

# **Delivering Scotland's circular economy**

**A Route Map to 2025 and beyond**

**May 2022**



**Scottish Government**  
Riaghaltas na h-Alba  
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## Contents

Contents.....	2
Ministerial Foreword .....	3
Executive Summary .....	5
Chapter 1. Background .....	13
1.1 Purpose.....	13
1.2 Aim of this consultation .....	13
1.3 Scope.....	13
1.4 Consultation structure .....	14
1.5 Approach and guiding principles .....	15
Chapter 2. The case for change .....	17
2.1 Progress towards waste and recycling targets.....	17
2.2 Climate Change Targets .....	18
2.3 The opportunity for change .....	20
2.4 Our call to the UK Government .....	22
Chapter 3: Route Map proposals .....	24
Package 1: Promote responsible consumption, production and re-use .....	25
Package 2: Reduce food waste.....	34
Package 3: Improve recycling from households.....	41
Package 4: Improve recycling from commercial businesses.....	51
Package 5: Embed circular construction practices.....	57
Package 6: Minimise the impact of disposal.....	64
Package 7: Cross-cutting measures.....	70
Strategic Interventions.....	70
Research, data and evidence.....	71
Sustainable procurement .....	73
Skills and training .....	74
Chapter 4. Beyond 2025 .....	76
Chapter 5. Next steps: How you can get involved .....	79
5.1 Responding to this consultation .....	79
5.2 Interaction with the Circular Economy Bill .....	80
5.3 Impact assessments .....	81
5.4 Strategic Environmental Assessment (SEA) .....	81
5.5 Development of the final Route Map.....	82

## Ministerial Foreword



As the Minister responsible for circular economy, I am delighted to present these complementary consultations on our proposals for a Route Map to deliver a circular economy in Scotland and on proposals for legislation in a Circular Economy Bill.

A circular approach to our economy, where we move from a “take, make and dispose” model to one where we keep materials in use, is imperative if we are to tackle the climate and nature crises. My first eight months in this role have underlined the importance of this mission, and the commitment of all across Scotland - but also the challenges of making it a reality.

The Route Map sets out how we intend to deliver our system-wide, comprehensive vision for Scotland’s Circular Economy. It outlines the tangible actions the Scottish Government and others must take to accelerate progress, and the tools we will put in place to enable everyone to play their part. Our proposals for legislation will provide us with the powers we need to do so.

Around four fifths of Scotland’s carbon footprint comes from the products and services we manufacture, use and throw away. We also know that 90% of global biodiversity loss and water stress is caused by resource extraction and processing. I am clear this isn’t sustainable, and we must change. As our Environment Strategy sets out, if everyone lived as we do in Scotland, we would need three planets to sustain ourselves.

Scotland has made strong progress in reducing emissions in the waste and resources sector over the past 20 years, and we have taken significant strides in our efforts to tackle Scotland’s throwaway culture and promote recycling. The Bill will increase the levers we have available to us and the Route Map sets out actions to accelerate progress within devolved competence, but some of the policy measures required to drive the transition to a fully circular economy are dependent upon UK Government action. We are working with the UK Government and other Devolved Administrations on some key measures, like reform of the packaging producer responsibility system, but it is vital the UK Government steps up to accelerate action in other areas.

However, to cut our emissions significantly and meet our ambitious waste and recycling targets, we must accelerate action across society to reduce the demand for raw material in products, encourage reuse and repairs through responsible production and consumption, and recycle waste and energy to maximise the value of any waste that is generated.

I know that a circular economy is not only about protecting our natural environment nor is it just about waste management and cutting our emissions. It holds huge opportunities for our economy, by improving productivity and opening up new markets, and for our communities by providing local employment and access to the goods we need. And a more circular economy is also more self-sufficient – it reduces our reliance on imported goods and materials, and provides increased economic resilience.

Delivering this vision requires radical action over the next decade, and I recognise that these changes must be delivered in a managed and fair way, working closely with communities. To move to a circular economy, we need to make the circular option the easy option. The change we want to see can only be achieved through a joint effort with everyone playing their part – government, businesses, and the people of Scotland.

These consultations are the start of a national conversation on how we deliver these ambitions. It requires us to be bold, brave, and focused on delivering the actions needed.

I am determined that Scotland will lead the way, and I invite everyone to take part in this consultation. By reducing waste and delivering a circular economy, we will create a fairer, greener, stronger Scotland for everyone.

A handwritten signature in brown 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

A circular approach to our economy, where we move from a “take, make and dispose” model to one where we keep materials in use, is imperative if we are to tackle the climate and nature crises. The transition to a circular economy will also provide wider economic, environmental and societal benefits.

Scotland has made significant long-term progress towards its ambitious 2025 waste and recycling targets. Emissions from the waste and resources sector have reduced by almost three quarters over the past 20 years. However, progress has slowed in recent years and we know we have more to do if we are to meet all our targets in full.

Our Programme for Government 2020-21 and Scotland’s Climate Change Plan update set out our determination to accelerate progress, and commitment to develop a Route Map to reduce waste and meet our targets. We are determined to hit our targets in a way that maximises carbon saving potential, and we are working with partners to identify how the waste and resources sector will contribute towards Scotland’s journey towards net zero in the period to 2030 and beyond.

We have a range of transformational measures already in place or underway, including bans on problematic single-use plastic items, implementation of Scotland’s Deposit Return Scheme, reform of extended producer responsibility for packaging and our £70 million investment in local authority recycling infrastructure. However, it is clear that further system-wide changes are required if we are to meet our 2025 targets in full and deliver required emissions reductions.

This consultation seeks views on the strategic approach to meeting our goals between now and 2025, and looking beyond to 2030. Our proposed priorities are to:

- Promote responsible consumption and production (including reducing consumption of single-use items, promoting product design and stewardship and mainstreaming reuse)
- Reduce food waste from households and businesses
- Improve recycling from households and businesses
- Embed circular construction practices
- Minimise the impact of disposal of waste that cannot be reused or recycled
- Strengthen our data and evidence, sustainable procurement practices, and skills and training

Building on measures already in place or underway, the consultation proposes a range of additional legislative and non-legislative measures that can positively contribute to the delivery of the targets and make progress towards carbon reduction. Proposals are grouped into seven change packages, which span action across the whole circular economy. We are seeking your views on the feasibility and ambition of our proposed Route Map to reaching our 2025 waste and recycling targets, and to achieving our long term goal of net zero by 2045. We are also consulting in parallel on a Circular Economy Bill to bring forward the primary legislation we need to underpin some of our key policy measures. The Circular Economy Bill consultation is available here: [Circular Economy Bill consultation](#).

## **Package 1: Promote responsible production, consumption and re-use**

Material consumption and waste are the primary drivers of nearly every environmental problem we currently face, and around 90% of the carbon impact of Scotland's waste is produced before disposal. We want to challenge the current approach to production and consumption by improving product design, mainstreaming reuse and repair, and incentivising sustainable choices.

### **Current actions and commitments**

- Introduce a ban on certain single-use plastic items.
- Take action to reduce consumption of single-use food containers.
- Fund re-use projects, infrastructure and businesses through the Recycling Improvement Fund and Circular Economy Investment Fund.
- Support sharing libraries and repair cafes, increasing the total to 100 by 2025.

### **Proposed new actions:**

- Take powers to introduce environmental charges to tackle consumption of problematic products and promote a move to more sustainable alternatives.
- Introduce a charge for single-use disposable cups by 2025.
- Develop a prioritised approach to charges and bans on environmentally damaging products.
- Publish a prioritised approach to product stewardship.
- Take powers to set statutory consumption reduction targets.
- Investigate the feasibility of a national reuse target.
- Identify ways to expand business models that prolong product lifespan.
- Support measures to improve the reuse experience for consumers.
- Keep pace with the EU Sustainable Product Initiative.
- Run a national communications campaign focused on sustainable consumption.

## **Package 2: Reduce food waste**

Almost one million tonnes of food and drink is thrown away every year in Scotland. Not only does this cost Scottish households an average of £440 per year, but household food waste alone accounts for 2.7% of Scotland's total carbon footprint. We want to reduce food waste from all sources, building on our Food Waste Reduction Action Plan.

### **Current actions and commitments:**

- Our 2019 Food Waste Reduction Action Plan (FWRAP) sets out the actions we are taking to prevent food waste in Scotland. We will review and update the plan in 2022.
- Run national communication campaigns to encourage positive food waste behaviour.
- Support WRAP's Courtauld 2030 Commitment, a UK-wide voluntary agreement that brings together organisations to reduce food waste, and maximise benefit for Scotland.

- Fund food redistribution in Scotland via FareShare’s ‘Surplus With Purpose’ scheme.

**Proposed new actions:**

- Take powers to introduce mandatory public reporting of food surplus and waste.
- Investigate the feasibility of food waste reduction action plans by 2024.
- Intensify action to tackle household food waste, by developing a food waste behaviour change strategy and enhancing support for Scottish households to reduce their food waste more easily.
- Provide enhanced support for businesses and organisations to reduce food waste and promote a circular bioeconomy.
- Strengthen community food redistribution networks, including additional funding.

**Package 3: Improve recycling from households**

Up to 60% of what households put into general waste bins can be recycled using existing recycling services, helping to conserve our natural resources and keep valuable materials flowing through our economy. We want to improve and optimise the performance of household recycling collection services to make the right choices the easier choices for households, ensure high standards across Scotland, and maximise diversion of waste from disposal.

**Current actions and commitments**

- Invest £70 million in recycling infrastructure across Scotland through the Recycling Improvement Fund.
- Evaluate the Scottish Household Recycling Charter and review its supporting Code of Practice.
- Consult on requirements to separately collect garden waste by 2023, textiles and hazardous elements of household waste by 2025.
- Consult on the current rural exemption and food separation requirements for food waste collections.
- Introduce extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries.
- Deliver Scotland’s Deposit Return Scheme.

**Proposed new actions:**

- Facilitate a process to co-design high quality, high performing household recycling and reuse services, with appropriate communications standards, with COSLA, local authorities and service operators.
- Strengthen the monitoring and reporting framework for local authority waste services, and explore introducing a requirement on local authorities to report publicly on end destination of household recycling collected.
- Take powers to place additional requirements on local authorities regarding household collection services and develop statutory guidance for household waste services.
- Take powers to introduce statutory recycling local performance targets for household waste services.
- Undertake a review of waste and recycling service charging.

#### **Package 4: Improve recycling from commercial businesses**

Commercial and industrial waste accounted for 28% of Scotland's waste in 2018. We want businesses to have the information and support they need to reduce waste and maximise recycling, with clear incentives in place to ensure that the most sustainable choices are the easiest choices.

##### **Current actions and commitments**

- Deliver the Scottish Deposit Return Scheme (DRS) on 16 August 2023.
- Implement extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment and batteries from 2024 onwards.
- Develop a digital waste tracking service, in partnership with the UK government and other administrations.
- Take action to address waste crime, including publication of a new Litter and Flytipping Strategy and creation of the flytipping forum.

##### **Proposed new actions:**

- Conduct a national compositional study of waste from commercial premises.
- Review compliance with recycling requirements.
- Co-design measures, including targeted communications, to improve commercial waste service provisions that drive waste prevention and reuse, with a particular focus on food waste recycling.
- Research and pilot commercial waste zoning approaches.

#### **Package 5: Embed circular construction practices**

Construction and demolition accounts for around half of all waste produced in Scotland. We want to embed circular construction practices and increase awareness to reduce resource needs, reduce waste and carbon, and encourage refurbishment and reuse.

##### **Current actions and commitments**

- Introduce requirements through the National Planning Framework 4 to encourage developers to minimise waste and carbon intensity in construction projects.
- Promote The Net Zero Public Sector Buildings Standard, a voluntary standard to support public bodies to meet their net zero commitments.
- Support the Construction Scotland Innovation Centre.

##### **Proposed new actions:**

- Work with industry to accelerate the adoption of best practice standards.
- Investigate options to incentivise refurbishment of buildings.
- Coordinate a Scottish Programme for Reuse of Construction Materials and Assets.
- Investigate the potential use of recycling bonds to divert material from landfill.

- Consider how devolved taxes can incentivise the use of secondary aggregates and support circular economy practices.
- Work with industry to identify ways to reduce soil and stones going to landfill.
- Facilitate the development of a soil symbiosis programme.

### **Package 6: Minimise the impact of disposal**

While our goal is to continue to reduce the amount of residual waste we produce, until we move to a fully circular economy there is a need to consider how to minimise the impact of residual waste. We want to achieve the best environmental outcomes for materials that can't be captured for reuse or recycling, and ensure environmental and economic value of wasted resources and energy is harnessed efficiently.

#### **Current actions and commitments:**

- Introduce a ban on biodegradable municipal waste going to landfill by 2025.
- Consult on extending the biodegradable landfill ban to non-municipal waste.
- Expand the existing landfill gas capture programme.
- Commission analysis of bio-stabilisation options.
- Consider and respond to recommendations from the independent review into the role of incineration within Scotland's waste hierarchy.
- Investigate measures to ensure new energy from waste plants are more efficient and 'future-proof' waste infrastructure for carbon capture and storage (CCS) technology.
- Consult, with other UK governments, on expanding the UK Emissions Trading Scheme to include Energy from Waste.

#### **Proposed new actions:**

- Develop a Residual Waste Plan to ensure the best environmental outcome for materials and set strategic direction for management of residual waste to 2045.
- Restrict the incineration of fossil materials, through the development of a sector-led plan by 2024.
- Investigate fiscal measures to incentivise low carbon disposal, including the potential to include energy from waste in the UK Emissions Trading Scheme (ETS).

### **Package 7: Cross-cutting measures**

We have taken a whole-system approach to developing a Route Map to our 2025 waste and recycling targets. We want to ensure the right structures and support are in place to enable action across the circular economy, including strategic interventions and governance, research, data and evidence, sustainable procurement, and skills and training.

## **Current actions and commitments**

- Develop a digital waste tracking service to monitor waste and resources in real time.
- Complete household waste composition analysis by 2023.
- Promote the Scottish Government's Sustainable Procurement Toolkit.
- Deliver the Climate Emergency Skills Action Plan 2020.

## **Proposed new actions:**

- Introduce duty to develop a Circular Economy Strategy.
- Develop a monitoring and indicator framework.
- Undertake 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.
- Support greater uptake of green skills, training, and development opportunities.

It is the role of government to create a policy landscape where waste reduction and recycling are normal, easy, attractive, and routine. But we can only be successful if everyone plays their part – government, households and businesses. Achieving our waste and recycling targets and wider emissions reduction is a shared endeavour, and this consultation empowers communities to join the national conversation on how we manage our waste and make the transition to net zero.

As we plan for 2025 and beyond, not all policy measures are fully ready to be implemented in Scotland and we have applied a 'Do-Develop-Investigate' framework that recognises that the measures proposed are at different levels of development.

Some of the policy measures we need to drive the transition to a fully circular economy rely on action by the UK Government.

The measures set out in this consultation primarily focus on the action we can take before 2025 to accelerate progress towards our existing 2025 targets. However, they also lay the foundations for the transformational change we will need to see across our whole economy and society in the years ahead. We propose to set new circular economy targets to the period to 2030. We also propose to go beyond weight-based criteria and ensure that any future targets correspond to our Environment Strategy and overall vision for a circular economy, taking account of several key principles, notably our commitment to achieve net zero by 2045 and align with the EU; and the need to reduce the material footprint of our resources and waste and maximise the value of our circular economy.

This consultation marks the start of a process to assess the potential impacts on equality, socio-economic considerations, island communities, business and regulation, and the environment. High-level and screening impact assessments have been developed to accompany this consultation. The feedback we receive on overarching impacts, and for sectors or themes, will be used to update the initial impact assessments accompanying this consultation, and develop further assessments where appropriate. We will also incorporate feedback to inform future

impact assessments for specific interventions, as required. Further information about our approach to impact assessments can be found at Chapter 5.

Please ensure that consultation responses are submitted before the closing date of **22 August 2022**.

Please respond to this consultation using the Scottish Government's consultation platform, Citizen Space. You can view and respond to this consultation online at **<https://consult.gov.scot/environment-forestry/scotlands-circular-economy-routemap>**, or by completing a Respondent Information Form.

2022	2023	2024	2025	BEYOND 2025
<p><b>Circular Economy Bill</b> Consult on Circular Economy Bill proposals.</p> <p><b>Single Use Plastics Ban</b> Introduction of our ban on some of the most environmentally damaging single-use plastic items.</p> <p><b>FWRAP</b> Publish review and update of the Food Waste Reduction Action Plan</p> <p><b>Recycling Improvement Fund</b> £70 million fund to improve local authority recycling collection infrastructure (ongoing to 2025).</p> <p><b>Textiles Challenge Fund</b> Establishment of a £2m textiles innovation fund to tackle textile pollution and throw-away culture.</p> <p><b>Incineration Review</b> Completion of independent review into the role of incineration within Scotland's waste hierarchy.</p> <p><b>UK Emissions Trading Scheme</b> Consultation on UK Emissions Trading Scheme to gather evidence on inclusion of incineration within the scheme.</p> <p><b>Digital Waste Tracking</b> Consultation on digital waste tracking.</p>	<p><b>Deposit Return Scheme</b> Implementation of our Deposit Return Scheme (DRS) for single use drinks containers.</p> <p><b>Recycling Co-design</b> Co-design of high quality, high performing household recycling and reuse services with service operators and citizens.</p> <p><b>Separate Collections – Garden Waste</b> Separate collections of Bio-waste (e.g. garden waste), in line with EU requirements.</p> <p><b>Consult on Extending Bio Ban</b> Consultation to consider extending the ban on landfilling biodegradable municipal waste in 2025 to include biodegradable non-municipal waste.</p>	<p><b>Extended Producer Responsibility</b> Implementation of Extended Producer Responsibility (EPR) schemes for packaging, waste electrical and electronic equipment and batteries from 2024 onwards.</p> <p><b>Recycling Guidance</b> Develop guidance for household waste and recycling services.</p> <p><b>Review of Service Charging</b> Review of household waste and recycling service charging.</p> <p><b>Commercial Zoning Pilots</b> Research and launch commercial waste zoning pilots.</p> <p><b>Residual Waste Strategy</b> Implement a Residual Waste Plan.</p> <p><b>Sector-led Plan for Incineration</b> Develop a sector-led plan for incineration by 2024 to restrict the incineration of fossil materials.</p> <p><b>Food Waste Prevention Target</b> Investigate the feasibility of food waste prevention action plans for businesses and organisations.</p>	<p><b>Single-Use Disposable Beverage Cups Charge</b> Introduction of a charge on single-use disposable beverage cups.</p> <p><b>National Re-Use Target</b> Investigate the feasibility of a national reuse target.</p> <p><b>Separate Collections – Textile Waste</b> Separate collections of textile waste, in line with EU requirements</p> <p><b>Bio Ban</b> Introduction on ban of landfilling of biodegradable municipal waste.</p> <p><b>Landfill Gas Capture</b> Expand landfill gas capture programme to double the number of sites that undertake investigative or development work.</p>	<p><b>Powers for Environmental Charging</b> Develop a prioritised approach to charges &amp; bans on other environmentally damaging products.†</p> <p><b>Ban on Destruction of Durable Goods</b> Ban on the destruction of unsold durable goods.†</p> <p><b>National Consumption Reduction Target</b> Develop statutory targets to tackle consumption reduction.†</p> <p><b>Mandatory Reporting</b> Introduction of mandatory public reporting of food surplus/waste.†</p> <p><b>Statutory Performance Targets</b> Introduction of statutory recycling &amp; reuse local performance targets for household waste services, targets to be met from 2030.†</p> <p><b>Statutory Recycling Guidance</b> Introduction of statutory guidance for household waste &amp; recycling services.†</p>
<p><b>Research Programme</b> Launch a programme of research in 2022-23 on waste prevention, behaviour change, fiscal incentives and material-specific priorities</p>	<p><b>Digital Waste Tracking</b> Implementation of mandatory digital waste tracking service (timing dependent on consultation responses)</p>			
				† Circular Economy Bill Proposal

Existing and proposed new measures underpinning Scotland's Circular Economy Route Map to 2025 and beyond

## Chapter 1. Background

### 1.1 Purpose

The Scottish Government is committed to moving towards a circular economy and addressing the climate emergency.

We have set five ambitious waste and recycling targets, that span the waste hierarchy, to drive progress towards these goals:

- 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, and a ban on all biodegradable waste going to landfill by 2025

Although we have made significant progress, we know we have more to do if we are to meet all these targets in full. The Scottish Programme for Government 2020-21 and Scotland's Climate Change Plan update in 2020 set out our determination to accelerate progress, and commitment to develop a Route Map to reduce waste and meet our targets in a way that maximises carbon saving potential, working with partners to identify how the waste and resources sector will contribute towards Scotland's journey towards net zero in the period to 2030 and beyond.

### 1.2 Aim of this consultation

This consultation invites views on the proposed priorities and actions for the Route Map to 2025 and beyond. It is aimed at everyone who has a role to play: communities, businesses, the third sector, the public sector including local government, and the people and communities of Scotland. It is the start of a national conversation on how we deliver our vision for the circular economy – and in doing so meeting our commitments in the Climate Change Plan, and securing the opportunities for investment and job creation in the circular economy in Scotland.

