



Consumption Reduction Targets

Legal Status Research

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EUROPE & SCOTLAND
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Investing in a Smart, Sustainable and Inclusive Future

Executive Summary

The purpose of this research was to assess the existence and legal status of **consumption reduction targets (CRTs)** in European countries and their territories (although all global targets found have been recorded). While the primary focus of this research pertained to targets to reduce the absolute level of material throughput, targets that served as proximity indicators were also collected for context. These additional targets included sustainable consumption/green procurement (materials that do no harm to people or the environment), resource productivity (materials throughput per unit of Gross Domestic Product [GDP]), and the circularity gap (recycled/reused resources as a percentage of all material throughput).

Of the 18 countries reviewed, only three countries and one territory were identified to have absolute consumption reduction targets in their strategic documents. These were Finland, the Netherlands, Spain, and the Wallonia region of Belgium. Eleven of the 18 countries contained targets meeting the broader consumption reduction target criteria outlined. In addition, Belgium, the Netherlands, and Spain were identified to have targets set at the regional levels.

Determining the legal status of the targets was challenging. For this research, we defined legally binding as a target set within a law, act, or decree; and we failed to identify any targets meeting this criteria. Any mention of the targets or the national strategies they were often derived from were not easily found in national legislation databases.

A summary table for the targets identified can be found in Table 2 below. Sources are cited in the individual country profiles in the Annex.

Table 2. Target Summary Table. Note: where targets are listed as having a legal status of ‘no/unidentified’ that means that the target has not been found within a law, act or decree during the course of this research.

Country / region	Interventions	Legal Status
Austria	<ul style="list-style-type: none"> • (Expired) Increase resource efficiency by 50% by 2020. • (Expected) Reduce domestic material consumption by 25% by 2030. • (Expected) Achieve sustainable domestic material consumption of 7 tons per capita per year by 2050. • (Expected) Increase resource efficiency in the Austrian economy by 50% by 2030. 	No/Unidentified
Belgium: Wallonia and Flanders Regions	<ul style="list-style-type: none"> • Wallonia Region: Increase resource productivity by 25% from 2020-2035. • Wallonia Region: Reducing direct material input and domestic material consumption by 25% by 2030 (compared to a 2013 baseline). • Flanders Region: Reduce their material footprint by 30% by 2030. 	No/Unidentified
Finland	<ul style="list-style-type: none"> • Total consumption of primary raw materials in Finland in 2035 will not exceed what it was in 	No/Unidentified

Country / region	Interventions	Legal Status
	<p>2015. Natural resources used to manufacture products for export are not covered by the objective.</p> <ul style="list-style-type: none"> The productivity of resources will double by 2035 from what it was in 2015. The circular material use rate (CMU) will double by 2035. The CMU is the percentage of recycled materials being used out of all materials used. 	
France	<ul style="list-style-type: none"> Increase resource productivity by 30% by 2030 with 2010 as the base year. 	No/Unidentified
Germany	<ul style="list-style-type: none"> (Expired) Double Germany's raw material productivity by 2020 relative to 1994. 	No/Unidentified
Ireland	<ul style="list-style-type: none"> (Expected) Significantly reduce Ireland's circularity gap, in both absolute terms and in comparison, with other EU Member States, so that Ireland's rate is above the EU average by 2030. 	No/Unidentified
Netherlands: Federal and Fryslân & Flevoland Regions	<ul style="list-style-type: none"> Complete circularity by 2050. Halving the use of primary abiotic raw materials by 2030. (Expired) Fryslân Region: More than 25% circular procurement in 2020. Fryslân Region: 100% circular procurement by 2025. Flevoland Region: 50% circular procurement by 2025. Flevoland Region: 100% circular procurement by 2030. 	No/Unidentified
Portugal	<ul style="list-style-type: none"> Raise the productivity of materials from €1.14 of GDP/kg materials consumed in 2013 to €1.17 of GDP/kg materials in 2020 and €1.72 of GDP/kg materials in 2030. 	No/Unidentified
Slovenia	<ul style="list-style-type: none"> Reach 3.5 inflation adjusted GDP /kg of material consumed by 2030 compared to their 2015 base of 1.79 inflation adjusted GDP /kg of material consumed. 	No/Unidentified
Spain: Federal and Basque Region.	<ul style="list-style-type: none"> Reduction of the national consumption of materials by 30% by 2030, using 2010 as the reference year. Basque Region: Increase resource productivity by 30% by 2030. Basque Region: Increase the circular material use rate by 30% by 2030. 	No/Unidentified
United Kingdom: England and Wales	<ul style="list-style-type: none"> England: Double resource productivity by 2050. Wales: achieve 'One Planet Living' within the lifetime of a generation requires a reduction of the impacts of Welsh consumption by approximately two-thirds. 	No/Unidentified

Country / region	Interventions	Legal Status
	<ul style="list-style-type: none"> Wales: Move towards becoming a zero waste nation, with a focus on eliminating waste. Where waste cannot be eliminated, it must be recycled in “closed loop” systems to achieve 70% recycling across all sectors, and diverting waste from landfill by 2025. 	

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Caveat:

This research was conducted in January 2022 and as such represents publicly available information at that point in time. All references and supporting links were accessed during January 2022.

As a greater number of countries make the transition towards a more circular economy, targets to drive/support consumption reduction are increasingly being considered and it's advisable that readers check progress with state legislature of the individual countries. This report is not comprehensive and the authors would welcome feedback on consumption reduction targets that have evolved since publication. It should also be noted that text from official documents has often been translated into English and as such there may be minor variations in translation.

1 Background

1.1 The Circular Economy Bill

The Scottish Government is consulting on a circular economy bill. The bill is intended to provide Scottish Government with a range of enabling powers and is a continuation of the Circular Economy Strategy 'Making Things Last' published in 2016,¹ alongside other policy work to embed the principles of a circular economy in Scotland and take action to make good use of our planet's finite resources.

