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Report

# European Circular Economy policy landscape overview

A report for PBL Netherlands  
Environmental Assessment Agency

Institute for European Environmental Policy



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## CORRESPONDING AUTHORS

Emma Watkins ([ewatkins@ieep.eu](mailto:ewatkins@ieep.eu)) and Agata Meysner ([ameysner@ieep.eu](mailto:ameysner@ieep.eu))

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### IEEP main office

Rue Joseph II 36-38,  
1000 Brussels, Belgium  
Tel: +32 (0) 2738 7482  
Fax: +32 (0) 2732 4004

### London office

IEEP  
25EP, 25 Eccleston Place  
Belgravia SW1W 9NF  
Tel: + 44 (0)204 524 9900

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## LIST OF ABBREVIATIONS

CE	Circular economy
CEAP	Circular Economy Action Plan
CEEAG	State aid guidelines for climate, environmental protection and energy
CL	EU Climate Law
EEE	Electrical and electronic equipment
EGD	European Green Deal
ELV	End-of-life vehicles
EoW	End-of-waste
EP	European Parliament
EPR	Extended producer responsibility
EU	European Union
GACERE	Global Alliance on Circular Economy and Resource Efficiency
GPP	Green public procurement
HDPE	High density polyethylene (plastic)
IA	Impact assessment
ICER	Integral Circular Economy Report
ICT	Information and communication technology
IED	Industrial Emissions Directive
JRC	Joint Research Centre of the European Commission
LDPE	Low density polyethylene (plastic)
MS	Member States
OECD	Organisation for Economic Co-operation and Development
OJEU	Official Journal of the European Union
PAYT	Pay-as-you-throw
PET	Polyethylene terephthalate (plastic)
POPs	Persistent organic pollutants
PP	Polypropylene (plastic)
PPWD	Packaging and Packaging Waste Directive
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RoHS	Restriction of hazardous substances



UN	United Nations
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
WEEE	Waste electrical and electronic equipment
WFD	Waste Framework Directive
ZPAP	Zero Pollution Action Plan

## EXECUTIVE SUMMARY

### Introduction to the study

This study was conducted to provide an assessment of the development of circular economy (CE) policy at the EU level, with a view towards the PBL Netherlands Environmental Assessment Agency's Integral Circular Economy Report (ICER) 2023.

This report discusses key EU CE initiatives since the publication of the EU Circular Economy Action Plan (CEAP) in March 2020. It addresses **fifteen core CE initiatives** (arising from the CEAP and considering mainly material and resource cycles), **five supporting initiatives** (from the CEAP, without a specific material or resource cycle focus) and **three complementary initiatives** (from the European Green Deal, relevant to advancing CE).

### State of play of EU circular economy initiatives

The table below **summarises the EU CE initiatives discussed in this report**, outlining which are regulatory, strategic/overarching or voluntary, and which are already adopted, proposed but not yet adopted, or planned but not yet proposed. The majority of the initiatives should be proposed by the end of 2022.

	Adopted (5)	Proposed (7)	Planned (11)
Regulatory (14)		<ol style="list-style-type: none"> <li>1. Sustainable products initiative (2022)</li> <li>2. Proposal for an EU Batteries Regulation (2020)</li> <li>3. Directive on radio equipment (2021)</li> <li>4. Proposal for a revision of the Industrial Emissions Directive (IED) (2022)</li> <li>5. Revised Regulation on Waste Shipments (2021)</li> <li>6. Revision of the Persistent Organic Pollutants Regulation (2021)</li> <li>7. Proposal for a revised Construction Products Regulation (2022)</li> </ol>	<ol style="list-style-type: none"> <li>1. Sustainable consumption of goods – promoting repair and reuse (2022)</li> <li>2. Revision of the Packaging and Packaging Waste Directive (2022)</li> <li>3. Revision of Directive 2000/53/EC on end-of-life vehicles (2022)</li> <li>4. EU-wide end-of-waste and by-product criteria for plastics and textiles (2024)</li> <li>5. Revision of EU Waste Framework Directive (2023)</li> <li>6. Review: Restriction of the use of hazardous</li> </ol>

			substances in electronics (2022) 7. Proposal for a Microplastics Regulation (2022)
<b>Strategic/over-arching (5)</b>	<ol style="list-style-type: none"> <li>1. EU Strategy for sustainable and circular textiles (2022)</li> <li>2. EU Industrial Strategy (2020)</li> <li>3. Chemicals strategy for sustainability (2020)</li> </ol>		<ol style="list-style-type: none"> <li>1. Strategy for a Sustainable Built Environment (2023)</li> <li>2. Circular economy – revision of the monitoring framework (2022)</li> </ol>
<b>Voluntary/not yet clear (4)</b>	<ol style="list-style-type: none"> <li>1. Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)</li> <li>2. New Guidelines on State aid for climate, environmental protection and energy (CEEAG) (2022)</li> </ol>		<ol style="list-style-type: none"> <li>1. CircLean Initiative (2021)</li> <li>2. Policy Framework on biobased, biodegradable and compostable plastics (2022)</li> </ol>

The number of legislative initiatives arising from the CEAP and the EGD seems to indicate that the Commission increasingly recognises the need to use **legally binding measures to strengthen the transition to circular economy** in the EU. Since many of the regulatory initiatives discussed have not yet been adopted, EU Member States can expect important regulatory measures on circular economy in the coming years.

A handful of the initiatives (such as those addressing industry and the legislative initiative on sustainable products) have a potentially very **wide scope of application**, whilst many target **particular economic sectors** (such as construction, textiles or chemicals) **or products** (such as batteries, packaging, plastics, EEE/WEEE and ELVs) that are important to the pursuit of circular economy.

Whilst **recycling and recovery** continue to receive significant attention in EU CE initiatives, an increasing number address actions higher up the waste hierarchy, namely **reducing and reusing** products. Nevertheless, there is a lack of concerted measures to **refuse and rethink** products, limiting the potential for absolute reduction of resource consumption in the EU.

## Circular economy and other EU environmental policy areas

As well as addressing circular economy specifically, CE-related initiatives can contribute to achieving objectives in other areas of EU environmental policy.

There appears to be a **high degree of synergy between CE initiatives and the zero pollution** agenda, with the EU Zero Pollution Action Plan's waste prevention and reduction objective and the CEAP's aim to promote 'less waste and more value' being mutually supportive.

There is also a **high degree of synergy between CE initiatives and climate**, notably with regards to reducing greenhouse gas emissions and reaching climate neutrality through the use of circular economy solutions.

There is a **moderate degree of synergy between CE initiatives and resource security**, with the main synergies relating to reducing EU dependencies, increasing strategic autonomy and resilience, and/or mitigating specific supply risks.

There is also a **moderate degree of synergy between CE initiatives and biodiversity**, including in terms of advancing a sustainability transition of industry and production and/or financial support and infrastructure to protect ecosystems and restore biodiversity.

In the areas of **resource security, climate and biodiversity, circular economy seems to be used predominantly as a tool** to help achieve EU objectives, rather than the other way around. On the other hand, **the zero pollution and circular economy agendas seem to be mutually reinforcing**, with initiatives helping to advance EU objectives in both areas.