Our proposed priorities are to:

- Promote and support responsible production and consumption (including tackling consumption of single-use items and promoting reuse).
- Reduce food waste from households and businesses.
- Significantly improve recycling from households and businesses.
- Embed circular construction practices.
- Minimise the impact of disposal of waste that cannot be reused or recycled.
- Strengthen our data and evidence, sustainable procurement practices, and skills and training.

### 1.3 Scope

The circular economy and waste policy is a complex landscape. We must consider Scottish, UK, European and global dimensions. The production of our products, services and materials involves supply chains that span the globe. As a devolved

nation, we have set out our clear commitment in seeking to maintain or exceed EU environmental standards<sup>1</sup>, and we are taking action on policy measures that lie within devolved competence. However, some of the policy measures required to drive the transition to a fully circular economy are dependent upon UK Government action. We set out our calls to others, including the UK Government, in this consultation.

Given this complexity, it is important to consider both legislative and non-legislative measures that will help us achieve our goals.

We are consulting on a Circular Economy Bill to bring forward the primary legislation we need to underpin our key policy measures. The Circular Economy Bill consultation is available here: [Circular Economy Bill consultation](#).

In this consultation, we are consulting on our non-legislative proposals, and on how both legislative and non-legislative proposals will work together to transform how we produce, consume, and manage Scotland’s resources.

#### 1.4 Consultation structure

In the first chapter of this consultation, we outline our aims and purpose, the principles that underpin our approach, and the evidence to inform our proposals.

In the second chapter we describe our progress so far, the reasons we need to go further, and the benefits that we will gain from achieving our targets.

In the third chapter we describe our actions to date, and set out proposed new actions that we will **do**, **develop** or **investigate** (Box 1), grouped into seven change packages (see table). We ask a series of consultation questions to seek your views and feedback on these proposals.

Theme	Change Package
<b>Consumption and production</b>	Promote responsible consumption, production and re-use
<b>Food waste</b>	Reduce food waste
<b>Household recycling</b>	Improve recycling from households
<b>Business and commerce</b>	Improve recycling from commercial businesses
<b>Construction and demolition</b>	Embed circular construction practices
<b>Residual waste</b>	Minimise the impact of disposal
<b>Cross-cutting measures</b>	Ensure the structures and support are in place to enable action across the Circular Economy

In the fourth chapter we look beyond our 2025 targets and set out the principles that will underpin our ambition for the circular economy to 2030 and beyond.

In the fifth and final chapter we outline the work that we will undertake to act on your feedback through this consultation and publish the final Route Map to 2025 and beyond.

<sup>1</sup> [The Environment Strategy for Scotland: vision and outcomes](#)

### **Box 1: Do-Develop-Investigate Framework**

As we plan for 2025 and beyond, we must recognise that not all policy measures are fully ready to be implemented in Scotland. We have applied a ‘Do-Develop-Investigate’ framework throughout this consultation that recognises that the measures proposed are at different levels of development.

- **Do:** Policy measures are ready to be implemented (subject to any further consultation and/or assurance work where required).
- **Develop:** Policy measures are available, but we need further research or planning to refine how measures will be implemented.
- **Investigate:** Policy measures are being considered, but we need to understand if they are feasible and effective within Scottish context.

## 1.5 Approach and guiding principles

The proposals set out in this consultation draw upon a wide range of evidence ([Technical Annex](#)), including published and peer reviewed literature, SEPA waste data for Scotland<sup>2</sup>, and previous research by the Scottish Government, Zero Waste Scotland and other parties.

In partnership with SEPA and Zero Waste Scotland, we engaged in a period of pre-consultation engagement to build a shared understanding of the challenges, opportunities, and potential measures with a range of cross sector stakeholders. The findings from the pre-consultation period have directly informed this consultation, and we will engage in strong collaboration at every stage to ensure that national-level policy is effectively considered, designed, and implemented into meaningful local-level change.

Our approach has been underpinned by five guiding principles that have shaped the proposals set out in this consultation and will continue to guide the development and implementation of the full Route Map to 2025 and beyond (see Box 2).

### **Box 2: Guiding Principles**

**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 need to consider the whole system – including our global footprint – to create 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 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 to the world around us. 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 proposals at different levels of development.

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<sup>2</sup> [SEPA Waste Data and Reporting](#)

**We are evidence driven.** Not all the answers are known at this stage. We will be led by a clear evidence-driven approach that underpins our actions and investments. Through our scoping process, we have also identified a number of areas where further evidence is required (see Package 7).

**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.

**Everyone must play their part.** Achieving our waste and recycling targets and wider emissions reduction is a shared endeavour. Collaboration and partnership have been critical to our progress so far, and we can only be successful if everyone plays their part – government, households and businesses.

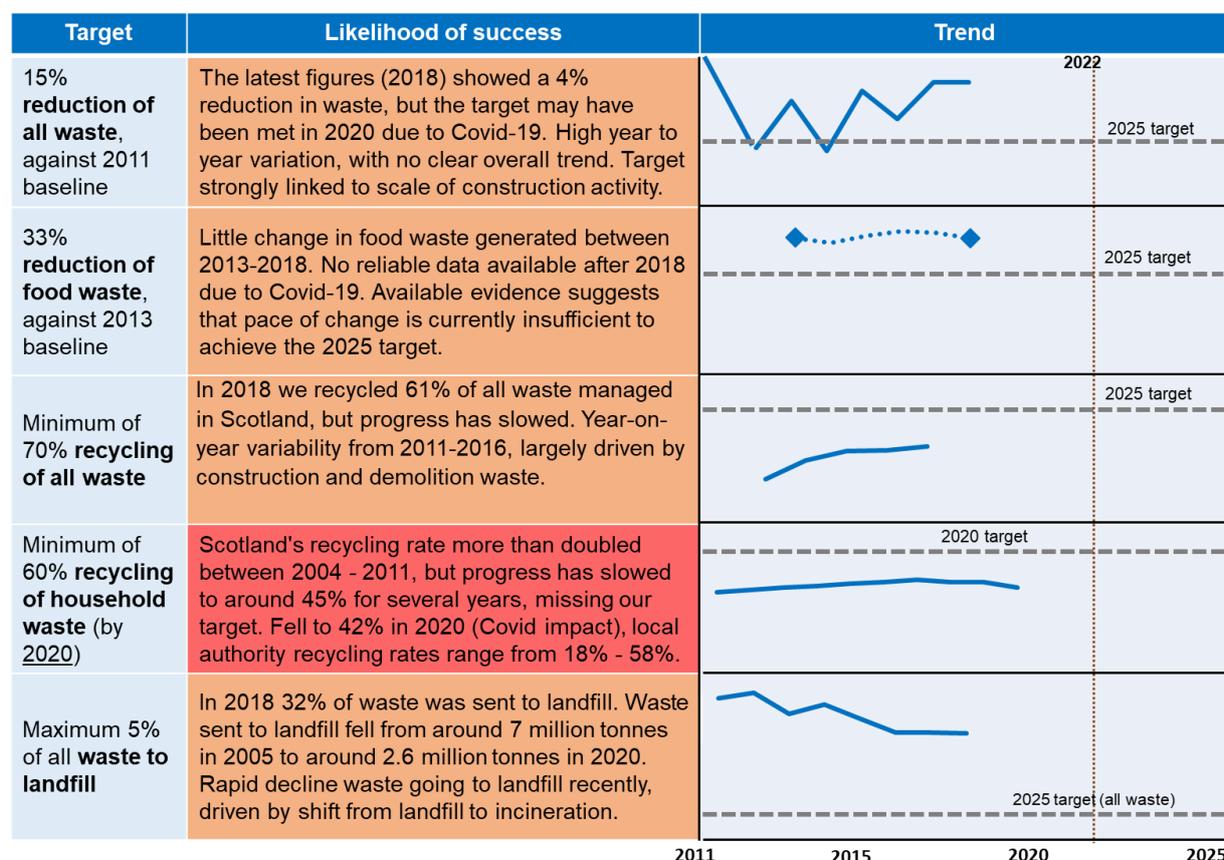
## Chapter 2. The case for change

### 2.1 Progress towards waste and recycling targets

Scotland has a good track-record on the circular economy. Our circular economy strategy Making Things Last<sup>3</sup> demonstrated Scotland’s ambition. We are the first UK nation to introduce bans on a range of priority single-use items, to ban biodegradable municipal waste from going to landfill, and will be the first to implement a Deposit Return Scheme (DRS) for single-use drinks containers. We have had mandatory separate collections of key materials for recycling for nearly a decade, and we are investing a further £70 million through our Recycling Improvement Fund to modernise Scotland’s infrastructure.

In line with our commitment to seek to maintain or exceed EU environmental standards, we have met EU targets for the amount of biodegradable waste going to landfill, and for recycling of construction and demolition waste.

However, despite the significant strides Scotland has made, we are not on track to meet our ambitious waste and recycling targets (Figure 1, and see technical annex). The sustainable choices are still not the easy choices for households, businesses or those in the waste sector. It is unlikely that either our waste and recycling targets or our emissions goals will be met in full without large-scale, and rapid system change.



**Figure 1: Progress towards Scotland’s 2025 waste and recycling targets since 2011.**  
**Key:** Red indicates a missed target [Minimum 60% recycling of household waste by 2020]; Orange indicates target at risk [All other targets]

<sup>3</sup> [Making Things Last: A Circular Economy Strategy for Scotland](#)

## 2.2 Climate Change Targets

The 2020 Climate Change Plan update<sup>4</sup> set out emission ‘envelopes’ for each sector, which reflect the pathway to meeting our statutory targets to reduce emissions by 75% by 2030 (compared with 1990) and to net zero by 2045. In 2019, greenhouse gas emissions from the waste management sector<sup>5</sup> were 1.5 MtCO<sub>2e</sub>. To achieve our emissions envelopes we must reduce this to 0.9 MtCO<sub>2e</sub> by 2025 and 0.7 MtCO<sub>2e</sub> by 2032. These envelopes are built upon achieving our waste and recycling targets, as the foundation for our pathway to 2025 and baseline for future action.

Scotland's progress in reducing emissions in the waste and resources sector over the past 20 years has been striking (Figure 2). In 2019, waste and resources sector emissions were over 30% lower than in 2011, and 73% lower than in 1998. Nevertheless, like our waste and recycling targets, progress has slowed in emissions reduction; we will not meet waste sector targets set out in the 2020 Climate Change Plan update without new and boosted policy measures. This underlines the urgency of measures set out in this consultation, to ensuring a more rapid transition to net zero and a fully circular economy in Scotland.

Although the waste management sector only directly accounts for 3% of total Scottish greenhouse gas emissions, around 80% of Scotland's carbon footprint stems from our consumption of materials, goods and services. Sustainable resource-use is key to tackling climate change and will be vital for other sectors to deliver their own net zero aspirations. **We cannot achieve either our sector emissions targets, or achieve a net zero economy without reaching our ambitious waste and recycling targets.** We must reduce consumption and waste, increase recycling, and divert carbon intensive materials from landfill. The 2020 Climate Change Plan update sets out our vision for a fully circular economy by 2045, driven by a focus on:

- 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.
- 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.
- Maximising Value from Waste and Energy, where the environmental and economic value of wasted resources and energy is harnessed efficiently.

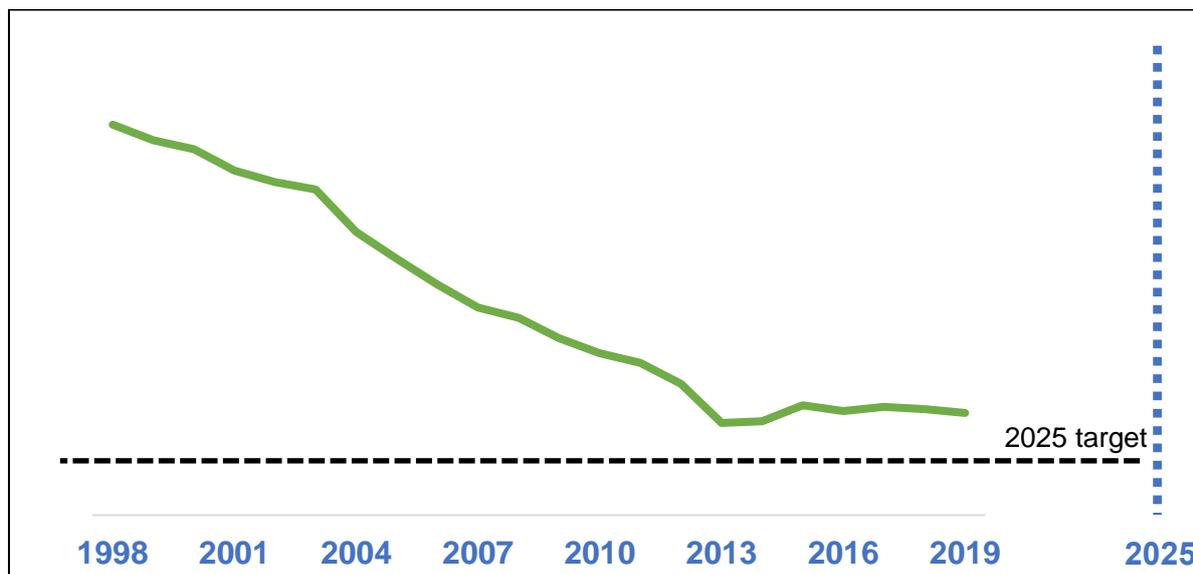
However, we know that **hitting our 2025 targets alone will not be enough.** We have a much better understanding of the pace and scale of change required to address the climate emergency than we did when we set our targets in 2010. The transition to net zero and a fully circular economy in Scotland will require radical and transformational change. We know that we need to go further beyond 2025, considering all sources of greenhouse gas emissions across the waste and

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<sup>4</sup> [Securing a green recovery on a path to net zero: climate change plan 2018–2032](#)

<sup>5</sup> Covering waste disposed of to landfill sites, waste incineration, and the treatment of waste water

resources sector, including legacy emissions from landfill sites and the carbon impacts of incineration (see Chapter 4).



**Figure 2: Scottish GHG emissions (MtCO<sub>2</sub>e) for waste management using Climate Change Plan emissions categories**

### Scotland's global footprint

Scotland's statutory emissions reduction targets, set out in the Climate Change Plan, are based on emissions from sources located here in Scotland but we must also take responsibility for our global carbon footprint associated with the goods and services we import<sup>6</sup>.

Scotland's Carbon Footprint<sup>7</sup> refers to estimates of Scotland's greenhouse gas emissions on a consumption basis. This refers to greenhouse gas emissions which are associated with the spending of Scottish residents on goods and services, **wherever in the world these emissions arise**.

Consumption of products and materials accounts for an estimated 74% of Scotland's carbon footprint<sup>8</sup>. We know that delivering a circular economy is a crucial part of tackling this, with some studies estimating that circular actions could eradicate up to almost a fifth of Scotland's carbon footprint by 2050. The proposed actions we set out in this consultation, and in the [Circular Economy Bill consultation](#), are aimed at encouraging more sustainable consumer purchasing, and rapidly moving Scotland towards a circular economy.

<sup>6</sup> The Scottish Government publishes emissions on a territorial basis from the Scottish greenhouse gas inventory as part of the Official Statistics publication Scottish Greenhouse Gas Emissions 2019, see figure 2.

<sup>7</sup> [Scotland's Carbon Footprint 1998-2018](#),

<sup>8</sup> [The Carbon Impacts of the Circular Economy](#)

## 2.3 The opportunity for change

We are facing an ever growing climate and nature emergency, and the public have never been clearer that they want to see more ambitious action to address the challenges we face.

We believe it is the right time to begin a national conversation on how we deliver our waste and circular economy ambitions - where government can go further faster to support delivery of a circular economy, and what further support we all need to do our part. It requires us all to be bold, brave and focused on delivering the actions needed.

Through the Route Map, we have the opportunity to build on the progress we have already made, and set out the steps we can take to drive future change.

**We are facing a climate and nature emergency. We need to do more to meet our waste reduction and recycling targets and reach net zero by 2045.**

Our current waste reduction and recycling targets have been in place since 2010. Much has changed since then. The climate emergency has intensified our focus on emissions reduction, and how we view and treat our waste. 50% of global carbon emissions carbon footprint and 90% of global biodiversity loss and water stress is caused by resource extraction and processing<sup>9</sup>. And in the current times we live in, we are more aware than ever that a more circular economy is also more self-sufficient – it reduces our reliance on imports and provides increased material security and economic resilience.

**We need urgent, system-wide change if we are to achieve our ambitions.**

There are a diverse range of incentives that impact our decisions and behaviour. We need transformative, system-wide change, that address ‘broken incentives’ at every stage if we are to meet our targets by 2025.

The COVID-19 pandemic has also had a major, system-wide impact across our whole economy and society. It has required businesses to adapt, adjusting the products they produce, purchase, and dispose of. As we seek to build a green recovery, it has never been more important that we take evidence-based decisions regarding how Scottish Government invests public money. And as we re-set from the system-wide shock caused by the pandemic, now is the time to embed the system-wide change we need to move to a circular economy and net zero future.

**The transition to a circular economy will provide wider economic, environmental and societal benefits.**

Our waste reduction and recycling outcomes are a core pillar of our Environment Strategy<sup>10</sup>, and support progress towards National Performance Framework outcomes for the economy (‘we have a globally competitive, entrepreneurial, inclusive and sustainable economy’) and environment (‘we value, enjoy, protect and

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<sup>9</sup> [The Use of Natural Resources in the Economy: A Global Manual on Economy Wide Material Flow Accounting](#)

<sup>10</sup> [The Environment Strategy for Scotland: vision and outcomes](#)

enhance our environment')<sup>11</sup>. A more circular economy will also contribute to a range of UN Sustainable Development Goals<sup>12</sup>, and help to embed our economy in the natural world, recognising the need to live within the sustainable limits of our single, shared planet<sup>13</sup>.

The decade ahead provides a unique opportunity to increase our economic and social wellbeing, whilst respecting environmental limits and ambition to become one of the most prosperous nations in the world. Our new strategy for economic transformation<sup>14</sup> recognises that the circular economy represents an enormous economic and industrial opportunity for Scotland as part of this transformation, by improving productivity and opening up new markets.

It is also clear that there are wider societal and community-focused benefits to a circular economy. Delivering a circular economy provides local employment opportunities and lower cost options to access the goods we need. 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<sup>15</sup>. This represents a profound opportunity to support communities and stimulate job creation.

Finally, a circular economy keeps valuable materials flowing through our economy, driving greater resource productivity and decreasing costs for businesses, the public sector and households. Food waste alone costs the average Scottish household £440 each year<sup>16</sup>. As we face the current cost of living crisis, the rapid transition to a more circular economy is needed more than ever.

### **We must take responsibility for our own waste.**

Where we do produce waste, we must maximise its value and reduce its environmental and carbon impact. To support our transition to a circular economy, this means 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 14% is currently processed elsewhere<sup>17</sup>, representing a lost economic opportunity and an environmental cost too.

International waste export legislation is a reserved matter, and we are calling for further actions in this space from the UK Government (see section 2.4 below). We also believe it is important to consider further steps we can take within our competence to boost Scotland's ability domestically to manage its waste, and with it, strengthen public confidence in where recycling goes. This aligns with the

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<sup>11</sup> [National Performance Framework](#)

<sup>12</sup> [UN Sustainable Development Goals](#)

<sup>13</sup> Final Report - The Economics of Biodiversity: [The Dasgupta Review](#)

<sup>14</sup> [Scotland's National Strategy for Economic Transformation](#)

<sup>15</sup> [Briefing on job creation potential in the re-use sector](#)

<sup>16</sup> [Food waste worse than plastic for climate change](#)

<sup>17</sup> [SEPA, Waste from all sources – 2018](#)

Committee on Climate Change’s recommendation to take action to ensure waste intended for recycling or recovery are treated as such<sup>18</sup>.

Positive behaviours, like recycling, are heavily reliant on public confidence in where their waste is going. Recent UK-based research indicates that a lack of information on what happens to recycling once its collected is the top reason that negatively influences public behaviour and participation in recycling<sup>19</sup>.

### **There is strong public appetite for more ambitious action, and for clear guidance on the steps we can all take.**

We have seen a fundamental shift in public attitudes towards climate change, better resource management, and the waste we produce<sup>20</sup>. In 2020, 79% of the public indicated that climate change is an “immediate and urgent problem”. The level of concern has increased over time, including since the start of the Covid-19 pandemic.

Scotland’s Climate Assembly<sup>21</sup> also underlined the need to “strive to be as self-sufficient as possible, with a competitive Scots circular economy that meets everyone’s needs in a fair way”; and “reduce consumption and waste by embracing society wide resource management and reuse practices”. The Assembly set 16 goals and 81 recommendations, with a strong focus on transitioning to a circular economy, including maximising reuse and the use of environmental charging.

## **2.4 Our call to the UK Government**

As a devolved nation, we are taking action on policy measures that lie within our legal competence. Some of the policy measures we need to drive the transition to a fully circular economy rely on action by the UK Government. **We need to see the UK Government respond positively to the Committee on Climate Change’s call<sup>22</sup> for it to “step up”** in areas where key powers are reserved. Where there are existing commitments in place, timely delivery by the UK Government is absolutely vital to unlock the progress we need to see.

There are key examples where we are already working constructively with the UK Government and other Devolved Administrations.

This includes reform of the packaging producer responsibility system to reduce waste and boost recycling, and the development of a digital waste tracking system to provide a step change in the quality and timeliness of waste data.

