing out waste, enhanced segregation of C&D materials into individual material stream and maximising the use of resources, in line with the EPA's revised Best Practice Guidelines for the Preparation of Resource Management Plans for Construction & Demolition Projects. Successful activation of the circular economy in the construction sector could see millions of tonnes of resources being re-used in construction projects every year, reducing demand for virgin raw materials and lowering the carbon footprint of the sector.

TARGET COMPLIANCE

The Waste Framework Directive requires Member States to achieve 70% material recovery of C&D waste by 2020 – this target excludes hazardous waste and the soil and stone portion of C&D waste. In 2020, Ireland achieved 78% material recovery of non-hazardous, non-soil-and stone C&D waste, surpassing the 2020 EU target. This represents a reduction on the C&D material rate of 84% achieved by Ireland in 2019.

BY-PRODUCT NOTIFICATIONS

Preventing waste and promoting reuse are integral to the circular economy. While this applies to all economic sectors, it is particularly relevant for the construction sector which handles large volumes of natural resources, such as soil and stone.

Article 27 of the European Communities (Waste Directive) Regulations, 2011 allows an economic operator to decide, under certain circumstances, that a material is a by-product and not a waste. It allows C&D materials to be used elsewhere on development projects as a by-product and not discarded as a waste. Decisions made by economic operators under Article 27 must be notified to the EPA. The EPA may determine to agree with the economic operator's decision, as notified; alternatively, after consultation with the notifier and the relevant local authority, the EPA may determine that the notified material is waste. Figure 35 shows the quantities associated with soil and stone by-product notifications from 2018-2020.

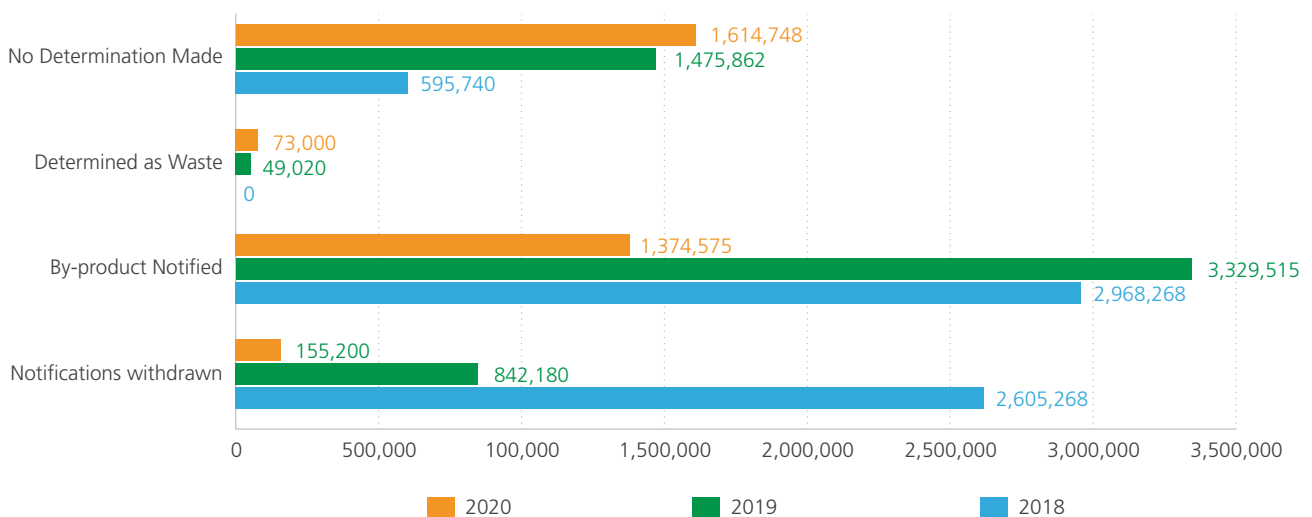


Figure 35: Soil and stone by-product notifications submitted 2018-2020.

In 2020, the EPA received by-product notifications for 3,217,523 tonnes of soil and stone material. Notifications for 155,200 tonnes were withdrawn. The EPA determined that 1,374,575 tonnes of the soil and stone notified were by-product and that 73,000 were waste see Figure 35. The estimated quantity of soil and stone material notified in 2020 for which no determination was made to date, amounted to 1,614,748 tonnes.

It is important to note that by-product notifications do not necessarily mean that any or all of the material was generated or indeed moved. Notifiers of by-product may not have proceeded with the activities related to the by-product notifications. However, if they did proceed, the materials would not have entered the waste management network or be included in the 2020 C&D waste statistics data presented here. Only material notified as by-product, determined to be waste, generated and moved as waste in 2020 is covered by the EPA's 2020 C&D waste statistics.

FUTURE FOCUS

National Criteria

The EPA has three significant projects underway at present to develop:

- > National end-of-waste criteria for recycled aggregates
- > National by-product criteria for asphalt road planings (for use in reclaimed asphalt paving plants)
- > National by-product criteria for greenfield soil and stone (for use in developments that are unquestionably lawful)

The Waste Framework sets out the key stages and requirements for the development of national criteria, these include for example that there are no adverse environmental or human health impacts. Once the milestones on the process are met and consultation with the European Commission is favourable, it is planned that national criteria will be in place by Q3 of 2023. Successful activation of the circular economy with these national criteria could see millions of tonnes of resources beneficially reused every year.