The links observed between circular economy and other environmental policies suggest that tackling the way we produce and consume has the potential to contribute to **addressing several environmental challenges**, including pollution, resource security, climate change and biodiversity loss.

## The way forward

The analysis of the EU circular economy initiatives in this report indicates that the **concept of the circular economy at the EU level has been changing**. It has moved beyond a focus on waste and is increasingly addressing priorities higher up the waste hierarchy, such as reducing and reusing products. However, so far it **does not adequately recognise the importance of absolute reduction of resource consumption** to achieve a full circular economy transition in the EU.

## 1. INTRODUCTION

### 1.1 What is the purpose of this study?

This study was conducted to assess the development of circular economy (CE) policy at the EU level with a view towards the PBL Netherlands Environmental Assessment Agency's Integral Circular Economy Report (ICER) 2023. It specifically aims to outline the initiatives (legislation, plans and other policies) since the publication of the EU Circular Economy Action Plan (CEAP) in March 2020, and provide a brief overview of their anticipated effects.

### 1.2 What is circular economy?

The Ellen MacArthur Foundation, recognised as one of the leading global experts on circular economy, has defined it as:

*A systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It is based on three principles, driven by design: eliminate waste and pollution, circulate products and materials (at their highest value), and regenerate nature.*

*It is underpinned by a transition to renewable energy and materials. Transitioning to a circular economy entails decoupling economic activity from the consumption of finite resources. This represents a systemic shift that builds long-term resilience, generates business and economic opportunities, and provides environmental and societal benefits.<sup>1</sup>*

The transition to a circular economy therefore requires a broad mix of initiatives, addressing many areas of environment and related policies.

### 1.3 What has the EU done so far on circular economy?

The EU has been pursuing a transition to a circular economy in earnest since 2015, with the launch of the **first EU Circular Economy Action Plan**<sup>2</sup>. By 2019, the 54 actions contained in that Action Plan had been delivered (with some work still ongoing), and in March 2020 the European Commission adopted a **new Circular Economy Action Plan**<sup>3</sup> (referred to as the **CEAP** in this report).

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<sup>1</sup> Ellen MacArthur Foundation (n.d.). Circular economy introduction: Glossary. [Link](#)

<sup>2</sup> European Commission (2015). Closing the loop - An EU action plan for the Circular Economy. [Link](#)

<sup>3</sup> European Commission (2020). A new Circular Economy Action Plan: For a cleaner and more competitive Europe. [Link](#)

### The objectives of the CEAP<sup>4</sup>

- Make **sustainable products** the norm in the EU;
- Focus on **sectors that use most resources with high potential for circularity**, such as: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients;
- Ensure **less waste**: reduce total waste generation and halve the amount of residual (non-recycled) municipal waste by 2030;
- Empower **consumers and public buyers**;
- Make circularity work for **people, regions and cities**; and
- Lead **global efforts** on circular economy.

The CEAP announced 35 specific actions to be taken by the EU in support of these objectives, which the European Commission has been progressively delivering since 2020. Some have already been adopted, others proposed by the European Commission but not yet adopted, and others yet to be tabled.

In addition to the CEAP, the 2019 **European Green Deal**<sup>5</sup> also provides a framework for EU action relevant to the circular economy transition. The Green Deal is the EU's strategy to promote growth whilst also responding to climate and environment related challenges, transforming the EU into "*a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use*". The Green Deal contains 47 actions, many of which are also of key relevance to the circular economy transition.

A summary of the current status (adopted, proposed or planned) and timeline of the initiatives from the CEAP and European Green Deal selected for inclusion in this report can be found in the table in Annex 5.1 of this report.

## 1.4 Current context and future of circular economy

Over the past couple of years, the general context for the circular economy transition at the EU and global level has changed. The Covid-19 pandemic revealed the global economic system's susceptibility to a variety of risks, notably related

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<sup>4</sup> European Commission (2020). Circular economy action plan (webpage). [Link](#)

<sup>5</sup> European Commission (2019). The European Green Deal. [Link](#)

to security of supply chains<sup>6</sup> of various products and materials. The war in Ukraine has led to huge increases in the price of key commodities including food, energy and fertilizer, due to the leading role of Russia and Ukraine in these markets<sup>7</sup>. Again, this has revealed some of the fragilities of the global economic system, contributing in turn to a widespread cost of living crisis<sup>8</sup>. Inflation has been on the increase globally since early 2021, with Euro area annual inflation expected to reach 8.9% in July 2022 (an increase from 8.6% in June 2022)<sup>9</sup>, and consumer prices increasing by 9.6% in the EU in June 2022 compared with June of the previous year<sup>10</sup>.

This new global context is increasingly being recognised in EU CE initiatives. The environmental, resource efficiency and climate benefits of the CE transition have been recognised by policy makers for some time. In addition to these aspects, some of the more recently tabled initiatives note for example the contribution that circularity can make in the post-Covid recovery (e.g. the revised EU Industrial Strategy and the sustainable products initiative), and the role of circularity in contributing to greater resource and economic resilience in the EU (e.g. the proposed Batteries Regulation and the EU Textiles Strategy). The changing global context therefore appears to be contributing to an increased drive to transition to a circular economy, through inter-connected and coherent policy initiatives.

## 1.5 Structure of this report

Chapter 2 of this report provides a brief overview of the methodology used for its preparation.

Chapter 3 presents the main analysis, starting with a general overview of the selected circular economy initiatives. The initiatives are then examined in relation to four key areas of environmental policy: zero pollution, resource security, climate change and biodiversity. For each area, the general links with circular economy are discussed, the main EU objectives summarised and the contribution of those objectives to circular economy discussed. Next, the contribution of the CE initiatives to the achievement of the objectives in the policy area is discussed. Finally, each section summarises the main synergies between the CE initiatives and the area of policy.

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<sup>6</sup> Ellen MacArthur Foundation (n.d.). The Covid-19 recovery requires a resilient circular economy. [Link](#)

<sup>7</sup> UNEP (2022). Global Impact of war in Ukraine on food, energy and finance systems. [Link](#)

<sup>8</sup> UNEP (2022). Global impact of the war in Ukraine: Billions of people face the greatest cost-of-living crisis in a generation. [Link](#)

<sup>9</sup> Eurostat (2022). Inflation in the euro area. [Link](#)

<sup>10</sup> New York Times (2022). A Global Inflation Crisis. [Link](#)

Chapter 4 provides some general conclusions on the current state of implementation of the CE initiatives, the synergies with other areas of EU environment policies, and the overall direction of EU circular economy policy.

Chapter 5 includes two annexes. The first is a table outlining the discussed CE initiatives' objectives, target areas or sectors, relevance to the various 'R' strategies (refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle and/or recover), and timeline with key dates and current status of the initiative. The second includes a list of the references and key sources used for the preparation of the report.



## 2. METHODOLOGY

### 2.1 Overview of the methodology

The process for preparing this report was divided into three stages, namely:

1. Categorisation of EU circular economy initiatives launched since ICER 2021;
2. Qualitative assessment of the circular economy initiatives and their synergies with zero pollution, resource security, climate and biodiversity; and
3. A brief concluding section providing an overview of current EU circular economy policy and progress towards the circular economy transition.

