

Scotland's Circular Economy and Waste Route Map to 2030 Consultation

January 2024

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Ministerial foreword

Addressing the climate emergency and nature crises are fundamental challenges we must all face up to together. Day-to-day we all see the impacts that climate change and the nature crises are having on our communities, our society, our economic wellbeing, and our environment – both here in Scotland and globally.

Transforming our economy into a circular one, where we keep materials in use for longer, is key to responding to these challenges. We know that 50% of global carbon emissions and 90% of global biodiversity loss and water stress is caused by resource extraction and processing. This brings huge economic opportunities, and we have already seen businesses in Scotland creating jobs by turning what we might otherwise throw away into valuable new products and services.

How we view and treat our resources in Scotland is fundamental to this transformation. Some progress has been made, and in 2022 Scottish households produced the lowest levels of waste on record. However, to cut our emissions significantly and make real progress, we must deliver a fundamental shift across society to reduce the demand for raw material in products, encourage reuse and repairs through responsible production and consumption, recycle waste and recover energy to maximise the value of any unavoidable waste that is generated.

In 2022, we set out a range of proposals across the resources and waste system through our Circular Economy and Waste Route Map consultation, and sought views on the feasibility and ambition of the proposals.

This updated draft Route Map reflects the feedback, and is intended to lay the foundations for the system-wide transformation we need to deliver through to 2030. It sets out the priority actions that will unlock progress across the waste hierarchy; and outlines how we will deliver and coordinate these actions to achieve maximum positive impact for communities and businesses in Scotland. These priorities are founded upon clear evidence, underpinned by a programme of research and analysis.

It recognises that achieving our resources, circular economy and emissions reduction objectives must be a shared endeavour, delivered through a Team Scotland approach, putting collaboration and co-design at its heart. This document is built upon extensive collaboration and engagement with the public, private and third sectors over the past two years. I want to extend my thanks to all who have been involved in this process to date.

Our New Deal for Business and Verity House Agreements underline my long-term commitment to partnership with Scotland's businesses and local government. We can only be successful if everyone plays their part – government, households and businesses.

The Route Map remains a draft, and the final Route Map will be published later this year, taking account of further feedback received through this consultation.

I am determined that Scotland will play its full part in tackling the climate and nature crises, and I invite you to take part in this consultation to help shape Scotland's transition to a circular economy.

A handwritten signature in black ink that reads "Lorna Slater". The signature is written in a cursive, flowing style.

Lorna Slater MSP, Minister for Green Skills, Circular Economy and Biodiversity

Executive summary

Background

The Scottish Government is committed to moving towards a circular economy and playing its part to tackle the climate emergency.

A circular economy, based on sustainable consumption and production, is essential to power Scotland's transition to a fair, green and sustainable economy, and critical to meeting our obligations to tackle the twin climate and nature emergencies.

Material consumption and waste are primary drivers of nearly every environmental problem Scotland currently faces, from water scarcity to habitat and species loss. Around four-fifths of Scotland's carbon footprint comes from the products and services we manufacture, use and throw away and 90% of global biodiversity loss and water stress is caused by extraction and processing of these products.^{1 2}

The Scottish Government is committed to delivering a different approach to our economy, one where we move from a "take, make and dispose" model to one where we value materials and keep them in use.

We recognise this will be a challenging task and to achieve this Scotland needs to fundamentally change how it produces, consumes and manages our resources. The update to the Climate Change Plan³ set out our circular economy vision that by 2045 Scotland's cultural, social and business norms will be driven by a focus on:

- **Responsible Production**, where a circular economy is embraced by the businesses and organisations that supply products, ensuring the maximum life and value from the natural resources used to make them.
- **Responsible Consumption**, where people and businesses demand products and services in ways which respect the limits of our natural resources. Unnecessary waste, in particular food waste, will be unacceptable in Scotland.
- **Maximising Value from Waste and Energy**, where the environmental and economic value of wasted resources and energy is harnessed efficiently.

To drive progress towards these circular economy goals, Scotland has had a set of waste and recycling targets in place for over the past decade, spanning the waste hierarchy. The Scottish Government has also set climate change ambitions to become a net zero greenhouse gas emitting nation by 2045⁴. Although the waste management sector now only directly accounts for around 4% of total Scottish greenhouse gas emissions, sustainable resource use is key to tackling climate change and will be vital for our efforts to reduce Scotland's global carbon footprint, and for other sectors to deliver their own net zero goals.⁵

Scotland has made significant long-term progress towards reaching these ambitions. The total amount of waste going to landfill in Scotland has dropped by over a third over the past decade (3 million tonnes or 30% of all waste managed was sent to landfill in 2021), and over 56% of waste was recycled in 2021. In the same year, we met our 2025 target to reduce all waste by 15%, and emissions from the waste management sector in 2021 were 76% lower than they were in 1990.

However, the sustainable choices are still not the easy or routine choices for households, businesses or those in the waste sector. Fundamental and rapid system change is required to drive progress, and ensure a more rapid transition to net zero and a fully circular economy in Scotland. To achieve our emissions envelope, we must more than half this to 0.7 MtCO₂e by 2032, while emissions from energy from waste, reported as emissions in the Electricity Sector, were 0.3 MtCO₂e in 2021.

Much has changed since most of our current targets were set in 2010. The climate emergency has intensified our focus on emissions reduction, and how we view and treat our resources. 50% of global carbon emissions and 90% of global biodiversity loss and water stress is caused by resource extraction and processing.⁶ We can see day-to-day the impacts that climate change and the nature crises are having on our communities, our society, our economic wellbeing, and our environment – both here in Scotland and globally.

Purpose

Founded on evidence and collaboration, the Route Map is part of the Scottish Government's wider response to these challenges, sitting alongside a range of other strategies and plans. Delivery of the Circular Economy and Waste Route Map is a key commitment set out in the Scottish Programme for Government 2023-2024⁷, and the Bute House Agreement⁸. It is designed to drive progress on three key fronts:

1. Setting the strategic direction and laying foundations for how we will deliver **our system-wide, comprehensive vision for Scotland's circular economy from now to 2030** – based on Responsible Production, Responsible Consumption, and Maximising Value from Waste and Energy.
2. Setting out priority actions from now to 2030 to **accelerate more sustainable use of our resources across the waste hierarchy**. We acknowledge the progress we have made against our existing 2025 waste reduction and recycling targets, the areas we have fallen short, and the lessons we can learn as we set out the framework for what comes next .
3. **Reducing emissions associated with resources and waste**. In 2024, the Scottish Government will set out how it will continue to drive down emissions in a draft Climate Change Plan (CCP)⁹. The Route Map sets out the opportunities we will take to decarbonise the waste sector.

In 2022, we set out a range of proposals across the resources and waste system through our Route Map consultation. This first consultation sought views on the feasibility and ambition of these proposals.¹⁰ Earlier in 2023, we published the analysis of responses to this consultation.¹¹

This draft Route Map reflects these findings, alongside further complementary research and analysis, updated impact assessments. It responds directly to feedback from the first consultation, **prioritising and focusing on the key actions** that will unlock progress across the waste hierarchy, outlining how we will deliver and coordinate these actions to achieve maximum positive impact for communities and businesses in Scotland.

It outlines what we intend to do, by when, and how we will work with others, to drive sustainable use and management of our resources up to 2030. It is aimed at everyone who has a role to play: the people and communities of Scotland, businesses, the third sector and the public sector, including local government. The direction and actions set out in this Route Map are complemented by the Circular Economy (Scotland) Bill¹² and its provisions. The Bill will primarily create enabling powers that will set a framework for taking action into the future.

Strategic aims and actions

Measures in the Route Map are grouped under four strategic aims, which reflect the span of the waste hierarchy:

1. **Reduce and reuse**
2. **Modernise recycling**
3. **Decarbonise disposal**
4. **Strengthen the circular economy**

For each strategic aim to 2030, we set out our vision and objectives; our approach to measuring progress; we summarise where evidence tells us we are today and the actions we have taken so far; we set out the actions to take between now and 2030; and their system-wide impact and dependencies.

The way that material flows around the economy is complicated and influenced by everyone in the supply chain. To deliver system-wide transformation, we cannot work in silos. We recognise that all of our actions must be coordinated, properly sequenced, and designed to deliver cumulative impact and wider benefits to Scotland. The actions set out in this consultation are designed to build on, and complement, the range of existing measures already in place or underway.

Priority actions are the measures that we consider are critical to unlocking progress, and which we intend to focus on. This prioritisation is based on a review of the evidence, including feedback from the previous consultation, and the potential role of the priority actions in driving progress to 2030. We plan to deliver all priority measures, though this will be dependent on decisions taken when setting future Scottish budgets.

Each section also sets out the **further actions** we will seek to take. These actions are designed to complement the priority actions. In some cases they support delivery of the priority actions (e.g. underpinning research, data, legislation), while in other cases they will build on the priority actions through to 2030. This is reflected in the target delivery timelines. Again, ability to take forward each of these actions will be dependent on decisions taken when setting future Scottish budgets.

As a devolved nation, we have set out our clear commitment to seek to maintain or exceed EU environmental standards, where appropriate. We are taking action on policy measures that lie within devolved competence. However, we also recognise that many powers relating to the circular economy are reserved. These often relate to the production of our products, services and materials which involve supply

chains that go beyond Scotland, spanning the UK, European Union, and the globe. It is clear that many areas to drive more rapid progress require further action from the UK Government. These areas include product design and standards, the role of VAT and tax to incentivise and encourage sustainable behaviours, and measures to influence global markets and reduce imported and exported emissions.

The section below sets out the priority and further actions under each strategic aim. We then ask a series of consultation questions to seek views and feedback on these actions. More detail on these actions can be found in Chapter 2 and the full policy table at the Annex.

1: Reduce and reuse

Reducing and reusing waste are the first goals of the waste hierarchy and central to changing our relationship with materials and products. Building an economic system that moves away from being based on items that are designed to be disposable will bring significant environmental benefits.

In this section, we have three main objectives:

- Drive responsible consumption, production and re-use
- Reduce food waste
- Embed circular construction practices

Proposed actions:

Objective 1: Responsible consumption, production and re-use

Priority action:

- Develop and publish a Product Stewardship Plan to identify and tackle the environmental impact of priority products (**2025/26**)

Further actions:

- Deliver a prioritised approach to the introduction of environmental charges for problematic products (**by 2025**)
- Introduce a charge for single-use disposable cups (**by 2025**)
- Consult on actions regarding the environmental impacts of single-use vapes (**ongoing**)
- Review the feasibility of setting reuse targets (**from 2025**)
- Develop restrictions on the destruction of unsold consumer goods (**from 2024**)
- Develop measures to improve the reuse experience for consumers (**ongoing**)
- Deliver behaviour change-based approaches focused on sustainable consumption, aligned to Let's Do Net Zero communications (**ongoing**)
- Identify ways to expand business models that prolong product lifespan (**ongoing**)

Objective 2: Reduce food waste

Our Review of the 2019 Food Waste Reduction Action Plan outlines that we need to reset our approach to tackling food waste (see chapter 2). The actions outlined

below are based on the evidence we have so far on how best we can reset our approach. We welcome views on how to enhance this to ensure our reset delivers at the speed and scale required to see sustained food waste reduction results.

Priority actions:

- Deliver an intervention plan to guide long-term work on household food waste reduction behaviour change **(by 2025)**
- Develop with stakeholders the most effective way to implement mandatory reporting for food waste and surplus by businesses **(by 2025/26)**

Further actions:

- Strengthen data and evidence **(ongoing)**
- Review the rural exemption for food waste recycling, as part of recycling codesign process **(in 2024/25 and 2025/26)**
- Investigate feasibility of action plans **(after 2025)**
- Deliver enhanced support for businesses **(ongoing)**

Objective 3: Embed circular construction practices

Priority action:

- Support the development of regional Scottish hubs and networks for the reuse of construction materials and assets **(from 2025)**

Further actions:

- Develop new and promote existing best practice standards in circular practices within the construction sector, and assess the options for both voluntary and mandatory compliance **(ongoing)**
- Investigate and promote options to incentivise and build capacity for the refurbishment of buildings **(by 2026/27)**
- Investigate and promote ways to reduce soil and stones disturbance, movement and volumes going to landfill **(by 2026/27)**
- Review opportunities to accelerate adoption of climate change and circular economy focussed purchasing in construction **(from 2024)**
- Consider how devolved taxes can incentivise the use of recycled aggregates and support circular economy practices **(ongoing)**

2: Modernise Recycling

Recycling helps to conserve our natural resources, keep valuable materials flowing through our economy and reduce the amount of waste sent to landfill. We want Scotland to become a world-leader in recycling, where recycling and reuse services are easy to use and accessible to all, and support and encourage positive choices. By 2030, we want a high-performing recycling system that has modernised recycling services for households and businesses across Scotland, optimised the performance of collection services, and can recycle most waste types to maximise diversion of waste from disposal. Increasing the amount of materials recycled and increasing the proportion of these recycled in Scotland will deliver carbon reductions, reduce the environmental impacts associated with extracting new raw materials, and create a

range of important economic opportunities to reprocess and reuse materials here in Scotland.

The objectives are grouped under:

- Modernise household recycling and reuse services, improving and optimising performance.
- Support businesses in Scotland to reduce waste and maximise recycling.

Proposed actions

Objective 1: Modernise household and reuse services

Priority action:

- Facilitate a co-design process with Local Government for high quality, high performing household recycling and reuse services (**2024/25 and 2025/26**)

Further actions:

- Develop a statutory code of practice for household waste services (**by 2025/26**)
- Introduce statutory recycling and reuse local performance targets for household waste services (**from 2030**)
- Strengthen the Householder's duty of care in relation to waste (**by 2025/26**)
- Give local authorities more tools to support household recycling and reduce contamination (**by 2025/26**)
- Undertake a review of waste and recycling service charging (**by 2024/25**)
- Review the monitoring and reporting framework for local authority waste services (**by 2025/26**)
- Develop options and consult on the introduction of end destination public reporting of household recycling collected (**by 2027/28**)

Objective 2: Support businesses in Scotland to reduce waste and maximise recycling

Priority actions:

- Review of compliance with commercial recycling requirements (**2025**)
- Co-design measures to improve commercial waste service provisions (**2026/27**)

Further actions:

- Conduct a national compositional study of waste from commercial premises (**by 2025/26**)
- Investigate further steps to promote business-business reuse platforms (**by 2027**)

3: Decarbonise Disposal

The production and management of waste results in environmental impacts and represents missed economic opportunities for these materials. That is why our focus in this Route Map is to prevent materials from becoming waste in the first place. As we accelerate our move to a circular economy, we will produce less waste. We want to ensure that materials that cannot be avoided, reused or recycled are managed in

a way that minimises environmental and climate impacts, encourages management of materials further up the waste hierarchy, and minimises broader societal impacts.

The objectives are to:

- Understand the best environmental outcomes for specific wastes
- Ensure there is an appropriate capacity to manage waste
- Improve environmental outcomes for waste through innovation
- Incentivise decarbonisation of the waste sector

Proposed actions

Priority actions:

- Develop and deliver a Residual Waste Plan to 2045 (**develop by 2025/26**)
- Facilitate the development of a Sector-Led Plan to minimise the carbon impacts of the Energy from Waste Sector (**by 2025/26**)

Further actions:

- Support the inclusion of energy from waste in the UK Emissions Trading Scheme (ETS), and investigate other fiscal measures to incentivise low carbon disposal (**from 2028**)
- Review and target materials currently landfilled to identify and drive alternative management routes (**from 2024**)
- Facilitate the co-production of guidelines for effective community engagement (**process underway from 2024**)
- Increase the capture of landfill gas (**by 2025**)

4: Strengthen the circular economy

Delivering a circular economy is not a simple task. It requires sustained transformational system change, and a range of actions that are both complementary and coordinated to drive sustainable management of our resources. If Team Scotland are to maximise the opportunities that a circular economy brings to Scotland, we must maintain a strategic approach to its delivery, ensuring the right structures and support are in place to enable action across the circular economy.

The objectives are to:

- Provide strategic oversight and direction for the delivery of a circular economy in Scotland.
- Coordinate action across cross-cutting areas to support progress across the waste hierarchy.
- Robustly monitor and evaluate progress to enable agile working, take action where we are not on track, and learn from and implement what works.

Proposed actions

Priority actions:

- Develop a Circular Economy strategy every five years (**from 2025**)

- Set new circular economy targets (determined **from 2025**)

Further actions:

- Review and refresh Scotland’s Waste Data Strategy’s action plan (**development alongside new circular economy targets**)
- Maintain a programme of research on waste prevention, behaviour change, fiscal incentives and material-specific priorities (**ongoing**)
- Develop public procurement opportunities to reduce the environmental impact of public spending, including scoping new legislative circular economy requirements for contracting authorities under section 82 and 82A of the Climate Change (Scotland) Act 2009 (**ongoing**)
- Support greater uptake of green skills, training and development opportunities (**ongoing**)

Approach

The Route Map’s vision and priority actions will lay the groundwork for Scotland’s approach to more sustainable management of resources and delivery of a circular economy in this decade, helping to guide the future development and delivery of strategies and plans. We recognise that this level of economic transformation will take time, and we set out our intention later in this Route Map to develop a new statutory circular economy strategy from 2025 (see ‘*Strengthen the circular economy*’ section). This strategy will build from the Route Map’s framework, taking a strategic long-term view of what is needed to deliver a circular economy across a range of systems and sectors.

Achieving this transformation is a shared endeavour. A circular economy can only be delivered through a Team Scotland approach, defined by collaboration and co-design. We can only be successful if everyone plays their part – government, households, communities, charities and businesses. Our approach to the development and delivery of these actions will be guided by both the Verity House Agreement¹³ and New Deal for Business Group’s recommendations and implementation plan¹⁴.

Some of the policy measures we need to drive the transition to a fully circular economy also rely on action by the UK Government, and these areas are highlighted in the Route Map.

The way that material flows around the economy is complicated and influenced by everyone in the supply chain. In developing the Route Map, we have considered the bigger picture – including our global carbon and environmental footprint – to create, prioritise and deliver a package of measures that is greater than the sum of its parts, to maximise the benefit to Scotland of the transition to a circular economy. We have taken a ‘**material-first**’ approach, where we take a targeted, coordinated approach to materials across the waste hierarchy, recognising the variations in emissions and environmental impact of production, consumption or management of different materials and products.

We recognise that the system-wide change we need will impact everyone. It must be designed and delivered in a fair, inclusive way. We are committed to ensuring that future generations and those least able to pay are not unfairly burdened, and that existing inequalities are tackled, not exacerbated - particularly in the context of the cost of living challenges we are now facing, and the Scottish Government's national mission to tackle poverty and protect people from harm.¹⁵

We recognise that not all policy measures are fully ready to be implemented in Scotland and will need further development. As work is undertaken to finalise and deliver the Route Map, we intend to maintain a **robust, evidence-based approach** to ensure we maximise impact and deliver value for money for the people, communities and businesses of Scotland. High-level and screening impact assessments have been updated to accompany this consultation to support this process, alongside an Environmental Report. This sets out findings on the likely environmental implications arising from the measures set out within the Route Map. Further information about our approach to impact assessments can be found at Chapter 3.

Responding to the consultation

This consultation is an important moment to reflect as a nation, and ensure we have the right priorities to drive delivery of sustainable resource management and a circular economy in Scotland through to 2030. To support the consultation process, we are looking to hear from the widest possible range of people and organisations across Scotland on the draft Route Map presented here. Following this consultation, we will undertake analysis of consultation responses in order to understand the full range of views on the Route Map, its proposals and impact assessments. We will also undertake further supporting analysis or research where required.

We intend to confirm the final Circular Economy and Waste Route Map later in 2024.

Please ensure that consultation responses are submitted before the closing date of **Friday 15 March 2024**.

Please respond to this consultation using the Scottish Government's consultation platform, Citizen Space. You can view and respond to this consultation online [here](#), or by completing a Respondent Information Form.

Chapter 1. Introduction and case for change

Introduction: A circular economy in Scotland

The Scottish Government is committed to moving towards a circular economy and playing its part to tackle the climate emergency.

A circular economy, based on sustainable consumption and production, is essential to power Scotland's transition to a fair, green and sustainable economy, and critical to meeting our obligations to tackle the twin climate and nature emergencies. Material consumption and waste are primary drivers of nearly every environmental problem Scotland currently faces, from water scarcity to habitat and species loss.

Around four-fifths of Scotland's carbon footprint comes from the products and services we manufacture, use and throw away and 90% of global biodiversity loss and water stress is caused by extraction and processing of these products.^{16 17}

The Scottish Government is committed to delivering a different approach to our economy, one where we move from a "take, make and dispose" model to one where we value materials and keep them in use.

We recognise this will be a challenging task and to achieve this Scotland needs to fundamentally change how it produces, consumes and manages resources. The update to the Climate Change Plan¹⁸ set out our circular economy vision that by 2045 Scotland's cultural, social and business norms will be driven by a focus on:

- **Responsible Production**, where a circular economy is embraced by the businesses and organisations that supply products, ensuring the maximum life and value from the natural resources used to make them.
- **Responsible Consumption**, where people and businesses demand products and services in ways which respect the limits of our natural resources. Unnecessary waste, in particular food waste, will be unacceptable in Scotland.
- **Maximising Value from Waste and Energy**, where the environmental and economic value of wasted resources and energy is harnessed efficiently.

Purpose

1.1 Why do we need the Circular Economy and Waste Route Map?

Much has changed since most of our current waste targets were set in 2010. The climate emergency has intensified our focus on emissions reduction, and how we view and treat our resources. 50% of global carbon emissions and 90% of global biodiversity loss and water stress is caused by resource extraction and processing.¹⁹

We can see day-to-day the impacts that climate change and the nature crises are having on our communities, our society, our economic wellbeing, and our environment – both here in Scotland and globally.