Making Things Last set out that shifting to a more circular economy would have benefits for:

- The environment- cutting waste and carbon emissions and reducing reliance on scarce resources
- The economy- improving productivity, opening up new markets and improving resilience; and
- Communities- more, lower cost options to access the goods we need with opportunities for social enterprise.

The Circular Economy Bill should also be seen in the context of the 2020 Climate Change Plan update,² which set out that Scotland will be well on the way to a circular economy by 2032, with transformed relationships to waste and consumption and an economy that is designed to reduce, reuse and repair materials and recycle our waste more than ever. By 2045, the vision is for Scotland's cultural, social and business norms to be driven by a focus on:

- Responsible consumption (people and businesses demand products and services in ways which respect the limits of our natural resources)
- Responsible production (a circular economy is embraced by 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

2 Purpose

The Scottish Government wished to understand whether other countries had introduced consumption reduction targets through legislation or other routes, in order to support decision-making around the best route for development of a consumption reduction target or a consumption reduction monitoring framework. Scottish Government therefore requested that Zero Waste Scotland carry out research to determine whether any other countries have introduced a legally binding target (included in legislation).

This research addresses the following questions:

- Are we able to identify any countries that have introduced legally-binding consumption reduction targets?
- Have any countries provided justification for their decision to make or not to make targets legally binding?

¹ [Making things last: a circular economy strategy for Scotland, Scottish Government, 2016](#)

² [Securing a green recovery on a path to net zero: climate change plan 2018-2032- update, Scottish Government, 2020](#)

- Are other countries' targets intended to be monitorable and measurable, or to provide a high-level direction of travel?

3 Methodology

3.1 Scope

The Scottish government has expressed a desire to continue to align with progress in Europe. In pursuit of this, this research focussed on the nations of Central Europe, Western Europe, Scandinavia, and the regions within these countries with similar levels of economic development. [Table 1](#) contains a list of the countries to be researched.

Table 1. Country List

Countries			
Austria	France	Italy	Portugal
Belgium	Germany	Luxembourg	Slovenia
Denmark	Greece	Netherlands	Spain
Finland	Ireland	Poland	Sweden
Switzerland	United Kingdom		

3.2 Target Criteria and Legal Criteria

To build an understanding of existing commitments, a broad definition of consumption reduction targets was used. However, these targets identified needed to be quantifiable with tangible deadlines to achievement.

We also took the international targets under Sustainable Development Goal 12 into consideration. Sustainable Development Goal 12: Responsible Consumption and Production³ has two indicators under target 12.2 'By 2030, achieve the sustainable management and efficient use of natural resources'. These are:

12.2.1 Material footprint, material footprint per capita, and material footprint per GDP.

12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP.

Of note is also target 12.5 'By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse' with indicator:

12.5.1 National recycling rate, tons of material recycled.

³ [United Nations Department of Economic and Social Affairs- Sustainable Development Goal 12 Consumption Reduction Targets Research](#)

To remain in alignment with the SDGs, targets were identified that:

- Reduce the consumption of virgin materials,
- Increase sustainable consumption/green procurement,
- Increase resource productivity,
- Reduce countries' respective circularity gaps.

The reduction in the consumption of virgin materials was considered to be a 'true' consumption reduction target. Sustainable consumption/green procurement are broadly defined under the United Nations SDG 12⁴. To paraphrase, this refers to the procurement and consumption of resources whose extraction does not permanently harm people or the environment. Resource productivity is commonly defined as the amount of raw materials consumed per unit of Gross Domestic Product (GDP). While the recycling rate refers to the percentage of all waste that is recycled, the circularity gap considers both the reuse and recycling of materials as well as the import and export of materials⁵.

Increased resource productivity **does not** necessarily result in reduced resource consumption if consumption of goods and services increases at a faster rate. The same logic applies to recycling rates and measures of the circularity gap. Indicators showing a more efficient use of resources do not necessarily result in a country using less resources.

Within this research, for the target to be considered legally binding it would need to be supported by a law, act, or decree.

4 Results

4.1 Key Findings

Below is a summary table containing past, present, and expected future consumption reduction targets that met our criteria. The documents making these claims can be found referenced in the key country profiles contained in the Annex.

Table 2. Target Summary Table. Note: where targets are listed as having a legal status of 'no/unidentified' that means that the target has not been found within a law, act or decree during the course of this research.

Country / region	Interventions	Legal Status
Austria	<ul style="list-style-type: none"> • (Expired) Increase resource efficiency by 50% by 2020. • (Expected) Reduce domestic material consumption by 25% by 2030. • (Expected) Achieve sustainable domestic material consumption of 7 tons per capita per year by 2050. • (Expected) Increase resource efficiency in the Austrian economy by 50% by 2030. 	No/Unidentified
Belgium: Wallonia and	<ul style="list-style-type: none"> • Wallonia Region: Increase resource productivity by 25% from 2020-2035. 	No/Unidentified

⁴[United Nations Sustainable Development Goal 12](#)

⁵[Circularity Gap Report 2021](#)