A Circular Economy Priority

Construction and demolition is a priority area of the EPA-led Circular Economy Programme, which aims to prevent waste and drive the circular economy in Ireland.

In 2021, revised **Best practice guidelines for the preparation of resource and waste management plans for construction and demolition projects** were published, to provide a practical approach to the prevention and management of C&D wastes and resources in projects, from design through to construction and deconstruction. The guidelines provide clients, developers, designers, practitioners, contractors, sub-contractors and competent authorities with a common approach to preparing Resource and Waste Management Plans. Implementation of the guidelines will help Ireland prevent C&D wastes, encourage reuse of materials where possible and thereafter sustainably reduce and recover waste materials.

The EPA has also published **case studies and factsheets**²⁰ on how to manage and reduce waste during construction and demolition projects. These resources demonstrate both the financial and environmental benefits of reducing waste.

²⁰ <https://www.epa.ie/publications/circular-economy/resources/construction--demolition-guidelines.php>

<https://www.epa.ie/our-services/monitoring--assessment/circular-economy/circular-and-sustainable-sectors/sectoral-sustainability/construction/>

13



**MUNICIPAL
WASTE TREATMENT
AND COLLECTION
INFRASTRUCTURE**

In this chapter we look at the changes which have occurred to our waste infrastructure over the period 2010 to 2020. During this time Ireland's waste treatment and collection capacity has undergone significant change.

Examining the management and treatment of municipal waste over the period reveals the marked change which has occurred in the sector.

Municipal waste has grown over the period by almost 700,000 tonnes equating to an averaged annual growth of 2.8%. Growth over the period has not been linear, fluctuating up and down aligned to economic performance. Since 2014 a consistent pattern of waste growth has been recorded. This has been driven by a strong economy, population growth, high rates of consumption and a failure to decouple waste from economic growth. Preventing waste generation in the first place remains the preferred outcome. It is critical that the relevant fiscal and regulatory measures are designed to support behaviours to reduce waste.

LANDFILL

The most significant change over the last decade has been the shift away from disposing of residual (black bin) waste to landfill to its use in energy recovery. The number of active landfills accepting municipal waste in Ireland has fallen markedly from 28 in 2010 to just 3 in 2020.

The total volume of municipal waste disposed at landfills in the State in 2020 was 517,000 or 16% of the total. This compares to almost 1.5m tonnes disposed of in 2010, representing at the time 58% of the total. The landfill levy has been a key economic and environmental policy incentivising better segregation of recycling materials and the development of alternative facilities to treat residual waste such as energy recovery facilities.

Further reductions in the volume of wastes to landfill is required to move towards the disposal target of 10%. Data submitted to the EPA for 2021 and 2022 shows that volumes of wastes disposed at landfills are reducing although the available void capacity remains fully utilised. The current disposal capacity is 470,000 tonnes. However two of the three operational landfills will approach their maximum lifetime consented capacity by 2027 if additional capacity is not authorised.

Continued diversion from landfill requires improved capture of recyclable and organic waste materials in appropriate bins from households and commercial customers.

Table 5: Municipal Waste Management 2010-2020

Municipal Waste Management 2010-2020					
Managed Waste		2.5m tonnes (2010)		3.2m tonnes (2020)	
% Landfilled		% Recycled		% Thermal Treatment	
2010	2020	2010	2020	2010	2020
58%	16%	38%	41%	4%	43%