### 2.2 Categorisation of EU circular economy initiatives

Firstly, all actions from the CEAP together with those from the European Green Deal (EGD) were considered and placed under three categories, namely 'core', 'supporting' and 'complementary', to capture the most relevant EU circular economy initiatives since 2020.

The categories were assigned in the following way:

- **Core** – initiatives coming from the CEAP, relevant to a narrower definition of circular economy, considering mainly material and resource cycles;
- **Supporting** – initiatives coming from the CEAP, without a specific focus on material and resource cycles; and
- **Complementary** – initiatives from the European Green Deal, relevant for advancing circular economy in the EU.

All actions from the European Green Deal not relevant for advancing circular economy were not considered in this analysis. Moreover, social aspects of the circular economy transition were deemed to be beyond the scope of this report, therefore the two CEAP initiatives related to skills and the just transition were not included in the analysis.

This resulted in the identification of 30 actions. Each action was then described in the data gathering table to include its corresponding initiative, type, objectives/description, targets areas/sectors, the 'R' strategy relevance and the timeline/key dates. The overview of the categorisation division can be found in Table 1.

**Table 1: Data gathering table template**

CEAP (or EGD) action	Title (date) of initiative	Type	Objective / description	Target areas / sectors	'R' strategy relevance	Timeline / key dates
Action as announced in the CEAP or EGD	Corresponding initiative title and date of adoption (actual or planned)	Choose from: <ul style="list-style-type: none"> <li>- Regulatory Strategic/ overarching</li> <li>- Voluntary</li> <li>- Not yet clear</li> </ul>	- Short summary of main objective (s) and/or content	Targeted areas or sectors	Choose from: <ul style="list-style-type: none"> <li>- R0 refuse</li> <li>- R1 rethink</li> <li>- R2 reduce</li> <li>- R3 reuse</li> <li>- R4 repair</li> <li>- R5 refurbish</li> <li>- R6 remanufacture</li> <li>- R7 repurpose</li> <li>- R8 recycle</li> <li>- R9 recover</li> </ul>	Key dates (as relevant): <ul style="list-style-type: none"> <li>- Public consultation</li> <li>- Commission proposal</li> <li>- Latest status in EU decision-making process</li> <li>- Commission adoption</li> <li>- Entry into force</li> <li>- Application of provisions</li> <li>- Timeline for actions to be implemented</li> </ul>

The 30 compiled actions were then analysed to understand the specific initiatives they led to, such as a strategy, a legislative proposal or voluntary measures. This also took into consideration whether multiple actions were addressed by the development of one initiative.

Among others, the following sources were used to identify and describe relevant initiatives following the steps outlined below:

- Eur-Lex<sup>11</sup>;
- Legislative Observatory of the European Parliament<sup>12</sup>;
- European Commission 'Have Your Say' platform<sup>13</sup>.

The final list resulted in a total of 23 initiatives for the analysis, with 15 core, 5 supporting and 3 complementary initiatives which can be found in Table 2.

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<sup>11</sup> Eur-Lex. [Link](#)

<sup>12</sup> Legislative Observatory. [Link](#)

<sup>13</sup> Have Your Say. [Link](#)

**Table 2: Overview of CE initiatives discussed in this report**

Core circular economy initiatives (CEAP actions directly related to material/resource cycles)	Supporting CE initiatives (other CEAP actions)	Complementary CE initiatives (European Green Deal actions of particular CE relevance)
<p>CircLean Initiative (2021)</p> <p>Sustainable consumption of goods – promoting repair and reuse (2022)</p> <p>Sustainable products initiative (2022)</p> <p>EU Batteries Regulation proposal (2022)</p> <p>Directive on Radio Equipment (2021)</p> <p>Strategy for a Sustainable Built Environment (2023)</p> <p>Packaging and Packaging Waste Directive revision (2022)</p> <p>EU Strategy for sustainable and circular textiles (2022)</p> <p>Bio-based plastics and biodegradable or compostable plastics policy framework (2022)</p> <p>ELV Directive revision (2022)</p> <p>End-of-waste and by-product criteria for plastics and textiles (2024)</p> <p>Waste Framework Directive revision (2023) (including measures on waste reduction, waste prevention, separate collection and waste oils)</p> <p>RoHS Directive revision (2022)</p> <p>Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)</p> <p>Updating the Circular Economy Monitoring Framework (2022)</p>	<p>Industrial Emissions Directive revision (2022)</p> <p>Microplastics Regulation proposal (2022)</p> <p>Waste Shipments Regulation revision (2021)</p> <p>Persistent Organic Pollutants Regulation revision (2021)</p> <p>State aid guidelines for climate, environmental protection and energy (CEEAG) (2022)</p>	<p>EU Industrial Strategy (2020)</p> <p>Construction Products Regulation revision (2022)</p> <p>Chemicals strategy for sustainability (2020)</p>

The full list of initiatives with the sources used for the analysis can be found in the table in Annex 5.1. For each initiative Eur-Lex was used as a source when possible and if not, another relevant source was identified depending on the status of the initiative, such as the impact assessment or call for evidence from the 'Have Your Say' platform or other online materials.

All initiatives were then further described according to their type, objectives/description, targets areas/sectors, the 'R' strategy relevance and the timeline/key dates.

Under the **type**, the initiatives were categorised as regulatory, strategic/overarching or voluntary. The categories were assigned in the following way:

- **Regulatory** – a legislative initiative passed through the EU policy-making process (usually in a form of a regulation or a directive);
- **Strategic/overarching** – an initiative that outlines the direction of future policy developments in a given area/topic;
- **Voluntary** – a voluntary initiative with no legally binding nature.

If the type of the initiative was unclear, it was indicated as 'not yet clear'.

The initiatives were then scanned to collect their **objectives** and **target areas/sectors** using the information provided in the text of the initiative itself or the corresponding information.

Under the **'R' strategy relevance**, each initiative was scanned to identify the direction of solutions proposed in accordance with the priorities embedded in the waste hierarchy. The categorisation was adopted from Potting et al<sup>14</sup> who outlined the waste hierarchy structure outlined in Table 3 below.

**Table 3: 9 R Waste Hierarchy**

<b>Smarter product use and manufacture</b>	R0 Refuse	Make product redundant by abandoning its function or by offering the same function with a radically different product
	R1 Rethink	Make product use more intensive (e.g., by sharing product)
	R2 Reduce	Increase efficiency in product manufacture/use by consuming fewer natural resources and materials

<sup>14</sup> Potting, J., et al., (2017). Circular Economy: Measuring Innovation in the Product Chain. [Link](#)

<b>Extend lifespan of products and its parts</b>	R3 Reuse	Reuse by another consumer of discarded product which is still in good condition and fulfils its original function
	R4 Repair	Repair and maintenance of defective product so it can be used with its original function
	R5 Refurbish	Restore an old product and bring it up to date
	R6 Remanufacture	Use parts of discarded product in a new product with the same function
	R7 Repurpose	Use discarded product or its parts in a new product with a different function
<b>Useful application of materials</b>	R8 Recycle	Process materials to obtain the same (high grade) or lower (low grade) quality
	R9 Recover	Incineration of material with energy recovery

Each initiative was analysed by searching a key term from a given waste hierarchy level, such as 'reduce' or 'reuse' and marked as present if at least one reference to that term was made.