Country / region	Interventions	Legal Status
Flanders Regions	<ul style="list-style-type: none"> Wallonia Region: Reducing direct material input and domestic material consumption by 25% by 2030 (compared to a 2013 baseline). Flanders Region: Reduce their material footprint by 30% by 2030. 	
Finland	<ul style="list-style-type: none"> Total consumption of primary raw materials in Finland in 2035 will not exceed what it was in 2015. Natural resources used to manufacture products for export are not covered by the objective. The productivity of resources will double by 2035 from what it was in 2015. The circular material use rate (CMU) will double by 2035. The CMU is the percentage of recycled materials being used out of all materials used. 	No/Unidentified
France	<ul style="list-style-type: none"> Increase resource productivity by 30% by 2030 with 2010 as the base year. 	No/Unidentified
Germany	<ul style="list-style-type: none"> (Expired) Double Germany's raw material productivity by 2020 relative to 1994. 	No/Unidentified
Ireland	<ul style="list-style-type: none"> (Expected) Significantly reduce Ireland's circularity gap, in both absolute terms and in comparison, with other EU Member States, so that Ireland's rate is above the EU average by 2030. 	No/Unidentified
Netherlands: Federal and Fryslân & Flevoland Regions	<ul style="list-style-type: none"> Complete circularity by 2050. Halving the use of primary abiotic raw materials by 2030. (Expired) Fryslân Region: More than 25% circular procurement in 2020. Fryslân Region: 100% circular procurement by 2025. Flevoland Region: 50% circular procurement by 2025. Flevoland Region: 100% circular procurement by 2030. 	No/Unidentified
Portugal	<ul style="list-style-type: none"> Raise the productivity of materials from €1.14 of GDP/kg materials consumed in 2013 to €1.17 of GDP/kg materials in 2020 and €1.72 of GDP/kg materials in 2030. 	No/Unidentified
Slovenia	<ul style="list-style-type: none"> Reach 3.5 inflation adjusted GDP /kg of material consumed by 2030 compared to their 2015 base of 1.79 inflation adjusted GDP /kg of material consumed. 	No/Unidentified
Spain: Federal and Basque Region.	<ul style="list-style-type: none"> Reduction of the national consumption of materials by 30% by 2030, using 2010 as the reference year. Basque Region: Increase resource productivity by 30% by 2030. 	No/Unidentified

Country / region	Interventions	Legal Status
	<ul style="list-style-type: none"> Basque Region: Increase the circular material use rate by 30% by 2030. 	
United Kingdom: England and Wales	<ul style="list-style-type: none"> England: Double resource productivity by 2050. Wales: achieve 'One Planet Living' within the lifetime of a generation requires a reduction of the impacts of Welsh consumption by approximately two-thirds. Wales: Move towards becoming a zero waste nation, with a focus on eliminating waste. Where waste cannot be eliminated, it must be recycled in "closed loop" systems to achieve 70% recycling across all sectors, and diverting waste from landfill by 2025. 	No/Unidentified

The existence of a consumption reduction target, let alone a legally binding one, is currently extremely rare. Of our sample of 18 countries, only Finland, the Netherlands, Spain, and the Wallonia region of Belgium had consumption reduction targets that would reduce the aggregate amount of material being consumed. Almost every other target identified over the course of this research focused on increasing the productivity of resources or reducing the circularity gap. Proxy targets regarding recycling rates and reductions in sectoral waste were common but were rarely packaged as a framework for addressing consumption reduction itself.

Most of these targets were found in national strategy documents regarding circular economy, waste management, industrial development, resource efficiency, and strategies for achieving the sustainable development goals (SDGs). These documents are usually published by environmental ministries and environmental agencies and go through consultation stages with committees formed by governments. The committees can approve, change, or remove the targets in the final publication. The consumption reduction sections of the documents focused on the decoupling of resource use with economic growth as opposed to the reduction of aggregate material throughput and environmental damage as the goal in itself.

Determining the legal status of the targets contained within [Table 2](#) proved to be extremely challenging. The targets stated in national strategy documents were never directly linked back to previous legislation, acts, or decrees and legislation databases seemed to have difficulty finding references to these strategy documents or translations to commonly used terms (i.e. circular economy, sustainable consumption, etc.).

No consumption reduction targets were found to have legal backing. France's resource productivity target was contained within a law focused on the carbon emissions from energy generation; but the language around it was soft, there were no implementation setps outlined, and the goal was not repeated in successive documents⁶. **Other than this, Finland's targets are supported by a resolution and Spain's has passed many acts which approve of their regional circular economy strategies that contain some targets.**

4.2 European Union

In early 2021 the European Union parliament voted to have the European Commission consider legally binding consumption reduction targets to include in a future update of the EU

⁶ [2015 Energy Transition for Green Growth Act](#)

Circular Economy Action Plan⁷. As of January 29th 2022, there have been no consumption reduction targets added to the plan and no public statements on the ongoing process⁸.

5 Conclusion

It is clear that it is still currently rare for a country or territory to establish a consumption reduction target, let alone one that is backed by legislation. While clear targets regarding resource productivity and circularity gaps have been announced by many regions, the issue of reducing total material throughput is less commonly addressed. Consumption reduction targets proposed in strategy documents are (as yet) rarely implemented.

Our research has identified several targets focused on improving recycling rates, consumption and footprint per capita, and consumption and footprint per unit of GDP. However, the issues of total material footprint and total domestic material consumption are not generally the subject of legal binding targets.

⁷ [European Parliament resolution of 10 February 2021 on the New Circular Economy Action Plan \(2020/2077\(INI\)\)](#)

⁸ [EU Circular Economy Action Plan Page](#)

Annex

Key Findings Country Profiles

The sections below contain the profiles of the countries that were found to have consumption reduction targets.

Austria
<p>Summary</p> <p>Key Body: Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology.</p> <p>Key Documents: Resource Efficiency Action Plan 2012⁹, Reset 2020¹⁰, Draft for a National Circular Economy Strategy¹¹.</p> <p>Target(s):</p> <ul style="list-style-type: none">• (Expired) Increase resource efficiency by 50% by 2020.• (Expected) Reduce domestic material consumption by 25% by 2030.• (Expected) Achieve sustainable domestic material consumption of 7 tons per capita per year by 2050.• (Expected) Increase resource efficiency in the Austrian economy by 50% by 2030. <p>Legal Status: No/Unidentified¹²</p>
<p>As of January 2022, Austria has no legislation that contains consumption reduction targets that meet the criteria defined within this report. However, it is stated here because Austria has had targets in the past and targets that could soon be stated in upcoming national strategy documents.</p> <p>In 2012 Austria released their Resource Efficiency Action Plan (REAP) which contained a headline target to increase resource efficiency by at least 50% by the year 2020 (DMC/GDP). Building on this framework will be Reset 2020. Reset 2020 is an ongoing effort to create new circular economy initiatives and implement existing European strategies and initiatives. Part of this initiative will be the new Austrian National Circular Economy Strategy, which has been released after stakeholder consultation. In the most recent draft of this strategy there are three consumption reduction targets of note.</p> <p>Goal 1: Reduction of domestic resource consumption.</p> <ul style="list-style-type: none">• Reduce domestic material consumption by 25% by 2030.• Achieve sustainable domestic material consumption of 7 tons per capita per year by 2050. <p>Goal 2: Increase the resource efficiency of Austrian business.</p> <ul style="list-style-type: none">• Increase resource efficiency in the Austrian economy by 50% by 2030. <p>The Reset 2020 strategy document also contains other consumption reduction targets concerning specific materials and sectors.</p>