Founded on evidence and collaboration, the Route Map is part of the Scottish Government's wider response to these challenges, sitting alongside a range of other strategies and plans (see *Strategic context for change below*). Delivery of the Circular Economy and Waste Route Map is a key commitment set out in the Scottish Programme for Government 2023-2024²⁰, and the Bute House Agreement²¹. It is designed to drive progress on three key fronts:

1. Setting the strategic direction and laying foundations for how we will deliver **our system-wide, comprehensive vision for Scotland's circular economy from now to 2030** – based on Responsible Production, Responsible Consumption, and Maximising Value from Waste and Energy.
2. Setting out priority actions from now to 2030 to **accelerate more sustainable use of our resources across the waste hierarchy**. We acknowledge the progress we have made against our existing 2025 waste reduction and recycling targets, the areas we have fallen short, and the lessons we can learn as we set out the framework for what comes next.
3. **Reducing emissions associated with resources and waste**. In 2024, the Scottish Government will set out how it will continue to drive down emissions in a draft Climate Change Plan (CCP)²². The Route Map sets out the opportunities we will take to decarbonise the waste sector.

The Route Map's intention is to outline what we intend to do, by when, and how we will work with others, to drive sustainable use and management of our resources, and lay the groundwork for delivery of Scotland's circular economy up to 2030. It is aimed at everyone who has a role to play: the people and communities of Scotland, businesses, the third sector and the public sector, including local government.

1.2 The development of the Route Map

In 2022, we set out a range of proposals across the resources and waste system through our Route Map consultation. The consultation sought views on the feasibility and ambition of these proposals in order to reach our 2025 waste and recycling targets, and to achieve our long term goal of net zero by 2045.²³ Earlier in 2023, we published the analysis of responses to this consultation.²⁴

This draft Route Map reflects these findings, alongside further complementary research and updated impact assessments. It responds directly to feedback from the first consultation, prioritising and focusing on the key actions that will unlock progress across the waste hierarchy, outlining how we will deliver and coordinate these actions to achieve maximum positive impact for communities and businesses in Scotland. Through this second consultation, open until **Friday 15 March 2024**, we are inviting views on these priorities, before final publication of the Route Map later in 2024.

This level of economic transformation will take time, and we set out our intention later in this Route Map to develop a new statutory circular economy strategy from 2025 (see '*Strengthen the circular economy*' section), alongside new circular economy targets from 2025. The strategy will build from the Route Map's framework,

taking a strategic long-term view of what is needed to deliver a circular economy across a range of systems and sectors.

1.3 Relationship with the Circular Economy (Scotland) Bill

The Circular Economy (Scotland) Bill²⁵, introduced in June 2023, contains provisions that require primary legislation to underpin Scotland's transition to a circular economy, and modernise Scotland's waste and recycling services. If passed, the Bill will primarily deliver new powers that will set a framework for taking action into the future. The direction and actions set out in this Route Map are complemented by the provisions in the Bill, and in some places are dependent on enabling powers flowing from the Bill if passed.

Case for change

2.1 Scotland's waste and recycling targets

To drive progress towards these circular economy goals, Scotland has had a set of waste and recycling targets in place for over the past decade, spanning the waste hierarchy (see Figure 1 below)²⁶:

- 15% reduction of all waste by 2025, against 2011 levels
- 33% reduction of food waste by 2025, based on 2013 baseline
- Minimum of 60% recycling of household waste by 2020
- Minimum of 70% recycling of all waste by 2025
- Maximum 5% of all waste to landfill by 2025
- A ban on all biodegradable municipal waste going to landfill by 2025



Figure 1: Scotland's Waste Hierarchy

As the first Circular Economy and Waste Route Map consultation²⁷ set out, Scotland has made good long-term progress towards reaching these ambitions.

The total amount of waste going to landfill in Scotland has dropped by over a third over the past decade (3 million tonnes or 30% of all waste managed was sent to landfill in 2021), over 56% of waste was recycled in 2021. In the same year we met our 2025 target to reduce all waste by 15%.

Table 1 below summarises the progress against these targets. In addition, Scotland had a target to recycle and reuse 70% of construction and demolition waste by 2020. This target has been met every year since 2011.

However, in some areas we have fallen short, and progress has not been at the pace and scale required. While the 2025 targets have provided a good platform for progress over the past decade, **we know from the Route Map’s analysis that they are not universally the best indicators to deliver our circular economy, emissions and nature objectives.**²⁸ ‘All waste’ tonnage-based targets do not account for the varying environmental or carbon impact of individual materials. This was reinforced by recent Climate Change Committee advice to the Scotland Government and Parliament, which recommended that Scotland “*set targets to reduce waste and improve recycling rates beyond 2025*”... “*on the basis of separate waste streams (rather than ‘All waste’) and where possible consider carbon-based metrics.*”²⁹

As the first consultation’s review of our resources and waste system found, the sustainable choices are still not the easy choices for households, businesses or those in the waste sector, and large-scale, and rapid system change is required to drive progress, and ensure a more rapid transition to net zero and a fully circular economy in Scotland.³⁰

As we set out what comes next to 2030 through this Route Map and the Circular Economy (Scotland) Bill, we recognise the role 2025 targets have played, and the lessons we can learn moving forward. The actions set out in this Route Map are designed to chart what must come next to deliver the pace and scale required to meet our resources and circular economy objectives – including the role of future targets.

2025 TARGET	PROGRESS
Reduce total waste arising in Scotland by 15% against 2011 levels	ON TRACK: 20% (2021) Highly variable from year-to-year, strongly linked to scale of construction and demolition activity. Household and Commercial & Industrial waste trend is gradually reducing.
Reduce food waste by 33% against 2013 levels	OFF TRACK: 5% increase against the 2013 baseline (2021 food waste estimate). Per capita, equivalent to 189 kg per person per year, an increase of 4kg or 2% against the baseline. This reflects a similar pattern to the UK as a whole, with 2021 data likely influenced by the Covid-19 pandemic. ³¹ Scotland is highly unlikely to meet its target to reduce food waste by 33% by 2025.
Minimum of 60% recycling of household waste by 2020	MISSED: 43.3% (2022) Progress plateaued at around 45% for several years. It fell back to 42% in 2020 (Covid-19 impact). Local authority recycling rates range from 20.7% - 57.8%.
Minimum of 70% recycling of all waste by 2025	AT RISK: 56.3% (2021) Steady increase since 2011, but fell back from 61% (2018) due to Covid-19 impacts. Year-on-year variability from 2011-2016, largely driven by construction and demolition waste.
Maximum 5% of all waste to landfill by 2025	OFF TRACK: 30.2% (2021) Waste sent to landfill fell from around 7 million tonnes in 2005 to around 2.4 million tonnes in 2022. Rapid decline in waste going to landfill recently, driven by shift from landfill to incineration.
Ban on all biodegradable municipal waste going to landfill by 2025	ON TRACK: 707,000 tonnes (2022) Overall trend is a 45% decrease since 2011.

Table 1: Progress towards Scotland's 2025 waste and recycling targets.

2.2 Climate targets

The Scottish Government has set climate change ambitions to become a net zero greenhouse gas emitting nation by 2045³². We have committed to doing this in a way that is just and fair for all people across Scotland. We know we must also take

responsibility for our global carbon footprint associated with the goods and services we import.

2.2.1 Waste sector emissions

The 2020 Climate Change Plan update³³ set out emission 'envelopes' for each sector, including waste, which reflect the overall pathway to meeting our statutory targets to reduce emissions by 75% by 2030 (compared with 1990) and to net zero by 2045.

Within Scotland, total greenhouse gas emissions have approximately halved since 1990, with waste management sector emissions reducing even faster during that period. In 2021, the waste management sector emissions stood at 1.5 MtCO₂e, 76% lower than the 6.5 MtCO₂e in 1990.³⁴ The subsector covering waste incineration with energy recovery has its carbon dioxide emissions accounted for under the Electricity sector, rather than waste management. Emissions from energy from waste were 0.3 MtCO₂e in 2021, representing 19% of Electricity Sector emissions.

While progress has been made to reduce sector emissions, **to achieve the emissions envelope, we must more than halve waste sector emissions from their current position (1.5 MtCO₂e in 2021), to 0.7 MtCO₂e by 2032.** As part of this process, we must look at all sources of greenhouse gas emissions across the resources and waste sector, including legacy emissions from landfill sites and critical opportunities to decarbonise incineration, as outlined in Dr Church's independent review of incineration and its role in the waste hierarchy^{35 36}.

2.2.2 Scotland's global carbon footprint

Scotland's statutory emissions reduction targets, set out in the Climate Change Plan, are based on emissions from sources located here in Scotland. However, we know we must also take responsibility for our global carbon footprint associated with the goods and services we import³⁷.

Although the waste management sector now only directly accounts for around 4% of total Scottish greenhouse gas emissions as reported through the Climate Change Plan, **around four-fifths of Scotland's carbon footprint comes from the products and services we manufacture, use and throw away.**^{38 39} This underlines the work we must undertake together: sustainable resource use is key to tackling climate change and will be vital for other sectors to deliver their own net zero goals.⁴⁰

2.3 Strategic context for change

Our work to deliver a circular economy and drive sustainable resource management does not sit apart from the world we live in and the major challenges we collectively face. The move to a circular economy directly supports the Scottish Government's three national missions around **equality, opportunity and community.**⁴¹

By delivering a circular economy in Scotland, we can support:

Our environment: Cutting our material consumption is one of the most important ways that we can all limit our impact on the environment, both in Scotland and globally. Our waste and circular economy objectives are core pillars of our Environment Strategy⁴² and its outcomes⁴³. Creating sustainable growth is a key part of the Scottish Government's purpose and the circular economy supports progress towards the National Performance Framework outcome for the environment ('we value, enjoy, protect and enhance our environment'); contributes to a range of UN Sustainable Development Goals⁴⁴; and helps to embed our economy in the natural world, recognising the need to live within the sustainable limits of our single, shared planet.⁴⁵ A primary driver of **biodiversity loss** internationally is extraction and manufacturing of raw materials, and the disturbance of soils, which are only recently being fully recognised as extremely important biodiversity ecosystems. Our biodiversity strategy⁴⁶ outlines real-world examples of how the circular economy can make a tangible contribution to halting biodiversity loss by 2030 and reversing declines by 2045.⁴⁷

Our climate: Sustainable resource use is key to tackling climate change and will be vital for other sectors to deliver their own net zero goals. Maximising the life of useful products and materials reduces mining and extraction practices associated with virgin extraction. The Scottish Government has set climate change ambitions to become a net zero greenhouse gas emitting nation by 2045⁴⁸. We have committed to doing this in a way that is just and fair for all people across Scotland. Although the waste management sector only directly accounts for around 4% of total Scottish greenhouse gas emissions, we know we must also take responsibility for our global carbon footprint associated with the goods and services we import⁴⁹.

Our economy: Opening up new market opportunities, improving productivity, and increasing self-sufficiency and resilience by reducing reliance on international supply chains and global shocks. Our waste reduction and recycling outcomes support progress towards the National Performance Framework outcome for the economy, and our strategy for economic transformation⁵⁰ recognises that the circular economy represents an enormous economic and industrial opportunity for Scotland as part of this transformation.

Our society: Strengthening communities by providing local employment opportunities and lower cost options to access the goods Scotland needs. As we continue to face economic challenges, the rapid, just transition to a more circular economy, is needed more than ever. The transition to a circular economy is challenging, but is a major opportunity to transform our economy, our communities and our lives for the better.

Our role in the world: Sustainable consumption and production are essential for Scotland's just transition to a net zero, nature positive economy, but they also alleviate pressures on the natural world and its finite resources globally: Reducing the demand for raw materials and keeping materials in use as high up the waste hierarchy and for as long as possible. This can directly help Scotland meet its obligations to tackle the twin climate and nature emergencies through a just transition, showing genuine climate leadership and playing our full part on the global stage.

Our approach

3.1 Our strategic aims

Measures in chapter two are grouped under four strategic aims, which reflect the span of the waste hierarchy. These strategic aims are outlined in **Figure 2** below.



Figure 2: The Scottish Government's vision and strategic aims for a circular economy

More information about each strategic aim and its objectives is outlined in Chapter 2, but in summary they cover the following:

Reduce and reuse: Reducing waste and reusing resources are the top goals of the waste hierarchy and central to changing our relationship with materials and products. Building an economic system that moves away from being based on items that are designed to be disposable brings significant environmental benefits. Measures aim to promote responsible consumption, production and re-use, while outlining pathways to reduce waste, particularly food waste, and embedding circular construction practices.

Modernise recycling: Increasing the amount of materials recycled and increasing the proportion of these recycled in Scotland will deliver emission reductions, reduce the environmental impacts associated with extracting new raw materials, and create a range of important economic opportunities to reprocess and reuse materials. Measures aim to improve recycling from households and commercial businesses.

Decarbonise disposal: While our focus is to prevent materials from becoming waste in the first place, we want to ensure that materials that cannot be avoided, reused or recycled are managed in a way that minimises environmental and climate impacts, encourages management of materials further up the waste hierarchy, and minimises broader societal impacts.

Strengthen the circular economy: We must maintain a strategic approach to the delivery of a circular economy, ensuring the right structures and support are in place to enable action across the economy, robustly monitoring and evaluating progress.

3.2 Our approach

Throughout the development of the Route Map, from early pre-consultation engagement in 2021 onwards, our approach has been underpinned by five guiding

principles that have shaped its vision, aims and priorities, and will guide its implementation.

We take a whole system approach. The way that material flows around the economy is complicated and influenced by everyone in the supply chain. We consider the whole system – including our global footprint – to create, prioritise and deliver a package of measures that is greater than the sum of its parts, to maximise the benefit to Scotland of the transition to a circular economy. This is vital for delivery of measures, and we draw out the interdependencies and cross-cutting themes spanning our priority actions throughout this document. This includes a **‘material-first’ approach**, where we take a targeted, coordinated approach to materials across the waste hierarchy, recognising the variations in emissions and environmental impact of production, consumption or management of different materials and products.

We are ambitious and agile. No country has yet identified a long-term pathway to achieving zero waste and a circular economy. We must be brave and bold, learn by doing, and be agile. We must consider actions that have the potential to drive future change, even if they are not ready yet, and therefore set out a range of actions at different levels of development.

We are evidence driven. Not all the answers are known at this stage. We are led by a clear evidence-driven approach that underpins our priority actions and investments. In the first consultation we identified a number of areas where further evidence was required, and we have published new research alongside this draft Route Map to address these priorities. This is an approach we will continue to take: areas for further research, and some of the barriers to overcome, are highlighted in this document as part of implementation of our priority actions.

We are fair and inclusive. The system-wide change we need will impact everyone. It must be designed and delivered in a fair, inclusive way. We are committed to ensuring that future generations and those least able to pay are not unfairly burdened, and that existing inequalities are tackled, not exacerbated - particularly in the context of the cost of living challenges we are now facing. This is directly contributing to the Scottish Government’s national mission to tackle poverty and protect people from harm.⁵¹ A **Just Transition** is key to this, planning for our future circular economy. This includes considering opportunities for training/re-training and employment through the transition to a circular economy, and a more sustainable material footprint; and through the creation of markets and processes for used materials. Increased reuse requires significant expansion of premises for collection, storage, and retail; as well as green skills expansion. In providing skills and employment, it can enable economic growth at local and national levels, supporting economic transformation.

Everyone must play their part. Achieving our waste, recycling and wider emissions reduction objectives is a shared endeavour. We know a circular economy can only be delivered through a “Team Scotland” approach, defined by consensus, collaboration and co-design. Collaboration and partnership have been critical to our progress so far, and we can only be successful if everyone plays their part – government, households, communities, charities and businesses. Our approach will

be guided by both the Verity House Agreement⁵² and New Deal for Business Group's recommendations and implementation plan⁵³.

3.3 Feasibility, affordability, impact

As part of the process for defining priority and further actions through the Route Map, we have also considered measures alongside key criteria to determine what our priorities should be:

- **Feasible:** Is the measure deliverable, does it fit well with the local, regional and/or national context, do we have the evidence, data and resources required to shape plans to deliver it effectively. This includes considering feedback from any stakeholder engagement and public consultation.
- **Financially positive:** Measures may have a positive impact on the finances of some or all actors: For example, through a reduction in waste to be managed; providing local employment opportunities and lower cost options to access the goods Scotland needs; reduced costs associated with littering; and maximising the value of material for recycling. Where they have a cost they must be affordable, for households, communities, businesses and to Government and the wider public sector. We aim to plan for the delivery of priority measures, and look to reflect that in capital and revenue projections.
- **High impact:** Will the measure deliver impact against our objectives, either directly, or indirectly by enabling progress through other priority or follow-up measures across the waste hierarchy. Impact can be defined as supporting emissions reduction and tackling nature loss, progress against our existing waste and recycling objectives, wider environmental, economic and social benefits or costs, or enabling effective monitoring and evaluation of our progress.

3.4 Cross-cutting themes

There are several key cross-cutting themes, which underpin the actions and transformation we need to deliver. These themes are highlighted throughout Chapter 2, and include:

- **Behaviour change:** Urgent, system-wide change is required if we are to achieve our ambitions. The first consultation set out the diverse range of incentives that impact our decisions and behaviour; proposed measures build on this, and look strategically across the waste hierarchy at embedding positive behaviour change.
- **Data and evidence:** Improvements in understandings of materials flows, availability and quality of data will be crucial to achieve significant impacts across the resources and waste system.
- **Infrastructure:** Identifying what future strategic infrastructure requirements will be, both in Scotland as a whole and on a place-based basis for local needs, linked to National Planning Framework 4⁵⁴. This ranges from reuse capacity, through to local recycling, domestic reprocessing and residual waste management infrastructure.
- **Legislative framework:** In order to support the transition to a circular economy, Scotland needs the right legislative framework to make the right choices the easy choices for actors across our economy and society. An example would be the

Circular Economy (Scotland) Bill⁵⁵, which contains provisions that require primary legislation to underpin Scotland's transition to a circular economy.

3.5 Assessing impacts

We are committed to assessing the wider impact of proposals, including the potential impacts on equality, socio-economic considerations, island communities, business and regulation, and the environment. This is in accordance with our legislative requirements and, importantly, to inform the policy development and implementation process. High-level partial and screening impact assessments have been developed and updated to accompany the Route Map, and feedback through consultations will help inform future impact assessments for specific interventions, as required. For example, measures may need to further consider individual and cumulative impacts on the environment, public spending, the cost to business including small and medium-sized enterprises, consumer choice and affordability, equality, socio-economic and island communities impacts.

We recognise that, where appropriate, individual measures set out in the draft Route Map may be subject to further public consultation, for example where secondary legislation is needed.

3.6 Working with the UK governments

As a devolved nation, we have set out our clear commitment to seek to maintain or exceed EU environmental standards⁵⁶, where appropriate. We are taking action on policy measures that lie within devolved competence. However, we recognise that many powers relating to the circular economy are reserved, and that the production of our products, services and materials involve supply chains that go beyond Scotland, spanning the UK, European Union, and the globe.

The Scottish Government works constructively with the other UK governments on key measures where our interests are aligned and it makes sense to do so. We continue to work within the Common Frameworks to manage potential policy divergence as well as where policies can align. For example, to deliver a fully effective Scottish ban on certain single-use plastics in 2022, and to implement UK-wide Packaging Extended Producer Responsibility from 2025.⁵⁷

While environmental policy, including waste management, is devolved to Scotland, the post-Brexit Internal Market Act 2020 could prevent effective measures from being implemented in Scotland. Should an exclusion from the Act be required for measures within this Route Map, we will follow the agreed Common Framework process, and would expect the UK government to do the same.

It is also clear that many areas to drive more rapid progress require further action from the UK Government. Given the immense challenges we collectively face, up to this point, greater ambition and pace from the UK Government is required on a host of areas that would unlock circular economy and emission reduction progress across the UK's nations. This was reinforced by the Climate Change Committee's 2023 emission reduction progress report for the UK, highlighting a "lack of urgency".⁵⁸ We will continue to call on others, including the UK Government, where we need to see further progress. These areas include product design and standards, the role of VAT

and tax to incentivise and encourage sustainable behaviours, and measures to influence global markets and reduce imported and exported emissions.

Chapter 2. Our actions to deliver a circular economy

Introduction

This section outlines our actions to date and our priorities to accelerate progress to meet our sustainable resource objectives, deliver a circular economy and reduce emissions through to 2030.

Proposals in this chapter are grouped under four strategic aims:

- 1: Reduce and reuse**
- 2: Modernise recycling**
- 3: Decarbonise disposal**
- 4: Strengthen the circular economy**

For each strategic aim to 2030, we set out our vision and objectives; our approach to measuring progress; summarise where we are today and the actions we have taken so far; the actions to take between now and 2030; and their system-wide impact and dependencies across the Route Map to achieve maximum positive impact for communities and businesses in Scotland.

We ask a series of consultation questions to seek views and feedback on these actions.

Priority actions for delivery

In the first Route Map consultation we set out around 40 proposals for consultation. While most proposals received support in the consultation response, we recognise there is a need to prioritise to provide the certainty that households, businesses, the public and third sectors need to make changes, support and invest in a circular economy.

Throughout this Route Map, we have set out **priority actions**. These are the actions that we consider are critical to unlocking progress, and which we intend to focus on. They are based on a review of the evidence under each strategic aim across the waste hierarchy, and their potential role to drive progress through collaboration and partnership to 2030. We plan to deliver all priority measures, though this will be dependent on decisions at future budgets, parliamentary timelines and support, and the outcomes of wider consultation, where appropriate.