We also welcome the UK Government’s introduction of a ‘plastics tax’ to incentivise the use of recycled content in plastic packaging, although, in light of comments from the Committee on Climate Change<sup>23</sup>, it is important the thresholds should be kept under regular review.

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<sup>18</sup> [CCC Progress in reducing emissions, 2021 Report to Parliament](#)

<sup>19</sup> INCPEN, Public confidence in recycling, survey of 2000 UK respondents conducted in August 2021

<sup>20</sup> [Research into public attitudes to climate change policy and a green recovery, December 2020.](#)

<sup>21</sup> [Scotland’s Climate Assembly: Full Report](#)

<sup>22</sup> [CCC December 2019 progress report,](#)

<sup>23</sup> [CCC Progress in reducing emissions: 2021 Report to Parliament](#)

However, there are a number of key areas that require further UK Government action, and more urgency. Specifically, we call on the UK Government to:

- Consider new fiscal measures to influence behaviour, including consideration of the role of VAT to encourage sustainable choices.
- Consider measures to reduce consumption of unsustainable material, and boost the competitiveness of recycled materials – for example considering strengthening the UK’s approach to product stewardship and standards, where we recognise current powers under devolution can only take us so far without concerted action at UK-level (see Package 1).
- Deliver existing commitments and bring forward measures to influence global markets and reduce imported and exported emissions. This includes making progress on the Committee on Climate Change’s recommendation<sup>24</sup> to “phase out” exports of waste by 2030, which would support Scotland’s transition to a fully circular economy.

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<sup>24</sup> [CCC Progress in reducing emissions, 2021 Report to Parliament.](#)

## Chapter 3: Route Map proposals

The following section outlines our actions to date and proposed new actions to accelerate progress to meet our waste and recycling targets. Proposals are grouped into seven change packages. We also ask a series of consultation questions to seek your views and feedback on these proposals.

Our existing policy and Route Map proposals are summarised in Figure 3.

2022	2023	2024	2025	BEYOND 2025
<p><b>Circular Economy Bill</b> Consult on Circular Economy Bill proposals.</p> <p><b>Single Use Plastics Ban</b> Introduction of our ban on some of the most environmentally damaging single-use plastic items.</p> <p><b>FWRAP</b> Publish review and update of the Food Waste Reduction Action Plan</p> <p><b>Recycling Improvement Fund</b> £70 million fund to improve local authority recycling collection infrastructure (ongoing to 2025).</p> <p><b>Textiles Challenge Fund</b> Establishment of a £2m textiles innovation fund to tackle textile pollution and throw-away culture.</p> <p><b>Incineration Review</b> Completion of independent review into the role of incineration within Scotland's waste hierarchy.</p> <p><b>UK Emissions Trading Scheme</b> Consultation on UK Emissions Trading Scheme to gather evidence on inclusion of incineration within the scheme.</p> <p><b>Digital Waste Tracking</b> Consultation on digital waste tracking.</p>	<p><b>Deposit Return Scheme</b> Implementation of our Deposit Return Scheme (DRS) for single use drinks containers.</p> <p><b>Recycling Co-design</b> Co-design of high quality, high performing household recycling and reuse services with service operators and citizens.</p> <p><b>Separate Collections – Garden Waste</b> Separate collections of Bio-waste (e.g. garden waste), in line with EU requirements.</p> <p><b>Consult on Extending Bio Ban</b> Consultation to consider extending the ban on landfilling biodegradable municipal waste in 2025 to include biodegradable non-municipal waste.</p>	<p><b>Extended Producer Responsibility</b> Implementation of Extended Producer Responsibility (EPR) schemes for packaging, waste electrical and electronic equipment and batteries from 2024 onwards.</p> <p><b>Recycling Guidance</b> Develop guidance for household waste and recycling services.</p> <p><b>Review of Service Charging</b> Review of household waste and recycling service charging.</p> <p><b>Commercial Zoning Pilots</b> Research and launch commercial waste zoning pilots.</p> <p><b>Residual Waste Strategy</b> Implement a Residual Waste Plan.</p> <p><b>Sector-led Plan for Incineration</b> Develop a sector-led plan for incineration by 2024 to restrict the incineration of fossil materials.</p> <p><b>Food Waste Prevention Target</b> Investigate the feasibility of food waste prevention action plans for businesses and organisations.</p>	<p><b>Single-Use Disposable Beverage Cups Charge</b> Introduction of a charge on single-use disposable beverage cups.</p> <p><b>National Re-Use Target</b> Investigate the feasibility of a national reuse target.</p> <p><b>Separate Collections – Textile Waste</b> Separate collections of textile waste, in line with EU requirements</p> <p><b>Bio Ban</b> Introduction on ban of landfilling of biodegradable municipal waste.</p> <p><b>Landfill Gas Capture</b> Expand landfill gas capture programme to double the number of sites that undertake investigative or development work.</p>	<p><b>Powers for Environmental Charging</b> Develop a prioritised approach to charges &amp; bans on other environmentally damaging products.<sup>†</sup></p> <p><b>Ban on Destruction of Durable Goods</b> Ban on the destruction of unsold durable goods.<sup>†</sup></p> <p><b>National Consumption Reduction Target</b> Develop statutory targets to tackle consumption reduction.<sup>†</sup></p> <p><b>Mandatory Reporting</b> Introduction of mandatory public reporting of food surplus/waste.<sup>†</sup></p> <p><b>Statutory Performance Targets</b> Introduction of statutory recycling &amp; reuse local performance targets for household waste services, targets to be met from 2030.<sup>†</sup></p> <p><b>Statutory Recycling Guidance</b> Introduction of statutory guidance for household waste &amp; recycling services.<sup>†</sup></p>
<p><b>Research Programme</b> Launch a programme of research in 2022-23 on waste prevention, behaviour change, fiscal incentives and material-specific priorities</p>		<p><b>Digital Waste Tracking</b> Implementation of mandatory digital waste tracking service (timing dependent on consultation responses)</p>		
				<p><sup>†</sup> Circular Economy Bill Proposal</p>

**Figure 3: Summary of existing and proposed new measures underpinning Scotland's Circular Economy Route Map to 2025 and beyond**

## Package 1: Promote responsible consumption, production and re-use

**Challenge the current approach to consumption and production by improving product design, mainstreaming reuse and repair, and incentivising sustainable choices.**

### **Current actions and commitments**

- Introduce a ban on certain single-use plastic items.
- Take action to reduce consumption of single-use food containers.
- Fund re-use projects, infrastructure and businesses through the Recycling Improvement Fund and Circular Economy Investment Fund.
- Support sharing libraries and repair cafes, increasing the total to 100 by 2025.

### **Proposed new actions:**

- Take powers to introduce environmental charges to tackle consumption of problematic products and promote a move to more sustainable alternatives.
- Introduce a charge for single-use disposable cups by 2025.
- Develop a prioritised approach to charges and bans on environmentally damaging products.
- Publish a prioritised approach to product stewardship.
- Take powers to set statutory consumption reduction targets.
- Investigate the feasibility of a national reuse target.
- Identify ways to expand business models that prolong product lifespan.
- Support measures to improve the reuse experience for consumers.
- Keep pace with the EU Sustainable Product Initiative.
- Run a national communications campaign focused on sustainable consumption.

### Focus of this package

Material consumption and waste are the primary drivers of nearly every environmental problem we currently face, from water scarcity to habitat and species loss<sup>25</sup>. Around four fifths of Scotland's carbon footprint is caused by the production, consumption, and all too often waste, of goods and services<sup>26</sup>. In Scotland we use on average 18.4 tonnes of resources per person<sup>27</sup> - well above the 6-8 tonnes per person considered to be sustainable<sup>28</sup>. Cutting our material consumption is therefore one of the most important ways that we can all limit our impact on the environment.

Around 90% of the carbon impact of Scotland's waste is produced before disposal, during resource extraction, manufacturing, and transport<sup>29</sup>. 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

<sup>25</sup> [Making Peace with Nature, United Nations Environment Programme \(2021\)](#)

<sup>26</sup> [Scotland's Carbon Footprint report 1998-2017](#)

<sup>27</sup> [Scotland's Materials Flow Accounting, Zero Waste Scotland \(2021\)](#)

<sup>28</sup> [Managing and conserving the natural resource base for sustained economic and social development, UNEP International Resource Panel \(2014\)](#)

<sup>29</sup> [The Carbon Footprint of Scotland's Waste, Zero Waste Scotland \(2020\)](#)

consider the whole system, reducing our need for new products, and maximising the life of existing ones. Reducing consumption will help meet all our current targets, and particularly our target to **reduce waste** generated by 15% between 2011 and 2025.

### What we want to achieve

We want to drive system-wide change, moving away from the linear model of consumption moving to a circular economy. We want to challenge producers and manufacturers to phase out the least sustainable products, to reward business models that extend product life span, and to empower consumers to make more informed choices. We want to see better opportunities for reuse, repair, and refurbishment, which are easily accessible and affordable for everyone.

We will need to encourage action across the whole supply chain - there is no single measure that will make the progress needed to deliver a nationwide consumption reduction. In the short term, disrupting and slowing traditional consumption patterns will help deliver our waste and recycling related targets. In the long term, we will need measures that transform our consumption practices and change the way we view and use resources, particularly if we are to achieve our commitment to net zero by 2045<sup>30</sup>.

Building on important action already in place or underway, the additional measures proposed in this package aim to:

- **Increase sustainable product choices which are affordable and available to all**

Our current business models too often make the unsustainable solution the cheapest and most convenient. This increases demand for materials and generates unneeded waste. While there is market demand for sustainable products and services, this often comes at a price which is not affordable to many consumers.

- **Prioritise and mainstream reuse**

Re-use is one of the clearest ways we can reduce the need for new products and extend the life span of existing products. However, there are currently few incentives to prioritise reuse, particularly compared to the range of existing recycling performance measures. Second hand or reused items are also often seen as low quality or value, and we lack many of the structures we need to make reuse easy and effective.

- **Design for repair and make repair easier**

Short-life products are often designed and priced in a way that prevents them from being easily repaired or reused at end of their life. Where repair is possible, the cost and/or availability of repair means that it is often simply easier, more convenient, and often cheaper to purchase a new product instead.

- **Encourage informed, sustainable choices**

We rarely have the information we need to make responsible choices. What information there is can be technical, confusing, or misleading. We need to reward sustainable choices and make it easier for consumers to make them.

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<sup>30</sup> [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)

## Where we are now

Waste generated from all sources in Scotland fell by 4.3% between 2011-2018<sup>31</sup>, and there have been steady declines in waste from households (-7%) and from commercial and industrial sources (-22%). However, the total amount of waste we generate varies greatly from year on year, largely due to differences in waste from construction and demolition<sup>32</sup>.

The carbon footprint of Scotland's waste fell by over a third between 2011 and 2018<sup>33</sup> as a result of new policy initiatives and improved waste management. The wider decarbonisation of Scotland's economy is also reducing the carbon footprint of the products we consume and the waste we produce. This is good progress, but we will need to rapidly accelerate this trend if we are to reach our waste reduction target and achieve our commitment to net zero by 2045<sup>34</sup>.

## What we have done

The **Circular Economy Investment Fund** has been in place since 2014 to support circular and reuse business models.

A **10p carrier bag charge** is in place to encourage reuse and reduce the number of new single-use carrier bags used in Scotland.

We have introduced a **ban on plastic stemmed cotton buds**, which came into force in 2019.

We have established the **Expert Panel on Environmental Charging and Other Measures (EPECOM)** to lay the foundations for our approach to reducing single-use consumption. Based on its recommendations, and our commitment to meet or exceed the requirements of the **EU Single-Use Plastics Directive**, we have set out our intention to introduce a **charge on single-use disposable beverage cups** and to **reduce consumption of on-the-go food containers**.

A **plastic packaging tax** on materials with less than 30% recycled content was introduced across the UK on 1st April 2022.

The **Green Claims Code** was published by Defra in 2021 to provide guidance to businesses making environmental claims about their products.

**UK regulations on Eco-design of energy-consuming products** provide ecodesign and energy labelling requirements and a 'right to repair' for specified energy-related products.

We are **supporting sharing libraries** and repair cafes and will increase the total to 100 by 2025, and we have set up a **Reuse Hotline** to support sharing and reuse.

## What we are already doing

From  
2021

In 2021 we launched the **£70m Recycling Improvement Fund**, which includes support for local authorities to increase reuse options available, for example at household waste and recycling centres.

<sup>31</sup> [Waste data for Scotland, SEPA](#). The most recent all waste reporting year is 2018..

<sup>32</sup> Construction and demolition waste is addressed package 5.

<sup>33</sup> [The Carbon Footprint of Scotland's Waste: Carbon Metric Summary Report \(2017 & 2018\)](#)

<sup>34</sup> [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)

From  
2022

In 2021 we legislated to **ban the supply and manufacture in Scotland of some of the most environmentally damaging single-use plastic items**. The ban will come into force on 1 June 2022<sup>35</sup>, and is expected to reduce our demand for plastic and the impacts of plastic pollution in our terrestrial and marine environments.

### What we are proposing to do

DO

#### **1. We will take powers to introduce charges for environmentally damaging items†**

We propose to take powers to introduce charges for environmentally damaging items through the Circular Economy Bill.

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 alone<sup>36</sup>. Extending this approach to other products offers an opportunity to further drive sustainable consumption practices. If taken forward, 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.

The 2019 consultation on a Circular Economy Bill showed widespread support for these measures. 97% of individuals and 73% of organisations agreed that Scottish Ministers should have the power to set charges on environmentally damaging items such as single-use coffee cups.

DO

#### **2. We will introduce a charge for single-use disposable cups by 2025†**

We propose to introduce a charge for single-use disposable cups by 2025. An estimated 4,000 tonnes of waste is generated by single-use cups each year, wasting valuable raw materials and generating unnecessary CO<sub>2</sub> emissions in the process.

82% of responses to the 2019 consultation on a Circular Economy Bill supported implementing a charge on single-use disposals cups. As well as encouraging consumers to switch to more environmentally friendly re-usable options, introducing a charge on single-use disposable cups will also help the Scottish Government meet its objective of aligning with or exceeding the standards of the EU Single-Use Plastics Directive<sup>37</sup>.

DEVELOP

#### **3. We will develop a prioritised approach to charges and bans on other environmentally damaging products from 2025.**

We propose to identify what additional measures may be needed to phase out single-use and environmentally harmful products and materials, developing a prioritised approach to bringing in new measures from 2025, which will take account of the findings of our ongoing call for evidence and further consultation. However, we recognise that these measures may have disproportionate impacts on some

<sup>35</sup> subject to the UK Internal Market Act

† Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>36</sup> [Scotland's Carrier Bag Charge One Year On report, Zero Waste Scotland \(2015\)](#)

<sup>37</sup> Article 4 of the [EU Single-Use Plastics Directive](#) requires measures to be put in place to achieve a sustained reduction in the consumption of single-use plastic beverage cups and food containers.

businesses and individuals, and we will work with affected sectors to understand the implications of introducing any charges or bans.

DEVELOP

#### **4. We will publish a prioritised approach to product stewardship by 2024<sup>†</sup>.**

To date, product stewardship policies in Scotland have largely focused on extended producer responsibility (EPR) schemes (see Package 3). EPR schemes are currently being developed across the UK for packaging, waste electrical and electronic equipment (WEEE), batteries, and accumulators. There is also a producer responsibility scheme for end-of-life vehicles (ELVs). We wish to build on this to go beyond recycling and use a wider range of policy tools to drive progress in reuse, repair, and refurbishment, reducing the need for new products being placed onto the market.

We propose to develop and publish a prioritised approach to product stewardship, that identifies at least three priority products for further action. We will identify products based on a range of environmental criteria, including our commitment to achieve net zero by 2045<sup>38</sup>. This will build on the analysis of potential EPR schemes conducted for Making Things Last (2016)<sup>39</sup>, considerations within policy frameworks such as the Sustainable Products Initiative and the prioritisation methods used in other countries. We will build our approach into the Circular Economy Strategy proposed in the Bill consultation, to set strategic direction and outline our ambition to 2030.

We will set out the actions we will take on priority products from 2025, ensuring that industry have sufficient autonomy and timescales to act in the most efficient and effective way. If required, we will bring forward any new measures through our current powers under the Environment Act, and new powers proposed in the Circular Economy Bill. However, we recognise that some areas, such as VAT, product standards, product labelling and consumer protection are reserved and so we emphasise the need for action beyond Scotland. We will continue to work collaboratively with UK administrations, for example on the five priorities identified in Defra's 'Waste to Wealth Commitment'<sup>40</sup>, recognising the limitations posed by the UK Internal Market Act, and to amplify benefits across the UK.

Measures for which we currently have powers under the Environment Act include:

- Establishing new producer responsibility schemes.
- Setting resource efficiency requirements for products placed on the market, including availability of parts for reuse and repair, disposal routes, recycled content, and mitigation of pollutants released during production, use or disposal.
- Requiring that resource efficiency information is available on features such as product lifespan, recycled content, resource intensity of use and end-of-life disposal.

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<sup>38</sup> [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)

<sup>39</sup> Previous priorities identified through Making Things Last included tyres, furniture and mattresses.

<sup>40</sup> Chemicals, construction, food, metals and textiles; see [Defra Waste and Resources Strategy](#)

Finally, we recognise that manufacturers and producers play a significant role in minimising impacts of products and materials, demonstrated through voluntary agreements such as the UK Plastics Pact<sup>41</sup> and Sustainable Clothing Action Plan<sup>42</sup>. By setting out a clear and prioritised approach to product stewardship, and timescales for policy implementation, we will make it easier for industry to take innovative steps to minimise product impacts.

DO

### **5. We will take powers to set statutory consumption reduction targets<sup>†</sup>.**

We propose to take powers to develop statutory consumption reduction targets through the Circular Economy Bill. We believe that there is merit in developing statutory targets to tackle consumption reduction as well as other aspects of the circular economy such as reuse and recycling. As set out in the Circular Economy Bill consultation, any targets will need to be underpinned by a robust monitoring and indicator framework that gives holistic tracking of Scotland's consumption levels and wider measures of circularity which would need to be developed first. This is also consistent with calls from the European Parliament for a suite of indicators to measure resource consumption<sup>43</sup>.

INVESTIGATE

### **6. We will investigate the feasibility of setting reuse targets by 2025<sup>†</sup>**

We propose to investigate the feasibility and impact of setting reuse targets in Scotland by 2025 in order to encourage measures that extend product lifespan, mainstream opportunities for reuse, and support progress towards metrics that monitor consumption.

Few countries have national, legislated reuse targets, but a range of initiatives to implement re-use and preparation for re-use targets are underway throughout Europe<sup>44</sup>. In Scotland, we know that a wide range of reuse activities already take place, from formal redistribution networks to informal sale or exchange. However, we currently have no way to monitor the type, volume or impact of this activity. As with consumption reduction targets, before developing a reuse target we would need to have a robust mechanism in place to monitor reuse.

Any target 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. If this measure is taken forward, we will establish a baseline of reuse activity by reviewing 'preparation for reuse' data from local authorities, alongside accessible data from other sources. If needed, any new reporting requirements could be introduced through the revised data standard and reporting requirements for local authorities (see Package 3), and under the Environment Act<sup>45</sup> for online platforms and other businesses.

DEVELOP

### **7. We will identify ways to expand business models that prolong product lifespan by 2025.**

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<sup>41</sup> [WRAP: The Plastics Pact](#)

<sup>42</sup> [WRAP: Sustainable Clothing Action Plan 2020 Commitment](#)

<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>43</sup> [European Parliament resolution of 10 February 2021 on the New Circular Economy Action Plan](#)

<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>44</sup> [Reuse Targets Factsheet](#)

<sup>45</sup> see [Environment Act 2021](#), particularly Part 3: Waste and resource efficiency and Schedules 4-7

We propose 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. Examples could include leasing or subscription models or sharing libraries. As well as reducing the demand for new products, these models are also likely to incentivise upgradeability and repair, and provide clearer routes to improved recycling when products reach their end-of-life.

We recognise the substantial innovation already underway in this space, and that a range of support is already available, for example through the Circular Economy Investment Fund. If this measure is taken forward, we will engage with businesses to understand where additional Government support could help maximise impact and growth. For example, this could include improved skills and training, addressing high start-up costs and other barriers to market entry, or incentivising sustainable consumer and producer choices. We will build on existing support packages to develop an appropriate package of support measures by 2025.

DEVELOP

#### **8. We will keep pace with the EU Sustainable Product Initiative<sup>†</sup>**

The Sustainable Product Initiative aims to make products placed on the EU market more sustainable. Ultimately, consumers, the environment and the climate will benefit from products that are more durable, reusable, repairable, recyclable, and energy-efficient. The European Commission has recently proposed a range of provisions under the Sustainable Product Initiative including banning the destruction of unsold goods and the development of digital product passports. This is an emerging area of policy development and we recognise that certain issues, such as product labelling, are reserved. We will look to work with UK administrations to take forward joint action where appropriate and utilise powers available under the Environment Act 2021 to keep pace with emerging policies from the Sustainable Product Initiative. The Circular Economy Bill also includes a specific proposal on the **introduction of a ban for the destruction of unsold goods<sup>†</sup>**.

DEVELOP

#### **9. We will develop support measures to further improve the reuse experience for consumers**

We propose to build on the significant 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. We have already seen a range of community-based initiatives over the last 10 years, including the Dundee City Council Community Reuse Hub<sup>46</sup>, and the expansion of sharing libraries and repair cafes<sup>47</sup>. We will work with partners to learn from and accelerate progress, by identifying additional support measures to support the normalisation of reuse, including funding routes, collaboration, and integration with other policy initiatives.