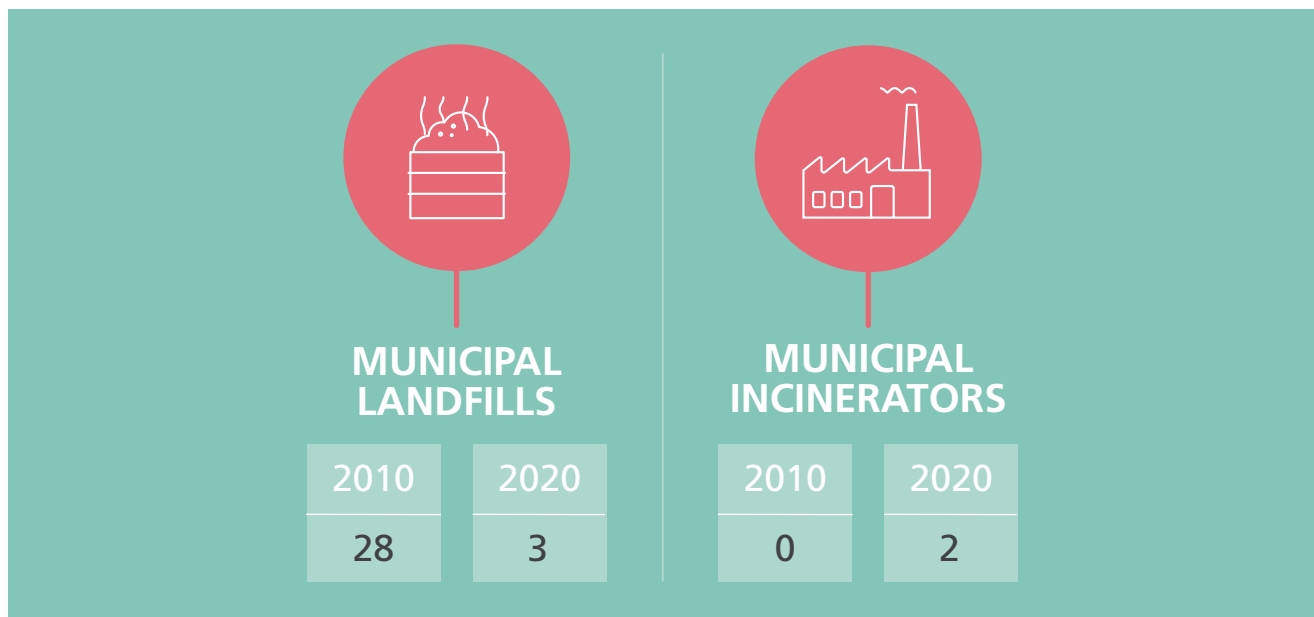


Figure 36: Waste Treatment Infrastructure in 2020, compared with 2010. Source: EPA.

THERMAL TREATMENT/ENERGY RECOVERY INCINERATION

Since 2010 there has also been a significant change in the quantity of waste being thermally treated in Ireland growing from 4% in 2010 to 43% in 2020. During that time two incinerators came on stream. The first facility become active at the end of 2011 and the second in 2016.

Currently there is a total licensed capacity to treat 835,000 tonnes of non-hazardous municipal waste per year at these facilities. These operations are designed to treat residual waste that cannot be recycled. Previous EPA waste characterisation studies identified significant quantities of recyclable materials being thermally treated in Ireland. This again highlights the need for greater awareness, education and enforcement measures to ensure better segregation and processing of recycled materials from residual waste. The proposed waste recovery levy will further economic rations for improved separation and recycling.

In addition there are three cement kilns authorised to accept solid recovered fuel (SRF) for co-incineration as an alternative to fossil fuels. Combined these facilities have an authorised capacity of over 730,000 tonnes for hazardous and non-hazardous wastes (the capacity to accept SRF and similar processed waste is approx. 585,000 tonnes).

WASTE RECOVERY LEVY

The Circular Economy Act provides for the government to introduce a levy on waste recovery (of €5 per tonne). Waste recovery involves waste being sent for incineration or for backfilling. It means that materials which are suitable for re-use or recycling are either being incinerated or buried in the ground. This is poor way to treat potentially valuable resources. The Act provides powers for the Minister to impose a levy on waste recovery that takes place in Ireland, and also on waste exports from Ireland for recovery elsewhere in the EU and outside of the EU. This will be an important lever to ensure that waste operators are incentivised to extract the maximum amount of recyclable material from residual waste, and its introduction should prioritised.

RECYCLING

In terms of recycling the extent of change since 2010 has not been as significant with a rate of 38% in 2010 increasing to 41%. Over the period recycling has not grown as anticipated and has been for the most part stagnant. Ireland is well below the European average of 48% and is ranked 17 of the 27 benchmarked by Eurostat²¹. The gap to the 2025 target of 55% is 14 percentage points and is a significant challenge needing urgent attention. Immediate introduction of mandatory incentivised charging for commercial customer is required alongside mandatory rollout of the brown bins to all households and businesses and a review of the household charging system.

COMPOSTING AND ANEROBIC DIGESTION

The quantity of waste treated by composting and anaerobic digestion rose to 597,000 tonnes in 2020, a 13% increase on the previous year²². The equivalent figure in 2010 was 269,200 tonnes. The majority of waste treated by composting/AD consisted of municipal biowaste (50%) such as kitchen/canteen food waste and garden/park green waste (Figure 37). These figures exclude (i) home composting estimates, (ii) facilities which only treated their own waste, (iii) waste imported to Ireland for treatment, and (iv) organic fines and other mixed wastes accepted for biostabilisation, which are reported separately (below). Products of the composting and anaerobic digestion processes are also used in horticulture, landscaping and agriculture.