Each section also sets out the **further actions** we will seek to take. These actions are designed to complement the priority actions. In some cases they support delivery of the priority actions (e.g. underpinning research, data, legislation), while in other cases they will build on the priority actions through to 2030. This is reflected in the target delivery timelines.

A whole system approach: the bigger picture

The way that material flows around the economy is complicated and influenced by everyone in the supply chain. To deliver system-wide transformation, we cannot work in silos. All of our actions must be coordinated, properly sequenced, and designed to deliver cumulative impact and wider benefits to Scotland. Throughout this chapter we highlight how our priority actions are being designed and implemented to maximise impact, both on their own terms, and in coordination with the other measures across this Route Map, and with wider initiatives. This allows priority measures to take a **targeted, coordinated approach to specific materials** across the waste hierarchy, recognising the variation in emissions or environmental impact of production, consumption or waste management of different materials and products.

1: Reduce and reuse

Summary of proposed priority actions:

- Develop and publish a Product Stewardship Plan to tackle the environmental impact of priority products (**by 2025/26**)
- Deliver an intervention plan to guide long-term work on household food waste reduction behaviour change (**by 2025**)
- Develop with stakeholders the most effective way to implement mandatory reporting for food waste and surplus by businesses (**by 2025/26**)
- Support the development of regional Scottish hubs and networks for the reuse of construction materials and assets (**from 2025/26**)

Vision statement

Reducing and reusing waste are at the top of the waste hierarchy and central to changing our relationship with materials and products. Building an economic system that moves away from being based on items that are designed to be disposable will bring significant environmental benefits.

Strategic objectives

This strategic aim has three key objectives, which formed packages in our [2022 Route Map consultation](#)⁵⁹:

- **Challenging the current approach to consumption and production** by mainstreaming reuse and repair, and incentivising and promoting sustainable choices. This means prioritising reuse, making repair easier, and working with businesses and the UK Government to drive better product design and ensure producers take responsibility for the environmental impact of what they sell.
- **Focus on reducing food waste** from all sources, building on our 2019 Food Waste Reduction Action Plan. This means addressing the whole food system; resetting our approach to food waste; enhancing our circular bioeconomy; and ensuring we have the data needed to understand and drive progress. We

recognise that progress has not been at the scale and speed required, partly as a consequence of Covid-19, and a collective reset of our approach to tackling food waste in Scotland is required.

- **Focus on embedding circular construction practices** to reduce resource needs, reduce waste and carbon, and encourage refurbishment and reuse. This means improving collaboration between Government and industry; incentivising sustainable construction practices; reducing whole life carbon emissions; adopting sustainable/circular procurement practices promoting best practice; and improving our understanding of how and where waste is generated.

Measuring progress

Scotland's previous targets focused on tracking **reduction of overall waste generated** (to reduce waste generated by 15% between 2011 and 2025) and **reducing the amount of waste being sent to landfill** (send a maximum 5% of all waste to landfill by 2025). Official waste statistics published annually by SEPA provide the data to assess progress against these metrics.⁶⁰

Based on the most recent data (2021), we have met our overall waste reduction target (see *Chapter 1*). However, the total amount of waste we generate in Scotland varies greatly from year on year, largely due to differences in waste from construction and demolition. The **carbon footprint of Scotland's waste** has also reduced, and fell by over a third between 2011 and 2018.⁶¹ However, as we set out in this Route Map, the 5% to landfill target does not account for the carbon intensity of waste being diverted to landfill, and is not a good indicator to measure the sector's progress to net zero.

Our previous targets included a target to reduce food waste by 33% from 2013 to 2025, and Scotland is committed to achieving the UN's Sustainable Development Goal 12.3 to halve food waste by 2030.⁶² We have **published a new Scottish food waste estimate**⁶³, showing how much food waste was disposed of by households and businesses across different sectors in 2021. This provides a comparison with our 2013 baseline, noting that the 2021 estimate may be impacted by the ongoing implications of the Covid pandemic. The latest data shows the scale of the problem has increased in Scotland over the past decade, and it is highly likely we will fall short in meeting our 2025 target. Part of the challenge is consistent and regular measuring of food waste, rather than estimation: without understanding the volume and source of waste, it is difficult to know where to focus action and resources to make real impact.

From 2025, we will set **new circular economy targets** to at least 2030. New targets may include consumption, reducing waste, reuse and recycling locally and nationally, and consider both material-specific and emission-based targets. In addition, a monitoring and indicator framework will be developed over 2024/25. This will allow more holistic tracking of Scotland's consumption levels and wider measures of circularity. See the '*Strengthen the circular economy*' section for more.

Taking action

The next section sets out where we are now, what we have done so far, and our actions to accelerate progress to meet our sustainable resource objectives and reduce emissions through to 2030. We set out what actions we will prioritise to unlock progress, their system-wide impacts and strategic dependencies with other measures in this Route Map; and the follow-up actions we will seek to take to complement the priority measures to 2030. Measures are grouped under our three 'Reduce and reuse' objectives:

- **Section 1: Drive responsible consumption, production and re-use**
- **Section 2: Reduce food waste**
- **Section 3: Embed circular construction practices**

SECTION 1: RESPONSIBLE CONSUMPTION, PRODUCTION AND RE-USE

Proposed priority action:

- **Develop and publish a Product Stewardship Plan to identify and tackle the environmental impact of priority products (by 2025-26)**

Further actions:

The Product Stewardship plan will provide a framework for how we prioritise specific products for action, and identify and target actions to tackle their environmental impact over the next decade. To complement and build on this targeted approach, we will seek to progress the following actions to 2030:

- Deliver a prioritised approach to the introduction of environmental charges for problematic products (by 2025/26)
- Introduce a charge for single-use disposable cups (by 2025)
- Consult on actions regarding the environmental impacts of single-use vapes (ongoing)
- Review the feasibility of setting reuse targets (from 2025)
- Develop restrictions on the destruction of unsold consumer goods (from 2024)
- Develop measures to improve the reuse experience for consumers (ongoing)
- Deliver behaviour change-based approaches focused on sustainable consumption, aligned to Let's Do Net Zero communications (ongoing)
- Identify ways to expand business models that prolong product lifespan (ongoing)

Where are we now

In Scotland, we use on average 19.3 tonnes of resources per person per year⁶⁴ - well above the 6-8 tonnes per person considered to be sustainable.⁶⁵ Cutting our material consumption is one of the most important ways that we can all limit our

impact on the environment, and is essential for Scotland's just transition to a low-carbon and green economy, and to alleviate pressures on the natural world and its finite resources globally.

Around 90% of the carbon impact of Scotland's waste is produced before disposal, during resource extraction, manufacturing, and transport.⁶⁶ The way that products are designed and manufactured shapes how long they will last, whether they can be reused or repaired, and how easily they can be recycled. This means we need to consider the whole system, reducing our need for new products, and maximising the life of existing ones.

In 2021, the total amount of waste generated was 9.8 million tonnes, the lowest figure on record, and nearly a 20% reduction compared with 2011.⁶⁷ While this is encouraging, the impacts of COVID-19 and the high variability in construction and demolition waste directly influence this target, and we know we must embed system-wide change in order to maintain progress.

What we have done so far

We have taken steps to reduce waste and embed more sustainable approaches across sectors. This includes:

- introducing a **ban on certain single-use plastic items**
- funding **re-use projects and infrastructure** through the Recycling Improvement Fund⁶⁸
- **supporting businesses** through Zero Waste Scotland⁶⁹
- supporting **sharing libraries and repair cafes**⁷⁰, increasing the total to 100 by 2025, and
- introducing requirements through the **National Planning Framework 4** to encourage developers to minimise waste and carbon intensity in construction projects.

Public sector organisations, with significant purchasing power, are embedding circular approaches to how they operate and procure goods and services. For example, the Scottish Government has established a **NHS Scotland Circular Economy Programme** to support the transition to more circular supply systems within NHS Scotland.⁷¹

Building on these initiatives, we have also included several key provisions in our **Circular Economy (Scotland) Bill** to drive sustainable consumption and production⁷². These include powers to introduce a charge for single-use items⁷³, and introduce restrictions on the disposal of unsold consumer goods. The Bill will, if passed, deliver new powers that will set a framework for taking further action into the future.

Delivering our vision

As we set out last year, despite these steps, it is clear that further action is needed to drive system-wide change, moving away from the linear model of consumption, to a circular economy with sustainable resource use. This section sets out our priority

actions to support this, and the further actions that government or others need to take to make progress to 2030.

Priority action: Develop and publish a Product Stewardship Plan to identify and tackle the environmental impact of priority products.

Timescale: Publication in 2025/26, supported by research and development in 2023-2025.

2022 consultation recap

85% of respondents to the [first consultation](#)⁷⁴ agreed with the measures proposed in to promote responsible consumption, production and re-use. An approach to product stewardship was broadly welcomed by respondents and from a variety of sectors, and provided early input on the principles for any product stewardship approach.

What is product stewardship?

Product stewardship is an approach that means whoever designs, produces, sells or uses a product takes responsibility for minimising its environmental impact **throughout all stages of that product's life cycle**. It is an umbrella term, and includes the responsibilities of each actor in the supply chain to minimise waste, maximise reuse, recycle where products genuinely meet the end of their life, and dispose of products responsibly. In line with the 'polluter pays' principle⁷⁵, those who cause pollution should bear the financial responsibility for any damage or remedial action required as a result. Producers must take responsibility to reduce the environmental and carbon footprint of their products. However, product stewardship also recognises that everyone involved with the product has a role to play: for example, those involved in the design, supply chain and transport of a product; retailers, consumers, and waste management actors. There is no one-size-fits all approach, and roles and specific actions will vary from one product to another.

Our response: What we will do

Up to now product stewardship policies in Scotland have largely focused on extended producer responsibility (EPR) schemes (see '*Modernise Recycling*' chapter). Producer responsibility schemes are currently in place UK-wide for packaging, waste electrical and electronic equipment (WEEE), batteries, and end-of-life vehicles (ELVs). We are working with the UK and devolved governments on reforms to these schemes which will help drive circular economy outcomes. The first will be EPR for packaging, which is being implemented from 2025 on a four nations basis across the UK. We also remain committed to the delivery of a successful Deposit Return Scheme (DRS) for single use drinks containers, with the UK Government committed to launch a UK-wide DRS by October 2025.

We wish to build on these existing policies and **consider a wider range of policy tools to drive progress in reuse, repair and refurbishment; reducing the need for new products to be placed onto the market.** Based on the consultation response, and the clear need for a strategic approach, we believe this area should be a priority moving forward.

We will develop and publish a Product Stewardship plan by 2025/26. This will include at least three priority products for which a range of product stewardship measures will be identified, alongside delivery timelines. For each product, we will consider both the action we can take in Scotland under devolved powers, and our expectations of the UK Government where effective action relies on reserved powers. To support this approach, we are commissioning research this year to ensure a robust evidence-based approach to building a model for product stewardship in Scotland.

In determining priority products, **we are considering including mattresses, tyres and textiles.** For example, Zero Waste Scotland's latest Carbon Metric Report⁷⁶ shows textiles make up 4% of household waste by weight in Scotland, but account for nearly a third (32%) of the carbon impact of Scotland's household waste. We recognise the need for a strategic approach to textiles across the waste hierarchy, from production and consumption, through to recycling, and end of life management. This will account for measures being considered by the EU⁷⁷, and by other governments across the UK.

A range of policy interventions for these priority products will be reviewed, to target issues at different points in the supply chain. Interventions could include measures to influence resource efficiency product standards and design (where this falls within devolved competence); bans or market restrictions; extended producer responsibility (EPR) schemes including obligations for businesses to take back items, and meet requirements related to the re-use, recovery or recycling of products or materials by means of the broad powers in the Environment Act 2021; financial incentives such as refundable deposits or charges; resource efficiency communications and consumer information and guidance; and linking up effective waste management systems for end of life products. The review will involve:

- Setting the social, economic and environmental objectives for product stewardship measures;
- An assessment of policy options available within devolved competence;
- Consideration of the barriers to effective implementation, whether legislative, constitutional, economic or operational;
- Ensuring we engage constructively with the other governments in the UK, respecting agreed intergovernmental ways of working and processes;
- Alignment with EU policy where appropriate, including the Sustainable Products Initiative, which aims to make products more durable, repairable, recyclable and energy-efficient.

We will focus on policies and activities which have the greatest environmental and economic impact while continuing to encourage best practice by all businesses and

consumers, with the aim to produce, consume and manage resources as effectively as possible.

It will set out a clear, cohesive approach to tackling the environmental and social impacts of products placed on the Scottish market, making the most of opportunities within the competence of the Scottish Parliament to reduce the environmental impacts of products and goods, and being clear where this requires further action from the UK Government. In doing so, it will consider ways to:

- Increase opportunities for consumers to donate and procure from reuse organisations;
- Build sufficient skills to repair products received by reuse organisations;
- Ensure effective waste management systems which optimise recyclability when products have reached the end of their life, linking into our priority actions to modernise recycling and decarbonise disposal in this document;
- Seek progress from, and work with, the UK Government and other devolved governments on key areas with reserved elements: for example, to encourage improved product design for durability, repairability and recyclability across the UK, and to seek improved consumer information available across the UK on repair and resource efficiency standards.

While environmental policy, including waste management, is devolved to Scotland, the post-Brexit Internal Market Act 2020 could prevent effective measures from being implemented in Scotland. Should an exclusion from the Act be required for measures within our Product Stewardship approach, we will follow the agreed Common Framework process, and would expect the UK government to do the same.

The bigger picture: Making an impact

- **Coordinated and consistent incentives:** To drive the right behaviours around how we treat materials, in place across the waste hierarchy.
- The prioritised approach will inform how any **future charges on single-use items** should be applied, to ensure cohesion across the package of measures taken forward between now and 2030.
- We will ensure a product stewardship approach **aligns with our other measures across this Route Map** in targeting specific products or materials. For example, the **recycling co-design**, including a new statutory Code of Practice for recycling services, should be coordinated with product stewardship, to enable a consistent approach to specific materials.

Further actions to 2030

To complement our **Product Stewardship plan**, we will seek to progress the following actions. We recognise that some actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to develop or explore.

1. We will develop a prioritised approach to the introduction of environmental charges to tackle consumption of problematic products and promote a move to more sustainable alternatives by 2025-26.

Through the Circular Economy Bill, we are seeking to take powers to introduce environmental charges, and, if the Bill is passed, we intend to use these new powers to **introduce a charge for single-use disposable cups by 2025**. A charge or ban on unnecessary products provides a strong incentive to choose reusable alternatives, or to avoid certain products altogether. The introduction of the single-use carrier bag charge in 2014 reduced plastic bag use by 80% in the first year alone⁷⁸. Extending this approach to other products offers an opportunity to further drive sustainable consumption practices, linked to the development of a prioritised approach to product stewardship. Charges would also raise awareness of the environmental impacts of the products we use, helping to reshape our relationship with resources and move to more sustainable models of consumption.

In response to concern over **the environmental impacts of single-use vapes**, the Scottish Government commissioned research by Zero Waste Scotland on the evidence of impacts and potential policy options to tackle the issue.⁷⁹ Through the 2023-24 Programme for Government⁸⁰, the Scottish Government was the first UK nation to commit to tackling the environmental impact of single-use vapes, including consulting on a proposal to ban their sale and other appropriate measures. Consultation on placing restrictions on the supply and sale or prohibition of single-use vapes is now being taken forward on a four-nations basis as part of a wider consultation on creating a smokefree generation and tackling youth vaping.⁸¹ Alongside a ban on the sale of single-use vapes, the consultation considers if any other measures are required to ensure the policy is effective in improving environmental outcomes.

2. Review the feasibility of setting reuse targets from 2025.

We will review the feasibility and impact of setting reuse targets in Scotland from 2025 to encourage measures that extend product lifespan, mainstream opportunities for reuse, and support progress towards metrics that monitor consumption. As with wider circular economy targets, before developing a reuse target, we would need to have a robust mechanism in place to monitor reuse. An initial baseline of reuse levels would be necessary to set any target, and this would consider the scope and nature of reuse, performance measures such as carbon savings or product-specific targets, and the data requirements to assess performance. See more on targets in the '*Strengthen the circular economy*' section.

3. Develop from 2024 restrictions on the destruction of unsold consumer goods.

The Circular Economy Bill includes a new power to introduce restrictions on the destruction of specific unsold goods⁸². If the Bill is passed, regulations we develop to implement the power will be built on further research and co-design with stakeholders and businesses. A proportionate approach will be taken, focusing on businesses and products that have the most significant environmental impact in Scotland and taking into account the availability of reuse and recycling as alternatives to destruction. French legislation has identified clothing, cosmetics,

hygiene products and electrical items as priorities for restrictions and we anticipate it is likely that we will identify similar items in Scotland. We will commission research in 2024 into these and other potential products, to inform consultation on regulations in 2026.

4. Develop measures to improve the reuse experience for consumers (ongoing).

We will build on the considerable progress that has been made in accessibility, acceptability, and perception of used items by identifying a package of support measures to optimise the reuse experience for consumers, building on the Revolve initiative⁸³. We will work with partners to learn from and accelerate progress, by identifying additional support measures such as funding routes, collaboration, and integration with other policy initiatives. We will support the creation of reuse hubs to normalise reuse and integrate online reuse, skills and training, and collaboration with the wide range of existing public and private repair and reuse offerings. We will facilitate sharing of best practice examples on reuse, such as North Ayrshire Council's Real Nappy Incentive Scheme⁸⁴, to support take up in other areas. We have also commissioned research to understand barriers to uptake of reusable nappies.

5. Deliver behaviour change-based approaches focused on sustainable consumption, aligned to Let's Do Net Zero communications (ongoing).

Around 80% of our carbon footprint in Scotland comes from consumption: from all the goods, materials and services which we produce, use and in the case of products, often throw out after just one use.⁸⁵ However, recent research produced by Consumer Scotland, which considered a number of consumer markets (household goods, transportation, parcel deliveries, food and drink, and recreation/holidays), found that many of the sustainable behaviours and choices being presented to consumers can appear as optional or are perceived as only having a limited impact on the environment or tackling climate change.⁸⁶ The research found that a lack of reliable trustworthy information is making it difficult for many consumers to fully understand the issues be able to make informed choices. Strategic research projects currently underway by Zero Waste Scotland will generate additional evidence and insights to help us understand what impacts consumer behaviours and choice. We will build on this and other sources, to develop and implement behaviour change and engagement approaches. This will align with Scotland's Let's Do Net Zero⁸⁷ communications campaign, to raise consumer and business awareness of the impacts of consumption and alternatives to buying new, or at all. In developing these approaches, we will engage with a range of stakeholders, in the public, private and third sectors.

6. Identify ways to expand business models that prolong product lifespan (ongoing).

We will continue to encourage, incentivise, develop and where necessary provide support for businesses and business models that increase the availability of long-lasting products on the market by incentivising upgradeability, repair and circular business models. Examples could include leasing, subscription models or sharing libraries. We will coordinate findings across this work and the proposed steps we are

seeking to take to investigate promotion of business-business reuse platforms in the *Modernise Recycling* section of the Route Map.

SECTION 2: REDUCE FOOD WASTE

Proposed priority actions:

- Deliver an intervention plan to guide long-term work on household food waste reduction behaviour change (by 2025)
- Develop with stakeholders the most effective way to implement mandatory reporting for food waste and surplus by businesses (by 2025/26)

Further actions:

To complement and build on these priorities, we will seek to progress the following actions to 2030:

- Strengthen data and evidence (ongoing)
- Review the rural exemption for food waste recycling, as part of recycling codesign process (In 2024/25 and 2025/26)
- Investigate feasibility of action plans (After 2025)
- Deliver enhanced support for businesses (ongoing)

Where are we now

As we set out in the first Route Map consultation⁸⁸, tackling food waste is one of the most important ways we can reduce the carbon impact of Scotland's waste. If food waste is sent to landfill, it releases methane - a greenhouse gas many times more potent than carbon dioxide. Some of these emissions can be avoided by recycling food waste but we know that cutting down on wasted food, particularly the waste of edible food, reduces the 'upstream' emissions, and costs, associated with growing, harvesting, processing, transporting and buying food to begin with. UK research has suggested that achieving a 58% per capita reduction in food waste by 2050, would contribute up to 9.1 MtCO₂e, and reduce cumulative emissions by 143 MtCO₂e by 2050.⁸⁹

The importance of tackling food waste as part of wider efforts to reduce emissions was reinforced in the Climate Change Committee's '2023 Progress Report to the UK Parliament' which recommended food waste reduction policy be integrated into the Net Zero delivery strategy for the agriculture and land use, and waste sectors⁹⁰. Acting on food waste to reduce emissions can also help Scotland become a Good Food Nation. The Good Food Nation (Scotland) Act 2022 provides an overarching framework for clear, consistent and coherent future Scottish food policy and ensures that any new food related policy will be considered in the context of the national Good Food Nation Plan. A consultation on Scotland's first Good Food Nation Plan will be published shortly and this will set out the main outcomes to be achieved in

relation to food-related issues, the policies needed to do this and the measures we will use to assess progress.

Scottish Government has committed to embed food loss and waste consideration across relevant policies and strategies, including the Good Food Nation Plan; the Local Food Strategy; and the Agricultural Reform Programme, as well as through the review of the 2019 Food Waste Reduction Action Plan, and this Route Map in order to help meet the United Nations Sustainable Development Goal 12.3 to halve food waste and reduce food loss by 2030⁹¹.