Finally, the **timeline** of each initiative was added by indicating the key dates of the public consultation, the Commission proposal, the latest status in EU decision-making process, the Commission adoption, the entry into force, the application of provisions and the timeline for actions to be implemented.

This process formed the basis for the analysis of the EU circular economy initiatives in the subsequent step.

### 2.3 Qualitative assessment of the EU circular economy initiatives

Following the categorisation of relevant CE initiatives, the analysis of the initiatives was performed looking at their type, objectives/description, targets areas/sectors, the 'R' strategy relevance and the timeline/key dates with an aim to understand the direction of development of EU circular economy initiatives.

Building on this analysis, the report looked at the synergies between circular economy and zero pollution, resource security, climate and biodiversity. Each part first identified overarching links between them using academic and grey literature and then listed key EU objectives in that area. For each policy area, the major EU strategy was identified to ensure it reflects the overarching direction of EU action:

- The EU Action Plan 'Towards Zero Pollution for Air, Water and Soil' for zero pollution;
- The European Commission Communication 'Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability' for resource security (in the absence of a stand-alone strategy on that issue);
- The EU Climate Law for climate; and
- The EU Biodiversity Strategy.

The analysis was then undertaken in two directions, firstly assessing the contributions of key strategies in those policy areas to advancing circular economy, and secondly the contributions of the CE initiatives to a given policy area (biodiversity, climate, resource security and zero pollution). To structure the analysis, two types of tables were composed – they are presented in Table 4 and Table 5.

**Table 4: First analysis table – Relevance of key strategies to CEAP**

Key strategy	Explicit reference to circular economy	Relevance to EU CEAP objectives

**Table 5: Second analysis table – Relevance of CE initiatives to policy areas**

Circular economy initiative	Explicit reference to 'zero pollution' / 'resource security' / 'climate' / 'biodiversity'	Relevance to key strategy objectives
<b>Core initiatives</b>		
<b>Supporting initiatives</b>		
<b>Complementary initiatives</b>		

In the first analysis table, the first column looked for an explicit reference to 'circular' in the key strategy identified for the policy area, with the aim to understand the direct links between that strategy and circular economy.

The second column analysed the relevance of the key strategy to the objectives of the CEAP. To do so, the objectives of CEAP were evaluated, and key words identified. The key words for CEAP objectives can be found in Table 6 below.

**Table 6: Overview of key words for CEAP**

Policy area	Strategy	Key words derived from the objectives
Circular Economy	Circular Economy Action Plan	<ul style="list-style-type: none"> <li>• Protect</li> <li>• Product (in sustainability context)</li> <li>• Empower</li> <li>• Waste</li> <li>• Electronics</li> <li>• ICT</li> <li>• Batteries</li> <li>• Vehicles</li> <li>• Packaging</li> <li>• Plastic</li> <li>• Textiles</li> <li>• Construction</li> <li>• Buildings</li> <li>• Food</li> <li>• Nutrients</li> <li>• People</li> <li>• Region</li> <li>• Cit_ (related to CE)</li> <li>• Global (related to CE)</li> </ul>

In the second analysis table, the first column looked for an explicit reference to a key term in the given policy area, by searching for either 'zero pollution', 'resource security', 'climate' or 'biodiversity' in each CE initiative. The aim here was to understand the direct links between CE initiatives and the given environmental policy area.

The second column analysed the relevance of CE initiatives to the objectives of the given strategy outlined above. To do so, the objectives of each strategy were evaluated, and key words identified. The key words for each strategy can be found in Table 7.

**Table 7: Overview of key words for each policy area strategy objectives**

Policy area	Strategy	Key words derived from the objectives
Zero pollution	EU Action Plan 'Towards Zero Pollution for Air, Water and Soil'	<ul style="list-style-type: none"> <li>• Waste prevent_</li> <li>• Waste reduc_</li> <li>• Plastic</li> <li>• Microplastic</li> </ul>
Resource security	European Commission Communication 'Critical	<ul style="list-style-type: none"> <li>• Critical</li> <li>• Supply</li> </ul>



	Raw Materials Resilience: Charting a Path towards greater Security and Sustainability'	<ul style="list-style-type: none"> <li>• Dependence</li> <li>• Resilience</li> <li>• Recycled</li> <li>• Secondary</li> </ul>
Biodiversity	EU Biodiversity Strategy	<ul style="list-style-type: none"> <li>• Protect</li> <li>• Restore</li> <li>• Nature</li> <li>• Conservation</li> </ul>
Climate	EU Climate Law	<ul style="list-style-type: none"> <li>• Emissions</li> <li>• Greenhouse</li> <li>• Neutral</li> </ul>

Whilst the analysis on resource security focused mainly on references to critical raw materials, it was also deemed useful to include some discussion of broader resource efficiency, notably in terms of the use of recycled and secondary materials. These two aspects (critical materials and broader resource efficiency) are therefore separated in the table and analysis paragraphs in that section.

This two-directional analysis allowed the main synergies for circular economy and each policy area to be identified. Additionally, it set a basis for the final section of this report, which brings together conclusions with an overview of the direction of EU CE policy as a whole and the current state of implementation of CE initiatives.

## 2.4 Limitations of this study

The results reported herein should be considered in the light of some limitations.

Firstly, the analysis was only able to look at the current state of the initiatives and some of them have not yet reached a final stage in the policy cycle. Therefore, the text used for analysis was not always in its final version and might be updated with the advancement of the file down the policy cycle. The results of the analysis shall therefore be deemed accurate for that moment in time but may need to be updated with the future revisions of the relevant initiatives.

Secondly, the quantitative analysis and social issues in the context of circular economy were excluded from the scope of the study and therefore are not discussed in this report.

## 3. RECENT DEVELOPMENTS IN EU CIRCULAR ECONOMY POLICY

This chapter discusses key EU circular economy initiatives that have been planned, proposed or adopted since the preparation of the first Integral Circular Economy Report (ICER) in 2021.

The chapter begins with a general overview of the selected circular economy initiatives, including progress in their implementation, their nature, coverage and potential impact.

The chapter then moves on to examine the initiatives in relation to four key areas of EU environmental policy: zero pollution, resource security, climate change and biodiversity. Firstly the general links between circular economy and the given area of environmental policy are outlined, together with the main EU objectives in the policy area, typically taken from a key strategy document. Then, the contribution of the key strategy document for that area to circular economy is discussed. Next, the contribution of the CE initiatives to the achievement of the objectives in the policy area is discussed. Finally, each section ends with a short summary of the main synergies between the CE initiatives and the area of policy.