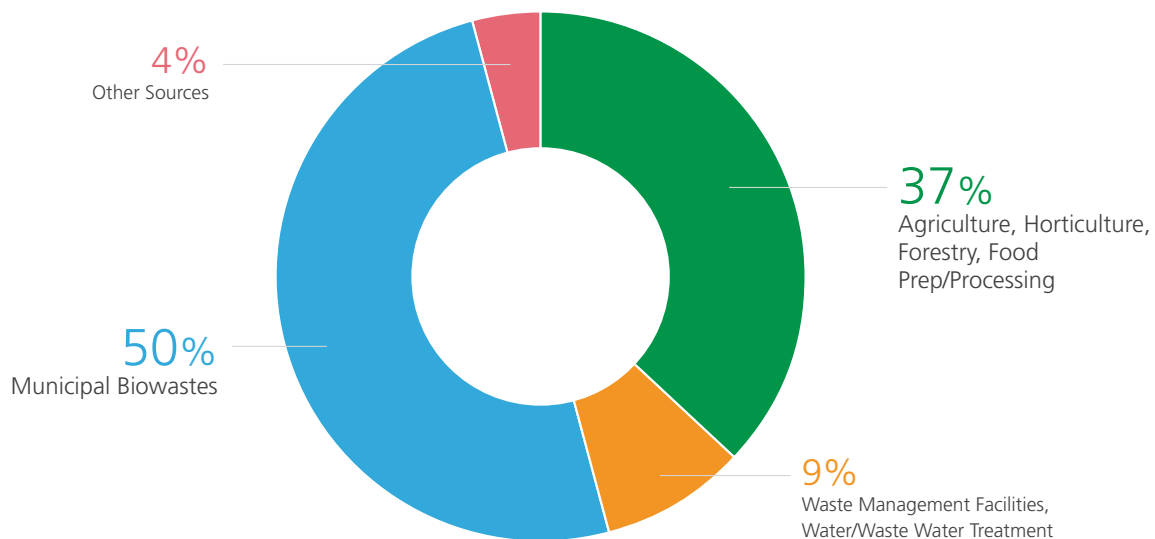


Figure 37: Types of wastes treated by composting/anaerobic digestion in 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

Of the 597,000 tonnes of waste treated by composting or anaerobic digestion in 2020, 48% underwent composting while 52% was treated by anaerobic digestion. There has been a marked increase in the quantity of waste treated by anaerobic digestion in recent years, up from 30% in 2017 to 52% in 2020.

In 2020, some 73% of the waste treated by composting or anaerobic digestion was treated at facilities in Ireland (down from 80% in 2019), while 27% was transferred to facilities in Northern Ireland (up from 20% in 2019). More favourable gate fees in Northern Ireland are attributed as the main driver for this trend.

²¹ Viewed on 10th November 2022 https://ec.europa.eu/eurostat/databrowser/view/t2020_rt120/default/table?lang=en

²² The increases from 2019 to 2020 are attributable to a change in reporting methodology to align with European reporting. Tonnages reported as dry mass for 2020 were converted to their wet mass equivalent. This change mainly affected (i) waste from the preparation and processing of meat, fish and other foods of animal origin which almost doubled from 47,217 tonnes in 2019 to 87,550 tonnes in 2020; (ii) wastes from the dairy products industry which increased from 44,730 tonnes in 2019 to 76,421 in 2020, and (iii) wastes from the production of alcoholic and non-alcoholic beverages up from 27,375 tonnes in 2019 to 35,385 tonnes in 2020.

TREATMENT OF BIOSTABILISED WASTES

Biostabilised waste arises from the mechanical treatment of residual waste. There has been a notable rise in the treatment of organic fines at composting plants in Ireland up from around 40,000 tonnes in 2010 to 196,000 tonnes in 2020. This increase reflects the fact that most residual waste in Ireland is now pre-treated mechanically at waste facilities, for example by trommelling, before it is sent for disposal. The waste arising from this pre-treatment process undergoes stabilisation to reduce their biological activity to an EPA-approved standard. This waste is now exempt from the landfill levy which has resulted in an increase in tonnes landfilled and disincentivising segregation at source/ Ideally all organic waste should be segregated at source and collected separately so it can be treated by composting or anaerobic digestion rather than biostabilisation and disposal at landfill

WASTE EXPORTS

Similar to other years, Ireland remained heavily reliant on export for a number of key waste streams in 2020, pointing to some significant waste infrastructure deficits and missed opportunities to foster a circular economy. 44% of Ireland’s segregated packaging waste continued to be exported for recycling in 2020, while 55% of the nation’s hazardous waste was sent to other European countries for disposal or recovery. An estimated 39% (1.3 million tonnes) of all municipal waste generated was exported abroad in 2020, down from 40% in 2019. Of the waste exported, most went for recycling (57%) or energy recovery (33%) including over 400,000 tonnes of residual municipal wastes. Of the municipal waste exported in 2010, totalling 838,000 tonnes, 93% was sent for recycling, 6% was residual waste and exported for recovery and 1% was organic waste.

The share of organic waste exported to Northern Ireland for composting and anaerobic digestion increased again in 2020, accounting for 27% in 2020, up from 20% in 2019 and 17% in 2018, with more favourable gate fees in Northern Ireland attributed as the main driver for this trend.

These trends point to the need for expansion of Ireland’s waste treatment and recycling capacity in order to extract the maximum value from waste materials in Ireland and reduce the emissions associated with transporting waste over long distances.

DEVELOPMENT OF A NATIONAL TREATMENT CAPACITY REGISTER

The EPA, working with local government sector and the NWCPO, have commenced the development of a National Waste Treatment Capacity Register to address the current gap in tracking and monitoring waste treatment capacity. The aim is to build a platform containing capacity information for all waste treatment facilities (licensed, permitted and registered) in the State. The first stage of the development project is focused on aligning and compiling existing datasets into a consistent format. Other issues to be resolved include hosting, access and maintenance activities. The first phase of the project is expected to be completed in 2023.

WASTE COLLECTION

From 2010 there has been continued consolidation in Ireland’s waste market. The number of authorised waste collectors in Ireland has fallen from over 3,076 in 2010 to 2,021 in 2020.