Reducing food waste remains a significant, and growing, challenge. We recognise that actions to reduce food waste in Scotland have not yielded results, partly as a consequence of changed consumer behaviour since Covid-19. The latest Scottish food waste data estimate for 2021 suggests that over 1 million tonnes of food was wasted in Scotland during 2021, accounting for around 6% of Scotland's total carbon footprint that year.⁹² It also suggests that the scale of the problem has increased in Scotland over the past decade. In comparison to the 2013 baseline, in 2021 - despite a 1% per capita decrease in food waste at the household level - **there was a total 2% per capita increase and an overall 5% increase in the volume of food wasted.**

Scotland is not alone in facing this challenge. Globally, no country has successfully demonstrated how to reduce food waste at a sufficient scale; and a comparable increase in food waste has been seen across the UK in the same period between 2018 and 2021.⁹³

While there will always be unavoidable inedible food waste such as eggshells, coffee grounds and apple cores, which is difficult to address, achieving an overall reduction in food waste will significantly contribute to our objectives to reduce waste, reduce the carbon impact of waste, and help us achieve our commitment to net zero by 2045.

What we have done so far

Within this wider context, we have continued to deliver on our 2019 **Food Waste Reduction Action Plan**⁹⁴. The Review of progress in delivering this Plan, published alongside this document⁹⁵ highlights a range of achievements, including communication campaigns to raise awareness of food waste; funding **FareShare's 'Surplus with Purpose' scheme**; and the **Food Waste Reduction Business Support Service**⁹⁶, run by Zero Waste Scotland.

The Scottish Government's £70m Recycling Improvement Fund (RIF) is helping to tackle food waste by **enhancing food waste recycling collections**. Since 2021, a range of local authority projects have been funded to deliver this improvement, including projects in: Edinburgh; Midlothian; Clackmannanshire; Western Isles; Perth & Kinross; Glasgow; and Highland. As of November 2023, a total of £1.7 million in funding has been awarded to these local authorities to improve access and infrastructure for food waste recycling to help ensure food that is not used is recycled and its environmental impact is reduced.

We have also renewed our relationship with, and continue to part-fund, the Waste and Resources Action Programme's (WRAP) **Courtauld Commitment 2030**, which is engaging in collaborative action across the entire UK food chain to deliver farm-to-fork reductions in food waste, greenhouse gas (GHG) emissions and water stress to help the UK meet UN SDG 12.3 to halve per capita food waste by 2030.

Our ongoing commitment to WRAP is helping to support the delivery of their **Food Waste Reduction Roadmap** within Scotland and across the UK. WRAP's latest progress report indicates that businesses that voluntarily signed up to the Roadmap commitments are making improvements across the supply chain, manufacturing and retail services. However, it also highlights that further action and improved decision-making with regards to the purchase, storage and use of food in households is needed to reduce overall food waste⁹⁷.

However, as noted in the Review of our 2019 Food Waste Reduction Action Plan⁹⁸, pre-existing food waste reduction actions – although limited by the Covid-19 pandemic and cost of living crisis – have not delivered results at the scale and speed required.

Delivering our vision

It is our view that sticking to the same path will not yield the results we need to see. A collective reset of our approach to tackling food waste in Scotland is required, as part of wider, cross-government food policy.

Our Review of the 2019 Food Waste Reduction Action Plan reinforced the need to redefine our approach to reducing food waste across all sectors and households in Scotland for both, the short and long term, to deliver the desired results.

The actions we set out here are based on the evidence we have so far on how best we can reset our approach and accelerate Scotland's goal to reduce food waste. We know improving how we measure food waste, and identifying where and why it occurs across businesses and households, is a critical step: better understanding of the volume and make-up of waste, will allow for more effective action and allow for resources to be targeted to make real impact. Available evidence also underlines the importance of focussing action on household behaviour change, testing different interventions to determine what actions deliver food waste reduction.

To complement the findings in the Review, **we are keen to hear views from the widest possible range of individuals, organisations and businesses on these proposed priorities, and what other steps government and others can take to drive meaningful change.** Through consultations on the draft Route Map and Good Food Nation Plan, we will be looking to engage widely on this issue, including with the other UK governments, on opportunities for coordinated action. We recognise that this is a shared challenge across the UK and globally, and while we intend to do all we can within the competence of the Scottish Parliament to tackle food waste, progress will also rely on action by others, including at a UK-level.

Priority action: We will deliver an intervention plan to guide long-term work on household food waste reduction behaviour change.

Timescale: By 2025.

2022 consultation recap

The proposal was welcomed particularly strongly by [respondents](#)⁹⁹, with many individuals and organisations from different sectors highlighting the critical importance of public education and changing household behaviours that result in food waste. Feedback highlighted the need for a long term programme of interventions that result in sustained behaviour change rather than focusing on short term results.

Our response: What we will do

2021 data suggests householders contribute around 60% of Scotland's food waste, that is a per capita estimate of 111kg per person per year and the equivalent of 2.2 million tonnes of CO₂eq.¹⁰⁰ We believe there is great potential through behaviour change interventions to deliver a significant impact on household food waste. We also know that available evidence to support household food waste reduction behaviour change is limited.

To tackle this, **the Scottish Government and its partners aim to gather evidence about and review interventions that will reduce household food waste. This will enable us to develop and deliver a behaviour intervention plan by 2025, focusing on a *test of change and improvement* approach.** This action will help address gaps in food waste reduction behaviour change knowledge and inspire action at various decision-making stages, including when and how to purchase and store food. It will address the comments by respondents to the first consultation which emphasised the importance of changing household behaviours to deliver food waste reduction results, and the need for an evidence-based direction.

While there is a lack of international case-studies demonstrating food waste reduction at a sustained level, the intervention plan will draw together insightful research into household behaviours across Scotland. It will test behaviour interventions at a range of decision-making stages to identify what can be done to generate the greatest impacts at a household-level.

As part of this, we will work with Zero Waste Scotland, householders and Local Authorities to better understand household behaviours, linking into the wider recycling co-design process (See the '*Modernise Recycling*' section) to deliver more consistent recycling services and maximise the amount of waste – including food - being diverted away from disposal to residual waste.

Developing a plan of suitable interventions will provide the foundation to guide long-term work on household behaviour change and provide the best available evidence

for local and national governments to reduce household food waste at the scale and speed required.

Priority action: We will develop with stakeholders the most effective way to implement mandatory public reporting for food waste and surplus by businesses.

Timescale: Develop by 2025/26.

2022 consultation recap

There was broad consensus (85% agreed) in the [first consultation](#)¹⁰¹ response that reducing food waste should be seen as a priority, and, if delivered effectively, the proposals described would contribute to a reduction of food waste in Scotland.

Our response: What we will do

Business and non-business organisations contributed 427,505 tonnes, or 41%, of total food wasted in Scotland in 2021. This is equivalent to nearly 2.5 million tonnes of CO₂eq.

In line with new powers included in the Circular Economy (Scotland) Bill as introduced¹⁰², the Scottish Government believes a key way to encourage changes in practices is to enable more effective monitoring and management of waste, by placing duties on businesses to report publicly on waste and surplus. The Scottish Government is aware that a number of companies already report on food surplus and redistribution, and the destination for waste stock (e.g. through WRAP's UK-wide [Courtauld Commitment](#)¹⁰³). However, this voluntary approach is unlikely to lead to action at the required scale to help reduce food waste in Scotland and it does not provide a clear indicator on the volume of food waste produced by businesses. We recognise that many food businesses work across the UK, and we will continue to work with WRAP UK to ensure we are engaging at a Scottish and UK level to maximise potential impact.

Food waste will be one of the first areas to take forward mandatory public reporting in Scotland. The Scottish Government aims to develop with stakeholders how public mandatory reporting of food waste and surplus by businesses can be fairly and effectively implemented, utilising powers from the Circular Economy (Scotland) Bill, subject to the Bill completing its Parliamentary passage.

We recognise that the design and implementation of any new requirements should be carefully considered with stakeholders, including the business community, in line with the principles of the **New Deal for Business**¹⁰⁴. Around 60 businesses that operate in Scotland already report food waste and surplus on a voluntary basis (at a UK-wide level), and a range of large businesses from retailers to manufacturers,

including Tesco and Hovis, are signed up to WRAP's Courtauld 2030 voluntary commitment to take action to reduce food waste.¹⁰⁵ Unilever and Ikea also report publicly on food waste. We want to work with businesses to learn from their experiences with reporting so we can build on what has been proven to work, and understand what good practice looks like as the basis for developing reporting standards.

Delivering this priority measure will enable Scottish Government to effectively work with businesses to implement mandatory public reporting in a way that underpins the importance of tackling food waste, supports compliance, and creates opportunities to find innovative ways to utilise waste and surplus. The Scottish Government will engage with stakeholders to develop the most effective way to implement mandatory public reporting for food waste and surplus by businesses **by 2025/26**.

This collaborative approach will enable Scottish Government to engage with stakeholders, including business representatives and SEPA, to explore concerns raised in the first consultation about the potential challenges to smaller organisations for implementing mandatory reporting. It will also provide an opportunity to strategically link to other policy developments that are in train or planned, including the proposed new Circular Economy monitoring framework and Digital Waste Tracking; and help define an appropriate and robust indicator of food waste across businesses.

Further consultation and engagement with business will be undertaken as part of the development of secondary legislation, informed by best practice from existing voluntary reporting.

Mandatory public reporting for other materials

We believe mandatory public reporting has the potential to play an important positive role in achieving better use and reuse of our resources, increasing transparency and highlighting opportunities where perceived waste can be used as a resource. While we intend to explore mandatory public reporting of food waste as the priority, feedback to the consultation on proposals for a Circular Economy Bill also highlighted other potential waste streams that could be included.¹⁰⁶ Following our focus on food waste, we intend to review the role mandatory public reporting could play in driving sustainable resource use across other material streams, such as clothing and textiles or construction waste. We will explore this with stakeholders, particularly business, giving due consideration to the evidence on environmental and climate impact of specific materials, existing measures in place, and alignment with the priorities set out in this Route Map.

The bigger picture: Making an impact

- We know that urgent, system-wide change is required across the strategic aims in this Route Map. Findings from the food waste behaviour change action will inform the delivery of our priority actions across this Route Map, including measures **embedding positive behaviour change** to deliver wider sustainable consumption, and maximise the use of recycling services through the household and commercial recycling co-designs.

- The development of mandatory reporting will also have wider strategic importance and lessons to learn, as **we work with businesses to support them in reducing overall waste**.
- Findings from the **review of the 2019 Food Waste Reduction Action Plan** have informed our priority actions, and underline the importance of delivering these actions as part of a wider reset in our approach in tackling food waste. Collectively they will strengthen data and evidence to inform targeted long-term action to reduce food waste in the years to 2030 and beyond.

Further actions to 2030

To complement and build upon delivery of the priority actions above, we will seek to progress the measures outlined below to drive food waste reduction. We recognise that some actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to develop or explore.

1. Strengthen data and evidence (ongoing).

In partnership with Zero Waste Scotland, we will continue driving research into food waste reduction action and behaviour change. This will build on findings from the latest information about food waste in Scotland, including the review of the 2019 Food Waste Reduction Action Plan and the 2021 Food Waste Estimate. It will expand upon current research by Zero Waste Scotland on the food redistribution landscape, capacity and challenges in Scotland, as well as research into data and insights in the home, and evaluation of the household intervention plan as outlined in the priority measures. Strengthening data and evidence will significantly help to address the challenges and opportunities for food waste reduction across Scotland, and specifically within households.

2. Review the rural exemption for food waste recycling, as part of recycling co-design process in 2024/25 and 2025/26.

As outlined in the review of the 2019 Food Waste Reduction Action Plan, the 2019 commitment to consult on this exemption did not take place due to external pressures, such as the COVID-19 pandemic. The Scottish Government remains committed to reviewing the rural exemption for food waste collections. This will be considered through the household recycling co-design process (see *Modernise Recycling* section) and inform the development of a future statutory recycling Code of Practice.

3. Investigate feasibility of voluntary food waste reduction action plans (After 2025).

In partnership with Zero Waste Scotland, we will investigate the feasibility and opportunities for voluntary action plans to help support businesses and organisations take action to reduce food waste. This would be in addition to any regulations made under new powers in the Circular Economy (Scotland) Bill regarding businesses publicly reporting on waste and surplus. This will complement any reporting on waste and surplus. As well as identifying the volume of food waste and surplus generated by individual organisations, working to develop voluntary action plans will help

businesses address food waste created in their operations. We will engage with public and private organisations to investigate feasibility, and if appropriate, to help develop and apply these voluntary action plans. This work creates opportunities to build and share knowledge on when and how to reduce food waste within organisations for sustained, long-term impact. It also supports our work to make Scotland a Good Food Nation by working with businesses across the food-related sector.

4. Deliver enhanced support for businesses (ongoing).

In partnership with Zero Waste Scotland, we propose to review existing support for businesses and investigate different forms of support to implement food waste reduction activities. This could include updating education and training tools, as well as building on the Love Food Hate Waste workplace training, sector-specific best practice guides, and public procurement guidance. To enhance and provide the optimal level of support, we would look to explore incentives for research, development, commercialisation and the adoption of bioprocessing techniques and bioeconomy opportunities in Scotland.

SECTION 3: EMBED CIRCULAR CONSTRUCTION PRACTICES

Proposed priority action:

- Support the development of regional Scottish hubs and networks for the reuse of construction materials and assets (From 2025)

Further actions:

To complement and build on this priority, we will seek to progress the following actions to 2030:

- Develop new and promote existing best practice standards in circular practices within the construction sector, and assess the options for both voluntary and mandatory compliance (ongoing)
- Investigate and promote options to incentivise and build capacity for the refurbishment of buildings (by 2026/27)
- Investigate and promote ways to reduce soil and stones disturbance, movement and volumes going to landfill (by 2026/27)
- Review opportunities to accelerate adoption of climate change and circular economy focussed purchasing in construction (from 2024)
- Consider how devolved taxes can incentivise the use of recycled aggregates and support circular economy practices (ongoing)

Where are we now

Construction and demolition accounts for up to half of all waste produced in Scotland¹⁰⁷. This waste is largely soil excavations from housing and infrastructure projects as well as bricks, tiles and concrete from demolition. Scotland has met the European Union target of 70% recycling and reuse of construction and demolition waste by 2020 every year since 2011. The latest data indicates a recycling rate of 89.4% in 2021¹⁰⁸. However, there is a need to focus further up the waste hierarchy, reducing waste and reusing resources.

In 2021, the construction and demolition sector generated 4.0 million tonnes of construction and demolition waste, down from 5.8 million tonnes in 2018.¹⁰⁹ Waste varies greatly year to year due to differences in construction and wider economic activity. This variation is currently the main factor determining whether we achieve our 15% waste reduction target in any given year. Despite meeting this target in the most recent data (2021)¹¹⁰, we face significant challenges in consistently meeting it without accelerating action to reduce waste from construction and demolition. This section focuses on how we address this challenge through to 2030.

What have we done so far

Actions to drive circular economy practices in the sector include introducing requirements through the **National Planning Framework 4**¹¹¹ to encourage developers to minimise waste and carbon intensity in construction projects; promoting **The Net Zero Public Sector Buildings Standard**¹¹², which is a voluntary standard to support public bodies to meet their net zero commitments, publishing new **Sustainability in Construction** guidance¹¹³; the establishment of the Construction Accord¹¹⁴ and supporting the **Construction Scotland Innovation Centre** (now BE-ST)¹¹⁵.

New research from Zero Waste Scotland and Green Built Environment sets out evidence on the feasibility and potential for increased material and asset reuse in the construction and demolition sector, based on workshops with representatives associated with the Scottish construction sector.¹¹⁶

Delivering our vision

Priority action: Support the development of regional Scottish hubs and networks for the reuse of construction materials and assets.

Timescale: Scoping work commenced in 2023; ongoing feasibility research and engagement in 2024/25; development of regional hubs from 2025.

2022 consultation recap

In the [first consultation](#)¹¹⁷, 79% of respondents to the first Route Map consultation agreed or strongly agreed with the proposals in this package, and there was a high level of support from the construction sector (82%). The majority agreed with the principle for facilitating the reuse of construction materials and assets, and highlighted the benefits of this approach, alongside questions on feasibility and practical challenges.

Our response: What we will do

It is our view that a programme for reuse of construction materials would provide a much-needed coordinated approach to expanding reuse opportunities across the sector. This intervention provides the greatest opportunity and impact to directly support the sector to drive waste reduction and reuse, help build market confidence and provide lower carbon options for use on construction projects.

We know that there are a wide range of materials used in construction and arising from demolition that are not currently reused, with estimates suggesting only 5-10% of materials are currently being reused¹¹⁸. Achieving greater use of materials which still have function and meet regulatory standards will contribute towards the waste reduction and emission reduction targets, by avoiding the use of unnecessary virgin materials, and maximising the useful life of embedded carbon.

We agree with stakeholder feedback from the first consultation, that a regional approach is most likely to have the best impact. **We will prioritise supporting the sector to develop regional Scottish hubs and networks for the reuse of construction materials and assets.** This is in line with the identification of Circular Economy Materials Management Facilities as a national development in National Planning Framework 4¹¹⁹. This measure will aim to:

- Provide **coordinated support** for the development of regional platforms to store, stock and source used construction materials. Learn from national and international experience to help understand and address the challenges of supply and demand alignment, the geographic dispersal of materials, and the price drivers that favour new, high carbon materials over used.
- Promote **best practice** waste prevention and materials efficiency for new construction or refurbishment. Help facilitate the use of tools and processes that support a whole project life digital approach to material management such as BIM, 'circularity statements', 'material/site waste management plans', Materials Passports, deconstruction audits, and quality standards such as BREEAM.
- Assess **policy measures and interventions** which would help extend the lifespan of buildings and materials through durability, repairability, retrofit and refurbishment. Identify the barriers and skills gaps that need to be addressed to facilitate a circular economy approach to maintaining our current building stock and infrastructure.
- Align activities with those provided by **BE-ST** and other stakeholders to promote the role of digital technology and SMART construction tools and processes that increase resource efficiency and provide whole life data on building materials (material passports) that can be used to maintain and extend building lives and provide Material Banks through accurate deconstruction audits for future material reuse.

To drive this forward, early scoping research was commissioned in 2023, alongside a place-based feasibility study for a construction materials reuse hub in Glasgow. Building on this ongoing work, we intend to commission a full feasibility study for regional materials reuse hubs in 2024/25, looking at barriers and actions to support progression.

The Scottish construction sector holds great expertise and there are some innovative projects in this space; we recognise that this measure is more likely to succeed if the sector plays a leading role. The Scottish Government wants to work in partnership with the sector and other stakeholders to develop this measure, and to look at and address the challenges highlighted through the feasibility work and first Route Map consultation responses. As part of this process, we will listen to and carefully consider stakeholder views on what support industry may need to enable them to lead on the creation of platforms, and locally trial, pilot and learn from what works. We will assess the support requirements around skills, processes and technology to make materials ready for reuse, highlighting the opportunities for green skills transfer and new green circular job creation.

The bigger picture: Making an impact

- This intervention provides the greatest opportunity and impact to support the sector to drive waste reduction and reuse, help build market confidence and provide lower carbon options for use on construction projects.
- **New incentives for skills, training, green jobs and just transition:** through the creation of markets and processes for used materials, deconstruction of buildings for material reuse, sustainable procurement, and training requirements and employment opportunities;
- **Emissions reduction and tackling biodiversity loss:** Through maximising the life of useful products and materials, reducing mining, extraction practices and the disturbance of soils associated with virgin extraction;
- **Supporting economic transformation:** by transitioning the construction sector to a more sustainable material footprint, and in providing skills and employment, enabling economic growth at local and national levels.

Further actions to 2030

Below we outline actions we will seek to progress to complement and build upon the priority action above. We recognise that these actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to develop or explore.

1. Develop new and promote existing best practice standards and assess the options for both voluntary and mandatory compliance (ongoing).

We propose to review existing practices and work with industry to understand the opportunities and requirements for successful adoption and compliance. We will develop a strategic plan for any new measures or standards taken forward, and take a phased approach to implementation from 2023/24, based on material type, business or project size. Whilst we believe that a significant impact can be achieved on a voluntary basis, we will also explore options for mandatory compliance.

2. Investigate and promote options to incentivise and build capacity for the refurbishment of buildings by 2026/27.

There is a need to move beyond management of waste materials to maximising the lifespan of carbon and material intensive structures. We propose to research the potential barriers and opportunities for increasing the number of buildings that are refurbished. We will also seek to work with relevant stakeholders to better understand how the local application of circular economy planning principles set out in NPF4 (e.g. NPF4 Historic Assets and Places Policy 7, Brownfield, vacant and derelict and empty buildings Policy 9, and Zero Waste Policy 12), can support more refurbishment of existing buildings over new build.

3. Investigate and promote ways to reduce soil and stones disturbance, movement and volumes going to landfill by 2026/27.

The organic matter in topsoil is a valuable carbon sink and a rich biodiversity habitat. The construction of buildings and infrastructure, as well as the drainage of soils to create public open space, can reduce levels of organic matter in soils and release carbon. This intervention will focus on better understanding the opportunities to reduce soil disturbance, and soil movement within and off site. We will investigate

how, and identify and promote what technical support is needed, to enable sector behaviour and design change to minimise soil disturbance and removal off site, in alignment with National Planning Framework 4.¹²⁰

4. Review opportunities to accelerate adoption of climate change and circular economy focussed purchasing in construction from 2024.