⁹ [Austrian Resource Efficiency Action Plan \(REAP\) 2012](#)

¹⁰ [Austria Reset 2020](#)

¹¹ [Austrian National Circular Economy Strategy in consultation](#)

¹² [Austrian Legislation Database](#)

Belgium

Summary

Key Body: Regional Governments.

Key Documents: Brussels, Circular Economy Program¹³; Wallonia, Circular Wallonia Plan¹⁴; Flanders, 2020-2030 Circular Economy Roadmap¹⁵.

Target(s):

- Wallonia Region: Increase resource productivity by 25% from 2020-2035.
- Wallonia Region: Reducing direct material input and domestic material consumption by 25% by 2030 (compared to a 2013 baseline).
- Flanders Region: Reduce their material footprint by 30% by 2030.

Legal Status: No/Unidentified¹⁶

Belgium devolves responsibility for creation of consumption reduction and circular economy plans down to the regional level. There are three main regions: Brussels, Flanders, and Wallonia.

In 2016 the Brussels government adopted their regional Circular Economy Program (PREC) which was updated in 2019. No consumption reduction targets were included. Of note is also the 5th update of their Resource and Waste Management Plan (2018-2023) which also did not contain targets¹⁷.

In February 2021 the region of Wallonia adopted the Circular Wallonia Plan. This plan includes targets to:

- Increase resource productivity by 25% from 2020-2035 and,
- Reduce direct material input and domestic material consumption by 25% by 2030 (compared to a 2013 baseline)¹⁸.

While this second target meets the definition of a consumption reduction target a repetition or reinforcement of this target in any Wallonian legislation¹⁹ could not be identified.

Also notable is that the region of Flanders has given itself a target to reduce their material footprint by 30% by 2030 and completely decouple economic growth from resource use as part of their 2020-2030 Circular Economy Roadmap.

¹³ [Brussels Circular Economy Program \(PREC\)](#)

¹⁴ [Circular Wallonia Plan \(2017\)](#)

¹⁵ [Flanders Circular Economy Roadmap](#)

¹⁶ [Belgium Legislation Database](#), [Wallonia Legislation Database](#), [Flanders Legislation Database](#)

¹⁷ [Brussels Resource and Waste Management Plan \(2018-2023\)](#)

¹⁸ [Circular Wallonia Strategy \(2021\)](#)

¹⁹ [Wallonian Legislative Database](#)

Finland

Summary

Key Body: Finnish Ministry for the Environment

Key Documents: Strategic Programme to Promote a Circular Economy²⁰.

Target(s):

- Total consumption of primary raw materials in Finland in 2035 will not exceed what it was in 2015. Natural resources used to manufacture products for export are not covered by the target.
- The productivity of resources will double by 2035 from what it was in 2015.
- The circular material use rate (CMU) will double by 2035. The CMU is the percentage of recycled materials being used out of all materials used.

Legal Status: No/Unidentified²¹

Finland's Strategic Programme to Promote a Circular Economy 2021 has three consumption reduction targets:

1. "The consumption of non-renewable natural resources will decrease and the sustainable use of renewable natural resources may increase to the extent that the total consumption of primary raw materials in Finland in 2035 will not exceed what it was in 2015. Natural resources used to manufacture products for export are not covered by the objective*.

(*The objective takes into account Finland's total consumption that includes the imported products needed to run people's everyday lives and infrastructure and the consumption of domestic raw materials. Finland's total consumption includes raw material consumption in countries where the products are manufactured minus the raw materials used to manufacture Finnish products for export. The total consumption is shown by the Raw Material Consumption (RMC) indicator calculated by using the ENVIMAT tool developed by the University of Oulu and Finnish Environment Institute.)"

2. "The productivity of resources will double by 2035 from what it was in 2015."
3. "The circular material use rate (CMU) will double by 2035."

Target one meets the strictest definition of a consumption reduction target (as has been defined in this report), and is supported by a government resolution (April 8th 2021) on the circular economy strategy which repeats and reaffirms these goals²². A search of the Finnish legislation database did not yield any additional results; meaning that this target also does not appear to be legally binding.

Also notable is that the region of Päijät-Häme has produced a circular economy roadmap; however, it does not contain any qualifiable consumption reduction targets²³.

²⁰ [Finland Strategic Programme for a Circular Economy \(2021\)](#)

²¹ [Finland Legislation Database](#)

²² [Finland Government Resolution on the Strategic Programme for the Circular Economy \(2021\)](#)

²³ [Päijät-Häme Circular Economy Roadmap](#)

France

Summary

Key Body: Ministry for the Ecological Transition

Key Documents: 2021 Anti-Waste Law for a Circular Economy²⁴, 2015 Energy Transition for Green Growth Act²⁵.

Target(s): Increase resource productivity by 30% by 2030 with 2010 as the base year.

Legal Status: No/Unidentified²⁶

The August 2015 Law, Energy Transition for Green Growth Act sets the target of increasing resource productivity by 30% by 2030 with 2010 as the base year. Despite this target being contained within the text of the law, it does not seem to be legally binding.