If this measure is taken forward, we will expand existing tools such as Revolve support programme and certification to ensure high standards in safety, cleanliness and service, ensure knowledge and good practice is shared, and raise brand awareness so that customers are more knowledgeable about the benefits of reuse

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<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>46</sup> [Dundee City Community Re-Use Hub](#)

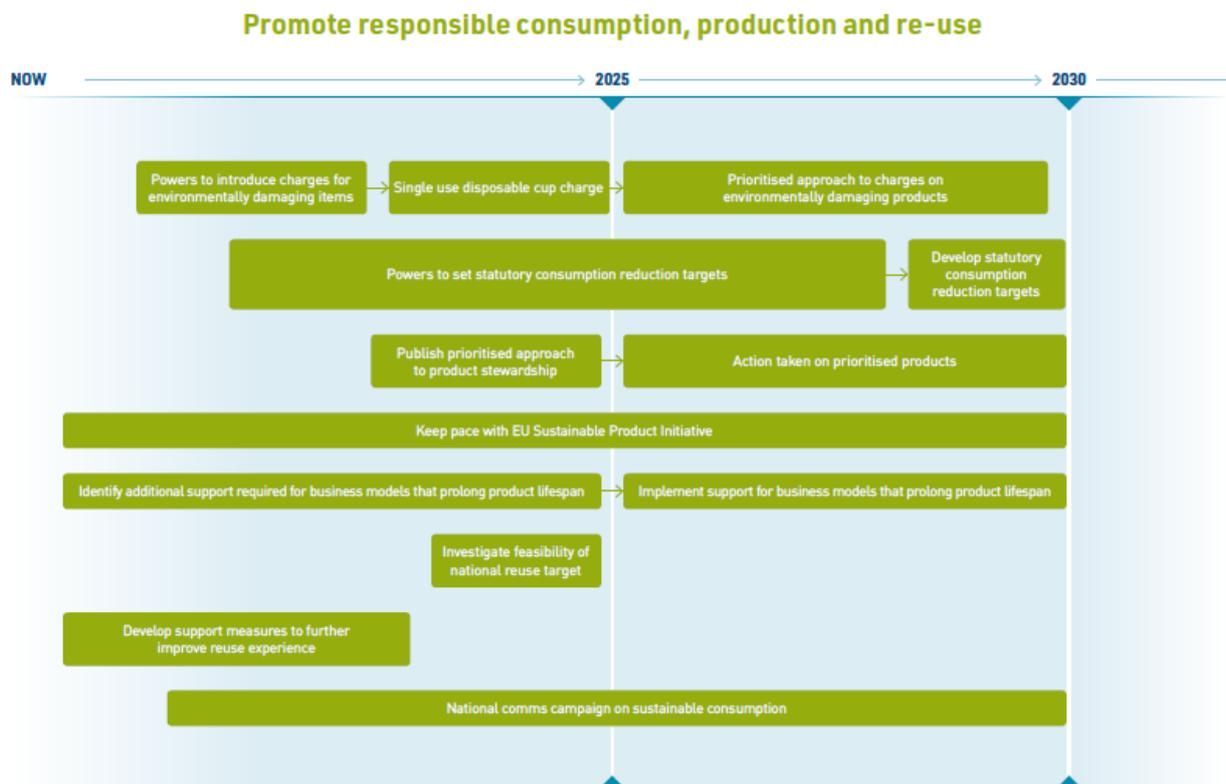
<sup>47</sup> Further details can be found at: [Network of Sharing Libraries and Repair Cafes](#)

and encouraged to do more of it. We will explore the creation of reuse hubs and ‘superstores’ that bring together repair and resale facilities for a range of products and services, with fully integrated services and alternative business models that encourage re-use. International examples of this approach have had considerable success, such as [ReTuna](#) in Sweden, which employs over 50 people and welcomes between 250,000 and 300,000 visitors per year. Finally, we will consider how to integrate online offerings, skills and training, and collaboration with the wide range of existing public and private repair and reuse offerings.

DO

## 10. We will run a national communications campaign focused on sustainable consumption

We will develop and implement a national communications and engagement strategy to raise consumer awareness of the impacts of consumption. We will identify the key messages and actions needed, and the organisations best placed to deliver these messages. We would aim to commence communications activities from 2023, building on successful household recycling and food waste reduction campaigns in 2021 and 2022, and the launch of the Route Map and Circular Economy Bill.



**Figure 4: Actions to promote responsible consumption, production and re-use**

### Consultation questions

Question 1. To what extent do you agree with the measures proposed in this package to promote responsible consumption, production and re-use? Please provide evidence to support your answer if possible.

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

Question 2. Are there any further measures that you would like to see included in the Route Map to promote responsible consumption, production and re-use?

## Package 2: Reduce food waste

### **Reduce food waste from all sources, building on our Food Waste Reduction Action Plan.**

We will publish a review of progress towards our food waste reduction target in 2022, alongside an updated Food Waste Reduction Action Plan that sets out our plans to accelerate progress on food waste.

#### **Current actions and commitments:**

- Our 2019 Food Waste Reduction Action Plan (FWRAP) sets out the actions we are taking to prevent food waste in Scotland. We will review and update the plan in 2022.
- Run national communication campaigns to encourage positive food waste behaviour.
- Support WRAP's Courtauld 2030 Commitment and maximise benefit for Scotland.
- Fund food redistribution in Scotland via FareShare's 'Surplus With Purpose' scheme.

#### **Proposed new actions:**

- Take powers to introduce mandatory public reporting of food surplus and waste.
- Investigate the feasibility of food waste reduction action plans by 2024.
- Intensify action to tackle household food waste, by developing a food waste behaviour change strategy and enhancing support for Scottish households to reduce food waste.
- Provide enhanced support for businesses and organisations to reduce food waste and promote a circular bioeconomy.
- Strengthen community food redistribution networks, including additional funding.

### Focus of this package

Food waste is a global problem that has significant economic, environmental, and societal impacts. Almost one million tonnes of food and drink is thrown away every year in Scotland, with food wasted in the household representing around 20% of all food purchased in Scotland by weight<sup>48</sup>. Not only does this cost Scottish households an average of £440 per year<sup>49</sup>, but in 2018 food waste generated 2.648 million tonnes CO<sub>2</sub>eq<sup>50</sup>: 3.8% of Scotland's total carbon footprint<sup>51</sup>.

Tackling food waste is one of the most important ways we can reduce the carbon impact of Scotland's waste. When 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 (see Package 3). However,

<sup>48</sup> [How Much Food is Wasted in Scotland? | Zero Waste Scotland](#)

<sup>49</sup> [Food waste worse than plastic for climate change says Zero Waste Scotland | Zero Waste Scotland](#)

<sup>50</sup> See table 3.3 in [The carbon footprint of Scotland's waste technical report](#)

<sup>51</sup> Scotland generated 70.4 Million tonnes of CO<sub>2</sub>eq in 2018, according to [Scotland's Carbon Footprint](#)

cutting down on food waste also 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 MtCO<sub>2e</sub>, and reduce cumulative emissions by 143 MtCO<sub>2e</sub> by 2050<sup>52</sup>.

We have a direct target to **reduce food waste** by 33% from 2013 to 2025. Scotland is also committed to achieving the UN’s Sustainable Development Goal 12.3 to halve food waste by 2030. Given the potential residual value in food waste that can contribute to wider circular economy opportunities, a reduction would also significantly help to reach our targets to **reduce waste**, and the amount of **waste sent to landfill**, and greatly help us achieve our commitment to net zero by 2045.

### What we want to achieve

We want to value our food and waste less of it. We want to reduce unnecessary demand for food; and improve how we produce, store, and cook food so that we waste less. This is a shared endeavour – everyone, from households to businesses, can work together to reduce food waste. We want to accelerate progress in tackling household food waste, by making the right choices the easier choices for individuals and communities. We also want to enable businesses to reduce their food waste by providing the infrastructure, expertise and support they need to implement food waste reduction activities and utilise food waste that cannot be prevented to create a circular bioeconomy.

Building on important action already underway, the measures proposed in this package aim to:

- **Address the whole food system**  
Our relationship with food is complex and influenced by many different factors. Food is a necessity, but one that we attach great social and cultural value to. We need to change our relationship with food and food waste from farm to fork, in order to create a more sustainable approach to food waste in our day to day lives. We will work together with colleagues in other areas of Scottish Government to ensure we take a whole system approach to reducing food waste, including through the Good Food Nation process, which will require Scottish Ministers to prepare and publish a national Good Food Nation Plan.
- **Reset our attitude to food waste**  
Many people are aware of the environmental benefits of cutting food waste, and its potential to reduce food poverty. However, so far this hasn’t significantly changed our behaviour, in the same way we have seen for issues like plastic pollution. We need to increase awareness of food waste’s economic impacts and its effect on climate change and ensure everyone is supported to make positive changes.
- **Enhance our circular bioeconomy**  
The complexity of the food system and fact that some food waste, like inedible parts, is unavoidable means that there will always be some food waste and

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<sup>52</sup> [Net Zero: why resource efficiency holds the answers | WRAP](#)

surplus. Maximising the value of this resource presents new economic opportunities and reduces the demand for material from elsewhere.

- **Give us better data to understand our progress**

Existing data on food waste are not collected regularly, and give little insight into what, and where, food is being wasted. A lack of data makes it challenging to assess progress, and to focus effort where it will have the greatest impact. Better data will enable individual businesses, organisations, and households to identify how much food they waste and help them understand where to take action.

- **Recover from COVID-19**

COVID-19 has had a significant impact on the way food is produced, sold, purchased, and consumed. We need to understand how the pandemic has affected food waste – for better or for worse – to recover in a way that builds towards our food waste ambitions.

## Where we are now

In 2019 we published a Food Waste Reduction Action Plan (FWRAP)<sup>53</sup>, which set out the actions we are taking to help reach our 33% food waste reduction target by 2025. The FWRAP committed to action across four key areas:

1. **Improved monitoring and infrastructure:** improve our monitoring, measurement and reporting of food waste across all sectors.
2. **Sector leadership:** support leadership, innovation, effectiveness and efficiency in Scotland's public, private and hospitality sectors.
3. **Public engagement and communications:** deliver a sustained programme of communications designed to raise awareness and highlight ways to address to food waste.
4. **A new approach to food waste:** Drive effective change throughout the food supply chain through a new Food Waste Hub.

COVID-19 has significantly disrupted all food waste producing sectors, and also means we lack much of the data we need to assess progress. In 2018, food waste in Scotland was estimated to be 4% below the 2013 baseline,<sup>54</sup> broadly in line with the UK reduction reported by WRAP<sup>55</sup>. There is some evidence that the COVID-19 lockdown in March 2020 led to a 43% reduction in household food waste across the UK, but this appears to have rebounded as lockdowns have relaxed.<sup>56</sup> While there is a high degree of uncertainty around food waste data, we are clear that we are not seeing the speed and scale on change we would need to meet the 33% target.

The FWRAP baseline indicated that households accounted for almost two thirds of food waste in Scotland, with the manufacturing sector generating around a quarter, and the rest coming from other sectors (hospitality, public sector, retail). Most action to date has focused on food businesses, where cost savings provide a strong incentive to reduce food waste. Beyond communication campaigns<sup>57</sup>, few policies

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<sup>53</sup> [Food waste reduction: action plan - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/food-waste-reduction-action-plan-2019-2025/pages/1-1-introduction.aspx)

<sup>54</sup> See Route Map - [technical annex](#)

<sup>55</sup> [Technical report templates \(wrap.org.uk\)](https://www.wrap.org.uk/technical-report-templates)

<sup>56</sup> [WRAP: Food waste tracking survey \(winter 2021\)](#)

<sup>57</sup> [Food Waste Toolkit | Net Zero Nation](#)

have yet sought to directly address food waste in the home. We acknowledge the scale of the household food waste challenge, while recognising that the wider food environment - how food is marketed, packaged and sold – influences how we value and use food.

### What we have done

The **Food Waste Reduction Business Support Service**, run by Zero Waste Scotland, identified over £4 million in cost savings, 15,000 tonnes of food waste savings, 31,000 tonnes of CO<sub>2</sub>e<sub>q</sub> savings, and almost £2 million of potential revenue. We have delivered a number of **communications campaigns** to raise awareness of food waste. Our [‘Food Gone Bad’](#) campaign ran in 2019 and again in 2022, encouraging people to reduce their food waste, and recycle the food waste they can’t prevent.

We provided **£200,000** of funding to **FareShare’s ‘Surplus with Purpose’** scheme in 2021/22. Scottish potato supplier Albert Bartlett recently [announced](#) that they have redistributed the equivalent of five million meals through its partnership with FareShare with this support.

Zero Waste Scotland have worked with **NHS Scotland** to tackle food waste in healthcare settings. Research has identified data gaps in NHSS food waste data and regional board action plans will incorporate activities to address them, ensuring all contributors to the healthcare food waste system in Scotland are fully engaging in developing solutions.

We are signatories to the [Courtauld Commitment \(2025\)](#), a voluntary agreement that brings together a host of organisations across the food system to reduce total UK food waste by 20% per person by 2025 against a 2015 baseline.

### What we are already doing

From  
2022

**We will publish a review of the FWRAP in 2022**, alongside an updated action plan that builds on our experience of delivery over the last three years. This will describe in detail our updated plans to accelerate progress on food waste. The review will:

- Provide an analytical assessment of progress towards the target, updated national sectoral food waste estimates, and an update of the commercial and industrial (C&I) baseline.
- Review progress against the existing actions in the original FWRAP and how those actions should be progressed and/or incorporated into the updated actions.
- Focus on the new approach to the FWRAP - creating an environment that enables businesses, organisations, communities, and members of the public to implement actions that will accelerate food waste reduction.

From  
2022

We will renew our relationship with the Waste and Resources Action Programme’s (WRAP) **Courtauld Commitment 2030**, a voluntary agreement which will commit Scotland to 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. We will maximise the benefit of this relationship for Scotland’s

businesses and people, working with WRAP experts to implement bespoke projects focused on driving positive sectoral and household behaviour change on food waste.

Key activities for Courtauld 2030 will include engaging the UK food sector in Scope 3 GHG emissions measurement and reporting guidance for the food chain and UK-wide roll out of proven behaviour change interventions at scale. When appropriate, Scotland may be used to pilot interventions before being rolled out.

From  
2022

Food Standards Scotland (FSS) and Zero Waste Scotland are designing a **joint public engagement strategy** to improve consumer awareness of date labels and associated waste reduction behaviours.

### What we are proposing to do

The measures set out in our 2019 Food Waste Reduction Action Plan<sup>58</sup> have provided a good start. However, we know that we haven't yet seen the scale or pace of change we need. We need to go further and faster, to reach more people and businesses across Scotland, and to scale up and expand on the action we have already seen.

DO

#### **1. We will take powers to introduce mandatory public reporting of food surplus and waste<sup>†</sup>**

We propose to take enabling powers to enable mandatory public annual reporting of surplus and waste of specific waste streams, and we have already set out our intention to consult on mandatory reporting of Scotland's food surplus and waste. Subject to further consultation through the Circular Economy Bill, we propose that food surplus and waste by Scottish food businesses would be one of the first waste streams to be subject to mandatory public reporting.

INVESTIGATE

#### **2. We will investigate the feasibility of food waste action plans by 2024**

We propose to investigate whether voluntary or mandatory individual food waste reduction action plans for food businesses and public sector organisations would be effective in driving action towards our food waste reduction target in 2025, and our commitment to achieving the UN's Sustainable Development Goals of a 50% reduction in food waste by 2030. Food waste reduction action plans could compliment mandatory reporting of food waste and surplus by encouraging businesses and organisations to take the lead on positive food waste behaviour across society.

DEVELOP

#### **3. We will intensify action to tackle household food waste, developing a behaviour change strategy by the end of 2022 and enhancing support for Scottish households to reduce food waste.**

We propose to develop a behaviour change strategy, informed by behaviour change pilot studies, to provide insights into the behaviours, knowledge, capabilities, opportunities and motivations associated with reduced food waste, with a particular focus on households. This will necessarily take account of the individual, social, and material contexts that influence our behaviour, and seek to help move individuals

<sup>58</sup>[Food waste reduction: action plan - gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/documents/2019/06/Food_waste_reduction_action_plan_-_gov.scot)

<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

and businesses from awareness and engagement, through to measurement and implementation, and ultimately to reduction of food waste. Once published, the behaviour change strategy will act as our evidence-led foundation for the design of further interventions.

We propose to review and update our education and training tools, online and digital services, and advice and guidance, to help members of the public move from awareness to action.

DEVELOP

#### **4. We will enhance support for Scottish businesses and organisations to reduce food waste and engage with the circular bioeconomy**

We propose to review and update our education and training tools, online and digital services, and advice and guidance, to help businesses move from awareness to action. We will build on our existing assets such as the Love Food Hate Waste workplace training, sector-specific best practice guides, and public procurement guidance. We will evaluate their use and efficacy, and integrate new evidence and learning from pilot projects. We will work collaboratively with sectors and businesses to ensure that assets have real world relevance and application.

We will investigate the optimal types of support required by businesses and organisations to implement food waste reduction activities, as well as researching further incentives for research, development, commercialisation, and adoption of bioprocessing technologies that can utilise food waste to create a circular bioeconomy.<sup>59</sup> We will update the bioresource map of Scotland, develop a bioeconomy task force, and continue our strategic partnership with IBioIC<sup>60</sup>. If necessary, we will scope and develop new assets by 2023, potentially including an online portal to bring together information and best practice, or digital interfaces to support food waste reporting.

We also propose to make more strategic use of Zero Waste Scotland's Food Waste Reduction Business Support Service, by focusing on higher impact businesses that can also provide opportunities for other businesses, organisations, and households to reduce their food waste. This service will be aligned with other waste reduction support services, including redistribution support and WRAP's UK Food Waste Reduction Roadmap; a suite of tools and actions for the food industry to achieve UN Sustainable Development Goal 12.3<sup>61</sup>.

DO

#### **5. We will continue to support food redistribution in Scotland in 2022 and focus on actions to best move food up the waste hierarchy**

Due to the lack of Scottish-specific data in this sector to date, there are currently no reliable figures on the scale of opportunity in Scotland. However, estimates of food redistributed by the largest redistribution organisations in the UK gathered by WRAP since 2015 have demonstrated a continued increase. Between 2015 and 2020, WRAP reports that redistribution of surplus food has tripled, seeing a 450% increase

<sup>59</sup> [Food Waste Reduction Roadmap | WRAP](#)

<sup>60</sup> Industrial Biotechnology Innovation Centre

<sup>61</sup> See [UN Sustainable Development Goal 12](#)

via charities and 66% via the commercial sectors. The food redistributed by these major organisations in 2020 amounts to an estimated value of £289 million.<sup>62</sup>

We will review our funding approach for food redistribution to focus on action at the top end of the waste hierarchy, while taking in to account acute pressures such as the cost of living crisis. We will look to engage with third sector partners to support immediate action on food redistribution and better data collection while researching the requirements for a support service for community redistribution based on international best practice and the demand, legal implications, barriers, nature and geographical distribution of existing services.



**Figure 5: Actions to reduce food waste**

### Consultation questions

Question 3. To what extent do you agree with the measures proposed in this package to reduce food waste? Please provide evidence to support any identified opportunities and challenges associated with the measures in your answer if possible.

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

Question 4. Are there any further measures that you would like to see included in the Route Map to reduce food waste?

<sup>62</sup> [Surplus food redistribution in the UK 2015 to 2020 | WRAP](#)

## Package 3: Improve recycling from households

**Improve and optimise the performance of household recycling collection services to make the right choices the easier choices for households, ensure high standards across Scotland and maximise diversion of waste from disposal.**

### **Current actions and commitments**

- Invest £70 million in recycling infrastructure across Scotland through the Recycling Improvement Fund.
- Review the Scottish Household Recycling Charter and supporting Code of Practice.
- Consult on requirements to separately collect garden waste by 2023, textiles and hazardous elements of household waste by 2025.
- Consult on the current rural exemption and food separation requirements for food waste collections.
- Introduce extended producer responsibility schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries.
- Deliver Scotland's Deposit Return Scheme on 16 August 2023.

### **Proposed new actions:**

- Facilitate a process to co-design high quality, high performing household recycling and reuse services with households, COSLA, local authorities and service operators.
- Strengthen the monitoring and reporting framework for local authority waste services, and explore introducing a requirement on local authorities to report publicly on end destination of household recycling collected.
- Take powers to place additional requirements on local authorities regarding household collection services and develop statutory guidance for household waste services.
- Take powers to introduce statutory recycling local performance targets for household waste services.
- Undertake a review of waste and recycling service charging.

### **Focus of this package**

Recycling helps to conserve our natural resources, keep valuable materials flowing through our economy and reduce the amount of waste sent to landfill.

Household waste makes up approximately 21% of Scotland's waste by weight, but 55% of the total waste carbon emissions. Households threw away just over 1 million tonnes of waste at the kerbside in 2019<sup>63</sup>, but up to 60% of what households put into their general waste bins can be recycled using existing recycling services<sup>64</sup>.