The public sector is responsible for over half of all expenditure on construction activities in Scotland¹²¹. By examining the potential for sustainable procurement practices to improve material efficiency and reduce waste at all stages in a construction project we will raise the awareness of best practice and the opportunities when procuring the services of designers and other consultants, when tendering and awarding contracts and appointing contractors and subcontractors, and when procuring materials, equipment and services on site, and during building use and at end of life.

5. Consider how devolved taxes can incentivise the use of recycled aggregates and support circular economy practices (ongoing).

We will consider how devolved taxes can be used together to incentivise the use of secondary aggregates and support circular economy practices. The Scottish Government has introduced an Aggregates Tax and Devolved Taxes Administration Bill to Parliament, which sets out the key arrangements for a devolved environmental tax that aims to reduce the extraction of primary (i.e. fresh or new) aggregate¹²². The planned introduction date of the Scottish Aggregates Tax is 1 April 2026.

Click [here](#) to preview an infographic showing the Route Map Strategic Aims in full.

Consultation questions

Question 1: To what extent do you agree with the priority actions proposed within the Reduce and reuse strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

Question 2: To what extent do you agree with the further actions to 2030 listed across the Reduce and reuse strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

2: Modernise recycling

Summary of proposed priority actions:

Household:

- Facilitate a co-design process for high quality, high performing household recycling and reuse services (2024/25 and 2025/26)

Commercial:

- Review of compliance with commercial recycling requirements (2025)
- Co-design measures to improve commercial waste service provisions (From 2026/27)

Vision statement

Recycling helps to conserve our natural resources, keep valuable materials flowing through our economy and reduce the amount of waste sent to landfill. We want Scotland to become a world-leader in recycling, where recycling and reuse services are easy to use and accessible to all, and support and encourage positive choices. By 2030, we want a high-performing recycling system that has modernised recycling services for households and businesses across Scotland, optimised the performance of collection services, and can recycle most waste types to maximise diversion of waste from disposal. Increasing the amount of materials recycled and increasing the proportion of these recycled in Scotland will deliver carbon reductions, reduce the environmental impacts associated with extracting new raw materials, and create a range of important economic opportunities to reprocess and reuse materials here in Scotland.

Strategic objectives

This chapter has two key objectives to advance recycling for both household and commercial waste. These were defined in two separate packages within the 2022 Route Map consultation and have now been prioritised to:

- **Modernise household recycling and reuse** services, improving and optimising performance. This is about making the right choices the easier choices for households, ensuring appropriate recycling and reuse standards and high performing services across Scotland in order to maximise diversion of recyclable waste from disposal. This means co-designing refreshed service standards that promote high quality reuse and recycling and more consistent approaches across Scotland that reflect best practice and also take account of local context, such as housing or geography; supporting and enabling local authorities to drive local improvements; ensuring timely investment in infrastructure and capacity for reprocessing; embedding decisions about recycling in the design and sale of products; and increasing transparency and generating more public confidence in the recycling process.
- **Support businesses in Scotland to reduce waste and maximise recycling**, with clear incentives in place to ensure that the most sustainable choices are the

easiest choices. This means ensuring the right conditions for high quality and reliable commercial waste management services; and supporting ongoing investment in services, infrastructure and innovation, that minimises wider impacts such as air pollution and waste crime. We want a clear focus on businesses and materials where specific barriers exist to improving recycling, and have high quality, timely commercial waste data to better understand the composition of commercial waste streams, to co-design interventions that maximise prevention, reuse, and recycling.

Measuring progress

Scotland's previous targets have focused on **increasing household and commercial recycling rates**, including our target to increase recycling of waste from all sources to 70% by 2025. Official waste statistics published annually by SEPA provide the data to assess progress against these metrics.¹²³

Since 2011, Zero Waste Scotland's annual publication **Carbon Metric**¹²⁴ has been helping to measure our progress and demonstrating how waste reduction and sustainable waste management can play a critical role in the fight against climate change. Most recent data from 2021 shows the carbon impact of household waste in Scotland was 12.8% below the 2011 baseline.¹²⁵

As set out in the new National Litter and Flytipping Strategy¹²⁶, developing a **Litter and Flytipping Data Strategy** is a priority for the delivery partners in its year one action plan. The action plan for 2023-24 also includes actions for SEPA to work to improve the consistency of flytipping data and develop a live picture of flytipping across Scotland to better understand the scale of flytipping across Scotland and develop effective approaches to taking action.

From 2025, we will set **new circular economy targets**, covering the period to 2030 as a minimum. New targets may include consumption, reducing waste, reuse and recycling locally and nationally, and consider both material-specific and emission-based targets. They will also consider outcomes from the co-design process with local authorities, households and commercial waste operators, and link into a monitoring and indicator framework for the circular economy that incentivises the right behaviours across the system, from waste reduction right through to our approach to residual waste. This framework will be developed over 2024/25. This will allow more holistic tracking of Scotland's consumption levels and wider measures of circularity. See the '*Strengthen the circular economy*' section.

Where we are now

Recycling is part of everyday life in Scotland. As we set out in the first Route Map consultation¹²⁷, between 2004 and 2011 Scotland's **household recycling rate** more than doubled. However, in more recent years progress has slowed. Scotland's household recycling rate remained at around 45% for several years, and it fell back to 42% in 2020, in part due to the impacts of COVID-19. In 2022, the recycling rate showed some signs of recovery, standing at 43.3%.¹²⁸ Across Scotland, local authority household recycling rates vary significantly. In 2022 they ranged from

20.7% to 57.8%, and the local authorities with lower recycling rates tend to manage the largest national shares of household waste.

SEPA estimates that the **commercial and industrial recycling rates** are currently 53%, and waste has steadily reduced with a 21.6% decrease between 2011 and 2021.¹²⁹ The changes in commercial waste management are significant and highlight the success of the waste industry in supporting their customers to recycle more and dispose of less.

Most households and businesses in Scotland have access to common recycling services, but it remains often 'easier' to throw things away than recycle or reuse them. For Scottish households, just over half of what we throw away at the kerbside could be recycled through existing systems.¹³⁰

Currently, the incentives to recycle are weak and there remains confusion about what materials can be recycled. This means that large quantities of recyclable materials are still sent for disposal when they could be recycled.

SEPA data also shows that just under a fifth of everything put out for recycling by householders is non-recyclable.¹³¹ This contamination makes managing recycling collections more costly and can mean the whole load has to be taken for incineration or landfill.

Reducing waste and recycling has a key part to play in Scotland's journey to net zero. Household waste makes up approximately 21% of Scotland's waste by weight, but 55% of the total waste carbon emissions, and the top five most carbon intensive materials accounted for under half (46%) of all household waste in 2021, but 83% of household waste carbon impacts.¹³²

What we have done so far

Modernising recycling

As set out in the first consultation, we have delivered and continue to progress key measures to modernise recycling in Scotland.

Scotland's landmark 2012 Waste (Scotland) Regulations¹³³ amended the Environmental Protection Act 1990 to place requirements on Local Authorities to provide a comprehensive recycling service to their householders, and established the minimum recycling service. In partnership with the Convention of Scottish Local Authorities (COSLA), the Scottish Government developed the voluntary **Scottish Charter for Household Recycling**¹³⁴, which seeks to deliver more consistent recycling collections across Scotland.

In 2021, the £70 million **Recycling Improvement Fund**¹³⁵ was introduced by the Scottish Government to enable local authorities to improve recycling infrastructure and services across Scotland. As of December 2023, over £60 million has been awarded to 21 local authorities, funding a range of service improvements, with the potential to reduce CO₂e emissions by over 55,000 tonnes each year, the equivalent of taking more than 29,000 cars off the road.

In addition, £1.083 billion of funding has been made available through the Strategic Waste Fund between 2008 and 2022 to assist local authorities in the implementation of the Zero Waste Plan, including support for projects to drive local improvements in recycling.¹³⁶

Building on this platform, we have set out a range of further measures to be delivered in the coming years to improve services, increase the recyclability of products, increase capture at end-of-life and provide greater incentives for domestic reprocessing. This includes **extended producer responsibility (EPR) schemes** for packaging¹³⁷, waste electrical and electronic equipment (WEEE) and batteries, with the first scheme for packaging to begin from 2025. Packaging EPR is anticipated to increase recycling rates for packaging materials to 76% by 2030¹³⁸. It will require better labelling of products for recycling, and producers to cover the full net cost of managing their packaging when it becomes waste. Funding will go to local authorities to fund effective and efficient collection systems for household packaging waste.

In 2022 Scottish Government published Scotland's revised **Marine Litter Strategy**¹³⁹ with an action plan that included improving the waste management of end of life fishing and aquaculture gear and collected marine litter. Research has detailed the nature and volume of waste arisings and focus is now on the gaps in waste management infrastructure to be filled in order to avoid landfill or transportation abroad for recycling. Co-design is at the heart of this policy area, developing solutions to a challenging problem, which threatens the health of our environment with plastic pollution, and restricts our circular economy growth.

We remain committed to the delivery of a successful **Deposit Return Scheme (DRS)** to increase recycling rates for single use drinks containers to at least 90%. Scottish DRS Regulations were laid in 2020 and establish the framework for DRS in Scotland, but implementation of those Regulations has been prevented by the UK Government's decision not to grant a full UK Internal Market Act exclusion for the scheme. We are pushing the UK Government to lay their own Regulations and set out how DRS can be delivered across the UK in order to meet their commitment to launch DRS by October 2025.

Moving forward, household recycling measures are a significant feature of the **Circular Economy (Scotland) Bill**¹⁴⁰. Subject to passage of the Bill through the Scottish Parliament, this includes provision for a new statutory Code of Practice on household waste recycling which will set standards for recycling and reuse services across Scotland, and the power to introduce household waste recycling targets for local authorities from 2030. More on this is covered in the priority actions section below.

Tackling Waste Crime

We are taking forward a range of measures to address waste crime. We remain clear that illegal waste activities have no place in Scotland, undercut legitimate operators, and remove materials from the circular economy.

Working the partners, including the Serious Organised Crime Taskforce, the Scottish Environment Protection Agency (SEPA) has utilised a multi-agency approach to disrupt illegal environmental and waste management activities.¹⁴¹ SEPA investigates waste enforcement, which includes the monitoring of over 325 active cases including 59 high priority sites (as of November 2023), with some linked to Serious Organised Crime activity.

In June 2023 the Scottish Government published the **National Litter and Flytipping Strategy**¹⁴² which sets out how national and local government, business, third sector, communities and individuals can work together to support behaviour change, improve infrastructure and strengthen enforcement, in order to protect our environment, better value our resources as a society and prevent the escape of materials from the economy. The publication of this six-year Strategy is accompanied by a 2023-24 Action Plan¹⁴³, detailing specific actions and interventions that will be progressed in the first year of the Strategy.

The Circular Economy Bill proposes to bring forward new powers for SEPA and Local Authorities to search and seize vehicles involved in waste crime. This has been used to good effect by Local Authorities in England.

SEPA and Scottish Government are working together to **bring existing environmental permitting regimes into a single integrated authorisation framework**. This will include waste carriers who, for example, will be subject to a more rigorous “fit and proper person” test, making it easier to keep criminals out of the waste collection business and enabling SEPA to revoke authorisations where a person or their associate has been convicted of a relevant offence such as fly-tipping. The new framework will also improve SEPA’s enforcement powers and includes powers to issue regulatory notices to address contraventions of the regulations.

SEPA and Scottish Government are working with the other three UK nations to develop **Digital Waste Tracking service** which will bring a step change in transparency and accountability around the movement of Scottish waste across the UK from start to finish. The improved information this provides will allow SEPA to prioritise action to tackle waste crime and, more generally, target interventions much more effectively.

Delivering our vision

The next section sets out what actions we will prioritise to unlock progress, their system-wide impacts and strategic dependencies with other measures in this Route Map; and the further actions we will seek to take to complement the priority measures to 2030.

Measures are grouped under our two objectives:

- Household: Modernise household recycling and reuse services, improving and optimising performance.

- **Commercial:** Support businesses in Scotland to reduce waste and maximise recycling.

SECTION 1: MODERNISE HOUSEHOLD RECYCLING

Proposed priority actions:

- **Facilitate a co-design process for high quality, high performing household recycling and reuse services (2024/25 and 2025/26)**

Further actions:

To both complement and build on these priorities, we will seek to progress the following actions to 2030:

- Develop a statutory code of practice for household waste services (by 2025/26)
- Introduce statutory recycling and reuse local performance targets for household waste services (from 2030)
- Strengthen Householder's duty of care in relation to waste (by 2025/26)
- Give local authorities more tools to support household recycling and reduce contamination (by 2025/26)
- Undertake a review of waste and recycling service charging (by 2024/25)
- Review the monitoring and reporting framework for local authority waste services (by 2025/26)
- Develop options and consult on the introduction of end destination public reporting of household recycling collected (by 2027/28)

Priority action: Facilitate a process to co-design high quality, high performing household recycling and reuse services with households, COSLA, local authorities and service operators.

Timescale: Scoping work commenced in 2023; delivery of the co-design process will take place in 2024/25 and conclude in 2025/26.

2022 consultation recap

Proposals across the household recycling package were well supported. 82% of respondents agreed with the household recycling proposals.¹⁴⁴ Comments on the co-design proposal were broadly supportive; most respondents welcomed the idea of more consistent service provision across the country, while some noted that a 'one

size fits all' approach is unlikely to work given Scotland's diverse geography, local housing stock and existing recycling infrastructure.

Our response: What we will do

It is our view that a co-design process involving households, local government, and the broader resources and waste sector is vital to design modern, efficient and affordable waste and recycling service standards, that also promote greater prioritisation and mainstreaming of reuse, complementing the measures in our 'Reduce and Reuse' section of this Route Map.

We will therefore deliver the co-design process across 2024/25 and 2025/26, working in close partnership with COSLA and local government and other stakeholders. Scoping work with local government partners commenced in 2023.

The co-design will take an evidence-based approach and build on what we know works. It will utilise the expertise within Scottish local authorities and beyond, and build on the platform created by previous research, the Scottish Household Recycling Charter, and the investments made by national and local government through the Recycling Improvement Fund.

Through the Circular Economy (Scotland) Bill, introduced in June 2023, we have moved away from the voluntary approach to Scotland's Household Recycling Charter towards a mandated approach, by requiring the Scottish Ministers to prepare and publish a statutory Code of practice on household waste recycling, which will place further requirements on local authorities regarding household collection services.

The co-design process will directly inform the future statutory Code of Practice, and support both the development of and local authorities' actions to meet future local statutory targets from 2030. As well as improving consistency of services, we believe that putting the new code on a statutory footing will provide a clear strategic direction for household recycling in Scotland and accelerate improvements to both the quality and quantity of recycling. This process will build on the existing Code of Practice, identifying areas that can be strengthened and updated in order to deliver better services across Scotland and increase recycling rates.

The co-design process will be underpinned by the principles set out by the Verity House Agreement, focusing on collaboration to achieve better outcomes locally for individuals and communities.¹⁴⁵

Placing people and organisations involved in the delivery of and use of these services at the centre of the co-design process is key to ensuring new service standards are fit for the future. The participation of a diverse range of service providers and householders will be key to provide expertise and experience, ensure services are accessible, easy to use and delivered in a way that takes into account diverse geography, local housing stock and recycling infrastructure.

The first consultation response reinforced that there are significant opportunities to be drawn from best practice, both from within Scotland and elsewhere. We will draw upon the wealth of experience and expertise within Scottish local authorities and

beyond, to design effective modern services for the future. The co-design process will be informed by:

- **Research**, indicating the features of high-performing services in different geographical, socio-demographic and operational contexts, building on our previous 2021 research¹⁴⁶, and consideration of behavioural insight evidence. This will support assessment of the likely improvements in service performance for different contexts, and opportunities to consider diversion to reuse, repair and remanufacturing of products (linked to 'Reduce and Reuse' and the Product Stewardship measure).
- **Existing service structure, function and performance review**, building on the platform created by the Scottish Household Recycling Charter and incorporating the findings of our review of its Code of Practice.
- **Upcoming service demands and material flow changes**: This will account for the latest information regarding waste composition¹⁴⁷, including the large volume of food waste that is thrown away and the associated carbon emissions. It will account for future changes, for example as a result of DRS and EPR.¹⁴⁸ This includes our commitment to require kerbside collection of plastic film and flexible packaging from March 2027 in Scotland; our Climate Change Plan update commitments regarding consultation on the current rural exemption and food separation requirements for food waste collections; and mandatory separate collection of Bio-waste (e.g. garden waste) and textiles¹⁴⁹ in line with EU requirements; and delivering on recommendations made by the independent review of incineration in Scotland.¹⁵⁰
- **A review of funding mechanisms for services to ensure modern, efficient and affordable outputs**, building on key findings and the investments made through the former Strategic Waste Fund and the Recycling Improvement Fund, and the new provisions set out in the Circular Economy (Scotland) Bill. Changes to waste, recycling and reuse services and the move to a mandatory Code of Practice, will be closely linked to forthcoming changes in Packaging Extended Producer Responsibility and its funding model, and the proposed review of service charging to ensure that this is incentivising the right choices to increase recycling (see below). Consideration of the available markets and reprocessing capacity for collected materials, and opportunities to facilitate this, will also be crucial.
- **Assessment of effective communication practices** to inform future standards.
- **Consideration of any additional infrastructure required** to deliver high-performing services, linked to wider circular economy infrastructure requirements set out elsewhere in the Route Map.
- **Assessment of the potential for multiple local authorities to collaborate or partner to deliver services**, and the potential efficiencies and economies of scale that this may offer. Some local authorities already work together to deliver aspects of their waste services or share the use of infrastructure. As service structures and demands are reviewed, this will highlight opportunities for collaboration between authorities in the delivery of future recycling and reuse services or processing of recycled materials.

Food waste

A focus on improving food waste will be vital in this co-design process: recycling services and participation rates, and reducing contamination of recycling that is collected. The recently published household waste composition analysis for Scotland (2021-2023) shows that reducing and recycling food waste is one of the biggest challenges Scotland faces in our efforts to tackle the climate impact of Scotland's waste. Along with textiles, food waste is one of the most carbon intensive household waste materials¹⁵¹, yet per year Scottish households threw away 330,000 tonnes of food waste, an average of 131 kilogrammes per household in the residual waste bin.¹⁵² This confirms our analysis from the first Route Map consultation, that food waste recycling presents one of the largest opportunities to improve household recycling performance and quality in Scotland, and is critical if we are to further reduce the impact of waste on our climate.

Residual waste

We know that there is strong evidence that encouraging households to minimise residual waste is key to driving recycling rate improvements.¹⁵³ In other countries, this has been achieved in multiple ways, for example through restricting effective weekly residual waste capacity (via smaller bins and/or less frequent collections, as promoted through Scotland's existing recycling Code of Practice), enforced volume limits (as in Wales), or other fiscal measures to incentivise reducing residual waste and maximising reuse and recycling. The co-design of the new Code of Practice will consider how existing measures to restrict household residual waste capacity can be supported or improved.

Though there are a variety of methods to effectively minimise household residual waste, alongside this consultation we have published further research looking at international examples of direct variable charging models and the lessons we can learn for future service design in Scotland. There are no plans to implement direct variable charging in Scotland, however the research reinforces the importance of the co-design process in actively considering ways to consistently incentivise the minimisation of residual waste by households.¹⁵⁴ We intend to initiate a review of existing service charging, as set out below, to complement the co-design process.

The bigger picture: Making an impact

- **Household recycling:** The recycling co-design process will set a framework for the design and implementation of subsequent recycling measures. This includes informing what a future statutory household Code of Practice will look like, enabling progress against future local recycling and reuse targets, providing valuable insights to inform how the monitoring and reporting framework for local authority waste services can be strengthened, and consideration of further measures to incentivise waste reduction at a household level.
- **Significant national and local investment** has been put into reforming existing services, for example through the Recycling Improvement Fund, and there are

upcoming legislative changes through the Circular Economy (Scotland) Bill, which will directly impact services. This co-design is an opportunity to consider these issues in the round, providing a template for long-term service design and ongoing improvement that will build on previous and current investments.

- **Commercial recycling:** The household recycling co-design and statutory Code of Practice are crucial to commercial recycling and reuse measures outlined later in this chapter, providing a co-design template to draw lessons from for the commercial equivalent. Many local authorities provide a commercial recycling service to businesses, and changes to household services may have direct impacts on these commercial services.
- **Reduce and reuse:** The co-design process and subsequent statutory Code of Practice are inextricably strategically linked to broader waste reduction and promoting reuse, particularly producer responsibility and product stewardship measures. Product Stewardship priorities must inform and be informed by the co-design process, to ensure future policies and actions are aligned to target priority materials across the waste hierarchy. For illustration, a material which is subject to an extended producer responsibility scheme must have an easy-to-use, accessible recycling and/ or reuse option(s) for households to support recyclability, divert that material from the residual waste stream and extend its lifecycle.
- **Decarbonising disposal:** By investing collaborative effort in co-design and reform, we can deliver rapid reductions in the proportion of recyclable materials in the residual waste stream.¹⁵⁵ The importance of this was underlined through the Independent review of the role of incineration in the waste hierarchy in Scotland.¹⁵⁶ By removing recyclable material from residual waste, especially plastics, we can substantially reduce emissions associated with incineration. This will align with measures set out in the '**Decarbonise disposal**' section, including policies incentivising the recovery of more plastics from residual waste, and the inclusion of incineration in the UK Emissions Trading Scheme.
- **Future infrastructure requirements:** A key cross-cutting theme for a modern circular economy, we intend to take a strategic approach to this, working alongside public and commercial sector partners; the co-design process will support this process, exploring what Scotland will need in the future to modernise recycling.