We have come to this conclusion for a few reasons. First, the language around the target is soft, avoiding commonly used terms like 'obligation' or 'interdiction' (mandatory / forbidden) which are often applied to other legally bound targets. Furthermore, there are no implementation steps or deadlines delineated within the document, as is common with other legally bound targets. The primary theme of the law itself is the carbon emissions resulting from energy generation, so the focus of the law isn't on waste and resource productivity. And finally, this target is not often cited in successive legislation and strategies. For example, the 2021 Anti-Waste Law for a Circular Economy.

While this anti-waste law establishes a wide variety of sectoral recycling and waste prevention targets and initiatives, it contains no consumption reduction targets and neither reaffirms nor provides an update to France's progress on the resource productivity target. The resource productivity target seems to be the only economy-wide consumption reduction target in all of their legislation regarding responsible consumption and production²⁷.

²⁴ [French Anti-Waste Law for a Circular Economy \(2021\)](#)

²⁵ [August 2015 Law, Energy Transition for Green Growth Act](#)

²⁶ [French Legislation Database](#)

²⁷ [French Resource Productivity Strategies, Programs, and Legislation](#)

Germany

Summary

Key Body: German Federal Government

Key Documents: National Sustainable Development Strategy (2002, 2004, 2008, 2012, 2016)²⁸.

Target(s): (Expired) Double Germany's raw material productivity by 2020 relative to 1994.

Legal Status: No/Unidentified²⁹

The German National Sustainable Development Strategy was passed in 2002 and, after 2004, has received updates every four years. The strategy is published for the specific purpose of tracking Germany's progress in reaching the United Nations' Sustainable Development Goals. While the latest 2016 update of this strategy does not contain any consumption reduction targets meeting the criteria defined in this report, the original 2002 version of the strategy did.

Originally, there was a commitment to double Germany's raw material productivity by 2020 relative to 1994³⁰ (RMI/GDP).

Successive legislation including the 2020 Progress III legislation (which is themed specifically around material resource efficiency specifically) do not contain any consumption reduction targets³¹. Germany's 2021 update to their Circular Economy Roadmap also did not contain consumption reduction targets³².

²⁸ [German National Sustainable Development Strategy \(2017\)](#)

²⁹ [German Legislation Database](#)

³⁰ [European Environment Agency Resource efficiency and Circular Economy in Europe- Germany \(2018\)](#)

³¹ [German Resource Efficiency Programme Progress III \(2020\)](#)

³² [German Circular Economy Roadmap \(2021\)](#)

Ireland

Summary

Key Body: Department of the Environment, Climate and Communications; Irish Environmental Protection Agency

Key Documents: Circular Economy Bill³³; Whole of Government Circular Economy Strategy 2022-2023³⁴.

Target(s): (Expected) Significantly reduce Ireland's circularity gap, in both absolute terms and in comparison, with other EU Member States, so that Ireland's rate is above the EU average by 2030.

Legal Status: No/Unidentified³⁵

In December 2021 the Irish government launched its first circular economy strategy document- the Whole of Government Circular Economy Strategy 2022 – 2023 'Living More, Using Less'. This was done in tandem with the Environmental Protection Agency's launch of their New Circular Economy Programme that will build off previous Waste Prevention Programmes. All of this was done in late 2021 in preparation for a forthcoming circular economy bill that is expected to contain these goals and proposals.

Objective #2 of the Government's Circular Economy Strategy 2022 – 2023 is "To support and implement measures that significantly reduce Ireland's circularity gap, in both absolute terms and in comparison, with other EU Member States, so that Ireland's rate is above the EU average by 2030; such measures to address facets of sustainable production and consumption most impactful in an Irish context."³⁶.

The Joint Oireachtas Committee on Environment and Climate Action began scrutinising the bill in October 2021 and the bill is currently expected to be released in early 2022. The committee provided a report on their progress concurrently with the release of the aforementioned documents. The committee report repeatedly recommends implementing more and stricter targets, so there may be further consumption reduction targets implemented in the future.

³³ [Irish Government Joint Committee on Environment & Climate Action Report on the Pre-Legislative Scrutiny of the Circular Economy Bill \(2021\)](#)

³⁴ [Irish Circular Economy Strategy \(2021\)](#)

³⁵ [Irish Legislation Database](#)

³⁶ [Irish Government Circular Economy Strategy Document \(2022-2023\)](#)

Netherlands

Summary

Key Body: Netherlands Planning Office for the Living Environment

Key Documents: 2030 Circular Economy Target: Operationalisation, Concretisation and Reflection³⁷; Fryslân 'Transitie Doe Agenda' (2020)³⁸; Flevoland Inspiratie voor gemeenten: op weg naar een circulaire economie³⁹.

Target(s):

- Complete circularity by 2050.
- Halving the use of primary abiotic raw materials by 2030.
- (Expired) Fryslân Region: More than 25% circular procurement in 2020.
- Fryslân Region: 100% circular procurement by 2025.
- Flevoland Region: 50% circular procurement by 2025.
- Flevoland Region: 100% circular procurement by 2030.

Legal Status: No/Unidentified⁴⁰

In 2016 the Netherlands launched a government-wide program for a Circular Dutch Economy by 2050. The headline goal was for the Netherlands to be completely circular by 2050, with an intermediary target of halving the use of primary abiotic raw materials by 2030 (e.g. minerals, metals, fossil raw materials)⁴¹. This goal of halving the use of primary abiotic raw materials meets the definition (within this report) of a consumption reduction target in absolute terms. This target is not contained within any laws, ministerial regulations, or royal decrees on the Dutch legislation database.

Following this program was the 2017 Raw Materials Agreement⁴²; the 2018 five sectoral transition agendas⁴³; and in 2019⁴⁴, 2020⁴⁵, and 2021⁴⁶ implementation programmes for the period from 2019-2023. While each of these documents repeated and reinforced the original consumption reduction targets, we did not identify any additional targets meeting the criteria used in this report.