Increasing the amount of materials recycled and increasing the proportion of these recycled in Scotland will deliver carbon reductions, reduce the environmental

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<sup>63</sup> Waste data flow data, Question 23, Collected household waste: Regular Collection

<sup>64</sup> [The composition of household waste at the kerbside in 2014-15, Zero Waste Scotland \(2017\)](#)

impacts associated with extracting new raw materials, and create a range of important economic opportunities to reprocess and reuse materials.

Measures in this package directly address our objective to **increase household recycling**, which will support delivery of our target to **increase recycling of waste** from all sources to 70% by 2025, and to **reduce the amount of waste sent to landfill** to 5% by 2025. As household collection services in Scotland are the responsibility of local authorities, the measures covered in this package primarily focus on how to support local authorities to improve household recycling services, and help ensure that recycling is an easy, cheap, and convenient choice for households. Measures to increase recycling from commercial premises are covered in Package 4. Measures to promote recycling through product design and stewardship are covered in Package 1.

### What we want to achieve

We want Scotland to become a world-leader in recycling. We want recycling services that are easy to use and accessible to all, no matter where you live, and to ensure that supports and encourages positive choices. By 2030, we want a high-performing recycling system that has modernised recycling services across Scotland, optimised the performance of collection services, and can recycle most waste types to maximise diversion of waste from disposal.

Analysis of high performing recycling systems around the world<sup>65</sup> suggests that no single policy or practice is sufficient on its own to produce household recycling rates of 65% and above. The highest performing systems combine stretching local targets, comprehensive collections, steps to disincentivise or reduce residual waste production and collections, and other incentives to recycle such as extended producer responsibility schemes.

Building on important action already underway, the measures set out in this package aim to:

- **Make recycling easier than disposal.**  
We want to make it easier to reuse and recycle, particularly for materials with a high environmental impact or where recycling rates remain low, and to support and incentivise positive behaviours.
- **Design and deliver services that maximise recycling performance and achieve more consistent local services.**  
High performing recycling services need to be accessible, efficient, economically sustainable and have the right incentives and support to share and scale best practice, while taking into account local context such as housing and geography.
- **Share best practice and support local authorities** to drive local improvements and achieve consistently high recycling rates across Scotland.
- **Embed decisions about recycling in the design and sale of products.**  
Products are often placed on the market that do not have technical or economic options for recycling. Measures such as extended producer responsibility (EPR) schemes provide an incentive to embed decisions around recyclability into the

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<sup>65</sup> [Eunomia report, Review of High Performing Recycling Systems, 2021](#)

design and sale of products, though there will always remain some responsibility on citizens and the waste management chain to recycle products effectively.

- **Increase transparency and generate more confidence in the recycling process.**

Available evidence suggests greater transparency and confidence in the recycling process would help increase participation rates. For example, a UK wide survey in 2021<sup>66</sup> indicated that the lack of information on what happens to recycling is the top reason that negatively influences participation in recycling in Scotland. While international waste export legislation is a reserved matter, we believe it is important to consider further steps we can take within our competence to strengthen public confidence in where their recycling goes. This aligns with the Committee on Climate Change's recommendation to support action to ensure waste intended for recycling or recovery are treated as such.

### Where we are now

Between 2004 and 2011, our recycling rate more than doubled in Scotland. In more recent years, although we now recycle more than we send to landfill, this rapid rate of progress has slowed - our recycling rate remained around 45% for several years, and fell back to 42% in 2020, likely due to the impacts of COVID-19. We know we have already missed our milestone target to recycle 60% of household waste by 2020. Nevertheless, recycling at the kerbside increased in 2020, and Scottish households recycled more plastic and glass wastes in 2020 than ever before.

Most households in Scotland have access to common recycling services<sup>67</sup>, and we have seen a marked increase in recycling rates since 2005. However, it is often 'easier' to throw things away than recycle or reuse them. Currently, the cost-incentives for consumers to recycle are weak and householders remain confused about what materials can be recycled. As a result, large quantities of recyclable materials are still sent for disposal when they could be recycled<sup>68</sup>. In addition, SEPA data shows that just under a fifth of everything put out for recycling by householders is non-recyclable<sup>69</sup>. Contamination makes managing recycling collections more costly and in extreme cases, can mean the whole load has to be taken for incineration or landfill.

### What we have done

**Scotland's landmark 2012 Waste (Scotland) Regulations** place requirements on Local Authorities to provide a comprehensive recycling service to their householders, and established the minimum recycling service. They require that all waste holders (e.g. local authorities) take reasonable steps to apply the waste hierarchy to all waste that is collected, and ensure recycling services are designed and operated to

<sup>66</sup> [INCPEN survey of 2000 UK respondents in Autumn 2021](#)

<sup>67</sup> 98% of households have access to kerbside services that target paper, card, plastic and metals. Glass is collected using either kerbside or recycling points. The rural food waste exemption means that kerbside food waste is targeted at the kerbside from approximately 80% of Scotland's households.

<sup>68</sup> [The composition of household waste at the kerbside in 2014-15, Zero Waste Scotland \(2017\)](#)

<sup>69</sup> See [Recyclate Quality \(sepa.org.uk\)](#)

promote 'high quality' recycling. They placed a ban on any metal, plastic, glass, paper and card collected separately for recycling from going to incineration or landfill from 2014. Our **Duty of Care: A Code of Practice** explains the duties, which apply to anyone who produces, keeps, imports or manages controlled waste in Scotland.

Through the **Strategic Waste Fund**, between 2008 and 2022 Scottish Government made available £1.083 billion additional funding to assist local authorities in the implementation of Area Waste Plans, including support for projects to drive local improvements in recycling<sup>70</sup>.

In partnership with the Convention of Scottish Local Authorities (COSLA), the Scottish Government created the voluntary **Scottish Charter for Household Recycling**, which seeks to deliver more consistent recycling collections across Scotland, recognising the opportunities of a more circular economy and better resource management for the benefit of Scotland and its local communities. It also has an associated **Code of Practice** which provides guidance and best practice to support the design of recycling services and promote reuse.

In 2019, Scottish Government hosted **Scotland's first recycling summit** to bring together senior leaders across the public and private sectors and non-governmental organisations to identify opportunities to accelerate the pace of progress towards Scotland's ambitious recycling targets and ensure a more consistent, efficient, and easier to understand approach to recycling.

Household waste services in Scotland are delivered through Local Authorities - thirty-two unique organisations with different operating contexts, competing priorities and costs. The design of services necessarily has to balance cost considerations alongside other factors, and there is significant volatility and risk. Local recycling performance varies significantly in Scotland - from 18% to 58% in 2020<sup>71</sup>. The local authorities with lower recycling rates also tend to manage the largest national shares of household waste. While there are geographical and other local challenges at play, they can only explain some of this variation. We are therefore prioritising measures to share best practice and drive local improvements to achieve consistently high recycling rates across Scotland.

### What we are already doing

From  
2021

We launched the **Recycling Improvement Fund** in 2021, a five-year £70 million fund designed to support local authorities to improve recycling and reuse infrastructure. Over £20.3m has already been awarded to 13 local authorities to increase the quantity and quality of recycling, marking the beginning of one of the biggest investments in recycling in Scotland in a generation. The investments will fund a range of improvements, including more frequent recycling collections, the extension of food and garden waste collections, new capacity to recycle problematic materials like plastic films, and local service redesigns to align with Scotland's Household Recycling Charter. These first investments are projected to boost

<sup>70</sup> In 2008 the ring-fencing for this funding was removed and the total annual funding (£77.428 million) added to the General Revenue Grant (GRG) and paid as part of the block grant funding.

<sup>71</sup> [SEPA household waste data](#)

recycling by 22,101 tonnes and reduce CO<sub>2</sub> emissions by 21,400 tonnes each year - the equivalent of taking over 11,400 cars off the road.

From  
2023

**The Scottish Deposit Return Scheme (DRS)** will launch across the whole of Scotland on 16 August 2023. The scheme will introduce a 20p deposit on single-use PET, steel, aluminium and glass drinks containers, which will be refundable once the container is returned for recycling. It is anticipated that the scheme will collect 90% of containers placed on the market by 2024, cutting carbon emissions by 4 million tonnes CO<sub>2</sub>e over 25 years.

From  
2024

We will introduce **extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries**. Schemes are currently being reviewed at UK level, and we are committed to developing legislation to fully implement schemes in Scotland. We expect packaging EPR to begin from 2024, with implementation dates for other schemes still to be confirmed. All schemes aim to increase the recyclability of products, increase capture at end-of-life and provide greater incentives for domestic reprocessing. Packaging EPR is anticipated to increase recycling rates for packaging materials to 76% by 2030. It will require 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. The cost burden will also encourage producers to reduce the amount of unnecessary packaging they use.

All packaging types (except for plastic films and flexibles) will be required to be labelled as 'recycle' or 'do not recycle' by March 2026. Through the government response to the packaging EPR consultation<sup>72</sup>, we have confirmed that recyclable plastic film and flexible packaging is to be collected for recycling from both households and businesses in Scotland (and across the UK) by March 2027, and this will be taken forward through the measures outlined below.

From  
2022

We are currently reviewing the **Household Recycling Charter's supporting Code of Practice** to ensure it continues to reflect best practice, to account for the introduction of DRS and packaging EPR requirements, and to encourage a more holistic approach to service design. This work was delayed by the Covid-19 pandemic. We have also committed to work with COSLA to evaluate the overall Charter; this work has also been delayed due to the pandemic but will provide an important platform as part of future measures described below.

From  
2023

We have committed to **consult on requirements to separately collect garden waste (by 2023), textiles and hazardous elements of household waste (by 2025)**, as set out in our Climate Change Plan update (2020), and in line with EU Commission's Circular Economy Package.

From  
2022

We are improving our **data and evidence on household recycling performance** through waste compositional analysis, to continually influence service design and household recycling services.

From  
2022

As set out in our Food Waste Reduction Action Plan (2019), we also intend to break down barriers to food recycling by **consulting on the current rural exemption** and food separation requirements for food waste collections in 2022.

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<sup>72</sup> [Packaging and packaging waste: introducing Extended Producer Responsibility](#)

## What we are proposing to do

DO

### **1. We will facilitate a process to co-design high quality, high performing household recycling and reuse services by the end of 2023, working with service operators and users.**

We propose to launch a co-design process to understand opportunities for better service design, putting people at the heart of how services are designed and delivered. We will build on Scotland's Household Recycling Charter, and work with COSLA, local authorities, waste service operators, residents, and other key stakeholders. The co-design approach will ensure modern, efficient, affordable service standards for operators and more consistent service provision. We will particularly focus on opportunities to further improve food waste recycling services and participation rates and reduce contamination of recycling that is collected.

We know there are significant opportunities to learn from best practice, both from within Scotland and elsewhere. We will involve people in service design to better understand the likely responses to change, and help ensure services are accessible and easy to use. We will draw upon the wealth of experience and expertise within Scottish local authorities, and will build on the platform created by the Scottish Household Recycling Charter and the findings of our ongoing review of the Code of Practice. We will also account for the impact of upcoming measures, such as DRS and packaging EPR, on the legal requirements, funding, and scope of materials for recycling services.

Food waste recycling presents the largest opportunity to improve household recycling performance and quality in Scotland<sup>73</sup> and is critical if we are to further reduce the carbon impact of waste. 80% of households in Scotland can recycle food waste and have been encouraged to do so by local authorities and during national media campaigns. Despite this effort, participation in food waste recycling remains low (27% in 2015<sup>35</sup>), and there are quality issues due to contamination.

If this measure is taken forward, the co-design process will involve:

- Detailed case study research to map the features of high-performing systems across the world to different Scottish contexts. This will include, for example, understanding what works best for dense urban areas, rural areas, and islands communities.
- Determining a range of service solutions and appropriate communications standards in collaboration with both service providers and households, in the context of existing data and further evidence requirements.
- Consideration of the available markets and reprocessing capacity for collected materials.
- Assessment of the likely improvements in service performance for different contexts.
- Investigating the potential for further collaboration and partnerships between multiple authorities on service provision to achieve economies of scale.

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<sup>73</sup> The last national kerbside waste composition analysis study in Scotland (2013-15) estimated that 330,000 tonnes of food waste was thrown away in the non-recyclable kerbside waste bin. On average, only 27% of food waste was recycled. More recent unpublished estimates from 2018, produced as part of household packaging waste estimates, estimated approximately 305,000 tonnes of food waste in the non-recyclable kerbside waste bin, suggesting that food waste recycling performance had not significantly changed.

DEVELOP

## **2. We will strengthen the monitoring and reporting framework for local authority waste services by 2025, and explore introducing a requirement on local authorities to report publicly on the end destination of household recycling collected<sup>†</sup>.**

We propose to review where additional or alternative reporting may be required to help drive and assure further service improvements and public awareness and confidence in local services, taking into account the comprehensive national and local reporting arrangements already in place or planned, for example through WasteDataFlow<sup>74</sup> and the UK-wide digital waste tracking system.

Based on review findings in partnership with local government, we will consider the development of a refreshed data standard, which sets out an updated set of metrics on local authority waste service provision and performance across all 32 local authorities. This aims to ensure that reporting continues to be robust, can inform service improvements and information is publicly available.

If this measure is taken forward, we will look to work with partners and consider using existing systems where appropriate to avoid unnecessary duplication, administration and cost. We will account for measures already underway, including the development of a UK-wide digital waste tracking system. We will also ensure that data is readily accessible across public systems to increase consistency and allow cross-working.

As part of this wider work, to increase transparency and strengthen public confidence in local recycling services and where their recycling goes, we also propose to explore the introduction of a **statutory duty, placed upon collecting local authorities<sup>†</sup>**, to report on the final end destinations of recycling collected. This duty could also be placed on other actors in the supply chain, to support councils in properly reporting end destination details – including collectors, sorters, brokers/exporters and final reprocessors. We will also consider options to boost transparency and public accessibility to information on recycling end destinations, for example through online tools such as the Welsh Government’s ‘My Recycling Wales’ site<sup>75</sup>.

DEVELOP

## **3. We will take powers to place additional requirements on local authorities regarding household collection services and develop statutory guidance for household waste services<sup>†</sup>.**

We propose to take powers to enable Scottish Ministers to place additional requirements on local authorities regarding household collection services and to develop statutory guidance for provision of high-performance household waste services in different contexts, using the findings and outputs from the co-design process (measure 1) and monitoring framework (measure 2).

The Scottish Household Recycling Charter and Code of Practice was developed in 2015 in partnership between COSLA and Scottish Government. It has been a valuable platform to drive consistency in the quality and quantity of recycling across

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<sup>74</sup>[WasteDataFlow](#) is a data collection tool used by all Scottish Local Authorities to record its waste collected and managed. It is the primary source of household and municipal waste data used to record the progress of recycling and waste management under Scotland’s Making Things Last – A Circular Economy Strategy for Scotland.

<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>75</sup> [Where does your recycling go? | My Recycling Wales](#)

Scotland. The current Charter provides voluntary technical guidance, which focuses heavily on kerbside recycling and residual waste service provision. 31 of the 32 local authorities have signed up to the voluntary Charter and its supporting Code of Practice. However, only around one-third (10) of local authorities have aligned their services to reflect Code of Practice standards.

We believe there is a need for statutory guidance to ensure that services are high performing in different local contexts, maximising participation, material capture, and quality given the demographics, housing stock, and geography. If this measure is taken forward, we will build on the existing Recycling Charter and Code of Practice, including the findings from our ongoing Code of Practice review. We would also consider our approach to recycling a range of other materials not currently covered by the majority of kerbside collection services in Scotland.

DO

#### **4. We will take powers to introduce statutory recycling local performance targets for household waste services, with targets to be met from 2030<sup>†</sup>.**

We propose to legislate and implement statutory local recycling and reuse targets for household waste services, to complement improved understanding of high-performing schemes, monitoring framework and statutory guidance on service implementation. Targets will be informed by research on metrics that measure quality and quantity of material collected, and ongoing engagement with key stakeholders on design.

Statutory targets have been identified as a feature of high-performing schemes in Wales and Europe (see Box 3<sup>76</sup>), particularly where they are accompanied by other supporting measures. We are proposing powers through the Circular Economy Bill to enable Scottish Ministers to set recycling (recycling, preparation for re-use and composting) targets for local authorities; and to set financial incentives to meet these targets, or penalties should these targets not be met.

We recognise that targets must be achievable, and that service providers must have the tools available to meet the required standard. If this measure is taken forward, we will give careful consideration to how the measure could be implemented in Scotland, taking into account local authorities' current performance and any constraints on what they could reasonably be expected to achieve. For example, given the large variation on local recycling performance, we would look to ensure adequate time, resources and appropriate targets to support local authorities to close the performance gap, along the pathway to a 70% recycling rate.

#### **Box 3: Local Authority recycling targets in Wales**

Research suggests one of the most promising drivers of increased recycling quantity and quality is the introduction of local authority recycling targets. This approach has been adopted by the Welsh Government and has contributed to an increase in household recycling rates from 5.2% in 1998-99 to the globally leading figure of 65% in 2020. A range of policies have been put in place to drive up performance, including discretionary financial penalties for local authorities that do not meet performance requirements, complemented by investment in recycling services, expanded food waste and other recycling collections, reduced frequency of general

<sup>76</sup> Welsh recycling rates are calculated differently to Scottish rates. Recycling of incinerator bottom ash is included in Welsh recycling targets, but is not included in Scottish or EU targets.

rubbish collections, improved facilities at waste recycling centres, and communications.

INVESTIGATE

**5. We will undertake a review of waste and recycling service charging by 2024, and are seeking views on what further powers, if any, should be considered to support households to reduce waste and recycle more, by 2028<sup>†</sup>.**

We propose to conduct a review of waste and recycling service charging by 2024 to ensure that we have the right incentives to reduce waste and maximise use of recycling and reuse services.

At the moment households in Scotland can be charged for collection of certain waste streams, such as garden waste or uplift of larger items. As a result householders are effectively being charged for recycling services, which may be acting as a disincentive to recycling.

This review will investigate whether the current position incentivises the behaviour that we want in line with the waste hierarchy, or delivers the most value for local authorities, including the highest quality recyclate.

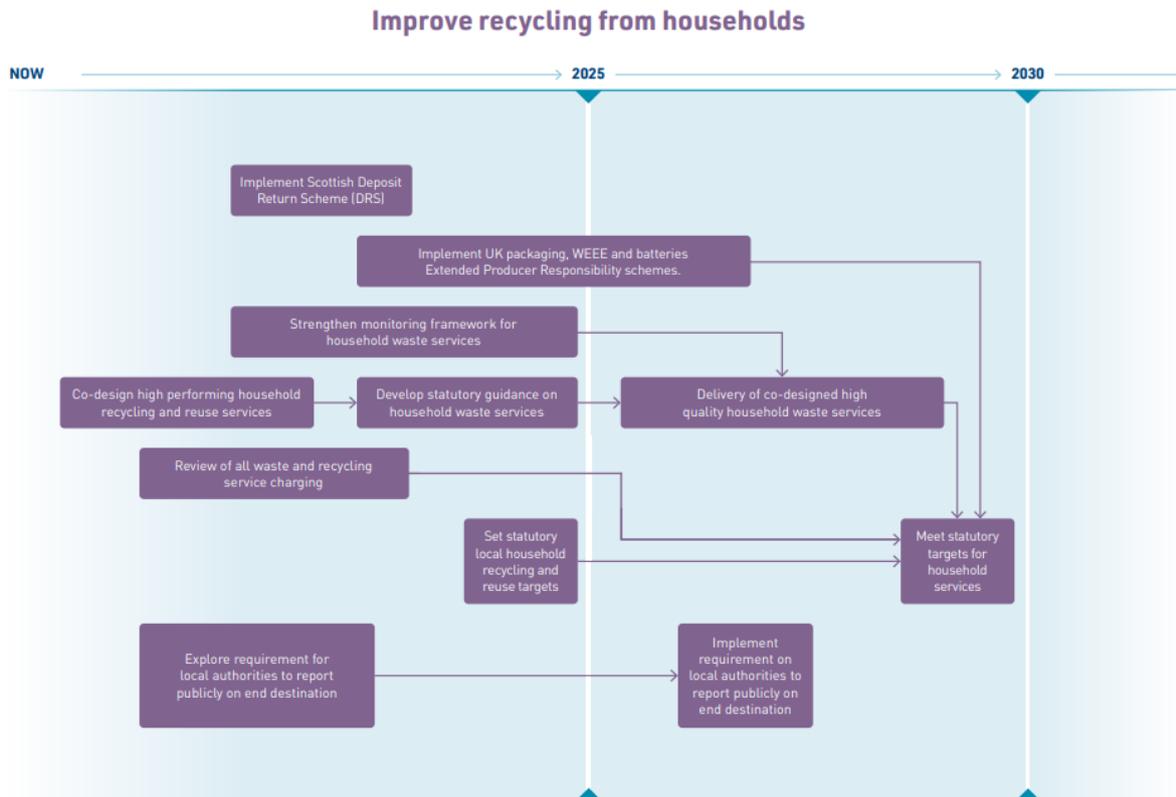
We will account for current and future funding availability for household services, including the potential revenue stream from the reformed packaging EPR scheme. We will draw on evidence from global high-performing recycling systems, the outputs of co-design (measure 1), and build on our commitment to consult on requirements to separately collect garden waste (by 2023), textiles and hazardous elements of household waste (by 2025).

Through the Circular Economy Bill consultation, we are seeking views on whether there are further powers for Scottish Ministers, and if appropriate, local authorities, that should be considered to incentivise positive household behaviours to support waste reduction and maximise recycling.