### 3.1 EU circular economy initiatives

#### Overview of initiatives

With the introduction of the CEAP and the European Green Deal, the circular economy transition has gained considerable attention at the EU level. The CEAP announced 35 specific actions in support of its objectives to promote sustainable products and services, address resource use in sectors with high circularity potential, reduce waste generation, empower relevant actors, and contribute to global circular economy efforts. At the time of writing, **five of the 23 initiatives discussed in this report have already been adopted, seven have been proposed** but not yet adopted, and the **remaining eleven are planned**, meaning a concrete proposal has not yet been published. The majority of the initiatives should, however, be proposed by the end of 2022.

Amongst the CE initiatives discussed in this report, **over half (fourteen) are regulatory**, coming in the form of proposals for EU legislation (directives or regulations). These initiatives all relate to specific products, waste or industrial emissions, reflecting the competence of the EU to take legislative action in these areas. **Five of the initiatives are overarching or strategic**, providing guidance for the direction of particular aspects of the CE transition in the EU (the built

environment, textiles, the CE monitoring framework, industry and chemicals). Only **three of the initiatives are voluntary**, relating to the state aid guidelines (which are recommended but not legally binding), an industry-led initiative on symbiosis and the creation of a global alliance on circular economy (GACERE). The nature of the planned policy framework on biobased, biodegradable and compostable plastics is not yet clear.

Table 8 summarises the type (regulatory, strategic/overarching or voluntary) and current status (adopted, proposed or planned) of the circular initiatives discussed in this report.

**Table 8: Overview of the type and current status of CE initiatives discussed in this report**

	Adopted (5)	Proposed (7)	Planned (11)
Regulatory (14)		<ol style="list-style-type: none"> <li>1. Sustainable products initiative (2022)</li> <li>2. Proposal for an EU Batteries Regulation (2020)</li> <li>3. Directive on radio equipment (2021)</li> <li>4. Proposal for a revision of the Industrial Emissions Directive (IED) (2022)</li> <li>5. Revised Regulation on Waste Shipments (2021)</li> <li>6. Revision of the Persistent Organic Pollutants Regulation (2021)</li> <li>7. Proposal for a revised Construction Products Regulation (2022)</li> </ol>	<ol style="list-style-type: none"> <li>1. Sustainable consumption of goods – promoting repair and reuse (2022)</li> <li>2. Revision of the Packaging and Packaging Waste Directive (2022)</li> <li>3. Revision of Directive 2000/53/EC on end-of-life vehicles (2022)</li> <li>4. EU-wide end-of-waste and by-product criteria for plastics and textiles (2024)</li> <li>5. Revision of EU Waste Framework Directive (2023)</li> <li>6. Review: Restriction of the use of hazardous substances in electronics (2022)</li> <li>7. Proposal for a Microplastics Regulation (2022)</li> </ol>
Strategic/over-arching (5)	<ol style="list-style-type: none"> <li>1. EU Strategy for sustainable and circular textiles (2022)</li> <li>2. EU Industrial Strategy (2020)</li> <li>3. Chemicals strategy for sustainability (2020)</li> </ol>		<ol style="list-style-type: none"> <li>1. Strategy for a Sustainable Built Environment (2023)</li> <li>2. Circular economy – revision of the monitoring framework (2022)</li> </ol>
Voluntary/not yet clear (4)	<ol style="list-style-type: none"> <li>1. Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)</li> <li>2. New Guidelines on State aid for climate, environmental protection and energy (CEEAG) (2022)</li> </ol>		<ol style="list-style-type: none"> <li>1. CircLean Initiative (2021)</li> <li>2. Policy Framework on biobased, biodegradable and compostable plastics (2022)</li> </ol>

## Coverage and potential impact of the EU circular economy initiatives

The potential contribution of the initiatives to achieving circular economy depends on factors including their coverage/scope of application (e.g. which sectors or products they address) and which 'R strategy' (or strategies) they relate to.

A handful of the initiatives have (at least potentially) a **very wide scope of application**. For example, the revision of the Industrial Emissions Directive, the Industrial Strategy and the voluntary initiative on industrial symbiosis all apply to industry in a broad sense, and therefore have the **potential to impact many areas of industry** (e.g. the Industrial Emissions Directive targets large-scale industrial installations and livestock farms; and the Industrial Strategy aims for a green and digital transition to improve the EU's general industrial competitiveness and strategic autonomy). Similarly, the scope of the legislative initiative on sustainable products covers the majority of physical goods placed on the EU market (with only a few sectors such as food, feed and medicinal products exempted), and therefore has the **potential to have a significant impact on the sustainability of a wide range of products**. However, it should be noted that the actual impact will depend on secondary legislation that will set the sustainability requirements for individual products or product groups. The European Commission will adopt and keep updated a work plan indicating the product groups for which ecodesign requirements will be set, which should prioritise those with significant potential for improvement in terms of, for example, their durability, reusability, reparability, presence of substances of concern, recycled content, and expected waste generation.

Other initiatives target **particular economic sectors** that are important to the pursuit of circular economy, including **construction products and buildings, textiles, chemicals** and **waste management**. EU policy and legislation has for many years recognised the role of the waste management sector in collecting and processing material that can be used in a more circular way. Proper implementation of the initiatives' targets on waste reduction, improved waste collection and reduced exports of useful waste materials should all make a significant contribution to ensuring greater material circularity in the EU economy. However, it should be noted that EU circular economy initiatives are **increasingly focusing also on upstream action**, addressing the product design and use phases to ensure that products are better conceived to have longer lifespans, be more easily reusable and repairable, contain more recycled content, and less readily become waste.

Several of the other initiatives address more **specific products or product groups**. Whilst they may therefore impact on fewer products or a smaller quantity of material, the products covered are usually those that the EU has identified as having significant circularity potential. Therefore when taken together and

implemented properly, the **contribution of these initiatives to achieving greater circularity in the EU should still be substantial**. The products covered by such initiatives include: batteries, packaging, EEE, WEEE and radio equipment/electronic accessories, plastics (including bio-based, biodegradable and compostable plastics and microplastics), ELVs/components and waste oils.

A final small group of initiatives will not address specific sectors or products, but will rather provide **processes or mechanisms to support the achievement of greater circularity** in the EU. The update to the CE's monitoring framework will help to better monitor progress towards circularity, the new state aid guidelines for environment, climate and energy related projects should help ensure CE considerations are better taken into account in state aid decisions, and the new global alliance on circular economy should help promote CE around the world.

Circular economy initiatives can also focus on **different types of solutions with regards to the so-called "R" strategies**. This report considers the initiatives based on whether they explicitly mention the ten R strategies outlined in the methodology section: refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle and recover. It should be noted that one initiative may mention more than one R strategy.

A full list of which initiatives mention which R strategies is included in the table in Annex 0. Table 9 provides an overview of the number of initiatives which mention each R strategy.