Further actions to 2030

Here we set out further actions we will seek to take to 2030 to modernise household recycling and reuse services. The measures listed intend to build on and complement our priority actions above. We recognise that some actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to develop or explore.

1. **Develop a statutory code of practice for household waste services by 2025/26, with a focus on recycling and reuse.**

Through the Circular Economy (Scotland) Bill¹⁵⁷, introduced in June 2023, we have introduced a requirement upon the Scottish Ministers to prepare and publish a statutory Code of Practice on household waste recycling. This will move away from the voluntary approach to Scotland's Household Recycling Charter towards a mandated approach to household waste collection services. As well as improving consistency of services, putting a new Code of Practice for recycling and reuse on a statutory footing will provide a clear strategic direction for modernising recycling in Scotland and accelerate improvements to both the quality and quantity of recycling. Statutory guidance will be used to ensure that services are high performing in different local contexts and put people at the heart of how services are designed through maximising participation, material capture, and quality.

2. Introduce statutory recycling and reuse local performance targets for household waste services from 2030 onwards.

The Circular Economy (Scotland) Bill, as introduced, enables the use of statutory local recycling and reuse targets (e.g. recycling, preparation for reuse and composting) for local authorities to help drive further improvements in local recycling performance for household waste services from 2030. This will complement the co-designed statutory Code of Practice (**action 1 above**) and the wider work to develop a new circular economy monitoring framework and circular economy targets (see '*Strengthen our circular economy*' section). Local targets must be evidence based, and will be informed by research on metrics that measure quality and quantity of material collected. To support this, new research on the design, application and use of targets across the world has recently been completed.^{158 159} We recognise that targets must be achievable and fair; local authorities are at different starting points, with varied geographies and demographics; and service providers must have the tools available to meet the required standard. The Scottish Government will, therefore, work with local government to set achievable, appropriate targets as part of the development of secondary regulations and consultation for new targets ahead of 2030. The Welsh Government, which has implemented a similar policy, provided local authorities with two years' notice of targets when targets were first introduced in 2012/13.¹⁶⁰ The Scottish Government considers this to be the minimum reasonable notice period for targets and recognises that more notice is both desirable and likely to help with achieving targets. The Bill provision also gives Scottish Ministers an enforcement role with respect to the targets, with a monitoring role for SEPA. Where targets are not met, Ministers will be able to seek an explanation and propose an improvement plan or impose penalties. We will continue to engage with stakeholders regarding the future design of targets.

3. Strengthen Householder's duty of care in relation to household waste: making a breach of the householder duty of care a criminal offence and creating a new fixed penalty regime to enforce this duty, by 2025/26.

Householders have some specific, limited duty of care obligations to take reasonable steps to ensure that their household waste is only transferred to a legitimate waste carrier or other person authorised to transport waste. They are subject to separate obligations with respect to the storage of household waste on their property. Subject

to passage of the Circular Economy (Scotland) Bill, a breach of the existing householder duty of care will be a criminal offence and local authorities and other relevant bodies will be granted powers to enforce non-compliance with this existing obligation by way of a fixed penalty notice as an alternative to criminal proceedings. The policy intention is to aid in the prevention of fly-tipping as this will allow for the imposition of a penalty where flytipped waste can be traced back to a particular household, and also to raise awareness of householder responsibilities when transferring and disposing of waste. This will be developed in parallel with measure 4 below, to ensure a coherent set of new enforcement powers for local government. An Fixed Penalty Notice for breach of the householder duty of care may only be issued where there is a reason to believe that the householder has breached the duty. If a householder has taken reasonable steps to comply with their duty of care and manage the transfer of their waste to an authorised person, or there is a reasonable excuse for their having breached the duty of care, then there would be no basis to either charge that person with an offence or to issue a fixed penalty notice. Timing for delivery in 2025/26 is indicative, and will be dependent on the passage of the Circular Economy (Scotland) Bill, and findings from the household recycling co-design process.

4. Give local authorities more tools to ensure that households are properly using their recycling containers and to reduce recycling contamination by 2025/26.

There are currently limited powers for local authorities to ensure that households are properly using their recycling containers or to prevent recycling being placed in non-recyclable containers. Current criminal enforcement routes are onerous and expensive for local authorities. Given concerns about non-participation rates and increased contamination of recyclate that is collected from householders, the policy intention is also to strengthen local authorities' enforcement powers in relation to household recycling by enabling local authorities to issue written warnings, civil penalties or fixed penalty notices to households that do not comply with household recycling requirements. The Circular Economy (Scotland) Bill provision will enable local authorities to issue written warnings and where those warnings are not heeded, civil penalties or fixed penalty notices to householders who place the wrong materials in waste and recycling bins. This provides local authorities with more flexibility in their approach and more proportionate enforcement tools. Similar powers are already available to local authorities in England and Wales to enforce persistent or deliberate contamination. Scottish local authorities would have the option to deploy an escalating response to non-compliance, by initially issuing written warnings and where those warnings are not complied with, civil penalty charges or, where the behaviour is more serious, issuing fixed penalty notices to households. This will be developed in parallel with action 3 above, to ensure a coherent set of new enforcement powers for local government. Timing for delivery in 2025/26 is indicative, and will be dependent on the passage of the Circular Economy (Scotland) Bill, and findings from the household recycling co-design process.

5. Undertake a review of waste and recycling service charging by 2024/25.

We intend to conduct a review of waste and recycling service charging by 2025 to ensure that we have the right incentives to reduce waste and maximise use of recycling and reuse services. Currently, households in Scotland can be charged for collection of certain waste and recycle streams, such as garden waste or uplift of larger items. This review will investigate whether the current position incentivises the right positive behaviours, and delivers the most value for local authorities, including the highest quality recycle. The review will account for current and future funding availability for household services, including the potential revenue stream from the new packaging EPR scheme. This review will link in directly to the broader recycling co-design process given the significant connection between charging, funding and future service requirements; key findings will help inform the future statutory Code of Practice.

6. Review the monitoring and reporting framework for local authority waste services by 2025/26, and subsequently strengthen where necessary.

As part of the recycling co-design and development of local statutory targets, we intend to review in partnership with local government where additional or alternative reporting may be required to help drive and assure further service improvements, and public confidence in local services. This will take into account existing national and local reporting arrangements already in place or planned, for example through measures like a UK-wide digital waste tracking system and the development of a new Circular Economy monitoring framework for Scotland (see '*Strengthen the circular economy*' section). The intention of this work is to ensure consistency of data availability, quality and accessibility, a cross-cutting theme across this Route Map. We will take forward appropriate improvements identified, consult on and implement required changes prior to commencing statutory targets for local authorities in 2030.

As part of this, we intend to build on the recent 2021-23 household waste compositional analysis undertaken by Zero Waste Scotland in partnership with local and national government.¹⁶¹ This will improve the quality and timeliness of data, enabling local and national government to develop and design measures that continue to improve access to and modernise household services.

7. Develop options and consult on the introduction of a requirement on local authorities and others to report publicly on end destination of household recycling collected by 2027/28.

To increase transparency and strengthen public confidence in recycling services, and boost Scotland's ability domestically to manage its waste, we will develop options for and consult on a statutory duty on collecting local authorities to report on the final end destinations of collected material. This will include any necessary responsibility for those involved in waste management supply chains to provide data. The 2022 Route map consultation¹⁶² showed widespread support for this proposal, with many respondents agreeing that it would help improve public confidence in recycling. We recognise the need to be mindful in how additional reporting requirements on actors in the supply chain are placed, and will carefully consider links to existing and

planned measures, including UK-wide digital waste tracking, as options are developed.

SECTION 2: COMMERCIAL RECYCLING

Proposed priority actions:

- Review of compliance with commercial recycling requirements (2025)
- Co-design measures to improve commercial waste service provisions (2026/27)

Further actions:

To both complement and build on these priorities, we will seek to progress the following actions to 2030:

- Conduct a national compositional study of waste from commercial premises (by 2025/26)
- Investigate further steps to promote business-business reuse platforms (by 2027)

Priority action: Review of compliance with commercial recycling requirements.

Timescale: The review will commence in 2024, and report findings by the end of 2025.

2022 consultation recap

Most respondents to the first [consultation](#)¹⁶³ agreed that the proposed review of compliance would help gather insight and contribute to an evidence base to inform future policy and actions, and some commented on the scope of the review.

Our response: What we will do

It is clear from the response to the 2022 consultation that stakeholders broadly agree with the vision and aims for commercial recycling and reuse. To build on this platform, we set out our intention to initiate a co-design with businesses and the waste sector to achieve these goals (see below).

However, to meaningfully tackle the barriers and support Scottish businesses to achieve waste reduction and improved recycling and reuse, we must urgently improve our understanding of these barriers.

Working alongside SEPA, we will therefore undertake a review of compliance with current commercial recycling requirements in Scotland. The review will begin in 2024, and will report its findings by the end of 2025. Scotland's commercial waste requirements in the Environmental Protection Act 1990 were brought in by the landmark 2012 Waste (Scotland) Regulations¹⁶⁴ nearly a decade ago, and we believe it is the right time to fully review whether these requirements, and their enforcement, are delivering their aims.

The review will look at current compliance with the statutory requirements by businesses, and the underlying reasons or barriers to compliance. We will use the review to support compliance, and its findings will feed directly into the co-design process (see below) to develop further interventions to maximise waste prevention, reuse, and recycling.

This work will be supplemented by a **compositional study of waste from commercial premises**, which will help us as a nation to identify priority materials, products and sectors for waste prevention and recycling interventions. Further detail on this measure is provided later in this section.

Priority action: Co-design measures to improve commercial waste service provisions that drive waste prevention and reuse, and maximise recycling.

Timescale: Preparation in 2025/26, co-design process in 2026/27.

2022 consultation recap

Respondents from a diverse range of sectors expressed support for this proposal, valuing the emphasis on a collaborative approach.¹⁶⁵ The suggested interventions were welcomed, particularly the focus on reducing food waste and the exploration of fiscal measures to incentivise commercial recycling and waste prevention.

Our response: What we will do

Our review of the available evidence¹⁶⁶ and the feedback from stakeholders to the first consultation has strengthened our view that a co-design of new interventions and approaches to commercial waste and recycling is vital to make progress in this area.

We will therefore launch a process of co-design in 2026/27 with the business community, the Scottish resources and waste sector and other key stakeholders. The aim of this process will be to identify and design measures that will deliver improvements in waste prevention, reuse and recycling, and reduce emissions associated with commercial waste. Consistent with the New Deal for Business, this will draw directly on the expertise held across the sector, on the experiences of different sizes of businesses, and on the evidence drawn together through key measures like waste compositional analysis and the review of compliance. Our approach will be based on the **New Deal for Business**¹⁶⁷, ensuring the expertise of and evidence from the business sector informs policy development and avoids unnecessary or unintended costs, whilst supporting circular economy objectives.

Potential measures will be a matter for the co-design process, but for illustration, may include targeted communications and engagement, further fiscal measures that incentivise recycling or waste prevention, procurement advice and guidance. The co-design may also identify a need for further legislation or updated statutory guidance

to drive the progress required. Consideration will be given to how any measures would impact **waste reduction and reuse/repair efforts**, targeting of specific materials in line with other Route Map measures (e.g. product stewardship, residual waste plan), management routes to reprocessing, and **maximising the economic value of resources**. In line with stakeholder feedback to the first consultation, food waste reduction and recycling in particular will be prioritised, building on the interventions proposed in the Reduce and reuse section of the Route Map.

The commercial co-design will also draw upon the **lessons learnt from the equivalent household co-design process** outlined above, particularly given the roles of local authorities across both the household and commercial services landscape.

We will ensure strategic join up between the co-design and the measures set out in the '*Decarbonise disposal*' section below, including policies incentivising the recovery of more plastics from residual waste, and the role of incineration in the UK Emissions Trading Scheme. The co-design is key to meeting our commitments to **maximise the value of waste, decarbonise residual waste, and achieve the best environmental outcomes for materials**.

We believe this process will ensure a shared vision across Scotland about what must be done to achieve our waste and climate change objectives to 2030. It will provide clear confidence in future measures that take account of the specific challenges facing both commercial premises and the resources and waste sector in Scotland; and enable successful delivery at both a national and local level.

Commercial zoning

In the first consultation, we proposed piloting a form of business recycling zoning. Business collection zoning involves contractors competing to undertake all commercial waste collection in a particular 'zone', which potentially provides opportunities for greater collaboration, cost savings, service standardisation, and reducing traffic, etc. 66% of respondents supported the proposal in the equivalent Circular Economy Bill consultation¹⁶⁸. However, stakeholders raised significant concerns regarding likely impact, in particular on small and medium sized enterprises in Scotland around potential loss of competition and monopoly price escalation. A further feasibility review of commercial zoning models across the world¹⁶⁹, completed since the initial consultation, has indicated that there is some potential for both mandatory and voluntary models to deliver improvements in recycling rates, greenhouse gas emission reduction and wider benefits. **However, the research did not indicate that mandatory approaches to zoning were more successful than voluntary approaches at increasing recycling**. As it stands, there is nothing to prevent Scottish Government and/or local authorities supporting the setup of voluntary schemes within the current legislative framework, and there are already some existing examples in Scotland, such as Essential Edinburgh Business Improvement District (BID)¹⁷⁰. Without strong evidence to indicate greater improvements through mandatory over voluntary approaches, and given stakeholder feedback, we do not believe there is sufficient evidence to pursue mandatory zoning as the preferred approach at this stage. Research also highlighted a range of issues that require further consideration, including implementation, costs, planning and

contracting for services. Feedback from the consultation and findings from the zoning research will be drawn upon through the co-design process (outlined above) to find solutions that enable the business community to drive commercial recycling and reuse improvements and to support local areas with a desire to pilot voluntary approaches to commercial zoning.

Further actions to 2030

The review of compliance and the commercial co-design process will set the critical framework for implementation of further interventions to support businesses in Scotland to reduce waste, reuse and maximise recycling. Below we set out further actions we will seek to take to 2030 to build on and complement our priority actions. These proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to explore or develop.

1. Conduct a national compositional study of waste from commercial premises by 2025/26.

There is currently no detailed data or analysis of commercial waste at a national level, so it is unknown how much recyclable material is contained in residual commercial waste. Working with Zero Waste Scotland, SEPA, and the commercial waste and resources sector we propose to conduct a national compositional study of residual waste from commercial premises by 2025/26, to identify priority materials, products and sectors for waste prevention and recycling interventions. This will help us account for current and future waste composition, including the impact of policies such as Extended Producer Responsibility and the Deposit Return Scheme. To support this process, ZWS has published a report¹⁷¹ on a survey to scope the existing data availability and practises within the commercial recycling and waste landscape, helping to explore the challenges and opportunities around delivery of a national compositional study.

There was broad support for this measure in the 2022 consultation, with respondents describing it as an ‘essential’ exercise in terms of addressing data gaps within commercial recycling and improving service provision. Beyond 2026, we will seek to deliver a rolling programme of commercial waste analysis so that we can assess change over time and evaluate the impacts of interventions.

2. Investigate further steps to promote business-business reuse platforms by 2027.

Across the Route Map, we are seeking to improve the consumer experience in order to make reuse an everyday part of life for households (see *Reduce and reuse* section). Similarly, we are committed to supporting alternative business models so that leasing, repair and refurbishment, and reuse of products is easier and more attractive. There are good examples of this across Scotland and we are keen to promote and extend the ease of access, quality of products and uptake of services which normalise lease, repair, purchase of second-hand products, and extension of product lifespan through commercial customers. We will undertake a focused piece of work looking at ways we can promote business to business reuse platforms. This will look at themes such as support for operators to establish themselves in new

areas, expansion of existing service models to include new products, digitisation of stock to expand markets, partnership approaches to achieve operational efficiencies; and investment in skills and training programmes to ensure sufficient expertise to make businesses viable. Consultation respondents were supportive of measures to support businesses to reduce waste and normalise reuse, with emphasis on a collaborative approach which involves engagement with businesses and industry stakeholders.

Click [here](#) to preview an infographic showing the Route Map Strategic Aims in full.

Consultation questions

Question 3: To what extent do you agree with the priority actions proposed within the Modernise Recycling strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

Question 4: To what extent do you agree with the further actions to 2030 listed across the Modernise Recycling strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

3: Decarbonise disposal

Summary of proposed priority actions:

- Develop and deliver a Residual Waste Plan to 2045 (**develop by 2025/26**)
- Facilitate the development of a Sector-Led Plan to minimise the carbon impacts of the Energy from Waste Sector (**by 2025/26**)

Vision statement

The production and management of waste results in environmental impacts and represents missed economic opportunities for these materials. That is why our focus in this Route Map is to prevent materials from becoming waste in the first place. As we accelerate our move to a circular economy we will produce less waste. We want to ensure that materials that cannot be avoided, reused or recycled are managed in a way that **minimises environmental and climate impacts**, encourages management of materials further up the waste hierarchy, and minimises broader societal impacts.

Strategic objectives

To deliver this vision, we have set out the following strategic objectives:

- **Understand the best environmental outcomes for specific wastes:** To deliver the best environmental outcomes, we need a clear understanding of key waste streams and the impacts of options to manage them.
- **Ensure there is an appropriate capacity to manage waste:** Waste management requires long-term investment in infrastructure and skills, but the nature and amount of waste will change as we move to a circular economy. Therefore, we need to clearly understand and signal future capacity requirements and timelines for policy implementation to enable investment in the right levels of capacity.
- **Improve environmental outcomes for waste through innovation:** Alongside delivering the right amount of capacity, we also need research, development and innovation to adopt improvements and new technologies to deliver the best environmental outcomes.
- **Incentivise decarbonisation of the waste sector¹⁷²:** We need to ensure the best environmental outcomes for waste aligns with our emissions reduction ambitions. This will require us to continue to divert biodegradable waste away from landfills, mitigate the emissions from biodegradable waste already landfilled, and take action to decarbonise the energy from waste sector.

We recognise that waste management is a complex system; the nature and volume of waste streams will change in time, particularly due to other policies set out in this Route Map. Generally, those managing waste have little control over the nature and volumes of waste streams; and the options available to manage these wastes depend heavily on geography, available capacity, and advancements in technology.

Measuring progress

Scotland's previous indicators in this space have focused on the proportion of waste landfilled, both overall, and biodegradable municipal waste. Continued diversion of waste away from landfill has contributed to our 2025 target to send a maximum of 5% of waste to landfill by 2025. However, while our current 2025 targets are important milestones, they should not be the end destination. Our first Route Map consultation¹⁷³ highlighted that **we need to move beyond measuring tonnage alone**. This 'all waste' tonnage-based target does not account for the varying environmental or carbon impact of individual materials, and is not fully aligned with our vision to deliver the best environmental and climate impacts for all waste. This approach was endorsed by many of the responses to the consultation, and aligns with recommendations by the Climate Change Committee.^{174 175}

The further **decrease in greenhouse gas emissions from the Waste Management Sector** is important to measuring progress. The majority of emissions are from the decomposition of biodegradable waste in landfills, which produces methane - a greenhouse gas that is around 28 times more potent in the atmosphere than carbon dioxide over a 100-year period. Actions that further divert biodegradable waste from landfill, including those set out in this chapter are, therefore, vital to reducing our greenhouse gas emissions.

Similarly, we want to see **long-term reduction of emissions from Energy from Waste**. Energy from waste emissions are reported under the Electricity Sector¹⁷⁶. In line with recommendations from the Climate Change Committee and the Independent Review of Incineration¹⁷⁷, from June 2023 we have started reporting emissions from Energy from Waste as a sub-category within the Scottish greenhouse gas inventory¹⁷⁸.

From 2025, we will set new circular economy targets to at least 2030. New targets may include consumption, reducing waste, reuse and recycling locally and nationally, and disposal, and consider both material-specific and emission-based targets. In addition, a monitoring and indicator framework will be developed over 2024/25. This will allow more holistic tracking of Scotland's consumption levels and wider measures of circularity. As part of this process, we will consider the wider environmental impacts of waste, aligning with our Environment Strategy. See the 'Strengthen the circular economy' section for more on beyond 2025 targets.

Where we are now

We now landfill less than half of what we did in 2005, but we still landfill 30.2% of all the waste we produce in Scotland¹⁷⁹. Measures such as the Scottish Landfill Tax, diverting waste from landfill to incineration, and improving recycling rates have reduced the amount of waste sent to landfill¹⁸⁰.

These measures, as well as increased food waste recycling, have reduced the amount of biodegradable waste sent to landfill, which has reduced Waste Sector emissions. In 2021, the Waste Management Sector was responsible for emissions of 1.5 MtCO₂e, largely from the landfilling of biodegradable waste¹⁸¹, a significant decrease from 6.5 MtCO₂e emitted in 1990.

However, the diversion of waste to energy from waste facilities has led to an increase in emissions from energy from waste (reported as emissions in the Electricity Sector) to 0.3 MtCO₂e in 2021, 19% of Electricity Sector emissions. These energy from waste emissions are expected to rise in the short-term as further waste is diverted from landfill, although, this is expected to be accompanied by a larger longer-term decrease in emissions from the waste sector as a whole due to lower landfill emissions¹⁸². The actions set out in this chapter are, therefore, vital to reduce greenhouse gas emissions from both the Waste Management and Power Sectors.

Despite a significant reduction in the waste landfilled, achieving our target to send a maximum of 5% of waste to landfill target by 2025 represents a significant challenge. Much of the remaining material we landfill has a low carbon impact when landfilled or cannot easily be recycled or disposed of by other means and, therefore, achieving our 5% target does not fully align with our emissions reduction commitments or other environmental ambitions in the long term.