Analysis of high performing recycling systems around the world<sup>77</sup> suggests that the highest performing systems combine stretching local targets, comprehensive collections, steps to disincentivise or reduce residual waste production and collection, and other incentives such as extended producer responsibility schemes. Evidence suggests householders should be incentivised to minimise residual waste to support recycling rate improvements. 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), enforced volume limits (as in Wales), or other measures.

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<sup>77</sup> [Eunomia report, Review of High Performing Recycling Systems, 2021](#)



**Figure 6: Actions to improve recycling from households**

### Consultation questions

Question 5. To what extent do you agree with the measures proposed in this package to improve recycling from households? Please provide evidence to support your answer if possible.

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

Question 6. Are there any further measures that you would like to see included in the Route Map to improve recycling from households and incentivise positive behaviours?

## Package 4: Improve recycling from commercial businesses

### Support businesses to reduce waste and increase recycling

#### Current actions and commitments

- Implement the Scottish Deposit Return Scheme (DRS) on 16 August 2023.
- Implement extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment, and batteries from 2024 onwards.
- Develop a digital waste tracking service, in partnership with the UK government and other administrations.
- Take action to address waste crime, including publication of a new Litter and Flytipping Strategy and creation of the Flytipping Forum.

#### Proposed new actions:

- Conduct a national compositional study of waste from commercial premises.
- Review compliance with recycling requirements.
- Co-design measures, including targeted communications, to improve commercial waste service provisions that drive waste prevention and reuse, with a particular focus on food waste recycling.
- Research and pilot commercial waste zoning approaches.

### Focus of this package

Commercial and industrial waste accounted for 28% of Scotland's waste in 2018. Sources are wide-ranging, and includes waste from agriculture, forestry and fishing, manufacturing, and waste produced by businesses and organisations, for example, wholesale, retail, hospitality. The variety of activities and sectors makes smart and targeted interventions challenging to prioritise or measure.

Measures to reduce waste and improve recycling from commercial and industrial businesses contribute towards our targets to **reduce all waste** by 15%, **reduce food waste by 33%**, and **recycle 70% of all waste** by 2025. Achieving these targets will also help to meet our targets to send **no more than 5% of waste to landfill** by 2025.

This package will particularly focus on measures to improve recycling from commercial premises. Measures to reduce waste and promote recycling through product design and stewardship are covered in package 1. Measures to increase recycling from households are covered in package 3.

### What we want to achieve

We want businesses to have the information and support they need to reduce waste and maximise recycling, with clear incentives in place to ensure that the most sustainable choices are the easiest choices. We want high quality and reliable commercial waste management services, that minimise 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.

Building on measures already in place or underway, the measures proposed in this package aim to:

- **Improve commercial waste data**

There is currently no detailed data or analysis of commercial waste at a national level or internationally. A better understanding of the composition of commercial waste streams will help design interventions that maximise prevention, reuse, and recycling.

- **Provide incentives for commercial businesses to increase reuse and recycling**

The Waste (Scotland) Regulations 2012<sup>78</sup> require producers of waste to separate recyclable materials from non-recyclable waste. However, the risk of regulatory action may not be a strong enough incentive for smaller businesses which can face high staff turnover and have limited time and resources. Market competition and profit margins often provide a disincentive to move towards more sustainable procurement, products, and business models.

- **Support investment in commercial waste collection services**

Commercial waste service provision is highly competitive, faces tension between operating costs and maximising recycling performance. High performing commercial waste services require significant ongoing investments, and the certainty to make that investment.

- **Tackle waste crime**

During the COVID-19 pandemic, SEPA noted an increase in waste services being advertised via informal channels, such as social media. This highlights that waste crime continues to operate in the waste sector in Scotland, undercutting legitimate operators for collections.

## Where we are now

SEPA estimates that the commercial and industrial recycling rates are currently 53%, and waste has steadily reduced year on year with a 22.1% decrease between 2011 and 2018<sup>79</sup>. 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. The most significant changes between these periods include:

- Separately collected food waste more than doubling from 123,904 to 329,787 tonnes<sup>80</sup>.
- An increase in separately collected glass (79%) and plastics (36%).
- Mixed municipal waste nearly halving from 1.35 million to 721,797 tonnes.

Changes in how we use some materials has had a significant impact on the waste requiring management<sup>81</sup>. For example, there has been little change in industrial wastes (e.g. agricultural, chemicals). Recycling rates are influenced by a wide range

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<sup>78</sup> [Waste \(Scotland\) Regulations 2012](#)

<sup>79</sup> See [technical annex](#)

<sup>80</sup> [SEPA waste from all sources summary](#)

<sup>81</sup> For example, there have been significant decreases in paper use in recent years.

of factors, including the variety of products and materials used by business, data uncertainty, price volatility, product design, limited service provision, confusion, time, money and human resources. The largest sector for waste production, construction & demolition, is addressed separately in Package 5.

### What we have done

Scotland's landmark **2012 Waste (Scotland) Regulations** which place requirements on all waste producers (except householders) to take all reasonable steps to present key recyclable wastes separately for collection.

**A range of business support services** are available to identify and implement energy, water, and waste saving measures to embed better environmental performance.<sup>82,83,84,85.</sup>

### What we are already doing

From 2022 We will introduce a new **£2 million Textile Innovation Fund** in the first half of 2022 to support businesses working in this sector to address issues associated with textile waste and throwaway culture.

From 2022 As set out in our Food Waste Reduction Action Plan (2019), we intend to break down barriers to food recycling by **consulting on the current rural exemption** and food separation requirements for food waste collections in 2022.

From 2022 We are working with the **fishing and aquaculture industries to improve waste management of end of life gear**, developing a system with other UK administrations that will support the collection and recycling of these items. To enable easier recycling, the Scottish Government is also working internationally on the development of a CEN standard<sup>86</sup> for the **circular design of fishing and aquaculture gear**.

From 2023 **The Scottish Deposit Return Scheme (DRS)** will launch across the whole of Scotland on 16 August 2023. The scheme will introduce a 20p deposit on single-use PET, steel, aluminium, and glass drinks containers, which will be refundable once the container is returned for recycling. It is anticipated that the scheme will produce a modest improvement in the commercial and industrial recycling rate by reducing the amount of material in the residual waste stream.

<sup>82</sup> The [Zero Waste Scotland Food Waste Reduction Business Support service](#) has provided support to almost 280 food SMEs since 2016, identifying potential savings of 15,000 tonnes of food waste.

<sup>83</sup> Support to the construction sector via the [Resource Efficient Scotland Advice and Support Service](#) (RESASS) and the Construction Advice and Support Service between 2016 and 2019 identified waste savings from prevention measures of over 270,000 tonnes, with soil and inert waste streams contributing significantly to this figure.

<sup>84</sup> Since 2016, Zero Waste Scotland has been supporting SMEs to move towards a circular economy through the [Circular Economy Accelerator Programme](#), funded jointly by the Scottish Government and the European Regional Development Fund (ERDF) Impact/support. Third party evaluation of the support quantified annual future reductions of 5,960 tonnes of resources consumed, 128,600 tonnes of waste generated, and 657,700 t CO<sub>2</sub>eq produced.

<sup>85</sup> The [Circular Economy Investment Fund](#) has funded 68 projects since its launch in 2016. Once all projects are fully operational an annual carbon saving of 70ktpa is forecasted, leveraging £35 million of additional investment.

<sup>86</sup> [New CEN TC will develop standards for Life Cycle Management and Circular Design of fishing gear](#)

From  
2024

We will introduce **extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries**. Schemes are currently being reviewed at UK level, and we are committed to developing legislation to fully implement schemes in Scotland. We expect packaging EPR to begin from 2024, with implementation dates for other schemes still to be confirmed. All schemes aim to increase the recyclability of products and increase capture at end-of-life. Packaging EPR is anticipated to increase recycling rates for packaging materials to 75% by 2032. Payments will be distributed to local authorities to cover the costs of providing effective systems for managing household packaging waste, which is likely to lead to significant changes in the funding model for local authority collection services.

From  
2024

We are developing a **digital waste tracking service** in partnership with the UK government and other administrations. The service will make it easier to monitor waste and resources in real time throughout the economy, adding value for all users via a simple-to-use service. We conducted a joint consultation on the service from January to April 2022<sup>87</sup>, and anticipate that the service would be introduced from 2024.

From  
2022

We are taking forward a range of measures to **address waste crime**. Illegal waste activities have no place in Scotland, undercut legitimate operators, and remove materials from the circular economy. In 2022, we launched a **Flytipping Forum** to support effective, coordinated action on flytipping, and will publish a new **Litter and Flytipping Strategy**. Our consultation on the draft strategy<sup>88</sup> proposed action to strengthen enforcement measures, including raising fixed penalties, improving data collection, supporting private landowners and promoting responsible behaviours. Flytipping has also been on the agenda of the **Serious Organised Crime Taskforce**; and partners on the Taskforce will continue to use every means at their disposal to disrupt this crime.

To strengthen the current enforcement regime, we propose to introduce a new enabling power in the Circular Economy Bill that will allow a **fixed penalty notice to be issued to the registered keeper of a vehicle**<sup>†</sup> when a littering offence has been committed from that vehicle. This will both increase the deterrent effect and the options available to enforcement officers in tackling roadside littering.

### What we are proposing to do

SEPA has produced 16 specific sector plans, which identify opportunities for businesses to move beyond compliance on a sector by sector basis; with a further 17 sectors identified for future plans<sup>89</sup>. The measures set out below highlight cross-sectoral opportunities to support progress towards our waste and recycling targets.

DO

**1. We will conduct a national compositional study of waste from commercial premises by 2024.**

<sup>87</sup> [Implementation of mandatory digital waste tracking - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/mandatory-digital-waste-tracking)

<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>88</sup> [National Litter and Flytipping Strategy Consultation](#)

<sup>89</sup> [SEPA plans in development](#)

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. Data from households suggest that 60% of residual waste could be recycled through existing services; a similar figure for commercial waste would represent a significant opportunity to improve recycling rates, as well as a sizeable carbon saving.

We propose to conduct a national compositional study of residual waste from commercial premises by 2024, in order to identify priority materials, products and sectors for waste prevention and recycling interventions. From 2025 onwards, we will begin a rolling assessment of commercial waste so that we can assess change over time and evaluate the impacts of interventions.

DO

## **2. We will review compliance with recycling requirements by 2024.**

The Waste (Scotland) Regulations 2012 require commercial premises to segregate paper, card, plastic, metal, and food waste for recycling. We propose to work with SEPA to review current compliance levels and understand the barriers to participation. We will use the review to support compliance and develop further interventions to maximise waste prevention, reuse, and recycling.

From over 4000 inspections carried out in partnership with Local Authorities, SEPA estimates that around 60% of businesses had the correct recycling infrastructure and were using it, 20% were at least attempting to recycle, and 20% did not have the necessary infrastructure.

DEVELOP

## **3. We will co-design measures to improve commercial waste service provisions that drive waste prevention and reuse by 2025.**

Following our waste compositional analysis (measure 1) and review of compliance (measure 2), we propose to work with key stakeholders to co-design a package of interventions which seek to improve performance in prevention, reuse, and recycling across the commercial sector.

While enforcement is one aspect of encouraging behaviour change, we are keen to understand the market incentives that drive performance, opportunities to engage small and medium-sized enterprises (SMEs), and what more can be done to address the challenges faced by businesses. Possible interventions include targeted communications and engagement, fiscal measures that incentivise recycling or waste prevention, and procurement advice and guidance.

We will particularly prioritise improvements in **food waste recycling** from commercial premises, given the important contribution this will make to further increasing recycling rates while reducing the carbon impact of Scotland's waste. While food waste prevention measures are addressed in package 2, we want to maximise recycling where unavoidable food waste does arise.

INVESTIGATE

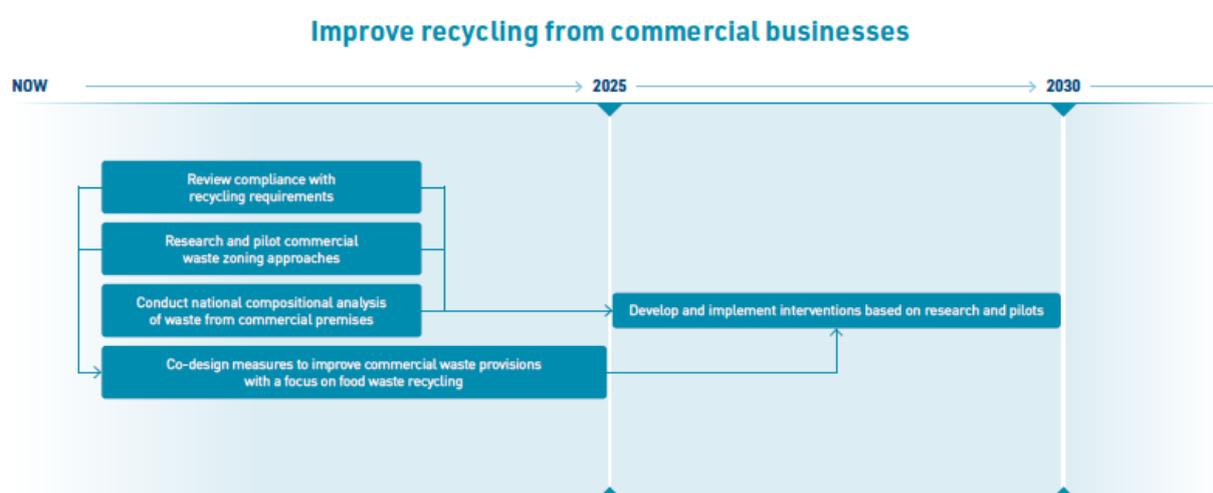
## **4. We will research and pilot commercial waste zoning approaches by 2024<sup>†</sup>**

We propose to investigate the application of commercial waste zoning in Scotland to drive consistency, performance, and compliance of recycling, and generate wider social and environmental benefits. We propose to take the necessary powers to

explore and trial commercial waste zoning approaches in Scotland through the Circular Economy Bill.

Zoning has been utilised in a number of locations<sup>90</sup> to encourage collaboration and reduce local environmental impacts, such as a reduction in local air quality caused by multiple vehicles providing the same service in the same area. Analysis by WRAP has suggested that businesses could save up to 40% by collaborating on service procurement<sup>91</sup>. Collaboration could also improve service consistency and improve recycling performance through optimised efficiency of collections.

Commercial waste zoning has not been tested in Scotland, and we recognise that it could pose several challenges. These include the administrative burden to define zones and manage contracts, the impact on waste service providers, implications of reduced competition, and overlap with local authority services. We will conduct research on the feasibility of a zoning approach and run trials with partner organisations to understand the feasibility of wider rollout.



**Figure 7: Actions to improve recycling from commercial businesses**

### Consultation questions

Question 7. To what extent do you agree with the measures proposed in this package to improve recycling from commercial businesses? Please provide evidence to support your answer if possible.

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

Question 8. Are there any further measures that you would like to see included in the Route Map to improve waste recycling from commercial businesses?

† Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>90</sup> including Los Angeles, New York, Waregem (Belgium), Barcelona and London

<sup>91</sup> [Extended Producer Responsibility for Packaging consultation \(2021\)](#)

## Package 5: Embed circular construction practices

**Embed circular construction practices to reduce resource needs, reduce waste and carbon, and encourage refurbishment and reuse.**

### **Current actions and commitments**

- Introduce requirements through the National Planning Framework 4 to encourage developers to minimise waste and carbon intensity in construction projects.
- Promote The Net Zero Public Sector Buildings Standard, which is a voluntary standard to support public bodies to meet their net zero commitments.
- Support the Construction Scotland Innovation Centre.

### **Proposed new actions:**

- Work with industry to accelerate the adoption of best practice standards.
- Investigate options to incentivise refurbishment of buildings.
- Coordinate a Scottish Programme for Reuse of Construction Materials and Assets.
- Investigate the potential use of recycling bonds to divert material from landfill.
- Consider how devolved taxes can incentivise the use of secondary aggregates and support circular economy practices.
- Work with industry to identify ways to reduce soil and stones going to landfill.
- Facilitate the development of a soil symbiosis programme.

### **Focus of this package**

Construction and demolition accounts for around half of all waste produced in Scotland<sup>92</sup>. Construction and demolition 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 and latest data suggests a recycling rate of 97% in 2018<sup>93</sup>.

It will be almost impossible to meet our target to **reduce waste** by 15% without accelerating action to reduce waste from construction and demolition. We have already taken action to move towards more circular practices<sup>94,95</sup> and there is significant potential to build on this to deliver transformational change across the sector. Reducing construction waste would also contribute to our target to send a maximum 5% of all **waste to landfill**.

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<sup>92</sup> [SEPA waste from all sources](#)

<sup>93</sup> [SEPA waste from all sources](#)

<sup>94</sup> Zero Waste Scotland carried out Deconstruction Audits with North Lanarkshire Council on the deconstruction of their Gowkthrapple Estate. They estimated that the deconstruction for near full recovery of materials would increase upfront costs by £1.8m (142%), but would generate £2.1m in materials and save 2,923 tonnes CO<sub>2</sub>e.

<sup>95</sup> [See SICEF white paper](#)

## What we want to achieve

We want to transform construction practices by incentivising approaches that use fewer resources, make the most of existing buildings and materials, and divert waste from landfill. We want to increase the value of recycled materials, including by identifying high value reuse and recycling routes for high-tonnage materials such as soil and stones. We want to collaborate closely with industry to identify barriers to change, drive innovation, and accelerate adoption of best practice.

The measures proposed in this package are designed to:

- **Improve collaboration between Government and industry**  
Any policies designed to transform construction practice will require close collaboration between Government, public bodies and industry to understand how interventions will work in practice and mitigate any unintended consequences.
- **Incentivise sustainable construction practices**  
The construction sector is exposed to tight margins and a high reliance on public sector clients. Many practices that reduce waste or increase reuse and recycling have cost implications that make them less economically viable compared to less sustainable alternatives, though there are also savings associated with reduced waste. Some construction practises can also be designed to minimise waste or reduce the volume of waste that needs to be reprocessed and recycled.
- **Promote best practice**  
Regulatory requirements such as building standards, planning permission and procurement clauses have been effective in changing behaviour across the sector. However, voluntary standards also strongly influence the practices and culture that determine how waste is generated and how it is managed<sup>96</sup>.
- **Improve our understanding of how and where waste is generated.**  
Different construction activities (excavation, construction, refurbishment, demolition) and project types (infrastructure, residential or commercial new builds etc.) generate very different types of waste. Understanding these differences will help us design bespoke interventions to prevent the generation of waste and divert waste from landfill.

## Where we are now

In 2018 the construction and demolition sector generated 5.8 million tonnes of construction and demolition waste<sup>97</sup>. There has been no significant trend since 2011, and waste varies greatly year to year due to differences in construction and wider economic activity – as low as 3.7 million tonnes in 2012 and high as 5.8 million tonnes in 2018<sup>98</sup>. Variation in construction and demolition waste is the main factor determining whether we achieve our 15% waste reduction target in any given year.

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<sup>96</sup> [Construction Circular Economy Resources](#)

<sup>97</sup> [SEPA waste from all sources](#)

<sup>98</sup> See [Waste from all sources – summary data 2018](#)

Around 70% of all construction waste is soil and stones. While soil and stones have a low carbon impact, they are one of the largest contributors to our current weight based targets. In 2018, 70% of soils were recycled, but soil and stones still accounted for 38% of all waste sent to landfill<sup>99</sup>. There are a range of uses for this material, including infill for quarry and landfill sites, though this is still classified as landfilling in some cases.

The remaining 30% of construction and demolition waste includes bricks, concrete, metals, wood and other materials, as well as packaging. 97% of this material was recycled in 2018<sup>100</sup>. This high recycling rate offers limited scope for further improvement. However, there is potential to increase the value of recycled material, for example by using recycled aggregates in high-performance structural concrete or for engineering purposes in landscaping.

### What we have done

**The Net Zero Public Sector Buildings Standard** is a voluntary standard to support public bodies to meet their net zero commitments. Objective 2 includes a benchmark for embodied carbon with voluntary reporting<sup>101</sup>.

**The Scottish Construction Leadership Forum's Net Zero Group** is working to embed net zero practices including identifying solutions to reduce waste, operational emissions and embodied carbon, and to support the domestic construction supply chain and sustainable materials<sup>102</sup>.

The **Circular Economy Investment Fund**<sup>103</sup> supports a range of sustainable construction solutions.

A number of other initiatives are underway across industry and key partners<sup>1</sup>, including:

- Historic Environment Scotland's Carbon Calculator for Sustainable Procurement of Sandstone<sup>104</sup>.
- Research on carbon impact of retrofitting pre-1919 dwellings<sup>105</sup>.
- Development of a Sustainable Value Framework tool.
- Supply Chain Sustainability School's guidance on sustainable retrofitting<sup>106</sup>.
- Architecture & Design Scotland's web platform for sustainable building materials<sup>107</sup>.
- Scottish Government's Procurement Guidance for Construction<sup>108</sup>.
- Construction Scotland Innovation Centre's research and funding<sup>109,110,111,112</sup>.