**Table 9: 'R' strategy approaches in the circular economy initiatives**

	R0 Re- fuse	R1 Re- think	R2 Re- duce	R3 Re- use	R4 Re- pair	R5 Re- furbish	R6 Re- manu- facture	R7 Re- pur- pose	R8 Recy- cle	R9 Re- cover
Core	0	0	10	9	5	2	4	1	11	9
Support- ing	0	0	5	3	0	0	1	0	5	2
Comple- mentary	0	0	1	1	1	1	1	0	2	1
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>13</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>18</b>	<b>12</b>
Volun- tary	0	0	3	2	0	0	1	0	2	2
Regula- tory	0	0	11	10	5	3	5	1	12	9
Strategic / over- arching	0	0	2	1	1	0	0	0	3	1
Not (yet) clear	0	0	0	0	0	0	0	0	1	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>13</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>18</b>	<b>12</b>

**None of the initiatives mention 'refuse' or 'rethink'**, perhaps indicating that the most ambitious prevention-type approaches of making products redundant or making product use more intensive (e.g. through product-sharing) are not yet being seriously pursued in EU circular economy initiatives. **Sixteen initiatives mention 'reduce'**, which may indicate that **EU CE initiatives, and in particular legislation, are moving towards a stronger push for the reduction aspect of circular economy.**

**Thirteen initiatives mention 'reuse'**. This may indicate that **EU CE initiatives, and in particular legislation, are also more actively pursuing the reuse of products** than they have previously.

**Six initiatives mention 'repair', and three mention 'refurbish'**. Taken together (since they are similar in terms of prolonging the life of a whole product), whilst they are considered an option for some products, **repair and refurbish are not yet as widely pursued in EU circular economy initiatives as other R strategy approaches.**

**Six initiatives mention 'remanufacture' and only one mentions 'repurpose'**. Taken together (since they are similar in terms of extending the life of product parts/components, rather than whole products), whilst they are considered an option in some cases, **remanufacture and repurpose are also not yet as widely pursued in EU circular economy initiatives as other R strategy approaches.**

**Eighteen initiatives mention 'recycle'**. This is perhaps unsurprising, as **material recycling has formed a key part of EU waste policy for many years**, and has therefore been **carried through into more recent circular economy initiatives.**

Finally, **twelve initiatives mention 'recover'**, mainly in the context of material recovery (rather than energy recovery). Again, this is likely a reflection of the approach of **material recovery/collection being well-established in EU waste policy and carrying through into more recent circular economy initiatives.** It is interesting to note that recover is mentioned less than recycle, as this perhaps indicates that **recycling is given more weight in EU circular economy initiatives than simple material recovery.**

Recycling and recovery continue to receive significant attention in EU circular economy initiatives. However, an **increasing number of initiatives are placing more importance on actions higher up the waste hierarchy**, namely reducing and reusing products. Nevertheless, there is a **lack of concerted measures targeting refusing and rethinking our products**, thereby limiting the potential for absolute reduction of resource consumption in the EU.

### 3.2 Circular economy and zero pollution

The circular economy and zero pollution agendas are closely linked. According to the Ellen MacArthur Foundation, eliminating waste and pollution is the first principle of the circular economy<sup>15</sup>. By increasing the circularity of products and materials and keeping them in useful circulation in the economy for as long as possible, waste and the pollution associated with waste are reduced. The EU's objective of transitioning to a circular economy, as laid out in the CEAP, also promotes the reuse and repair of products, and the use of secondary raw materials through recycling. This reduces the need for the extraction of virgin resources, reducing the pollution risks associated with resource extraction.

To guide EU action on pollution, the **EU Action Plan 'Towards zero pollution for Air, Water and Soil'**<sup>16</sup> was adopted in May 2021. Its overarching objective is to reduce air, water and soil pollution to levels that do not harm health and natural ecosystems and that stay within the planet's coping boundaries, meaning that a toxic-free environment is created, by 2050. The Action Plan therefore largely targets the effects of a linear economy, rather than explicitly aiming towards a circular economy. To ensure medium-term action, and to mainstream pollution prevention in other relevant EU policies, the Action Plan sets a number of key pollution reduction targets for 2030, with the following being of most relevance to circular economy:

- Significantly **reducing waste generation**, including a 50% reduction in residual municipal waste (this target is also noted in the CEAP); and
- **Improving water quality by reducing waste, reducing marine plastic litter** by 50% **and microplastics** released into the environment by 30%.

The Action Plan also includes the following targets, which are not of direct relevance to circular economy:

- **Improving air quality** to reduce premature air pollution-related deaths by 55%;
- Reducing by 25% the EU **ecosystems where biodiversity is threatened** by air pollution;
- **Improving soil quality** by reducing nutrient losses and reducing use of chemical pesticides by 50%; and
- Reducing by 30% the people chronically disturbed by **transport noise**.

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<sup>15</sup> Ellen MacArthur Foundation (n.d.). Eliminate waste and pollution. [Link](#)

<sup>16</sup> European Commission (2021). EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'. [Link](#)



### 3.2.1 How does the EU Zero Pollution Action Plan contribute to achieving circular economy?

**Table 10: EU Zero Pollution Action Plan contribution to circular economy**

Key strategy	Explicit reference to circular economy	Relevance to EU CEAP objectives
<p><b>EU Zero Pollution Action Plan</b></p>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Zero pollution ambition a cross-cutting objective that complements circular economy (section 2)</li> <li>• Synergy with CEAP in terms of production and consumption (section 2.4)</li> <li>• Circularity is mentioned in the context of: farming, review of EU waste policy by 2025 (including waste prevention/minimisation), soils, production and consumption, products, supply chains, and chemicals</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Sustainable products by design and non-toxic material cycles (section 2.4)</li> <li>• Link to the sustainable product policy initiative (section 2.4)</li> <li>• Waste reduction targets (significantly reduce total waste generation, reduce residual municipal waste by 50% by 2030) (section 2)</li> <li>• Marine plastic reduction targets (reduce plastic litter at sea by 50%, and microplastics released into the environment by 30%, by 2030) (section 2);</li> <li>• Nutrient loss reduction target (reduce by 50% by 2030) (section 2);</li> <li>• WEEE and waste batteries (section 3.3) and ELVs (section 2.4), in context of international waste trade (section 3.3)</li> <li>• Need to increase ambition for nutrients reuse from wastewater and sludge (section 2.3)</li> <li>• EU to advance global zero pollution agenda, including related to green markets, chemicals and waste management (including ELV exports and informal battery recycling), and global agreement on plastics (section 3.3)</li> </ul>

#### Explicit reference to 'circular' in the ZPAP

The **ZPAP explicitly mentions the term 'circular'** in the context of the EU's zero pollution ambition being complementary to the circular economy, noting that this ambition is 'part and parcel' of the CEAP (and various other EU initiatives). The synergy of the ZPAP with the CEAP is also noted in terms of moving towards zero pollution from production and consumption. Circularity is also mentioned in relation to various areas of relevance to the ZPAP objectives and actions, including

those related to the review of EU waste policy, products, chemicals, supply chains, farming and soils.

### Contribution of the ZPAP to CEAP objectives

In addition to these explicit mentions of circularity, there appear to be several areas in which the **ZPAP has the potential to contribute to the CEAP's objectives**. In relation to **products** in general, the ZPAP points out that the zero pollution ambition implies that products must be designed to be as safe and sustainable as possible, encouraging non-toxic material cycles. The link is also made to the sustainable product policy initiative, which is one of the CEAP's actions. On **waste**, the ZPAP includes a specific target to 'significantly reduce' total waste generation and to reduce residual municipal waste by 50% by 2030.