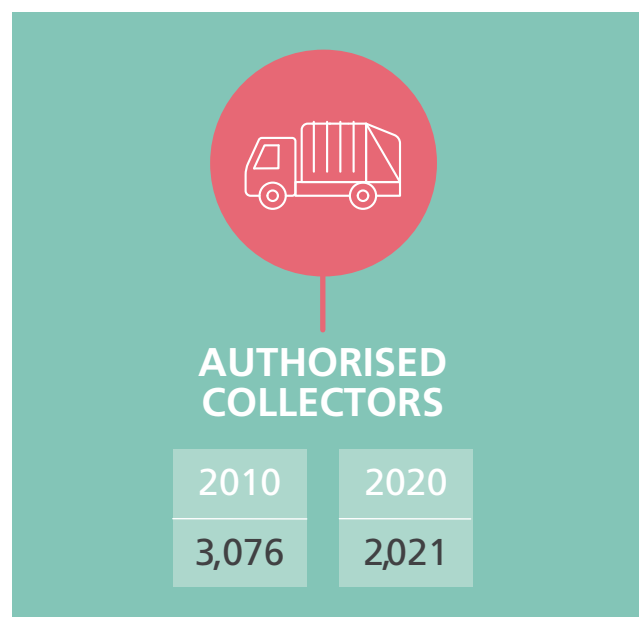


Figure 38: Waste Collection and Treatment in 2020, compared with 2010. Source: EPA.

Figure 39 presents the relative proportions of the different household waste collection services in 2010 and 2020. The figures indicate that 95% of serviced households have at least a 2-bin service available to them with 34% availing of a 3-bin service. For 2020 the number of households with a 3-bin system has grown to 64% with the remaining 31% on a 2-bin system and 5% on a single bin/bag system. The data shows progression in terms of rolling of the 3-bin system over the period although rollout needs to accelerate to improve the capture of organic wastes.

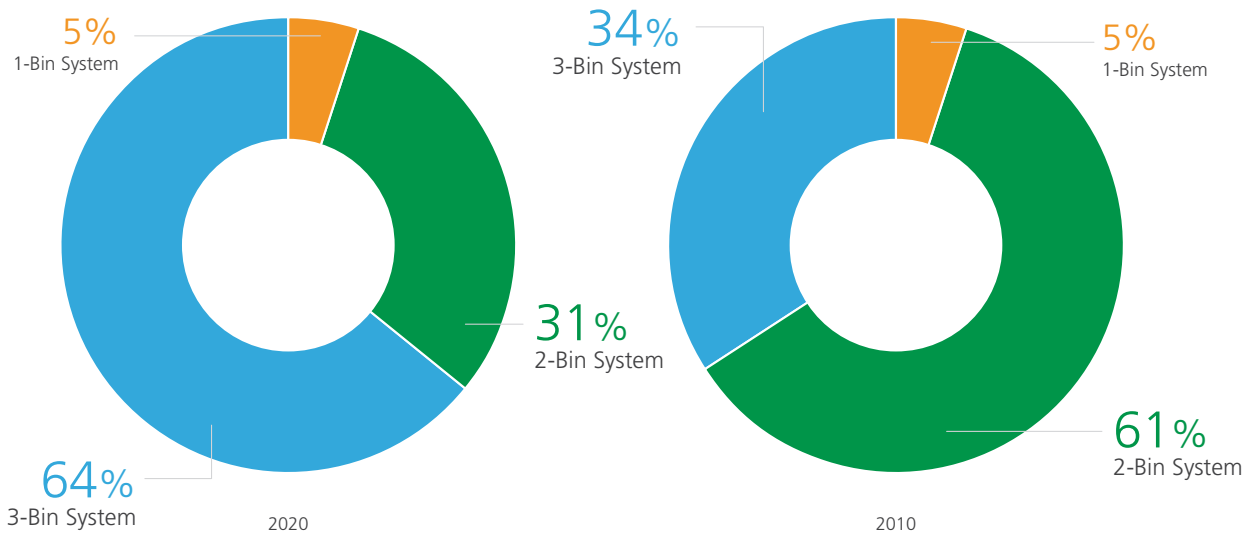


Figure 39: Proportion of households with kerbside waste collection services by bin service type.

In Ireland, separate collection of food waste was introduced for commercial premises in 2010 and for households in 2013. Figure 40 shows that the Food Waste Regulations and the associated brown bin roll out have led to large increases in the quantity of municipal biowaste composted/ anaerobic digested, from less than 50,000 tonnes in 2005 to 302,000²³ tonnes in 2020. However, as outlined in Chapter 6, a large proportion of Ireland's organic waste, including food waste, is not yet being recycled with only 64% of Irish households with a bin service had access to a brown bin in 2020. New EU waste legislation means that the separate collection of biowaste will be mandatory from 2024 on.