<sup>99</sup> See [waste from all sources: waste data tables 2018](#)

<sup>100</sup> [SEPA waste from all sources](#) key figures: recycled C&D waste, excluding soil and stones

<sup>101</sup> [Net Zero Public Sector Buildings Standard - Scottish Futures Trust](#)

<sup>102</sup> [Construction Forum Scotland Home/News - Construction Forum Scotland](#)

<sup>103</sup> [Circular Economy Investment Fund | Zero Waste Scotland](#)

<sup>104</sup> [Historic Environment Scotland's Carbon Calculator for Sustainable Procurement of Sandstone](#)

<sup>105</sup> [Historic Scotland: Guidance on historic dwellings](#)

<sup>106</sup> [Sustainable Retrofitting guidance](#)

<sup>107</sup> [Materials guidance](#)

<sup>108</sup> [Procurement guidance](#)

<sup>109</sup> [CSIC research – local materials](#)

<sup>110</sup> [CSIC research – zero carbon](#)

<sup>111</sup> [CSIC project portal](#)

<sup>112</sup> [Circular Economy Investment Fund](#)

## What we are already doing

From  
2022

Our draft **National Planning Framework 4 (NPF4)** will help ensure we make best use of our assets and infrastructure to support emissions reduction. Through this framework, we are updating our planning policies to reflect the opportunities that arise from the shift towards a circular economy. Planning can support development which better reflects the waste hierarchy, prioritising the reduction and reuse of materials, and facilitating the infrastructure we need to make this possible.

From  
2022

Skills Development Scotland are developing **The Climate Emergency Skills Action Plan**<sup>113</sup> which includes the Circular Economy Sustainable Retrofit Training Programme.

From  
2023

We will consider the possibility of mandating ‘**design for deconstruction**’ through building standards. This is in line with the Climate Assembly recommendation to “Introduce appropriate legislation that requires all new buildings to be designed from the outset using techniques that enable demountability, disassembly, material recycling and reuse at end of life”<sup>114</sup>.

## What we are proposing to do

DO

### **1. We will work with industry to accelerate the adoption of best practice standards and explore options for mandatory compliance.**

The construction industry has a number of voluntary and mandatory standards in place to ensure efficient, effective and safe working practices<sup>115</sup>, and industry-led groups such as the Construction Industry Research and Information Association (CIRIA) and the Scottish Infrastructure Circular Economy Forum (SICEF) act as platforms for engagement and knowledge sharing. However, while detailed guidance exists, it is not always followed. Small and medium sized enterprises also face significant barriers to adoption of voluntary practices such as cost, time, and awareness.

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 implementation from 2023, 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. We will investigate options to incentivise refurbishment of buildings by 2023.**

Extending building life reduces the generation of low-value, high-tonnage construction and demolition waste, and significantly reduces embodied carbon emissions<sup>116</sup>. However, it remains common practice for existing buildings to be demolished and rebuilt, rather than refurbished.

<sup>113</sup> [Climate Emergency Skills Action Plan](#)

<sup>114</sup> [Scotland's Climate Assembly – Final Report](#)

<sup>115</sup> For example, see the [SICEF White Paper](#)

<sup>116</sup> For example see [Langston et al., 2018, AECOM's business case](#) for retaining existing buildings, or University College London's [Embodied Carbon Factsheet](#)

We propose to research the potential incentives for refurbishment, including changes to VAT, public procurement and planning requirements. We recognise that some options, notably changes to VAT, are reserved and would require long implementation timelines. Should we identify any new policy measures, we will work with industry to gauge feasibility, cost and implementation needs.

DEVELOP

### **3. We will coordinate a Scottish Programme for Reuse of Construction Materials and Assets by 2025**

We propose to coordinate the development of a Scottish Programme for Reuse of Construction Materials, in order to provide a platform for construction companies to source used materials<sup>117</sup>. Whilst many examples of salvage and reuse of construction materials exist in the UK and overseas<sup>118</sup>, activity is often ad hoc and relies on stakeholders to drive the market. The practice remains relatively niche and faces challenges of supply, geography and specifications.

A Scottish Programme for Reuse of Construction Materials would provide a coordinated approach to expanding reuse opportunities and help build market confidence. The programme could also deliver coordinated investment in research, development, training and upskilling activities.

If this measure is taken forward, we will launch an industry consultation on expanding salvage and reuse, as a first step. We will develop a phased plan for implementing the programme by 2025, identifying in-scope sectors, materials and construction life-cycle stages.

INVESTIGATE

### **4. We will investigate the potential use of recycling bonds to divert material from landfill.**

Recycling bonds require an upfront monetary payment that is returned when specific reuse or recycling performance targets are met. Bonds are commonly used in the construction industry to protect against poor contractor performance or non-competition, guard against default of the company, secure use of plant or materials stored off-site, or provide for dispute resolution.

We propose to investigate whether recycling bonds could be used to increase recycling performance and quality, and to divert material from landfill. If this measure is taken forward, we will begin by piloting a recycling bond by 2024 for soil and stones with a small number of partner organisations.

INVESTIGATE

### **5. We will consider how devolved taxes can incentivise the use of secondary aggregates and support circular economy practices.**

The Scotland Act 2016 provided legislative powers for the introduction of a devolved Aggregates Levy in Scotland. Following consultation, we intend to introduce the necessary legislation in the current session of the Scottish Parliament.

The Scottish Government published research reviewing, modelling, and analysing illustrative options for a Scotland-specific Aggregates Levy in 2020<sup>119</sup>. This research showed that the impacts of the Aggregates Levy and Landfill Tax are complementary. We will therefore consider how both taxes can be used together to incentivise the use of secondary aggregates and support circular economy practices.

<sup>117</sup> For example, see [Resource Efficient Scotland | Search for surplus materials in your area](#)

<sup>118</sup> For example see [Materialrest24](#), [Retrovius](#), [FCRBE](#), [Buildings As Material Banks](#), [New Horizon](#)

<sup>119</sup> [Evidence Review and Illustrative Policy Options for a Scottish Aggregates Levy](#)

DEVELOP

### 6. We will work with industry to identify ways to reduce soil and stones going to landfill by 2023.

We propose to provide bespoke support to reduce soil and stones waste, and find alternative uses for waste that is unavoidable. Soil is an important natural resource, and there are high value uses for some of this material, if well managed<sup>120</sup>. If this measure is taken forward, we will assess the regulatory, financial, geographic, and time-dependent barriers, and identify ways to address these wherever possible. We will work with industry and SEPA to understand availability, quality, reliability, and storage needs, to identify upcoming projects that will generate large quantities of soil and stones, and to consider reuse applications which are economically viable and environmentally beneficial.

DEVELOP

### 7. We will facilitate the development of a soil symbiosis programme by 2025.

We propose to investigate the feasibility of a formal soil symbiosis programme to divert soil from landfill. The programme would seek to establish an industry-owned platform<sup>121</sup> to communicate excavation types, volumes and timings so that material can be used in other structural projects<sup>122</sup>. If feasible, we will develop and detail a full implementation plan for the programme by 2025.

The design of any programme would be informed by the actions identified with industry (measure 1). We will explore the merits of voluntary and mandatory use of the programme, any threshold criteria for required participation and other policy measures that can support diversion from landfill such as procurement requirements. If successful, this approach could be expanded to other material streams.

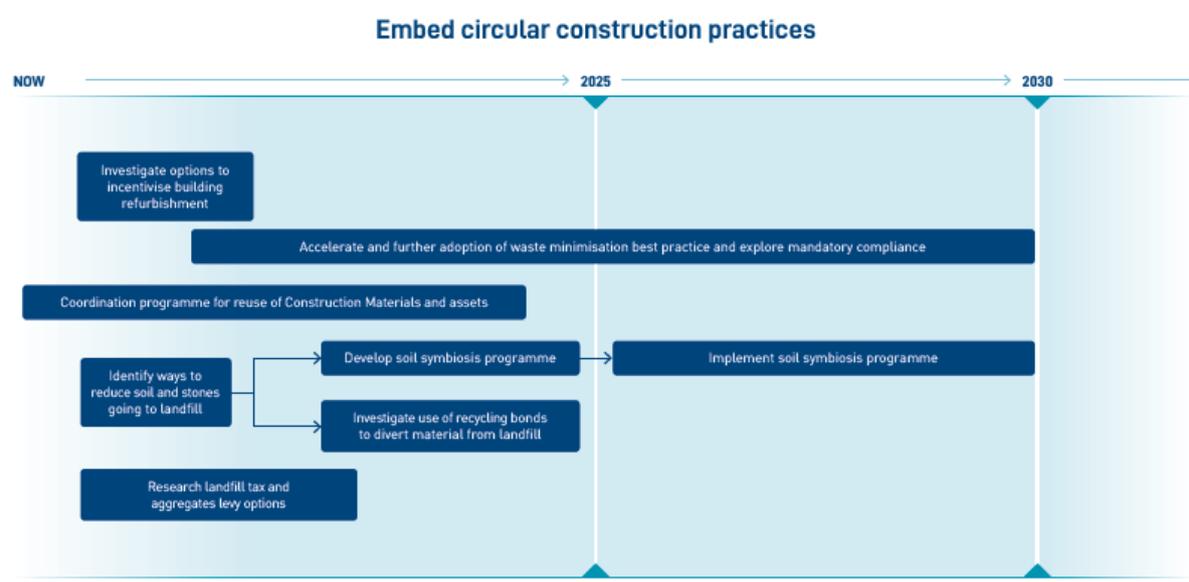


Figure 8: Actions to embed circular construction practices

<sup>120</sup> For example, see [New Community of Practice for construction soil management](#)

<sup>121</sup> For example, - [Resource Efficient Scotland | Search for surplus materials in your area](#)

<sup>122</sup> acknowledging that soil has current uses in landfill licencing requirements

## Consultation questions

Question 9. To what extent do you agree with the measures proposed in this package to embed circular construction practices? Please provide evidence to support your answer if possible.

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

Question 10. Are there any further measures that you would like to see included in the Route Map to embed circular construction practices?

## Package 6: Minimise the impact of disposal

**Achieve the best environmental outcomes for materials that cannot be captured for reuse or recycling, and ensure environmental and economic value of wasted resources and energy is maximised and harnessed efficiently.**

### **Current actions and commitments:**

- Introduce a ban on biodegradable municipal waste going to landfill by 2025.
- Consult on extending the biodegradable landfill ban to non-municipal waste.
- Expand the existing landfill gas capture programme.
- Commission analysis of bio-stabilisation options.
- Consider and respond to recommendations from the independent review into the role of incineration within Scotland's waste hierarchy.
- Investigate measures to ensure new energy from waste plants are more efficient and 'future-proof' waste infrastructure for carbon capture and storage (CCS) technology.
- Consult, with other UK governments, on expanding the UK Emissions Trading Scheme to include Energy from Waste.

### **Proposed new actions:**

- Develop a Residual Waste Plan to ensure the best environmental outcome for materials and set strategic direction for management of residual waste to 2045.
- Restrict the incineration of fossil materials, through the development of a sector-led plan by 2024.
- Investigate fiscal measures to incentivise low carbon disposal, including the potential to include energy from waste in the UK Emissions Trading Scheme (ETS).

### **Focus of this package**

The measures outlined elsewhere in this consultation are primarily focused on how to prevent materials and products from becoming waste, and how to maximise the value, through recycling and reprocessing, of those that do. All other packages will help maximise value from waste and minimise environmental harm by reducing the need for residual waste treatment. While our goal is to continue to reduce the amount of residual waste we produce, until we move to a fully circular economy there is a need to consider how to minimise the impact of residual waste.

This package sets out the measures we will take to ensure we manage residual waste in a way that maximises value and minimises carbon and environmental harm, taking account of the materials involved and the impact of different management options. This will contribute to our target to send a maximum of 5% of **waste to landfill** by 2025 and to reduce emissions.

Currently the majority of waste management sector greenhouse gas emissions come from landfill sites in the form of methane - a greenhouse gas that is around 25 times more potent in the atmosphere than CO<sub>2</sub> over a 100-year time horizon. The actions set out in this package are therefore particularly important to **reducing our greenhouse gas emissions**.

## What we want to achieve

We want to divert more material from landfill, to keep it in productive use. We want to ensure that materials are safely managed and cause the least possible environmental harm, whilst giving industry confidence to invest in new technology and the necessary capacity. We want to move beyond measuring tonnage alone, and address wider environmental impacts, including carbon, to make sure that different materials are managed in the best possible way.

The measures proposed in this package aim to:

- **Help manage materials in the right way**  
Our current disposal incentives, most notably the Scottish landfill tax, have made alternatives to landfill (such as recycling or incineration) more attractive. However, more could still be done to incentivise the management of waste upstream while recognising that different material streams have different needs. For example, while landfill is rarely the best disposal route for our waste, some materials such as contaminated soils and some sorting residues<sup>123</sup> may be better disposed of via landfill compared to the available alternatives.
- **Encourage innovation while maintaining stability**  
Residual waste solutions require sizeable and long-term investment. We need a stable commercial environment to give investors and the wider waste sector confidence in viable and reliable solutions for their disposal needs. However, we also need research, development and innovation in the waste and resources sector to develop and adopt the new technologies and practices required to reach net-zero by 2045.
- **Explore the scope of a more targeted approach to the Scottish landfill tax**  
The Scottish landfill tax is one of the most direct interventions to divert residual waste away from landfill. However, the tax primarily influences the decisions of recycling and waste service providers, and has comparatively lower direct impact on the price that households and businesses pay for producing waste. Current tax bands only provide for a lower rate of tax for less polluting materials and a standard rate for all other materials, although the legislation allows for additional lower (qualifying) rates to be created.

## Where we are now

We sent approximately 2.6 million tonnes of material to landfill in 2020, less than half of what we sent in 2005. The proportion of waste sent to landfill has decreased from 43% in 2011 to 32% in 2018<sup>124</sup>. This trend has been driven by a number of factors, including increased landfill taxes, a marked shift from landfill to incineration<sup>125</sup>, improved recycling rates and upstream management of waste, and the upcoming ban on sending biodegradable municipal waste (BMW) to landfill.

Nevertheless, 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

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<sup>123</sup> Sorting residues aka 'trommel fines' are difficult to deal with and a major focus of non-compliant activity in the waste industry. There is very limited use of this fraction as it stands and, depending on the source and composition it may be only suitable for further sorting, incineration, or landfill.

<sup>124</sup> See [Route Map - technical annex](#)

<sup>125</sup> Incineration accounted for approximately 400,000 tonnes of waste in 2011 and 1.25 million tonnes in 2020

landfill cannot easily be recycled or disposed of by other means and, therefore, achieving our 5% target may not align with our carbon other environmental ambitions in the long term.

### What we have done

**The Landfill Tax (Scotland) Act 2014** has been one of the most direct incentives to divert waste away from landfill. It comprises two rates - a standard rate, and a lower rate for qualifying materials including 'inert' wastes, such as soil and stones. Rates have increased over time since the introduction of the tax.

### What we are already doing

By 2025 We have introduced **a ban on biodegradable municipal waste going to landfill**, the first nation in the UK to do so. This will ensure that biodegradable material is recycled or disposed of through other means. We have already seen a marked reduction in the amount of material being sent to landfill since the ban was announced, and the full ban will come into force across Scotland on **31 December 2025**. We will also consult in 2022 on **extending the ban to include biodegradable non-municipal wastes** to further reduce the amount of biodegradable waste being sent to landfill.

From 2022 We commissioned an independent **review of the role incineration plays in Scotland's waste hierarchy**. This includes an analysis of capacity requirements and options for residual waste treatment, including decarbonisation opportunities. **We have published the report<sup>126</sup> and will set out our initial response to the findings and recommendations in June 2022**. The findings of this review will be taken into consideration in the final Route Map.

From 2022 We have consulted on the draft National Planning Framework 4 (NPF4)<sup>127</sup> which includes measures to ensure that new energy from waste plants are more sustainable. For example, it includes requirements to supply a decarbonisation strategy aligned with Scottish Government decarbonisation goals.

From 2022 Zero Waste Scotland have commissioned **a review of biostabilisation of waste**, where waste is treated to reduce its biodegradability before being sent to landfill. This has been suggested to have a lower carbon impact than other treatment options. The review includes an assessment of technical, economic, policy and environmental factors that influence the implementation of biostabilisation technologies in practice. Research will be published in summer 2022.

From 2023 We will **expand the existing landfill gas capture programme** by 2023 to mitigate the negative effects of landfill and the environmental impact of closed landfill sites, supported by additional funding from Low Carbon Fund.

<sup>126</sup> [Stop, Sort, Burn, Bury - incineration in the waste hierarchy: independent review](#)

<sup>127</sup> [Policy 20\(i\) Scotland 2045 - fourth National Planning Framework - draft: consultation](#)

## What we are proposing to do

DEVELOP

**1. We will develop a Residual Waste Plan by 2024 to ensure the best environmental outcome for materials and set the strategic direction for management of residual waste to 2045, and to bring this area in-line with net zero targets.**

We propose to develop a Residual Waste Plan to provide direction for future disposal practices in Scotland and ensure the best environmental outcome for material. The plan will establish a long-term vision for industry and government, and map a pathway from 2024. We will work in partnership with the public, private and third sectors to build joint ownership and the confidence needed to invest in infrastructure across the resource recovery chain.

We will establish an Advisory Panel to oversee development of the plan, consisting of the Scottish Government, public sector and private industry representatives and non-governmental organisations. The plan will transition from a weight-driven approach to one that seeks the best environmental outcome for different materials, and take account of national strategic infrastructure planning, emerging and future technologies, and mechanisms for encouraging innovation.

If this measure is taken forward, we will consider a range of policy measures in developing the plan, including:

- **Options to use Scottish Landfill Tax and the Aggregates Levy<sup>128</sup>**, separately or jointly, to drive further recycling and develop secondary markets (see package 5).
- **Alternative pathways for sorting residues**, by researching potential uses, treatment options, cost benefit analysis, market demand and implementation measures.
- **Actions to address recommendations of the independent review of incineration capacity (see Box 5<sup>129</sup>)**, which consider our national capacity requirements, societal impacts ,and decarbonisation opportunities.
- **Investment to transition to lower emission residual treatment options** to deliver integrated and optimised treatment solutions and ensure a planned retreat from landfill.

### **Box 5: Review of the role of incineration in Scotland's waste hierarchy**

We appointed Dr Colin Church to lead an independent review into incineration, with the aim of ensuring that how residual waste is managed in Scotland aligns with Scotland's carbon reduction ambitions.

We published Dr Church's [report](#) on 10 May, which sets out 14 recommendations. Some of those that are relevant to the proposal to develop a Residual Waste Plan include:

<sup>128</sup> [Evidence Review and Illustrative Policy Options for a Scottish Aggregates Levy](#)

<sup>129</sup> [Stop, Sort, Burn, Bury - incineration in the waste hierarchy: independent review](#)

- The Scottish Government should ensure that no further planning permission beyond that already in place is granted to incineration facilities unless balanced by an equal or greater closure of capacity.
- Scottish Government and local authorities should work with industry to develop a strategic approach to planning and deploying waste collection, reprocessing and management facilities.
- As part of an overall strategic approach to planning and deploying waste management capacity, the Scottish Government should develop an indicative cap that declines over time for the amount of residual waste treatment needed as Scotland transitions towards a fully circular economy.
- Operators of all residual waste treatment facilities should work to significantly strengthen community engagement and trust before, during and after development. Clear guidelines for authentic and effective community engagement should be co-produced by Scottish Government with community groups and local authorities by the end of 2023.

All 14 recommendations are available in the report. We are considering these carefully and will set out an initial response in June 2022.

## DEVELOP

### **2. We will facilitate the development of a sector-led plan by 2024 to restrict the carbon impacts of incineration.**

The independent review of incineration has made two provisional recommendations, pending the outcome of a longer piece of work to consider the options to decarbonise the residual waste sector. We will use the outputs from this piece of work to consider the options and incentives to decarbonising the sector, including how to ensure energy from waste plants are more efficient and waste infrastructure can be ‘future-proofed’ for carbon capture and storage (CCS) technology.

Taking account of the review’s recommendations, we propose to work with the waste and resources sector to accelerate the reduction of the carbon impacts of existing incineration plants. We will begin by focusing on measures to divert the highest carbon-emitting materials from incineration, such as plastics. Industry ownership would help ensure economic and environmental viability, identify the potential challenges for investment, and better identify the mechanisms needed to direct materials to disposal routes with better environmental outcome. Whilst we believe that a significant impact can be achieved on a voluntary basis, we will also explore options for mandatory compliance.

## INVESTIGATE

### **3. Investigate further fiscal measures to incentivise low-carbon disposal.**

We propose to consider what additional fiscal measures could be introduced to reduce the carbon emissions associated with disposal, and particularly the incineration of waste. We will investigate the potential of an incineration tax, inclusion of Energy from Waste within the scope of the UK Emissions Trading Scheme (see Box 6), and determining an appropriate carbon price for waste sector emissions.

## Box 6: UK Emissions Trading Scheme (ETS) consultation

With UK government and other devolved administrations, the Scottish Government launched a consultation on [Developing the UK Emissions Trading Scheme](#) on 25 March 2022. As part of this consultation, we have launched a call for evidence on expanding the UK ETS to include energy from waste (EfW).

We are seeking views on a proposed expansion to the scheme by the mid-late 2020s to include waste incineration with and without energy recovery. It follows recommendations from the Climate Change Committee for Government to consult on the introduction of a carbon tax (either as part of the UK ETS or a separate instrument) aimed at EfW.

Our call for evidence seeks input on:

- The timing of proposals;
- Monitoring, reporting and verification of emissions;
- Potential impacts, including on operators of EfW plants, LAs, consumers and customers;
- The potential for the expansion to incentivise decarbonisation; and
- Unintended consequences, including the ability of EfW operators to pass on costs to customers.