The regional governments of the Netherlands have each developed their own circular economy targets and strategies. Of note is the target set by the Fryslân regional government "to achieve more than 25% circular procurement in 2020 and achieve 100% circular procurement by 2025" (this goal was transferred from a 2019 document) and the target set by the Flevoland regional government to achieve 50% circular procurement by 2025 and 100% circular procurement by 2030.

Circular procurement is broadly defined by the Dutch to be the consumption of products and materials consisting of reused and recycled materials. Neither of the regional targets are represented in legislation within the Dutch legislation database.

³⁷ [Netherlands 2030 Circular Economy Policy Brief \(2019\)](#)

³⁸ [Fryslân Circular Economy Strategy \(2020\)](#)

³⁹ [Flevoland Circular Economy Strategy \(2021\)](#)

⁴⁰ [Netherlands Legislation Database](#)

⁴¹ [Netherlands Government Programme for a Circular Economy \(2016\)](#)

⁴² [Netherlands National Agreement on the Circular Economy \(2017\)](#)

⁴³ [Netherlands Circular Economy Transition Agendas](#)

⁴⁴ [Netherlands 2030 Circular Economy Policy Brief \(2019\)](#)

⁴⁵ [Netherlands Circular Economy Implementation Program \(2020-2030\)](#)

⁴⁶ [Letter to parliament about updating the Circular Economy Implementation Program \(2021-2023\)](#)

Portugal

Summary

Key Body: Portuguese Ministry for the Environment

Key Documents: Leading the transition: A circular economy action plan for Portugal (2017)⁴⁷; Resolution of the Council of Ministers No. 190-A/2017⁴⁸; Green Growth Commitment (2015)⁴⁹.

Target(s): Raise the productivity of materials from €1.14 of GDP/kg materials consumed in 2013 to €1.17 of GDP/kg materials in 2020 and €1.72 of GDP/kg materials in 2030.

Legal Status: No/Unidentified⁵⁰

In 2017 the Portuguese government passed resolution No. 190-A/2017 to approve the national circular economy strategy “Leading the transition: A circular economy action plan for Portugal”. While the action plan repeats the goal of increasing resource productivity made in the 2015 Green Growth Commitment, the document explicitly states that these are not official targets and official targets will be defined at some later date. There is no legislation regarding the approval of the Environmental Ministry’s 2015 Green Growth Commitment in Portugal’s Legislation database so the ‘commitment’ does not appear to be legally binding. Regardless, the target was to raise the productivity of materials from €1.14 of GDP/kg materials consumed in 2013 to €1.17 of GDP/kg materials in 2020 and €1.72 of GDP/kg materials in 2030.

⁴⁷ [Leading the transition: A circular economy action plan for Portugal \(2017\)](#)

⁴⁸ [Portuguese Resolução do Conselho de Ministros n.º 190-A/2017](#)

⁴⁹ [Green Growth Commitment \(2015\)](#)

⁵⁰ [Portugal Legislation Database](#)

Slovenia

Summary

Key Body: Slovenia Ministry of Environment and Spatial Planning

Key Documents: Roadmap Towards the Circular Economy in Slovenia (2018)⁵¹; Resolution on the National Environmental Action Programme 2020–2030 (ReNPVO20-30) (2020)⁵².

Target(s): Reach 3.5 inflation adjusted GDP/kg of material consumed by 2030 compared to their 2015 base of 1.79 inflation adjusted GDP /kg of material consumed.

Legal Status: No/Unidentified⁵³

In 2018 Slovenia published their Roadmap Towards the Circular Economy. While there is a resource productivity target in this document, it explicitly states that the goals are non-binding. The goal is to reach 3.5 purchasing power parity adjusted GDP/kg of material consumed (DMC) by 2030 compared to their 2015 base of 1.79 purchasing power parity adjusted GDP /kg of material consumed (DMC). This goal originated in the 2017 Slovenian Development Strategy 2030⁵⁴. Also notable was the March 2020 Resolution on the National Environmental Action Programme 2020–2030 (ReNPVO20-30) which does not contain consumption reduction targets.

⁵¹ [Roadmap Towards the Circular Economy in Slovenia \(2018\)](#)

⁵² [Resolution on the National Environmental Action Programme 2020–2030 \(ReNPVO20-30\)](#)

⁵³ [Slovenia Legislation Database](#)

⁵⁴ [Slovenian Development Strategy 2030 \(2017\)](#)

Spain

Summary

Key Body: Spanish Ministry for the Ecological Transition and the Demographic Challenge

Key Documents: España Circular 2030 (2020)⁵⁵.

Target(s):

- Reduction of the national consumption of materials by 30% by 2030, using 2010 as the reference year.
- Basque Region: Increase resource productivity by 30% by 2030.
- Basque Region: Increase the circular material use rate by 30% by 2030.

Legal Status: No/Unidentified⁵⁶

In 2020 the Spanish government released their national circular economy strategy España Circular 2030. One of the headline targets was the reduction of the national consumption of materials by 30% by 2030, using 2010 as the base reference year. This target does meet the criteria developed for this piece of research for a consumption reduction target. This target was not repeated or solidified by any legislation. The Law 22/2011, of July 28, on waste and contaminated soil required the regions of Spain to establish their own waste management strategies with circular economy themes. The regions of Catalonia⁵⁷, Aragon⁵⁸, Extremadura⁵⁹, Castilla-La Mancha⁶⁰, Andalusia⁶¹, Galicia⁶², Navarre⁶³, and the Canary Islands⁶⁴ have released their own circular economy targets and strategies, none contain consumption reduction targets that meet the criteria for this piece of research. However, the region of País Vasco region, otherwise known as the Basque region, has a circular economy strategy "Estrategia de Economía Circular de Euskadi 2030"⁶⁵ that contains targets to increase material productivity by 30% by 2030 and to increase the circular material use rate by 30% by 2030. This target does not appear to be legally binding⁶⁶.