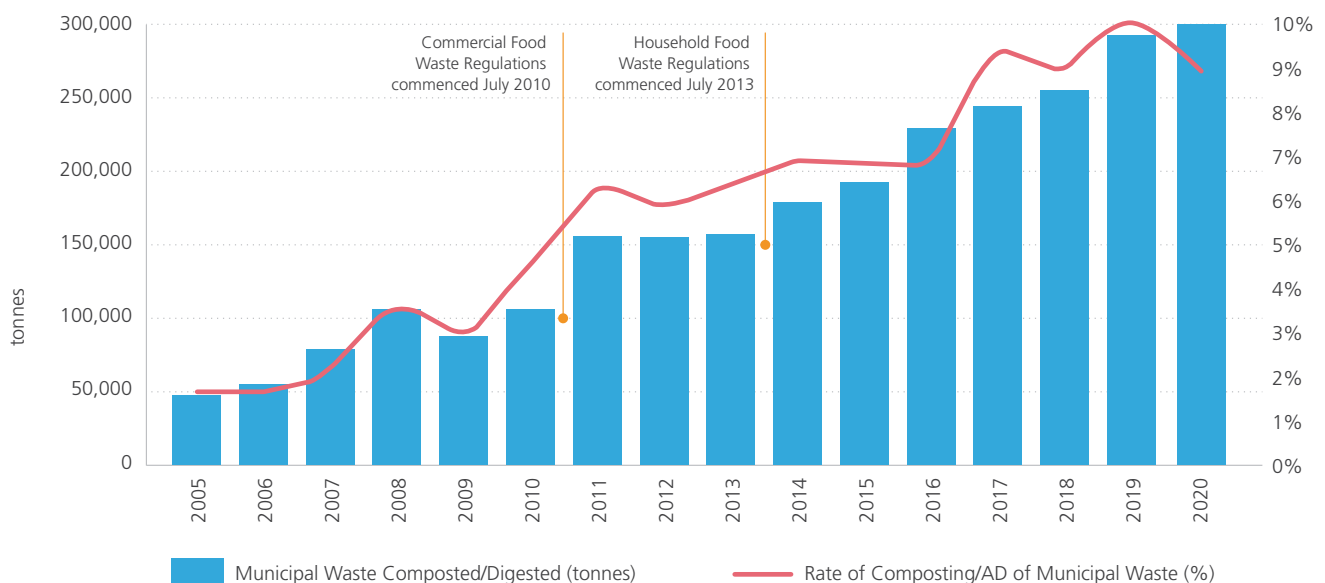


Figure 40: Municipal biowaste treated by composting/anaerobic digestion, 2005 to 2020. Source: EPA. Check www.epa.ie/nationalwastestatistics for latest data.

²³ This excludes home composting

14



**FURTHER
INFORMATION**

Further information and the latest national waste data are available on the EPA's National Waste Statistics web resource: www.epa.ie/nationalwastestatistics. The National Waste Statistics web resource will continue to be updated and the range of early indicators expanded as new data become available.



Environment & You

Environmental Topics

Our Services

Publications

Who we are

View our latest waste statistics



Municipal

Municipal waste is made up of household waste and commercial waste of a similar nature. The EPA reports on how much municipal waste Ireland generates and how this waste is treated.

Interesting fact

3,210,220 tonnes

of municipal waste was generated in Ireland in 2020



Tyres

Tyres become waste when worn-out tyres on vehicles are replaced. If not managed properly, waste tyres pose a threat to the atmosphere, to land, soil, water, plants and animals.

Interesting Fact

40,393 tonnes

of waste tyres were managed in Ireland in 2020



Composting & Anaerobic Digestion

Composting is a natural process that uses bacteria and fungi to recycle organic material, such as kitchen and garden waste, into compost. Anaerobic digestion uses bacteria to break down organic matter in the absence of oxygen to treat animal manures, wastewater biosolids and food wastes.

Interesting Fact

597,000 tonnes

quantity of waste accepted for treatment at composting & anaerobic digestion facilities in 2020



Construction & Demolition

C&D waste is made up of many different materials such as soil and stones, concrete, bricks, tiles and gypsum waste. The treatment route for most C&D waste is backfilling.

Interesting Fact

8.2 million tonnes

of C&D waste was generated in Ireland in 2020



Food

Food waste is a global problem that has environmental, social and economic consequences. More than one quarter of the food produced globally is wasted.

Interesting fact

770,300 tonnes

of food waste was generated in Ireland in 2020.



Packaging

Most of the products we buy are contained in packaging to protect them during transport and make them look attractive on shop shelves. When the goods are unpacked, the packaging become waste. Ireland generated over 1.1 million tonnes of packaging waste in 2020.

Interesting fact

62%

Ireland's overall packaging recycling rate in 2020



WEEE

Waste electrical and electronic equipment (WEEE) is one of the fastest growing waste streams worldwide. In 2020, Ireland surpassed all EU targets for recycling and recovery of WEEE.

Interesting Fact

64,856 tonnes

of WEEE was collected in Ireland for treatment in 2020



'First Look' Data

In this section we present trend data that are available in a more timely fashion than our complete, validated datasets.

Interesting fact

279,000 tonnes

of Ireland's municipal waste was incinerated or co-incinerated in Quarter 3 of 2022



End-of-Life Vehicles (ELV)

ELVs are cars or light commercial vehicles that are no longer suitable for use and are discarded as waste. Some 118,867 ELVs (scrap vehicles) were treated in Ireland in 2020.