What we have done so far

We continue to progress key policies, building on those already delivered, to move towards our vision of minimising the impacts of managing waste. Current measures to divert waste from landfill to recycling or other disposal, include **The Landfill Tax (Scotland) Act 2014**, a **ban on biodegradable municipal waste going to landfill** from 31 December 2025, and support for local authorities to secure contracts that comply with the landfill ban.

To minimise emissions from landfills, and in line with CCC recommendations¹⁸³, we intend to roll out the next programme of work seeking to improve **landfill gas capture** rates at closed landfill sites, reducing the impact of biodegradable waste already landfilled.

We commissioned the **independent review of incineration** and have published our responses to both of Dr Church's reports¹⁸⁴. The independent review found that, in terms of managing residual waste, incineration was currently preferable to landfill, but made clear recommendations around capacity and decarbonisation of energy from waste. We accepted, in principle or in full, all of the Review's recommendations. In response to recommendations on capacity, our National Planning Framework 4 sets out that the Scottish Government will **not support new developments of energy from waste facilities, except under limited circumstances**¹⁸⁵. We will also develop an indicative capacity cap to ensure that we have an appropriate amount of capacity as the amount of residual waste declines through our acceleration to a circular economy. To drive decarbonisation of energy from waste, we have set a clear ambition to **end the unnecessary incineration of plastics**.

In addition, we are working with other nations in the UK on the expansion of the **UK Emissions Trading Scheme (ETS)** to include incineration and energy from waste. The UK ETS Authority¹⁸⁶ held a call for evidence as part of a wider consultation in March 2023, and published a response to this consultation in June 2023¹⁸⁷. The response set out that inclusion of incineration and energy from waste in the UK ETS could facilitate reductions in emissions and increased efficiency of these processes by, for example, incentivising increases in recycling and investments in mixed waste

sorting, heat networks and carbon capture and storage. Given this, the response noted an intention to include incineration and energy from waste in the UK ETS from 2028, but noted further work was needed on several areas ahead of a further consultation.

Delivering our vision

Proposed priority actions:

- **Develop and deliver a Residual Waste Plan to 2045 (develop by 2025/26)**
- **Facilitate the development of a Sector-Led Plan to minimise the carbon impacts of the Energy from Waste Sector (by 2025/26)**

Further actions:

To both complement and build on these priorities, we will seek to progress the following actions to 2030:

- Support the inclusion of energy from waste in the UK Emissions Trading Scheme (ETS), and investigate other fiscal measures to incentivise low carbon disposal (from 2028)
- Review and target materials currently landfilled to identify and drive alternative management routes (from 2024)
- Facilitate the co-production of guidelines for effective community engagement (process underway from 2024)
- Increase the capture of landfill gas (by 2025/26)

It is clear from the first Route Map consultation and the independent Review of Incineration¹⁸⁸, that further action is required to ensure that materials that cannot be avoided, reused or recycled are managed in a way that **minimises environmental and climate impacts**, encourages management of materials further up the waste hierarchy, and minimises broader societal impacts. This section sets out our priority actions to deliver this, and accelerate progress against our waste and climate targets.

Priority action: Develop and deliver a Residual Waste Plan to ensure the best environmental outcome for unavoidable and unrecyclable waste and set strategic direction for management of residual waste to 2045.

Timescale: Research and engagement during 2023/24 and 2024/25. Publication in 2025/26.

2022 consultation recap

Proposals in the disposal package were strongly supported by respondents to the [consultation](#), 87% of respondents agreed or strongly agreed, but some respondents sought additional detail on the Residual Waste Plan.¹⁸⁹ Questions were raised about how the Plan would link into broader waste and circular economy initiatives; how different materials would be treated, citing the need for a targeted approach; and the urgency needed to meet the challenges we face. Alignment with planning and net zero policy, the use of technology and operational efficiencies were also raised.

Our response: What we will do

We will develop and deliver a Residual Waste Plan to 2045. The Plan will be published in 2025/26 and will set the long-term vision for future disposal practices in Scotland to minimise the environmental and climate impacts of waste while ensuring that we have appropriate capacity in place to manage the expected, declining volumes of waste in the future.

Waste systems are highly-complex and there are a variety of factors that will influence the future volumes, compositions and types of waste that need to be managed in Scotland, and which need to be strategically considered over the long-term.

The specific scope of the Plan will be shaped in collaboration with the advisory group, see below but broadly, it will:

- Build on current **data** to improve our understanding of the current and future residual waste streams, including for hazardous and clinical waste.
- Investigate and make recommendations on Scotland's long-term **infrastructure requirements** to manage waste. This includes both the development of an indicative cap to inform planning and investment decisions on future EfW capacity requirements; and considering how to ensure a strategic withdrawal from landfill to ensure we maintain the necessary capacity to manage waste for which landfill remains the best environmental outcome.
- Take a **targeted approach to manage materials** to ensure the best environmental outcome for materials when they require disposal. This will require the identification of priority waste streams and actions to reduce the environmental impact of their disposal, for example, exploring alternative pathways for sorting residues, by researching potential uses, treatment options, cost benefit analysis, market demand and implementation measures.
- Investigate **emerging technologies** that may allow better management of waste and minimised environmental and social impacts where materials continue to be disposed of. This includes how we manage unavoidable wastes such as those containing persistent organic pollutants.
- Consider how we manage **legacy waste infrastructure** to continue to minimise environmental impacts and maximise societal gains.

To guide the development of the Plan, we will establish a Residual Waste Advisory Panel. We believe this collaborative approach is vital to draw upon the expertise

across these sectors, and build joint ownership and the confidence needed to invest in infrastructure across the resource recovery chain.

Priority action: Facilitate the development of a Sector-Led Plan to minimise the Carbon Impacts of the Energy from Waste Sector.

Timescale: Research and engagement during 2023/24 and 2024/25. Publication in 2025/26.

2022 consultation recap

Proposals in the disposal package were strongly supported by respondents.¹⁹⁰ Most responses on this proposal asked for more detail about implementation, expressed broad support, or suggested potential effective processes to capture and use energy more effectively, remove plastics, and capture and use carbon post-incineration.

Our response: What we will do

We will facilitate the development of a Sector-Led Plan to minimise the Carbon Impacts of Energy from Waste.

The energy from waste sector currently produces around **0.3 MtCO₂e** of emissions each year. The sector will need to align with emissions reductions ambitions, while ensuring there is sufficient capacity to manage the decreasing volumes of waste we produce in Scotland.

This sector-led plan will form a specific strand of the Residual Waste Plan. It will set out how the sector will minimise climate impacts of energy from waste specifically, and ensure that actions across the energy from waste sector are aligned with net zero ambitions by:

- Focusing on measures to end the unnecessary incineration of high carbon-emitting materials from incineration, such as plastics;
- Identifying barriers to ending the unnecessary incineration of plastics and opportunities to overcome these barriers;
- Considering how Scotland can make the most of potential opportunities presented by the inclusion of energy from waste and incineration in the UK Emissions Trading Scheme;
- Consider opportunities to decarbonise energy from waste, particularly the barriers and opportunities, such as carbon capture, utilisation and storage, as some consultation respondents flagged;
- Identify knowledge gaps and essential research required to overcome barriers to decarbonisation of the sector.

Waste industry ownership of this sector-led plan is important to ensure economic and environmental viability of the plan, and that a significant impact can be achieved on a voluntary basis. However, given the urgency and scale of actions required to tackle the climate, biodiversity and pollution challenges, we will also explore options for mandating compliance.

The bigger picture: Making an impact to 2030

- **Strategic importance:** The Residual Waste Plan and Sector-Led Plan to Restrict Carbon Impacts of Energy from Waste have broad strategic importance across this Route Map and beyond, informing what data and evidence we will need to understand the waste we produce, how we manage current, future and legacy waste infrastructure, and what waste management looks like in a fully circular economy. It will, therefore, be critical to link up the development of both Plans with the development of measures across the Route Map including:
 - **Reduce and reuse:** The product priorities identified in our Product Stewardship measure, with the way we treat products directly impacting future residual waste management composition and future needs.
 - **Modernising household recycling:** Account for the outputs of the Household Recycling co-design and resulting statutory code of practice, as more material is recycled, and we think strategically about our recycling, reprocessing and disposal infrastructure requirements.
 - **Commercial recycling:** Consideration of the findings of the review of compliance with commercial recycling requirements, which will form important evidence for the development of the Residual Waste Plan, alongside the proposed commercial recycling co-design.

Further actions to 2030

The Residual Waste Plan and the Sector-Led Plan ('the Plans') are the key interventions to drive delivery of our strategic objectives, and provide a framework for the development of additional measures. Here we set out the further measures we will seek to progress to 2030. We recognise that some actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to develop or explore.

1. Support the inclusion of energy from waste in the UK Emissions Trading Scheme (ETS), and investigate other fiscal measures to incentivise low carbon disposal, from 2028.

Building on our recent 4-nations response to a call for evidence, which set out that the UK ETS Authority (formed of the 4-nations) is minded to include energy from waste and incineration in the UK ETS¹⁹¹, we will work with other UK nations to develop proposals for this policy ahead of a full consultation. We will also consider what additional fiscal measures and supporting policies could be introduced to reduce the carbon emissions associated with disposal further, particularly through the Sector-Led Plan to minimise Carbon Impacts of Energy from Waste. In line with this, we have commissioned research to consider international best practice for the use of fiscal policy levers to change behaviour and reduce climate emissions.

2. Review and target materials currently landfilled to identify and drive alternative management routes from 2024.

We have committed to extending the ban on landfilling waste to include non-municipal biodegradable waste¹⁹², subject to appropriate consultation and work to provide assurance around some specific waste streams. We will bring forward **a call for evidence in 2024** to begin to better understand these and other problematic waste streams and identify alternative treatment options for these wastes.

3. Facilitate the co-production of guidelines for effective community engagement.

The independent review of incineration¹⁹³ in Scotland's waste hierarchy noted that communities deserve more authentic and committed engagement from local authorities and industry than is currently sometimes the case. In response to the independent review's recommendation on this, we will facilitate the co-production of meaningful and effective community engagement guidance, working with community groups, local authorities and residual waste operators. We will begin gathering stakeholder views on the process from 2024.

4. Increase the capture of landfill gas by 2025/26.

Building on our commitment in the Climate Change Plan update (2020)¹⁹⁴, we want to work with industry and the public sector to maximise landfill gas capture opportunities in Scotland to 2030. We will extend the landfill gas capture programme to increase the number of sites undertaking investigative or development work by 2025/26 to increase the amount of landfill gas captured in Scotland and minimise environmental impacts of closed landfill sites. We recognise that industry has made strides to improve and optimise landfill gas capture. This will be supported by research to explore current and emerging options for low-level gas capture by 2025.

To complement the efforts being made across the public and private sectors, through our Residual Waste Plan (see above) we intend to review the existing regulatory and fiscal framework around landfill sites, and the potential options to drive the pace and scale of decarbonisation. As noted in our response to the independent review of incineration in the waste hierarchy¹⁹⁵, we will engage with industry to understand the consequences of changes to landfill management financial incentives.

Click [here](#) to preview an infographic showing the Route Map Strategic Aims in full.

Consultation questions

Question 5: To what extent do you agree with the priority actions proposed within the Decarbonise disposal strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

Question 6: To what extent do you agree with the further actions to 2030 listed across the Decarbonise disposal strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree /
Not answered]

4: Strengthen the circular economy

Summary of proposed priority actions:

- Develop a Circular Economy strategy every five years (**from 2025**)
- Set new circular economy targets (determined **from 2025**).

Vision Statement

Delivering a circular economy is not a simple task. It requires sustained transformational system change, and a range of actions that are both complementary and coordinated to drive sustainable management of our resources. If Team Scotland are to maximise the opportunities that a circular economy brings to Scotland, we must maintain a strategic approach to its delivery, ensuring the right structures and support are in place to enable action across the circular economy.

Strategic Objectives

This chapter sets out the steps we will take at a strategic level to make this happen, building on the whole-system approach used to develop this Route Map.

Its key objective is to **provide strategic oversight and direction for the delivery of a circular economy in Scotland**. This means:

- **Setting strategic direction and maximising impact**, ensuring the sum of our coordinated actions is greater than the individual parts. There is a need to ensure the range of actions that we are undertaking is both complementary and coordinated as part of our overall efforts to tackle the twin crises of climate change and biodiversity loss. This includes setting our circular economy objectives within the wider strategic framework and mainstreaming across policy to meet our objectives, as Chapter 1 sets out.
- **Coordinating action across cross-cutting areas** to support progress across the waste hierarchy. These include research, data and evidence to underpin successful delivery of our vision and individual measures; sustainable procurement to enable and define how we demand products and services; and the skills and training required to drive a fully circular economy in Scotland.
- **Robustly monitor and evaluate progress** to enable agile working, take action where we are not on track, and learn from and implement what works. This includes tracking the impact we have on the global carbon footprint.

What we've done so far

The Environment Strategy for Scotland¹⁹⁶ creates an overarching framework for Scotland's strategies and plans on the environment and climate change. It sets out a guiding vision for Scotland's environment and our role in tackling the global climate and nature crises.

Making Things Last: a circular economy strategy for Scotland¹⁹⁷ was published in 2016. This integrated elements of the Zero Waste Plan¹⁹⁸ (2010) and Safeguarding Scotland's Resources (2013)¹⁹⁹.

The **update to Climate Change Plan (2020)** sets out the Scottish Government's pathway to our emissions reduction targets set by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, including the waste management sector's contribution.²⁰⁰

The Circular Economy (Scotland) Bill²⁰¹ has been introduced, and if passed, will set a legislative framework for Scotland's circular economy by placing requirements on, or enabling further action by, central and local government, businesses and householders.

Delivering our vision

Summary of proposed priority actions:

- Develop a Circular Economy strategy every five years (**from 2025**)
- Set new circular economy targets (determined **from 2025**)

Further actions:

To both complement and build on the priorities throughout this Route Map, we will seek to progress the following actions to 2030:

- Review and refresh Scotland's Waste Data Strategy's action plan
- Maintain a programme of research on waste prevention, behaviour change, fiscal incentives and material-specific priorities
- Develop public procurement opportunities to reduce the environmental impact of public spending, including scoping new legislative circular economy requirements for contracting authorities under section 82 and 82A of the Climate Change (Scotland) Act 2009
- Support greater uptake of green skills, training and development opportunities

Priority action: Develop a Circular Economy strategy every five years.

Timescale: Update or refresh every five years, with the first strategy set from 2025.

2022 consultation recap

93% of respondents agreed with the proposed measures set out in the package on Cross-cutting measures, including the strategy.²⁰² Many respondents endorsed the proposal to introduce a duty to develop a Circular Economy Strategy, and much of the feedback was around the strategic focus, and specific issues to include or consider in the development of the strategy. The Bill consultation²⁰³ saw the majority of responses (87%) agree that a five-yearly circular economy strategy would allow Scotland to react and adapt to changing environmental issues and regulatory landscapes.

Our response: What we will do

Currently, there is no statutory requirement to prepare and publish a circular economy strategy for Scotland. Ministers may choose to do so, but they are not required to do so.

We believe there is merit in strengthening the existing strategic approach by placing a duty on Scottish Ministers to publish or refresh a circular economy strategy every 5 years. This requirement on Scottish Ministers has been included in the Circular Economy (Scotland) Bill²⁰⁴.

The strategy will give a clear indication of priority sectors and systems, a clear direction of travel for businesses and wider stakeholders and require to be reported on to Parliament. It will build on existing frameworks, such as this Route Map, and require that Ministers have regard to it when developing wider policies, including proposals for legislation. A recent review of existing international circular economy strategies and action plans undertaken by Zero Waste Scotland concluded that a statutory obligation for a circular economy strategy would likely be beneficial for a number of reasons: for example, it can prioritise key measures to adopt, and serve as a framework that other policies and strategies should be understood within.

The provision within the Bill (as introduced) sets out very specific requirements for the circular economy strategy. This includes:

- It must set out objectives for, plans towards, and details of how the Scottish Government will monitor the development of a circular economy.
- Scottish Ministers, in considering any priorities for action in the strategy, must have regard for priority sectors and systems which are most likely to contribute to the development of a circular economy.
- To ensure that the circular economy strategy supports wider aims, that the strategy be consistent with the Climate Change Plan, the environmental policy strategy and other relevant strategies or plans.
- The process for consultation on a draft circular economy strategy, with a requirement that the strategy is kept under review and revised within 5 years.
- To ensure accountability, that a report on progress in respect of objectives and plans included in the strategy is published and laid before the Scottish Parliament two and half years after the publication of the strategy.

Priority action: Setting new circular economy targets beyond 2025.

Timescale: Research underway across 2023-2024, with new targets to be consulted on, and determined from 2025.

2022 consultation recap

Respondents expressed high levels of agreement (89%) with the four principles to account for in development of new targets (Achieving net zero by 2045; Reducing

the material footprint of our resources and waste; Maximising the value of our circular economy; Alignment with the EU).²⁰⁵

Our response: What we will do

It is clear from the response to the 2022 consultation, and through recent recommendations from the Climate Change Committee²⁰⁶, that there is broad support for a new suite of indicators to track Scotland's progress in moving to a circular economy, aligned to our efforts to tackle the climate and nature emergencies.

We will set new circular economy targets from 2025, with work to develop this monitoring framework across 2024-25, drawing on existing evidence and progressing further research as required. The targets will cover the period to 2030 as a minimum.

It is our view that a robust, accountable monitoring framework, linked to the future circular economy strategy (see priority action 1) and set within the context of Scotland's wider economic and environmental strategic landscape (including our Environment Strategy²⁰⁷), is now a vital component in delivering a circular economy. Our current 2025 waste and recycling targets are important milestones, but should not be the end destination. In some cases, our waste and recycling targets are not universally the best indicators to deliver our circular economy objectives. For example, many of our existing targets are weight-based, and do not specifically measure emissions reduction or other environmental impacts. The measures set out in the draft Route Map are focused on the actions we must take to accelerate progress, setting the framework for the required transformational change in how we manage our resources across our economy and society in the years ahead. New circular economy targets can help us make this transition.

The provisions in the Circular Economy (Scotland) Bill²⁰⁸, if passed, will give Scottish Ministers enabling powers to set statutory circular economy targets where appropriate. This could include reducing the use of materials, increasing reuse, increasing recycling and linking to priorities within the circular economy strategy. The development of targets will also give explicit consideration to material-specific targets, rather than 'catch-all' indicators, as recommended by the CCC, to provide a more powerful, targeted approach for the challenges we face today.²⁰⁹

The bigger picture: Making an impact

- **Long-term view:** A statutory circular economy strategy will provide a framework to deliver progress and maximise impact with a strategic longer-term view.
- **Achieving coordinated cumulative impact:** Ensuring the sum of our coordinated actions is greater than the individual parts, rigorously identifying the interdependencies between multiple actions, and ensuring the right blend of support is in place to drive a circular economy. To underpin this, we intend to refresh our **governance structures** to ensure they are fit for the future, drive the circular economy transformation to 2030, and enable a Team Scotland approach.
- **Monitoring role:** Monitoring the development of a circular economy, enabling robust evaluation of progress and evidence for future actions, while new targets

and indicators will help ensure we are accountable in demonstrating that Route Map measures individually and cumulatively contribute to progress.

- **National and local strategic coordination:** Accounting for how any new national targets translate to local strategies and targets. For example, how the statutory recycling and reuse code of practice and local recycling targets connect to packaging extended producer responsibility scheme material targets, and national recycling and reuse targets. Providing a clear throughline to our wider strategic goals, including our commitment to reduce emissions.

Actions to tackle Scotland's global footprint

As set out in Scotland's Environment Strategy, the Scottish Government is committed to ensuring Scotland plays its part in tackling the climate and nature emergencies. As part of this effort, **we want to both understand - and minimise - our overseas carbon and wider environmental impact**, as Scotland's current demand on nature far exceeds its capacity to supply. Sustainable consumption, production and resource use are essential for Scotland's just transition to a net zero, nature positive economy, but they also alleviate pressures on the natural world and its finite resources globally, reducing the demand for raw materials. All of the measures in this Route Map are designed to support Scotland's efforts to take responsibility for our global impact. Key examples include:

1) Targeting products and materials: Measures are designed to reduce demand for raw materials for the production of goods, through promoting reuse and repair, and encouraging sustainable product design and production, resource efficiency and responsible consumption. For example, textiles account for nearly a third (32%) of the carbon impact of household waste²¹⁰. **Reduce and reuse** measures like **product stewardship** can help break up the fast fashion cycle, supporting the development of circular supply chains in Scotland, reducing the quantity of clothing and textiles that need to be produced from virgin materials and the wider environmental impacts of textile production in other countries (e.g. reducing land and water use). The new **co-designed Code of Practice for household waste and recycling** can help reduce emissions in waste by considering ways to prevent materials like textiles and clothing going to disposal.

2) Tracking our global footprint: Scotland's Carbon Footprint highlights the greenhouse gas emissions associated with the spending of Scottish residents on goods and services, wherever in the world these emissions arise.²¹¹ Later in 2024, Zero Waste Scotland will publish the first outputs from a new **Scottish Waste Environmental Footprint Tool**, which will provide further insights on the full lifecycle climate and wider environmental impacts of Scotland's waste. The **Scottish Material Flow Accounts (MFA)**²¹² helps to understand the scale and nature of Scotland's consumption.

3) Focusing on food waste: An estimated one third of food produced globally for human consumption is wasted. The emissions linked with global food waste is estimated to be 6% of global emissions²¹³. Food waste causes inefficient use of resources linked to the production, transportation, distribution and preparation of

food, including demands on ecosystems. This underlines the importance of reducing food waste here in Scotland across all sectors and households. The measures in this Route Map, such as **mandatory public reporting of food waste and surplus**, work to support **food redistribution**, and **behaviour change at a household level** will all drive this.