**Figure 9: Actions to minimise the impact of disposal**

### Consultation questions

Question 11. To what extent do you agree with the measures proposed in this package to minimise the impact of the disposal of residual waste? Please provide evidence to support your answer if possible.

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

Question 12. Are there any further measures that you would like to see included in the Route Map to minimise the impact of disposal?

## Package 7: Cross-cutting measures

**Ensure the right structures and support are in place to enable action across the circular economy.**

### **Current actions and commitments**

- Develop a digital waste tracking service to monitor waste and resources in real time.
- Complete household waste composition analysis by 2023.
- Promote the Scottish Government's Sustainable Procurement Toolkit.
- Deliver the Climate Emergency Skills Action Plan 2020.

### **Proposed new actions:**

- Introduce duty to develop a Circular Economy Strategy.
- Develop a monitoring and indicator framework.
- Undertake 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.
- Support greater uptake of green skills, training, and development opportunities.

### Focus of this package

We have taken a whole-system approach to developing a Route Map to our 2025 waste and recycling targets. In doing so, we recognise that there are a range of cross-cutting measures that underpin progress on all packages. These are:

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

### Strategic Interventions

As has been highlighted through this document there is a range of activity already ongoing through policy, existing legislation and regulations. There is a need to ensure the range of actions that we are undertaking are both complementary and coordinated as part of our overall efforts to tackle the twin crises of climate change and biodiversity loss.

### What we are already doing

**The Environment Strategy for Scotland**<sup>130</sup> 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.

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<sup>130</sup> [The Environment Strategy for Scotland: vision and outcomes](#)

**Making Things Last: a circular economy strategy for Scotland**<sup>131</sup> was published in 2016. This integrated elements of the Zero Waste Plan (2010) and Safeguarding Scotland's Resources (2013).

**We are embedding the circular economy into our recovery from Covid-19**, to ensure our recovery is one that creates good quality, green jobs and ensures a fair and just transition to net-zero. This is central to the measures outlined throughout this consultation, and we have identified five priority sectors and materials: plastics, food, construction, skills, and procurement.

## What we are proposing to do

DO

### **1. We will put a duty on Scottish Ministers to produce a Circular Economy Strategy<sup>†</sup>**

As part of the Circular Economy Bill consultation, we are seeking views on an obligation on Scottish Ministers to publish or refresh a Circular Economy Strategy every 5 years in order to strengthen a strategic approach. This would sit within the framework of Scotland's Environment Strategy, supporting the delivery of its vision and outcomes, meet requirements outlined in the Waste Framework Directive and also link to the forthcoming Biodiversity Strategy. As part of the strategy it is also proposed that Resource Reduction Plans are developed for key sectors.

DEVELOP

### **2. We will develop a monitoring framework and associated targets<sup>†</sup>**

A Circular Economy Strategy would also include, or signpost to, a new monitoring and indicator framework that will allow for tracking of Scotland's consumption and wider measures of circularity. In turn this could be used to establish relevant targets to drive targeted action.

## Research, data and evidence

Scotland's Circular Economy aspirations are some of the most ambitious and forward looking in the world. No country has yet achieved the scale and speed of change that Scotland needs to achieve its 2025 targets, and, like everywhere else, we will need to completely transform our waste and resources sector if we are to achieve our commitment to net zero. That means that research and innovation must sit at the heart of our Circular Economy - we must learn by doing, be open to new and innovative ideas, and continue to test new solutions.

We will also need comprehensive, accurate and robust data to provide the full picture of how materials and products move through our economy. We need to understand where we are currently doing well, and where we have the greatest opportunities for improvement. We need to have high quality, timely datasets to reward good practice, and to direct action where it is most needed.

Finally, we need robust and well supported evidence to underpin our policy approach and evaluate our actions. We need to understand the costs and benefits of taking action, and work with those affected to identify and address potential unintended consequences. We need to understand how international examples of best practice can be applied in Scotland, and the readiness of new approaches and technologies

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<sup>131</sup> [Making Things Last: a circular economy strategy for Scotland](#)

to be rolled out at scale. Finally, we need to understand our behaviours, and the barriers and challenges we all face to moving to a Circular Economy.

## What we are already doing

In 2017 we published our '**Strategy for improving waste data in Scotland**'<sup>132</sup>, in partnership with SEPA and Zero Waste Scotland. The strategy outlines how we will coordinate and deliver a plan to support Scotland's transition to a more circular economy. We have been working to implement the plan over the last five years, including through the measures outlined below.

From 2022 We are improving our **data and evidence on household recycling performance** through waste compositional analysis.

From 2024 We are developing a **digital waste tracking service** in partnership with the UK government and other administrations. The service will make it easier to monitor waste and resources in real time throughout the economy, adding value for all users via a simple-to-use service. We conducted a joint consultation on the service from January to April 2022<sup>133</sup>, and anticipate that the service would be introduced from 2024.

## What we are proposing to do

### DO **3. We will undertake a programme of research in 2022 and 2023 on waste prevention, behaviour change, fiscal incentives and material-specific priorities**

We propose to implement a programme of research, in partnership with other organisations, that will support the measures set out in this consultation, with a particular focus on waste prevention, behaviour change, and consumption. This will build on the considerable body of work that already exists, and will work with partners in academia, the private sector, social enterprises, and NGOs to develop evidence-based policies and best practice. This will include:

- A review of global measures to reduce consumption, identifying which approaches have proven to be most effective in achieving waste prevention or reduction. We will consider the scale, cost, potential to adapt to the Scottish context.
- A review of policy measures to reduce food waste, including effective communications, the skills needed to support an optimised food system, the material available to the bioeconomy, and the potential return on investment in food waste prevention.
- The range of fiscal measures used by other countries to incentivise positive behaviours.
- The evidence base for introducing statutory targets across a range of measures, including consumption, household recycling, re-use, and food waste. Any targets must be achievable, effective at driving change, and clearly measurable.
- Developing our modelling and forecasting capability to support future targets and ensure we have the right levers in place to meet them.

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<sup>†</sup> Legislative proposal – see [Circular Economy Bill consultation](#)

<sup>132</sup> [Waste data | Scottish Environment Protection Agency \(SEPA\)](#)

<sup>133</sup> [Implementation of mandatory digital waste tracking - GOV.UK \(www.gov.uk\)](#)

## Sustainable procurement

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 £13 billion a year buying goods, services and works<sup>134</sup>. Given this scale of spending this directly helps safeguard the environment and resources and therefore plays a direct role in delivering our waste and recycling targets and action to deliver net zero. This level of purchasing power also has the potential to stimulate market development and innovation, and demonstrate leadership across sectors.

### What we are already doing

In early 2021 we issued policy which sets out **expectations with respect to climate and circular economy considerations**<sup>135</sup>, highlighting that public bodies should use their public procurement spend to support climate and circular economy ambitions, including reporting on progress against strategy commitments in their annual procurement reports.

Ministers also wrote to Chief Officers in the Public Sector with a **call to action**, highlighting the need for wider engagement across organisations to maximise the positive impact procurement can have on addressing the Climate Emergency.

Zero Waste Scotland is a key partner in **ProCirc**<sup>136</sup>, a four year transnational project to experiment, implement and learn how circular economy and procurement provide regional economic benefits and to contribute to the international development of circular economy. This includes development of a Circular Supplier Directory, an interactive map for businesses looking to source products and services that are sustainable and circular, as well as a wide range of training materials and established communities of practice.

### What we are proposing to do

DO

#### **4. We will develop public procurement opportunities to reduce the environmental impact of public spending.**

In the coming year we will analyse market information and spend data to identify areas where regulations under section 82 and 82A of the Climate Change (Scotland) Act 2009 could enhance circular economy opportunities in relation to the procurement of goods, works or services<sup>137</sup>. These powers allow Ministers to make regulations that require contracting authorities to purchase goods with recycled content, recycled products or recyclable products

We are also procuring a collaborative Framework for Civil Engineering for use by public sector organisations throughout Scotland. The Framework will include consideration of the circular economy principles by Suppliers to ensure that the works and associated services are in accordance with their Client's response to the climate emergency.

<sup>134</sup> See Scottish Government policy on [public sector procurement](#)

<sup>135</sup> See [Taking into account of climate and circular economy considerations in public procurement](#)

<sup>136</sup> [ProCirc, Interreg VB North Sea Region Programme](#)

<sup>137</sup> [Climate Change \(Scotland\) Act 2009 \(legislation.gov.uk\)](#)

We will further promote and develop the **Scottish Government’s Sustainable Procurement Toolkit**<sup>138</sup> which provides 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

Around 1 in 10 jobs in Scotland relate to the Circular Economy – in activities such as repairing and recycling our goods, engineering, building and decommissioning our infrastructure, managing our waste and resources, and enabling future progress through education and skills development.

The transition to a circular economy provides a wealth of opportunities to transform our labour market, creating high quality jobs and occupations, 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<sup>139</sup>. But 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. Skills and training opportunities run through the heart of the measures proposed through this consultation, building expertise within and between sectors, and incentivising innovation amongst Scotland’s businesses and institutions.

### What we are already doing

The **Climate Emergency Skills Action Plan**<sup>140</sup>, led by Skills Development Scotland, sets out a clear direction to reskill, upskill and develop Scotland’s current and future workforce to meet our net zero ambitions. This transformation will provide opportunities for the development of new, quality green jobs, embedding green and circular skills, increasing access to growing global markets for Scottish businesses, and stimulating regional growth. This includes a focus on design, analytical and technical skills and remanufacturing processes to support the circular economy, with an emphasis on dismantling products, testing component parts and restoring products to a ‘good-as-new’ status.

Zero Waste Scotland’s circular economy education and skills expertise and **Green Jobs Skills Hub** influences the skills policy agenda, to provide thought leadership and opportunities for collaboration around circular economy skills, learning and education and to provide tangible resources to enable Scotland to maximise the opportunities presented by the transition towards a Circular Economy.

The **Green Workforce Academy**<sup>141</sup> provides a guide for people to identify the skills they have and the skills they will need to find and secure green jobs.

We have committed to fund a **new national network of community sharing libraries and repair cafes**, which will teach people the skills they need to repair and re-use their own items.

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<sup>138</sup> [Sustainable Procurement Tools](#)

<sup>139</sup> [RReuse briefing on reuse jobs](#)

<sup>140</sup> [Climate Emergency Skills Action Plan 2020-2025, Skills Development Scotland \(2020\)](#)

<sup>141</sup> [Green Jobs Workforce Academy | My World of Work](#)

Programmes such as **Young Enterprise Scotland's Circular Economy Challenge**<sup>142</sup> have enabled school pupils from all backgrounds to develop skills in a real-life context, giving them an introduction to business, design and technology relevant to green jobs and the circular economy

Zero Waste Scotland provide **opportunities for the education sector**<sup>143</sup> to support teachers and lecturers to embed sustainability into primary, secondary, further, and higher education, and circular economy executive leadership training to upskill senior management in the construction and public sectors.

### What we are proposing to do

#### **6. We will develop new measures to support greater uptake and development of green skills, training, and development opportunities by 2025**

We propose to build on the Climate Emergency Skills Action Plan to identify opportunities for further development of skills and training that reflect the sector and that are place-specific. We will focus on areas with high potential for growth, such as preparation for reuse standards or repair training to enhance the life of products. We will collaboratively design and deliver activities that maximise the potential for increased employability, and support growth across the environment sector and wider economy through a green recovery.

Specific opportunities in development include:

- Develop a **'Green Internship Scheme'** to upskill young workforce on circular economy and net zero whilst supporting employment opportunities.
- Undertake **Circular Economy Skills audits** in supported businesses to understand the business's learning journey, and the challenges and opportunities presented.
- Conduct a **food system and bioeconomy skills gap analysis** to better understand what support is needed to accelerate development of this sector.
- Development of the **Circular Economy Sustainable Retrofit Training Programme** to embed best practice and ensure skills and performance gaps are addressed.
- Ongoing **circular economy business support** to generate learning on the capacity and capability of businesses to deliver circular economy innovations.
- In partnership with Skills Development Scotland, inform and influence delivery of a **virtual Green Jobs Skills Hub**.

### Consultation questions

Question 13. To what extent do you agree with the measures proposed in this package to support action across the circular economy? Please provide evidence to support your answer if possible.

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

Question 14. Are there any further measures that you would like to see included in the Route Map to support action across the circular economy?

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<sup>142</sup> [Enterprise Education | Young Enterprise Scotland \(yes.org.uk\)](#)

<sup>143</sup> [Circular economy in education | Zero Waste Scotland](#)

## Chapter 4. Beyond 2025

Proposed principles for future targets:

1. Achieve net zero by 2045.
2. Reduce the material footprint of our resources and waste.
3. Maximise the value of our circular economy.
4. Align with the EU.

### Focus of this chapter

Our current waste and recycling targets are focused on the period to 2025. The measures set out in this consultation primarily focus on the action we can take before 2025 to accelerate progress towards our existing targets. However, they also lay the foundations for the transformational change we will need to see across our whole economy and society in the years ahead.

This chapter focuses on what this transformational change should look like for Scotland's circular economy to 2030, and how the circular economy can help us on our trajectory to net zero by 2045.

### Context

We are facing an ever growing climate and nature emergency. We must set clear milestones for Scotland's journey to deliver a circular economy, reduce our emissions, and responsibly manage the waste we do produce.

Since 2010's Zero Waste Plan<sup>144</sup> we have had ambitious waste reduction and recycling targets in place. This has helped drive progress. We waste less, recycle more, and send less to landfill than we did a decade ago. The carbon footprint of our waste has fallen by almost three quarters since 1998.

However, much has also changed over the last decade. We have a much better understanding of the systemic environmental challenges we all face, and the speed and scale of the response that is now required to meet the twin crises of climate change and biodiversity loss. The climate emergency has intensified the focus on emissions reduction, and how we view and treat our waste.

Our 2025 targets are important milestones, but they cannot be the end destination. Many of our existing 2025 targets are weight-based, and do not specifically measure carbon reduction or other environmental impacts. We need to revisit our current goals to make sure they are helping us on the road to net zero, while recognising the wider environmental footprint of our resources and waste.

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<sup>144</sup> [Scotland's Zero Waste Plan](#)

## Development of future targets

**We propose to set new circular economy targets for the period to 2030.** We propose to go beyond weight-based criteria and ensure that any future targets correspond to our Environment Strategy and overall vision for a circular economy, accounting for the four principles set out below.

### 1. Achieve net zero by 2045

The Climate Change Plan update<sup>145</sup> (2020) identified the need to describe how the waste and resources sector will contribute beyond 2025 towards Scotland's emissions reduction journey.

The Scottish Government and Zero Waste Scotland introduced a Carbon Metric<sup>146</sup> for waste in 2011, making Scotland the first country to measure the carbon impact of its waste in this way. The metric measures the whole-life carbon impacts of Scotland's waste, and is a vital tool in our work to address the climate emergency. The most recent data shows that in 2018 the carbon impacts of Scotland's waste fell to the lowest on record, 30% below 2011 baseline levels.

We propose that future targets should align with our commitment to achieve net zero by 2045, and help ensure that the waste and resources sector plays its full role in tackling the global climate emergency and limiting temperature rise to 1.5°C.

### 2. Reduce the material footprint of our resources and waste

The global use of natural resources has more than tripled since 1970 and continues to grow. Using resources sustainably is essential to tackling both the climate and nature crises. In Scotland, we would need to reduce our virgin material use by around 50% to achieve a sustainable international footprint.

Zero Waste Scotland's SWEFT Tool, Materials Flow Accounting (MFA) and Beyond Carbon calculator could allow us to identify the environmental impacts of our consumption across a range of key environmental indicators. The Circular Economy Bill consultation outlines proposals to develop a monitoring and indicator framework that could underpin future targets aimed at consumption reduction.

We propose that future targets should help ensure that we use and re-use resources and have a sustainable international material footprint.

### 3. Maximise the value of our circular economy

Scotland's transition to a net zero, circular economy is underway. More than 200,00 jobs already contribute to a circular economy and to a cleaner, more sustainable Scotland, with opportunities to grow in areas such as construction, the bioeconomy and decommissioning<sup>147</sup>.

International climate targets and pressures on global resources are creating large emerging markets in carbon-neutral, circular solutions. With Scotland's ambition,

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<sup>145</sup> [Securing a green recovery on a path to net zero, Scottish Government](#)

<sup>146</sup> [Zero Waste Scotland Carbon Metric](#)

<sup>147</sup> [New research from Zero Waste Scotland and Circle Economy reveals scale of sustainable jobs](#)

expertise and strong record of innovation, we are well placed to lead change, developing technologies and expertise that we can export across the world. This will continue to create business and investment opportunities and new, high quality jobs across Scotland.

We propose that future targets should seek to maximise the value of our waste, energy and resources, building a thriving, sustainable economy with opportunities across Scotland.

#### **4. Align with the EU**

We are committed to maintaining close links with the EU and to continue to meet the high European standards on the environment. We have welcomed the ambition demonstrated in the EU's circular economy action plan and the revision of the Ecodesign Directive with the Sustainable Products Initiative. We are committed to working with our partners in the EU to further develop and align with these initiatives, and wish to ensure that any future targets set in Scotland match or exceed the level of ambition we are seeing in Europe.

We propose that future targets should keep pace with those set by the EU, in order to ensure market alignment and uphold our commitment to maintain or exceed environmental standards after EU exit.

#### **Consultation questions**

Question 15. To what extent do you agree with the principles proposed to underpin future circular economy targets? Please provide evidence to support your answer if possible.

## Chapter 5. Next steps: How you can get involved

Through this consultation we have set out our proposals for the Route Map to 2025, our strategic plan to achieve Scotland's zero waste and circular economy ambitions.

We are seeking your views on the feasibility and ambition of these proposals in order to reach our 2025 waste and recycling targets, and to achieve our long terms goal of net zero by 2045.

### 5.1 Responding to this consultation

We are inviting responses to this consultation by the closing date of 22 August 2022.

Please respond to this consultation using the Scottish Government's consultation platform, Citizen Space. You can view and respond to this consultation online at <https://consult.gov.scot/environment-forestry/scotlands-circular-economy-routemap> . 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:

circulareconomy@gov.scot

Or

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

### Handling your response

If you respond using Citizen Space [ <https://consult.gov.scot/environment-forestry/scotlands-circular-economy-routemap> ] you will be directed to the Respondent Information Form. Please indicate how you wish your response to be handled and, in particular, whether you are happy for your response to be published.

If you are unable to respond via Citizen Space, please complete and return the Respondent Information Form included in this document. 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 <http://consult.scotland.gov.uk/> . 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:

[circulareconomy@gov.scot](mailto:circulareconomy@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: <http://consult.scotland.gov.uk/> . 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.

## 5.2 Interaction with the Circular Economy Bill

We are consulting on the Route Map in parallel to the Circular Economy Bill. The Circular Economy Bill sets out the legislative powers we are proposing to take to deliver a circular economy , which includes some of the interventions explored in this Route Map consultation. Where there are direct links to the Circular Economy

consultation these are denoted by the symbol† . The Circular Economy Bill consultation can be accessed here <https://consult.gov.scot/environment-forestry/scotlands-circular-economy-legislation/> .

### 5.3 Impact assessments

We are committed to assessing the impact of proposals. This consultation marks the start of a process to assess the potential impacts on equality, socio-economic considerations, island communities, business and regulation, and the environment. This is accordance with our legislative requirements and, importantly, to inform the policy development process.

High-level partial and screening impact assessments have been developed to accompany this consultation:

<https://www.gov.scot/isbn/9781804354681>

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 initial impact assessments accompanying this consultation. We will also incorporate feedback to inform future impact assessments for specific interventions, as required.

Question 16. Please provide any further information or evidence that should be considered in the accompanying Equalities Impact Assessment

Question 17. Please provide any further information or evidence that should be considered in the accompanying Fairer Scotland Assessment

Question 18. Please provide any further information or evidence that should be considered in the accompanying Island Communities Impact Assessment.

Question 19. Please provide any further information or evidence that should be considered in the accompanying Business and Regulatory Impact Assessment.

### 5.4 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, it is 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.

Through this consultation we would welcome further evidence regarding the environmental impact of proposals, which will help inform the strategic environmental assessment process for the Route Map, in line with legislative requirements.

Question 20. Please provide any further information or evidence that should be considered with regards to the environmental impact of proposals outlined in the Route Map.

### 5.5 Development of the final Route Map

To support the consultation process, we are looking to maximise engagement from the widest possible range of stakeholders across Scotland on the proposals presented here. This will include specific workshops with key groups, as well as wider engagement approaches to ensure people who would not normally participate in a consultation are included and that views of people across Scotland are gathered.

We will undertake analysis of consultation responses in autumn 2022 in order to understand the full range of views on proposals, and identify any additional actions that have not been considered in this consultation.

Alongside the consultation, we are convening a panel of independent experts to estimate the likely impact of each package of interventions. This will better quantify how our current and proposed measures will help us reach our waste and recycling targets.

Finally, we will conduct cost-benefit analysis for proposals, to the extent that this is achievable where the full package of measures is still to be developed or is still to be investigated. We will take into account the feasibility and affordability of any proposals, including the costs and benefits it may generate for Scottish households and businesses, before taking forward any measures.

Based on consultation feedback and the additional evidence outlined above, we will further refine proposals alongside ongoing assessment of impacts, with a view to publishing the full Route Map in early 2023.



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