⁵⁵ [Spanish National Circular Economy Strategy \(2020\)](#)

⁵⁶ [Spain Legislation Database](#)

⁵⁷ [Catalonia Circular Economy Strategy \(2015\)](#)

⁵⁸ [Aragon Circular Economy Strategy \(2021\)](#)

⁵⁹ [Extremadura Circular Economy Strategy \(2017\)](#)

⁶⁰ [Castilla-La Mancha Circular Economy Strategy Approval Law \(2019\)](#)

⁶¹ [Andalusia Circular Economy Strategy Approval Law \(2021\)](#)

⁶² [Estrategia gallega de economía circular 2020-2030](#)

⁶³ [Agenda for the development of the Circular Economy in Navarra](#)

⁶⁴ [Canary Islands Circular Economy Strategy \(2021\)](#)

⁶⁵ [Estrategia de Economía Circular de Euskadi 2030](#)

⁶⁶ [Basque Legislation Database](#)

United Kingdom (Excluding Scotland)

Summary

Key Body: Department for Environment, Food & Rural Affairs; Northern Irish Department of Agriculture, Environment and Rural Affairs; Welsh Government

Key Documents: The Environment Act 2021⁶⁷; 25 Year Environment Plan: 'A Green Future: Our 25 Year Plan to Improve the Environment'⁶⁸; Resources and Waste Strategy for England (2018)⁶⁹; Wales and the Sustainable Development Goals (2019)⁷⁰; One Wales: One Planet Sustainable Development Report (2009-2010)⁷¹; Delivering Resource Efficiency (2013)⁷², Draft Environment Strategy for Northern Ireland⁷³.

Target(s):

- England: Double resource productivity by 2050.
- Wales: achieve 'One Planet Living' within the lifetime of a generation, requiring a reduction of the impacts of Welsh consumption by approximately two-thirds.
- Wales: Move towards becoming a zero waste nation, with a focus on eliminating waste. Where waste cannot be eliminated, it must be recycled in "closed loop" systems to achieve 70% recycling across all sectors, and diverting waste from landfill by 2025.

Legal Status: No/Unidentified⁷⁴

The Environment Act 2021 contains the primary powers that will enable the Government to progress with the delivery of some of the key policies set out in the Resources and Waste Strategy for England that was published in 2018.

In 2018 the UK Department for Environment, Food & Rural Affairs released a strategy document titled "Resources and Waste Strategy for England (2018)". Within this document was the headline target to double resource productivity by 2050 (DMC/GDP). This target was repeated in the 25 Year Environment Plan: 'A Green Future: Our 25 Year Plan to Improve the Environment'; however, neither seem to have any legal standing.

The Welsh One Planet Living initiative started in 2009 and is regularly cited in strategy documents and reports on their progress on the Sustainable Development Goals and their Waste Strategy.

The One Planet Living initiative refers to the fact that humanity would need 2.5 Earths for the current rate of resource consumption in Wales to be sustainable. In light of this, Wales repeatedly makes statements committing to reducing their consumption to an appropriate amount for 'One Earth Living'; however, these statements take many forms, including:

1. Wales and the Sustainable Development Goals (2019): "The Welsh Government's goal to achieve 'One Planet Living' within the lifetime of a generation requires a reduction of the impacts of Welsh consumption by approximately two thirds."
2. One Wales: One Planet Sustainable Development Report (2009-2010): "Move towards becoming a zero waste nation, with a focus on eliminating waste. Where

⁶⁷ [UK Environment Act 2021](#)

⁶⁸ [UK 25 year Environment Plan \(2018\)](#)

⁶⁹ [Resources and Waste Strategy for England \(2018\)](#)

⁷⁰ [Wales and the Sustainable Development Goals \(2019\)](#)

⁷¹ [One Wales: One Planet Sustainable Development Report \(2009-2010\)](#)

⁷² [Delivering Resource Efficiency - Northern Ireland Waste Management Strategy \(2015\)](#)

⁷³ [Northern Ireland Department of Agriculture, Environment & Rural Affairs \(DAERA\) Draft Environmental Strategy in Consultation \(2022\)](#)

⁷⁴ [United Kingdom Legislation Database](#)

United Kingdom (Excluding Scotland)

waste cannot be eliminated, it must be recycled in “closed loop” systems to achieve 70% recycling across all sectors, and diverting waste from landfill by 2025.”.

The first is a sustainable consumption target and the second is a circularity gap target that meet the criteria for this piece of research.

While the Environment Strategy for Northern Ireland has only recently finished consultation, the document in consultation contained no consumption reduction targets. Delivering Resource Efficiency (2013) had contained a target for the amount of waste generated per capita to be in absolute decline by the year 2020, but no consumption reduction targets have been identified for Northern Ireland.

Supplementary Findings Country Profiles

Below are the country profiles for the countries that did not appear to have a consumption reduction target.

Denmark
<p>Summary</p> <p>Key Body: Ministry of Environment and Food; Ministry of Industry, Business and Financial Affairs</p> <p>Key Documents: Danish Strategy for Circular Economy (2018) ⁷⁵; Denmark Without Waste, Recycle More – Incinerate Less (2013) ⁷⁶; Denmark Without Waste II, Strategy for Waste Prevention (2015) ⁷⁷.</p> <p>Target(s): None/Unidentified</p> <p>Legal Status: No/Unidentified⁷⁸</p>
<p>Denmark published the Danish Strategy for Circular Economy in 2018. Within the strategy there is a section dedicated to changing consumption patterns in a circular economy, however, there are no consumption reduction targets present in the document.</p> <p>Also under the theme of resource efficiency are the documents Denmark Without Waste (2013) and Denmark Without Waste II (2015). Neither of these documents contain qualifiable consumption reduction targets.</p>

⁷⁵ [Danish Strategy for a Circular Economy \(2018\)](#)

⁷⁶ [Denmark Without Waste \(2013\)](#)

⁷⁷ [Denmark Without Waste II \(2015\)](#)

⁷⁸ [Danish Legislation Database](#)

Greece

Summary

Key Body: Hellenic Ministry for the Environment and Energy; Government Economic Policy Council

Key Documents: New Action Plan of the Country for the Circular Economy (2021) ⁷⁹; National Strategy for the Circular Economy (2018) ⁸⁰.