The ZPAP should also help to address **WEEE, batteries and vehicles, plastics, and nutrients**. This somewhat aligns with the CEAP classification of key sectors which includes electronics, batteries and vehicles, plastics, and food, water and nutrients.

With regards to **plastic**, the ZPAP includes a target to reduce plastic litter at sea by 50% and microplastics released into the environment by 30% by 2030. It also contains a **nutrient** loss reduction target, to reduce losses by 50% by 2030, and notes the need to increase the ambition for nutrient reuse from waste water and sludge. **WEEE**, waste **batteries** and **vehicles** (specifically ELVs) are all mentioned specifically in the context of international trade in waste.

Regarding the **EU's global role**, the ZPAP notes the EU's ambition to advance the zero pollution agenda at the global level, including aspects related to green markets, chemicals and waste management (including ELV exports and informal battery recycling), as well as promoting a global agreement on plastics.

### 3.2.2 How do circular economy initiatives contribute to achieving zero pollution?

**Table 11: Circular economy initiatives' contribution to zero pollution**

Circular economy initiative	Explicit reference to 'zero pollution'	Relevance to EU ZPAP objectives
<b>Core initiatives</b>		
CircLean Initiative (2021)	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>Waste reduction through industrial symbiosis</li> </ul>
Sustainable consumption of goods – promoting repair and reuse (2022)	No, not specifically mentioned	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Unsustainable consumption of goods and waste (section A)</li> <li>Waste reduction impact (section C)</li> </ul>
Sustainable products initiative (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>Synergy with ZPAP (explanatory memorandum)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Link between sustainable product design and waste reduction (explanatory memorandum; pre-amble 5, 21, 46)</li> <li>Product ecodesign requirement on expected waste generation (Arts. 1, 5)</li> <li>Waste generation a criterion for prioritising products to have ecodesign requirements (Art. 16)</li> </ul>
EU Batteries Regulation proposal (2022)	No, not specifically mentioned	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Collection, treatment and recycling of waste batteries (Art. 1, 47-49, 57)</li> <li>Durability and phase-out of non-rechargeable portable batteries (Art. 9)</li> </ul>

		<ul style="list-style-type: none"> <li>Information on end users' contribution to waste prevention (Art. 60)</li> </ul>
Directive on Radio Equipment (2021)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Reducing e-waste (explanatory memorandum, preamble 2, 3, 9)</li> </ul>
Strategy for a Sustainable Built Environment (2023)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Construction and demolition waste management</li> </ul>
Packaging and Packaging Waste Directive revision (2022)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Measures (possibly targets) to reduce packaging waste generation (IA)</li> <li>Contribution to reduced water pollution (including marine litter) (IA)</li> </ul>
EU Strategy for sustainable and circular textiles (2022)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>Production of textiles, in the context of ecodesign (section 2.1)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Minimising incineration and landfilling of textiles (section 1)</li> <li>Reducing textile waste (section 2.6)</li> <li>Textiles' (especially fast fashion) contribution to microplastic pollution (section 2.3)</li> </ul>
Bio-based plastics and biodegradable or compostable plastics policy framework (2022)	No, not specifically mentioned	No, not specifically mentioned
ELV Directive revision (2022)	No, not specifically mentioned	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>Waste prevention (including ecodesign), increased recycling and reuse (IA)</li> </ul>

End-of-waste and by-product criteria for plastics and textiles (2024)	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>• Further EU-wide end-of-waste criteria for plastic waste</li> </ul>
Waste Framework Directive revision (2023) – including measures on waste reduction, waste prevention, separate collection and waste oils	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>• Promoting waste prevention, decreasing waste generation, improving separate waste collection (IA call for evidence)</li> </ul>
RoHS Directive revision (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>• Notes contribution to ZPAP (IA call for evidence)</li> </ul>	No, not specifically mentioned
Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>• Advocacy for reduced pollution and waste (GACERE Concept Note)</li> </ul>
Updating the Circular Economy Monitoring Framework (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>• New indicators related to links between circularity and EU zero pollution ambition (call for evidence)</li> </ul>	No, not specifically mentioned
<b>Supporting initiatives</b>		
Industrial Emissions Directive revision (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Agro-industrial transformation towards zero pollution (explanatory memorandum)</li> <li>• Reduction in pollution from large agro-industrial installations (explanatory memorandum)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Waste prevention (explanatory memorandum, pre-amble 13, Art. 1)</li> <li>• Installations' environmental management systems to include waste prevention measures (Art. 14a)</li> <li>• Innovation to address microplastics (explanatory memorandum)</li> </ul>

	<ul style="list-style-type: none"> <li>• Reducing water pollution (explanatory memorandum)</li> <li>• IED monitoring to contribute to zero pollution monitoring (explanatory memorandum)</li> <li>• Explicit link to ZPAP (pre-amble 1, 2)</li> </ul>	
Microplastics Regulation proposal (2022)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Explicit link to ZPAP (IA call for evidence)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Tackling unintentional release of microplastics from tyre abrasion, plastic pellets and synthetic textiles (IA call for evidence)</li> </ul>
Waste Shipments Regulation revision (2021)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Revision is in response to the ZPAP (legislative financial statement)</li> </ul>	No, not specifically mentioned
Persistent Organic Pollutants Regulation revision (2021)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Reducing release of toxic substances into the environment (explanatory memorandum)</li> <li>• Explicit link to ZPAP (explanatory memorandum)</li> </ul>	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Minimising emissions of POPs from waste (explanatory memorandum)</li> </ul>
State aid guidelines for climate, environmental protection and energy (CEEAG) (2022)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Zero pollution ambition as a rationale for aid to prevent/reduce non ghg pollution (section 4.5)</li> </ul>	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Aid allowed for: waste collection, sorting and processing; and reduction, prevention, preparing for re-use, recovery and recycling of waste and products (section 4.4)</li> </ul>

<b>Complementary initiatives</b>		
EU Industrial Strategy (2020)	No, not specifically mentioned	No, not specifically mentioned
Construction Products Regulation revision (2022)	No, not specifically mentioned	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Product design to prevent premature obsolescence and ensure durability (Art. 22)</li> </ul>
Chemicals strategy for sustainability (2020)	Yes, in the following context: <ul style="list-style-type: none"> <li>• Role of chemicals in zero pollution ambition (sections 1, 2.1)</li> <li>• Aim to move towards zero chemical pollution in the environment (section 2.2)</li> <li>• Explicit link to ZPAP (section 2.3, section 3)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>• Decontaminating waste streams (including plastics specifically) to allow more recycling (section 2.1)</li> <li>• Innovative production and business models to minimise waste (section 2.1)</li> </ul>

### Explicit reference to 'zero pollution' in circular economy initiatives

Only four of the core CE initiatives include an **explicit reference to the term 'zero pollution'**: the Sustainable Products Initiative, the Strategy for Sustainable and Circular Textiles, the RoHS Directive revision and the update to the Circular Economy Monitoring Framework. Five (all) of the supporting initiatives and one of the complementary initiatives include direct references to the term 'zero pollution'. This often comes in the form of a specific reference to the Zero Pollution Action Plan, or otherwise a reference to the EU's zero pollution ambition more generally. In other cases, **zero pollution is mentioned in the following contexts**: textiles production (including ecodesign); indicators related to links between circularity and zero pollution; reducing industrial pollution; monitoring linked to the Industrial Emissions Directive; reducing the release of toxic substances and chemicals into the environment; and as a rationale for state aid to prevent or reduce pollution.