Interesting fact

90.33%

Ireland's ELV reuse and recycling rate in 2020



Household

Household waste includes waste collected directly from households in the residual, recycling and organic bins and waste brought by householders to waste collection centres such as bring banks, civic amenity sites, pay-to-use compactors and landfills.

Interesting Fact

1.9 million tonnes

of waste was generated by Irish households in 2020



Biodegradable Municipal Waste

BMW comprises those elements of municipal waste that will rot or degrade biologically, including food waste, garden & park waste, and waste paper & cardboard.

Interesting fact

109,384 tonnes

of BMW was disposed to landfill in Ireland in 2021



Hazardous

Hazardous waste is waste that is dangerous or potentially harmful to our health or the environment. Most hazardous waste in Ireland is generated by large industry and the construction sector, with smaller amounts generated by healthcare, small businesses, households and farms.

Interesting Fact

Over 557,000 tonnes

of hazardous waste was generated in Ireland in 2020



Infrastructure

Learn more about Ireland's waste infrastructure here.


















Interesting fact

3 landfills

in Ireland accepted municipal waste in 2021, compared with 11 a decade earlier

APPENDIX 1: PROGRESS TO EU WASTE TARGETS

EU Directive	Current EU Target date	Current EU Target	Ireland's rate in 2020	Ireland's Compliance Status in 2020	Future EU Targets	Outlook for Ireland's Future Compliance
Waste Framework Directive (2008/98/EC as amended)	12/12/2020	≥ 50% preparing for reuse and recycling of household derived paper, metal, plastic and glass (calculation method 1)	53% Based on method 1 41% Based on OECD/Eurostat municipal indicator		Preparing for re-use and recycling of municipal waste: ≥ 55% by 2025 ≥ 60% by 2030 ≥ 65% by 2035	
	12/12/2020	≥ 70% preparing for reuse, recycling and other material recovery of C&D non-hazardous waste, excluding natural soils and stone	78%		None	
Packaging Directive (94/62/EC as amended)	31/12/2011	≥ 60% recovery of packaging waste	94%		None	
		≥ 55% recycling of packaging waste	62%		≥ 65% by 2025 ≥ 70% by 2030	
		≥ 60% recycling of glass packaging	84%		≥ 70% by 2025 ≥ 75% by 2030	
		≥ 60% recycling of paper and cardboard	78%		≥ 75% by 2025 ≥ 85% by 2030	
		≥ 50% recycling of metals	71%		Ferrous metals ≥ 70% by 2025 ≥ 80% by 2030 Aluminium: ≥ 50% by 2025 ≥ 60% by 2030	
		≥ 22.5% recycling of plastics (counting exclusively material that is recycled back into plastics)	29%		≥ 50% by 2025 ≥ 55% by 2030 (overall recycling, not just recycling back into plastics)	
		≥ 15% recycling of wood	48%		≥ 25% by 2025 ≥ 30% by 2030	
End of Life Vehicles Directive (2000/53/EC)	01/01/2015	≥ 95% reuse and recovery	97%		None	
		≥ 85% reuse and recycling	90%		None	

EU Directive	Current EU Target date	Current EU Target	Ireland's rate in 2020	Ireland's Compliance Status in 2020	Future EU Targets	Outlook for Ireland's Future Compliance
Batteries Directive (2006/66/EC)	26/09/2016	≥ 45% collection rate for batteries and accumulators	51%		None	
	26/09/2011	≥ 65% recycling of lead-acid batteries and accumulators	88%		None	
		≥ 75% recycling of nickel-cadmium batteries and accumulators	79%		None	
		≥ 50% recycling of other waste batteries and accumulators	66%		None	
Landfill Directive (1999/31/EC)	16/12/2020	< 427,000 tonnes of biodegradable municipal waste BMW to landfill	104,000 t		None	
	—	—	—	—	≤ 10% of municipal waste disposed to landfill by 2035	
WEEE Directive (2012/19/EC)	As of 2019	≥ 65% separate collection of WEEE	60%		None	
	15/08/2018	Temperature exchange equipment: ≥ 85% recovery ≥ 80% reuse and recycling.	96% 86%		None	
		Screens and monitors: ≥ 80% recovery ≥ 70% reuse and recycling	98% 85%		None	

EU Directive	Current EU Target date	Current EU Target	Ireland's rate in 2020	Ireland's Compliance Status in 2020	Future EU Targets	Outlook for Ireland's Future Compliance
WEEE Directive (2012/19/EC)	15/08/2018	Lamps: No recovery target ≥ 80% reuse and recycling.	88%		None	
	15/08/2018	Large equipment (>50 cm external dimension): ≥ 85% recovery ≥ 80% reuse and recycling	90% 86%		None	
	15/08/2018	Small equipment (<50 cm external dimension): ≥ 75% recovery ≥ 55% reuse and recycling	84% 74%		None	
	15/08/2018	Small IT and telecommunications equipment (<50 cm external dimension): ≥ 75% recovery ≥ 55% reuse and recycling	88% 86%		None	

CURRENT TARGET COMPLIANCE:

- Ireland already **in compliance** or on track to achieve compliance with target in 2020.
- Ireland **not in compliance** with target in 2020.