Target(s): None/Unidentified

Legal Status: No/Unidentified⁸¹

In 2018 Greece released the National Strategy for the Circular Economy and in 2021 they updated this strategy with the New Action Plan of the Country for the Circular Economy. While sustainable consumption is marked as one of the primary themes of the 2021 update no consumption reduction targets were included in the document. The original 2018 National Strategy for the Circular Economy does not contain any consumption reduction targets.

⁷⁹ [Greek New Action Plan for the Circular Economy \(2020\)](#)

⁸⁰ [Greek National Strategy for the Circular Economy \(2018\)](#)

⁸¹ [Greek Legislation Database](#)

Italy

Summary

Key Body: Ministry of Ecological Transition; Italian Ministry for the Environment

Key Documents: Towards a Circular Economy Model for Italy (2017)⁸².

Target(s): None/Unidentified

Legal Status: No/Unidentified⁸³

In 2017 the Italian Government released their circular economy strategy: “Towards a Circular Economy Model for Italy”. This document contains no qualifiable consumption reduction targets. An update to this strategy called the “National strategy for the circular economy” has recently exited the consultation phase in late 2021⁸⁴ and is expected to be adopted before June 2022⁸⁵. The document in consultation does not propose any qualifiable consumption reduction targets.

⁸² [Towards a Model of Circular Economy for Italy - Overview and Strategic Framework \(2017\)](#)

⁸³ [Italian Legislation Database](#)

⁸⁴ [Notice of Opening Public Consultation on National Strategy for the Circular Economy \(2021\)](#)

⁸⁵ [Italian National Recovery and Resilience Plan \(2021\)](#)

Luxembourg

Summary

Key Body: Ministry of the Environment, Climate and Sustainable Development; Environment Agency

Key Documents: Circular Economy Strategy for Luxembourg (2021)⁸⁶; National Waste Management Plan⁸⁷.

Target(s): None/Unidentified

Legal Status: No/Unidentified⁸⁸

Published by the government in 2021, the Circular Economy Strategy for Luxembourg does not provide any generalised consumption reduction targets. However, the document does clarify that targets and indicators will be established on a project-by-project basis so a future consumption reduction target may arise in a project's implementation roadmap. This document provided an expansive list of actionable items that public authorities and key stakeholders could undertake; many of which contained consumption reduction related themes.

Of note is also the National Waste Management Plan (2018). Although the document is primarily concerned with increasing recycling capacity there is no generalised target relating to the circularity gap present.

⁸⁶ [Circular Economy Strategy for Luxembourg \(2021\)](#)

⁸⁷ [Luxembourg National Waste Management Plan \(2018\)](#)

⁸⁸ [Luxembourgish Legislation Database](#)

Poland

Summary

Key Body: Ministry of Development and Technology; Ministry of Climate and the Environment

Key Documents: Road Map Towards the Transition to Circular Economy (2019)⁸⁹.

Target(s): None/Unidentified

Legal Status: No/Unidentified⁹⁰

Poland's "Road Map Towards the Transition to Circular Economy" was drafted in 2019 by both the Ministry of Development and Technology and the Ministry of Climate and the Environment. The document contains 41 separate actions to support the circular economy through research, data collection, proposed tax incentives, information campaigns, and institutional capacity building. Part of this roadmap was the completion of the Oto-Goz ("this-is-circular economy") project⁹¹ which developed methodologies to identify the progress of the transformation towards a circular economy in Poland and the impact of the circular economy on the socio-economic development of Poland. None of the indicators stated in these documents qualified (for the purposes of this research) as a consumption reduction target.

Previous Initiatives include the R2PI project - Horizon 2020⁹² which spanned from Nov 2016-Oct 2019. This took place in partnership with other EU/national level actors and was in conjunction with other studies across Europe. The goal of the project was to identify innovative business models and state policy tools that facilitate the transition to a circular economy. No targets were suggested amongst the policy tools.

⁸⁹ [Polish Road Map Towards the Transition to Circular Economy \(2019\)](#)

⁹⁰ [Polish Legislation Database](#)

⁹¹ [Poland Oto-Goz Project \(2019\)](#)

⁹² [R2PI project - Horizon 2020 \(2018\)](#)

Sweden

Summary

Key Body: Ministry for the Environment

Key Documents: Circular Economy – Strategy for the Transition in Sweden (2020)⁹³; Strategy for Sustainable Consumption (2016)⁹⁴.

Target(s): None/Unidentified

Legal Status: No/Unidentified⁹⁵

Sweden has two documents of relevance; the Swedish Circular Economy Strategy released in 2020 and the Strategy for Sustainable Consumption released in 2016. Neither of these documents propose or commit to any targets concerning consumption reduction.

⁹³ [Circular Economy – Strategy for the Transition in Sweden \(2020\)](#)

⁹⁴ [Strategy for Sustainable Consumption \(2016\)](#)

⁹⁵ [Swedish Legislation Database](#)

Switzerland

Summary

Key Body: Federal Office for the Environment

Key Documents: Green Economy Action Plan (2016)⁹⁶.

Target(s): None/Unidentified

Legal Status: No/Unidentified⁹⁷

While the Swiss Office for the Environment's resource consumption and circular economy sections of their website contain a significant amount of acknowledgement of planetary material resource limits and research on Swiss material footprints, there is no resource efficiency strategy or circular economy strategy and no quantifiable consumption reduction targets in legislation that meet our criteria for this research⁹⁸.

The most relevant document is the 2016 Green Economy Action Plan. However, this does not contain any consumption reduction targets.

⁹⁶ [Green Economy Action Plan](#)

⁹⁷ [Swiss Legislation Database](#)

⁹⁸ [Swiss Federal Office for the Environment](#)