4) The role of public procurement: Procurement is a further key lever to help reduce environmental and carbon footprints. We will continue to embed climate considerations in our procurements and supply chains, underpinning the sustainable procurement duty and progressive policy on climate and circular economy considerations, and to promote and develop our Sustainable Procurement Tools to support the wider public sector in procuring sustainably. See 'Further actions to 2030' below for more on this.

5) Maximising the value of our resources, taking responsibility for our waste: To support our transition to a circular economy and reduce Scotland's global carbon impact, we must take responsibility for our own waste, managing and processing as much as possible here in Scotland. A large majority of Scotland's waste is already managed within Scotland, but around 15% is currently processed elsewhere, representing a lost economic opportunity and an environmental cost too. Measures within **Modernise recycling** and **Decarbonise disposal** are focused on tackling this. The **recycling co-design** processes will look at the available markets and reprocessing capacity for collected materials, and opportunities to facilitate this; and existing measures in train like **extended producer responsibility schemes** will provide greater incentives for domestic reprocessing. To strengthen public confidence in where recycling goes, we will also be consulting on the **introduction of end destination public reporting** of household recycling collected.

6) Waste exports and wider trade policy: International waste export legislation is a reserved matter for the UK Government, and we are working with the UK Government to support the delivery of its existing commitment to ban plastic waste exports to non-OECD countries. We continue to urge the UK government to go further and to ban the export of plastic waste from the UK to all countries, and consider further targeted restrictions around other materials, in line with the Climate Change Committee's call to "phase out" exports of waste by 2030. More broadly, trade has a role to play in reducing overseas environmental impacts. Key levers are reserved to the UK Government, but the **Scottish Government's Vision for Trade**²¹⁴, published in January 2021, commits to using Scotland's influence to improve multilateral trading systems, dispute settlements and other trade mechanisms, so that they support the global effort to deliver better climate and development outcomes.

Further actions to 2030

Building on these priority actions, we will seek to progress further strategic actions up to 2030, to maximise impact of our circular economy measures, tackle cross-cutting areas to support progress across the waste hierarchy, and contribute to robust monitoring and evaluation of progress. These actions are centred around three cross-cutting themes. These are:

- Research, data and evidence
- Sustainable procurement
- Skills and training

While other chapters in this Route Map outline specific actions, this section brings together the high-level strategic approach and actions we will seek to take under each theme up to 2030. We recognise that some actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, and further research where relevant to develop or explore.

2022 Consultation response

Almost all consultation respondents agreed with the proposed cross cutting measures.²¹⁵

Research, evidence and data

Research and innovation must sit at the heart of our circular economy - we must learn by doing, be open to new and innovative ideas, understand the costs and benefits of taking action, measure how we are doing, and continue to test new solutions. The following actions between now and 2030 can help us achieve this:

1. Review and refresh Scotland's Waste Data Strategy's action plan²¹⁶.

Scotland's waste strategy has been developed and implemented in partnership across Scottish Government, SEPA, Zero Waste Scotland, with key input from the commercial, public and third sectors. It has supported key data and evidence developments in Scotland since 2017, which have fundamentally improved our collective understanding of how materials move around the economy, and have supported the decision-making required to reduce emissions and drive delivery on existing waste and recycling targets. Key successes include development of the Scottish household waste composition analysis, supporting the Scottish Material Flow Accounts (MFA)²¹⁷ to better understand Scotland's raw material footprint, and support for practical design and delivery of the UK-wide digital waste tracking service, in partnership with the other UK governments and agencies.

Across this Route Map we have a range of measures that rely on timely data and evidence to maximise delivery of meaningful benefits. To ensure this happens, and we have a data landscape that remains fit for the future, **we will work closely with partners to review and refresh the strategy and its action plan**. Given the transformational changes being brought forward through this Route Map and the Circular Economy (Scotland) Bill, we intend to undertake this work in coordination with the development of a new monitoring framework for Scotland's circular economy, and emission reduction-related monitoring requirements. We will also account for the changes to the data landscape that key measures like extended producer responsibility schemes, modernising recycling reform, and the digital waste tracking service, will have.

2. Maintain a programme of research on waste prevention, behaviour change, fiscal incentives and material-specific priorities.

The research package we have published alongside our draft Route Map has provided invaluable insights and given us the confidence to set the Route Map's

priorities. Building on this is vital, and across this document, we highlight undertaking further research as a key step towards the delivery of many of our priority measures. There are key cross-cutting themes, notably behaviour change, and it will be important to maintain a strategic view of our research to ensure we maximise benefits across all of our strategic aims. This includes understanding how international examples of best practice can be applied in Scotland, and the readiness of new approaches and technologies to be rolled out at scale. This will build on the considerable body of work that already exists, and in the spirit of collaboration and partnership, we remain committed to working with partners in academia, the public sector, the private sector, social enterprises, and NGOs to shape research, share learning and develop evidence-based policies and best practice.

Sustainable Procurement

3. Develop public procurement opportunities to reduce the environmental impact of public spending, including scoping new legislative circular economy requirements for contracting authorities under section 82 and 82A of the Climate Change (Scotland) Act 2009.

Procurement enables and defines how we demand products and services, and underpins investment within the private sector to create new business models and products. The Scottish public sector spends more than £14.5 billion a year buying goods, services and works.²¹⁸ This scale of spending can directly help safeguard our environment and resources, and play a direct role in delivering our climate, waste and recycling aims. This purchasing power has the potential to stimulate market development and innovation, and demonstrate leadership across sectors. Across this Route Map there are specific procurement-based measures that can support our strategic aims, including reviewing existing procurement practices in reference to reducing consumption, circular economy and the construction sector. This includes:

- Exploring opportunities to accelerate adoption of climate and circular economy focus through what, how and how much public bodies buy from 2024. The **sustainable procurement duty** in the Procurement Reform (Scotland) Act 2014 aligns with our aim to reduce unnecessary consumption of goods and materials by requiring public bodies to consider improvements for the social, economic and environmental wellbeing of the area in which they operate. To maximise opportunities for a circular economy it requires a whole systems approach where local leaders work with procurement, finance and service delivery managers to make informed choices. We will review existing practice within public bodies, assessing amendments to guidance and resources to facilitate uptake, and create a series of case studies which demonstrate in practical terms what is being achieved.
- **Analysis of market information and spend data** to identify areas where regulations under section 82 and 82A of the Climate Change (Scotland) Act 2009²¹⁹ could enhance circular economy opportunities in relation to the procurement of goods, works or services. These powers allow Ministers to make regulations that require contracting authorities to purchase goods with recycled content, recycled products or recyclable products. **We will commission**

research to identify potential candidate products for these regulations from 2024/25.

- Additionally, we will further promote and develop the Scottish Government's **Sustainable Procurement Tools**,²²⁰ which are a range of free tools to support public sector procurers to purchase sustainably with a focus on climate and circular economy obligations.

Skills and training

4. Support greater uptake of green skills, training, and development opportunities.

Skills and training opportunities run through the heart of the measures proposed through this Route Map. Around 1 in 10 jobs in Scotland relate to the Circular Economy²²¹. The transition to a circular economy provides a wealth of opportunities to transform our labour market, creating both high quality and entry level jobs and roles, in areas with persistently high unemployment. 10,000 tonnes of waste can create up to 296 jobs in repair and reuse, compared to 1 job in incineration, 6 jobs in landfill or 36 jobs in recycling.²²² To realise these benefits, we need to ensure that our education and skills systems will prepare the current and future workforce for a just transition to a fully circular economy.

We will continue to contribute to the updated **Climate Emergency Skills Action Plan**²²³ (**CESAP**) to ensure circular economy principles are embedded across provision in the education and skills system. Through CESAP and other strategies such as the upcoming Green Industrial Strategy and Just Transition Plans, we will focus on the sectors with high potential for growth, identify emerging employment opportunities and education and training provision to design and deliver activities that maximise the potential for skills development and education for a circular economy. As part of a systems approach, to create a solid foundation we must ensure knowledge building of circular economy is embedded across the whole education and skills landscape. The delivery of skills to support the jobs and roles of a circular economy will include:

- Utilise the cross-cutting collaboration of the **CESAP Implementation Steering Group** to promote awareness of skills pathways, especially to young people; strengthen collaboration between industry and the education and skills system; and develop clear upskilling and reskilling requirements.
- Support the **education and skills reform agenda** including the national skills planning function to be established by the Scottish Government.
- Support career long professional learning (CLPL) opportunities for educators and practitioners with a focus on circular economy.
- Continue to host and deliver the **Green Internship Scheme**²²⁴ to upskill young workforce on circular economy and net zero whilst supporting employment opportunities.
- Development and delivery of the **Circular Economy Sustainable Retrofit Training Programme**²²⁵ to embed best practice and ensure skills and performance gaps are addressed.

- Engage with circular economy business support and the wider ecosystem to support circular skills and competencies to generate capacity and capability of businesses to deliver circular economy business models.
- Track circular jobs in Scotland and raise awareness and recognition of circular and enabling jobs to support the transition to a circular economy.

Click [here](#) to preview an infographic showing the Route Map Strategic Aims in full.

Consultation questions

Question 7: To what extent do you agree with the priority actions proposed within the Strengthen the circular economy strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

Question 8: To what extent do you agree with the further actions to 2030 listed across the Strengthen the circular economy strategic aim? Please provide evidence to support your answer if possible.

[Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree / Not answered]

Chapter 3. Next steps: How you can get involved

Through this document we have set out our priorities for the Route Map to 2030, our strategic plan to achieve Scotland's sustainable resource and circular economy ambitions.

We are seeking your final views on these priorities in order to deliver our circular economy ambitions to 2030, and to support our long terms goal of net zero by 2045.

Responding to this consultation

We are inviting responses to this consultation by the closing date of **Friday March 15 2024**.

Please respond to this consultation using the Scottish Government's consultation platform, Citizen Space. You can view and respond to this [consultation online](#). You can save and return to your responses while the consultation is still open. Please ensure that consultation responses are submitted before the closing date.

If you are unable to respond online, please complete the Respondent Information Form (see 'Handling your Response' below) to:

ceroutemap@gov.scot

Or

Circular Economy Division
3H South
Victoria Quay
Edinburgh
EH6 6QQ

Handling your response

If you respond using Citizen Space you will be directed to the online Respondent Information Form. Please indicate how you wish your response to be handled and, in particular, whether you are happy for your response to published.

If you are unable to respond via Citizen Space, please complete and return the Respondent Information Form included alongside this document (see 'Supporting documents') If you ask for your response not to be published, we will regard it as confidential, and we will treat it accordingly.

All respondents should be aware that the Scottish Government is subject to the provisions of the Freedom of Information (Scotland) Act 2002 and would therefore have to consider any request made to it under the Act for information relating to responses made to this consultation exercise.

Next steps in the process

Where respondents have given permission for their response to be made public, and after we have checked that they contain no potentially defamatory material, responses will be made available to the public at [Scottish Government consultations](#). If you use Citizen Space to respond, you will receive a copy of your response via email.

Following the closing date, all responses will be analysed and considered along with any other available evidence. Responses will be published where we have been given permission to do so.

Comments and complaints

If you have any comments about how this consultation exercise has been conducted, please send them to:

ceroutemap@gov.scot

Or

Circular Economy Division
3H South
Victoria Quay
Edinburgh
EH6 6QQ

Scottish Government consultation process

Consultation is an essential part of the policy-making process. It gives us the opportunity to consider your opinion and expertise on a proposed area of work. You can find all our [consultations online](#). Each consultation details the issues under consideration, as well as a way for you to give us your views, either online, by email or by post.

Responses will be analysed and used as part of the decision-making process, along with a range of other available information and evidence. We will publish a report of this analysis for every consultation. Depending on the nature of the consultation exercise the responses received may:

- indicate the need for policy development or review;
- inform the development of a particular policy;
- help decisions to be made between alternative policy proposals; and
- be used to finalise legislation before it is implemented.

While details of particular circumstances described in a response to a consultation exercise may usefully inform the policy process, consultation exercises cannot address individual concerns and comments, which should be directed to the relevant public body.

Impact assessments

We are committed to assessing the impact of proposals. Alongside this draft Route Map we have published updated assessments of the potential impacts on equality, socio-economic considerations, island communities, business and regulation, and the environment. This is in accordance with our legislative requirements and, importantly, to inform the final policy development process. High-level partial and screening impact assessments have been developed to accompany this consultation.

The publication of the Route Map itself will not result in direct impacts. However, it is expected that, depending on the design, specific interventions may have an impact if they are introduced.

We aim to use this consultation process to highlight potential overarching impacts for sectors or themes. The feedback we receive will be used to update the high-level impact assessments accompanying this consultation. We will also incorporate feedback to inform future impact assessments for specific interventions, as required.

Question 9: Please provide any further information or evidence that should be considered in the accompanying Equalities Impact Assessment

Question 10: Please provide any further information or evidence that should be considered in the accompanying Fairer Scotland Assessment

Question 11: Please provide any further information or evidence that should be considered in the accompanying Island Communities Impact Assessment.

Question 12: Please provide any further information or evidence that should be considered in the accompanying Business and Regulatory Impact Assessment.

Strategic Environmental Assessment (SEA)

The Environmental Assessment (Scotland) Act 2005 requires those plans, programmes and strategies that are likely to have a significant impact on the environment to be assessed and measures to avoid, prevent or reduce adverse effects are sought, where possible, prior to implementation.

In consultation with statutory consultees, through the first Route Map consultation²²⁶ (2022) we set out our view at this stage that the cumulative environmental effects from the Route Map are likely to be significant and a Strategic Environmental Assessment (SEA) would therefore be required. In that consultation we sought specific views on information or evidence that should be considered with regards to the environmental impact of proposals outlined in the Route Map, to inform the development of the Strategic Environmental Assessment process.

Alongside this draft Route Map, we have published an Environmental Report, which contains further information on the SEA process and the findings on the likely environmental implications arising from the measures set out within the Route Map

with reference to topic areas scoped during the initial scoping phase. The responses received to this consultation, and the findings of the SEA, will inform the final Route Map and will be reflected upon in the Post Adoption Statement. Scottish Government will also monitor the implementation and environmental effects resulting from implementing the Route Map. This will be considered further as part of our development of a monitoring framework for a circular economy, linked to Circular Economy (Scotland) Bill²²⁷ provisions for a statutory circular economy strategy. A monitoring framework would sit alongside the Environment Strategy Monitoring Framework²²⁸ and allow the Scottish Government to inform policy choices and prioritise action on areas of consumption that are most damaging in terms of climate change or wider environmental impact, and to design specific targets to tackle these things.

The SEA Environmental Report is being consulted on alongside the draft Circular Economy and Waste Route Map, click [here](#) to read the report and send [consultation](#) response by 15 March 2024.

Question 13: What are your views on the accuracy and scope of the environmental baseline set out in the SEA Environmental Report?

Question 14: What are your views on the predicted environmental effects of the draft Circular Economy and Waste Route Map as set out in the SEA Environmental Report? Please give details of any additional relevant sources.

Question 15: What are your views regarding potential reasonable alternatives, in reference to the approach set out in the SEA Environmental Report?

Question 16: What are your views on the approach to mitigation, enhancement and monitoring of the environmental effects set out in the SEA Environmental Report?

Development of the final Route Map

The Scottish Government would like to thank all those individuals, businesses and organisations who have engaged with the development of the Route Map so far. This includes our partners SEPA and Zero Waste Scotland, and local government.

Ahead of finalisation of our Route Map, this consultation is an important milestone to ensure we have the right priorities to drive delivery of a circular economy in Scotland through to 2030.

To support the consultation process, we are looking to hear from the widest possible range of stakeholders across Scotland on the draft Route Map presented here. This will include specific engagement with key groups, as well as wider communication and engagement approaches.

Following this consultation, we will undertake analysis of consultation responses in order to understand the full range of views on the Route Map, its proposals and impact assessments. We will also undertake any supporting analysis or research where required.

We will then confirm the final Circular Economy and Waste Route Map later in 2024.

Annex: Circular Economy and Waste Route Map measures

These tables summarise the actions and ambitions government will seek to take to accelerate progress and drive the delivery of sustainable resource use and a circular economy in Scotland to 2030. The actions are grouped into tables for each of the Route Map’s strategic aims and objectives, and provides target delivery dates where available.

As set out in earlier chapters, we recognise that some actions are not for government alone to deliver, and that these proposals will be subject to the outcomes of current and future spending allocations, availability of Parliamentary time and support, including the passage of the Circular Economy Bill, and further research where relevant to develop or explore.

(1) Reduce and Reuse

Measure (Priority measure in bold)	Target delivery date
Responsible consumption, production and reuse	
Develop and publish a Product Stewardship Plan to identify tackle the environmental impact of priority products	By 2025/26
Deliver a prioritised approach to the introduction of environmental charges for problematic products	By 2025/26
Introduce a charge for single-use disposable cups	By 2025
Consult on actions regarding the environmental impacts of single-use vapes	Ongoing
Review the feasibility of setting reuse targets	From 2025
Develop restrictions on the destruction of unsold consumer goods	From 2024
Develop measures to improve the reuse experience for consumers	Ongoing
Deliver behaviour change-based approaches focused on sustainable consumption, aligned to Let’s Do Net Zero communications	Ongoing
Identify ways to expand business models that prolong product lifespan	Ongoing

Measure (Priority measure in bold)	Target delivery date
Reduce food waste	
Deliver an intervention plan to guide long-term work on household food waste reduction behaviour change	By 2025
Develop with stakeholders the most effective way to implement mandatory public reporting for food waste and surplus by businesses	By 2025/26
Strengthen data and evidence	Ongoing
Review the rural exemption for food waste recycling, as part of recycling co-design process	2024/25 and 2025/26
Investigate feasibility of voluntary food waste reduction action plans	After 2025
Deliver enhanced support for businesses	Ongoing

Measure (Priority measure in bold)	Target delivery date
Embed circular construction practices	
Support the development of regional Scottish hubs and networks for the reuse of construction materials and assets	From 2025, feasibility research in 2024/25
Develop new and promote existing best practice standards in circular practices within the construction sector, and assess the options for both voluntary and mandatory compliance	Ongoing
Investigate and promote options to incentivise and build capacity for the refurbishment of buildings	By 2026/27
Investigate and promote ways to reduce soil and stones disturbance, movement and volumes going to landfill	By 2026/27
Review opportunities to accelerate adoption of climate change and circular economy focussed purchasing in construction	From 2024
Consider how devolved taxes can incentivise the use of recycled aggregates and support circular economy practices	Ongoing

(2) Modernise Recycling

Measure (Priority measure in bold)	Target delivery date
Household recycling	
Facilitate a co-design process with local government for high quality, high performing household recycling and reuse services	Across 2024/25 and 2025/26
Develop a statutory code of practice for household waste services	By 2025/26
Introduce statutory recycling and reuse local performance targets for household waste services	From 2030
Strengthen Householder's duty of care in relation to waste	By 2025/26
Give local authorities more tools to support household recycling and reduce contamination	By 2025/26
Undertake a review of waste and recycling service charging	By 2024/25
Review the monitoring and reporting framework for local authority waste services	By 2025/26
Develop options and consult on the introduction of end destination public reporting of household recycling collected	By 2027/28

Measure (Priority measure in bold)	Target delivery date
Commercial Recycling	
Review of compliance with commercial recycling requirements	By 2025
Co-design measures to improve commercial waste service provisions	By 2026/27
Conduct a national compositional study of waste from commercial premises	By 2025/26
Investigate further steps to promote business-business reuse platforms	By 2027

(3) Decarbonise Disposal

Measure (Priority measure in bold)	Target delivery date
Develop and deliver a Residual Waste Plan to 2045	Develop by 2025/26
Facilitate the development of a Sector-Led Plan to minimise the carbon impacts of the Energy from Waste Sector	By 2025/26
Support the inclusion of energy from waste in the UK Emissions Trading Scheme (ETS), and investigate other fiscal measures to incentivise low carbon disposal	From 2028
Review and target materials currently landfilled to identify and drive alternative management routes	From 2024
Facilitate the co-production of guidelines for effective community engagement	Process underway from 2024
Increase the capture of landfill gas	By 2025/26

(4) Strengthen the Circular Economy

Measure (Priority measure in bold)	Target delivery date
Develop a Circular Economy strategy every five years	From 2025 onwards
Set new circular economy targets	Determined from 2025
Review and refresh Scotland's Waste Data Strategy's action plan	Alongside development of circular economy monitoring framework
Maintain a programme of research on waste prevention, behaviour change, fiscal incentives and material-specific priorities	Ongoing
Develop public procurement opportunities to reduce the environmental impact of public spending, including scoping new legislative circular economy requirements for contracting authorities under section 82 and 82A of the Climate Change (Scotland) Act 2009	Ongoing commissioning research to identify potential candidate

	products from 2024/25
Support greater uptake of green skills, training and development opportunities	Ongoing

Footnotes

- ¹ Everything we buy has a carbon cost, Zero Waste Scotland, September 2021, <https://www.zerowastescotland.org.uk/content/everything-we-buy-has-carbon-cost>
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- ¹⁴ Business: New Deal for Business Group - Report on Progress & Recommendations: Implementation Plan, October 2023, <https://www.gov.scot/publications/new-deal-business-group-report-progress-recommendations-implementation-plan/>
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- ²¹ Scottish Government and Scottish Green Party: draft shared policy programme, 2021, <https://www.gov.scot/publications/scottish-government-and-scottish-green-party-shared-policy-programme/>
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