OUTLOOK FOR FUTURE TARGET COMPLIANCE:

- Largely on track:** measures in place provide prospect of achieving target compliance.
- Partially on track:** outlook for achieving target compliance is dependent on current and planned measures being implemented and effective.
- Largely not on track:** considering distance to target in 2020, significant improvements and additional measures likely to be needed to achieve target compliance.

NOTES

NOTES

AN GHNÍOMHAIREACTH UM CHAOMHNÚ COMHSHAOIL

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ar thionchar díobhálach na radaíochta agus an truailithe.

IS FÉIDIR OBAIR NA GNÍOMHAIREACTHA A ROINNT INA TRÍ PHRÍOMHRÉIMSE:

Rialú: Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithhe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

Eolas: Soláthraímid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírthe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

Tacaíocht: Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

ÁR BHFREAGRACHTAÍ

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- > saoráidí dramhaíola (m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola);
- > gníomhaíochtaí tionsclaíocha ar scála mór (m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta);
- > an diantalmhaíocht (m.sh. muca, éanlaith);
- > úsáid ghlanscartha agus scaoileadh rialaithe Orgánach Géinmhodhnaithe (OGanna);
- > foinsí radaíochta ianúcháin (m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha);
- > áiseanna móra stórála peitrlí;
- > sceitheadh fuíolluisce;
- > gníomhaíochtaí dumpála ar farraige.

FORFHEIDHMIÚ NÁISIÚNTA I LEITH CÚRSAÍ COMHSHAOIL

- > Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- > Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- > Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- > Obair le húdarás áitiúla agus gníomhaireachtaí eile chun dul i ngleic le coireacht comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, díriú ar chiontóirí, agus maoirsiú a dhéanamh ar fheabhsúcháin.
- > Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (WEEE), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídionn an ciseal ózón.
- > An dlí a chur orthu siúd a bhriseann dlí an cho

BAINISTÍOCHT UISCE

- > Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchreasa agus cósta na hÉireann, agus screamhuiscí; leibhéal uisce agus sruthanna aibhneacha a thomhas.
- > Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- > Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

MONATÓIREACTH, ANAILÍS AGUS TUAIRISCIÚ AR AN GCOMHSHAOIL

- > Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- > Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus áitiúil (m.sh. tuairisciú tréimhsiúil ar Staid Chomhshaoil na hÉireann agus Tuarascálacha ar Tháscairí).

RIALÚ ASTAÍOCHTAÍ NA NGÁS CEAPTHA TEASA IN ÉIRINN

- > Fardail agus réamh-mheastacháin na hÉireann maidir le gás ceaptha teasa a ullmhú.
- > An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

TAIGHDE AGUS FORBAIRT COMHSHAOIL

- > Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

MEASÚNÚ STRAITÉISEACH COMHSHAOIL

- > Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (m.sh. mórphleananna forbartha).

COSAINT RAIDEOLAÍOCH

- > Monatóireacht a dhéanamh ar leibhéal radaíochta, agus measúnacht a dhéanamh ar a oiread is atá muintir na hÉireann gan chosaint ar an radaíocht ianúcháin.
- > Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- > Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- > Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

TREOIR, FAISNÉIS INROCHTANA AGUS OIDEACHAS

- > Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- > Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (m.sh. Timpeall an Tí, Mapaí Radóin).
- > Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- > Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

MÚSCAILT FEASACHTA AGUS ATHRÚ IOMPRAÍOCHTA

- > GeFeasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- > Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

BAINISTÍOCHT AGUS STRUCHTÚR AN GCC

Tá an gníomhaíocht á bainistiú ag Bord Iáinimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- > An Oifig um Inbhuanaitheacht Comhshaoil
- > An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- > An Oifig um Fhianaise agus Measúnú
- > An Oifig um Chosaint Radaíochta agus Monatóireacht Comhshaoil
- > An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltáí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inní agus le comhairle a chur ar an mBord.



E: info@epa.ie
W: www.epa.ie
LoCall: 1890 33 55 99

Headquarters

PO Box 3000,
Johnstown Castle Estate
County Wexford,
Ireland

T: +353 53 916 0600
F: +353 53 916 0699

Regional Inspectorate

McCumiskey House,
Richview,
Clonskeagh Road,
Dublin 14, Ireland

T: +353 1 268 0100
F: +353 1 268 0199

Regional Inspectorate

Inniscarra,
County Cork,
Ireland

T: +353 21 487 5540
F: +353 21 487 5545

Regional Inspectorate

Seville Lodge,
Callan Road,
Kilkenny, Ireland

T: +353 56 779 6700
F: +353 56 779 6798

Regional Inspectorate

John Moore Road, Castlebar
County Mayo,
Ireland

T: +353 94 904 8400
F: +353 94 902 1934

Regional Inspectorate

The Glen,
Monaghan,
Ireland

T: +353 47 77600
F: +353 47 84987

Regional Offices

The Civic Centre
Church St.,
Athlone
Co. Westmeath, Ireland

T: +353 906 475722

Room 3, Raheen Conference
Centre, Pearse House,
Pearse Road, Raheen Business
Park,
Limerick, Ireland

T: +353 61 224764