The overall coherence between CE initiatives and zero pollution objectives therefore appears weaker in the core CE initiatives, i.e. those dealing most directly with material and resource cycles, than in the supporting and complementary initiatives. However, this may reflect a higher level of ambition in the core initiatives to achieve circularity, rather than focusing only on dealing with waste in a more linear economy sense.

### Contribution of circular economy initiatives to ZPAP objectives

Although not all of the CE initiatives specifically mention zero pollution, many of them still have the **potential to contribute to the ZPAP objectives**, specifically those on waste prevention and reduction, and on improving water quality by addressing plastic and microplastic pollution.

Nine of the core CE initiatives explicitly aim to promote, or anticipate contributing to, **waste prevention** or **waste reduction**: the CircLean Initiative, the proposed legislation to promote repair and reuse, the Sustainable products initiative, the Batteries Regulation, the Directive on Radio Equipment, the revisions of the Packaging and Packaging Waste, ELV and Waste Framework Directives, and the Textiles Strategy. Apart from stating general waste prevention or reduction ambitions, waste prevention and reduction are also mentioned in the context of industrial symbiosis, sustainable product design and ecodesign, specific reductions in e-waste, packaging waste and textile waste, and the provision of information to end users of batteries on their contribution to waste prevention.

In addition, three of the supporting initiatives and one of the complementary initiatives also specifically mention waste prevention or waste reduction.



Several of the CE initiatives may also indirectly support waste prevention and reduction in other ways, for example by: improving waste management (collection, treatment and recycling); promoting more durable products; reducing hazardous substances in waste (enabling more recycling); allowing state aid for waste management, prevention and reduction; and creating end-of-waste criteria for certain types of plastics.

Two of the core CE initiatives are relevant to the ZPAP's objective to improve **water quality** by addressing **plastic and microplastic pollution**. The PPWD revision has the stated aim to contribute to reduced water pollution (including marine litter), and the Textiles Strategy notes the contribution of textiles (especially fast fashion) to microplastic pollution. In addition, two of the supporting initiatives should also make a contribution, namely the Microplastics Regulation (which will tackle the unintentional release of microplastics from tyre abrasion, plastic pellets and synthetic textiles) and the IED revision, which notes the need for innovation to address microplastics.

### Synergies between circular economy and zero pollution

The main **coherence between CE initiatives and the objectives of the ZPAP** therefore seems to be found in the core CE initiatives. This is likely due to those initiatives' focus on products and materials and their associated waste generation.

Overall, the **CE initiatives seem to overlap with the ZPAP to a fairly significant extent**, with a number of explicit references made to the EU's zero pollution ambition, a particular focus on contributing to waste prevention and reduction, and also some initiatives that should contribute to reducing water pollution from plastics and microplastics.

Meanwhile, the **ZPAP appears to have a good level of coherence with the objectives of the CEAP**, with the synergies relating to production and consumption, products in general, and some specific products that are noted as areas of focus in the CEAP. However, it is worth noting that addressing pollution, which is of course the focus of the ZPAP, is only one aspect of circular economy, since it addresses the end-of-pipe impacts of waste from a linear economy, rather than specifically contributing to the creation of a circular economy.

### 3.3 Circular economy and resource security

As noted in the introduction to this report, recent global events such as the Covid-19 pandemic and the war in Ukraine have highlighted the potential risks to global supply chains, including for critical materials and products. This new global context is increasingly being recognised in EU CE initiatives, with some of the more recent initiatives noting the contribution that circularity can make in the post-Covid recovery (e.g. the revised EU Industrial Strategy and the sustainable products initiative) and the **role of circularity in contributing to greater resource security** and resilience in the EU (e.g. the proposed Batteries Regulation and the EU Textiles Strategy).

The **CEAP**<sup>17</sup> notes that global consumption of materials including metals, minerals, biomass and fossil fuels is expected to double between 2020 and 2060<sup>18</sup>, placing huge pressure on finite global resources. This highlights the increasing need for countries to secure their supplies of key resources, raw materials and products, including by reducing consumption, increasing resource efficiency, reducing reliance on imports (and price fluctuations of imports) and promoting domestic sources.

The **European Green Deal**<sup>19</sup> also recognises the need for the EU to maintain its security of supply, resilience and competitiveness by “diversifying supply from both primary and secondary sources”. It highlights the strategic security aspect of access to resources, and that supplies of sustainable and critical raw materials are crucial in many areas, including for the development of clean and digital technologies. This message is also reinforced in the 2021 update to the **EU Industrial Strategy**<sup>20</sup>, which recognises the role of circular economy and improved resource efficiency in contributing to reducing dependencies, strengthening resilience and strengthening the EU’s own capacity.

The Commission Communication **Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability**<sup>21</sup> is in essence an EU critical raw materials action plan, albeit non-legislative (and therefore not legally binding) and not containing quantified targets. It recognises that EU resource security

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<sup>17</sup> European Commission (2020). A new Circular Economy Action Plan: For a cleaner and more competitive Europe. [Link](#)

<sup>18</sup> OECD (2018). Global Material Resources Outlook to 2060. [Link](#)

<sup>19</sup> European Commission (2019). The European Green Deal. [Link](#)

<sup>20</sup> European Commission (2021). Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe’s Recovery. [Link](#)

<sup>21</sup> European Commission (2020). Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability. [Link](#)

requires diversified supply from primary and secondary material sources, reduced dependencies, and greater resource efficiency and circularity. It also includes a revised list of 30 critical raw materials for the EU, and a series of non-binding actions (mainly in the form of deeper research on resource resilience and guidance for responsible material sourcing) to increase the EU's strategic autonomy. Its objectives (with the first being of most relevance to circular economy) are to:

- Reduce dependency on primary critical raw materials through circular use of resources, sustainable products and innovation;
- Develop resilient value chains for EU industrial ecosystems;
- Strengthen sustainable and responsible domestic sourcing and processing of raw materials in the EU; and
- Diversify supply with sustainable and responsible sourcing from third countries, strengthening rules-based open trade in raw materials and removing distortions to international trade.

### 3.3.1 How does the EU Critical Raw Materials Communication contribute to achieving circular economy?

**Table 12: Critical Raw Materials Communication contribution to circular economy**

Key strategy	Explicit reference to circular economy	Relevance to EU CEAP objectives
<b>Communication on 'Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability'</b>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Circularity needed to achieve resource security (Introduction)</li> <li>• Critical raw materials (sections 1, 2, 3)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Sustainable product design (introduction, section 3)</li> <li>• Waste (re)processing (section 3)</li> <li>• Applications of critical raw materials in electronics, batteries, packaging, textiles, construction, agri-food systems (Annex 1)</li> </ul>

#### Explicit reference to 'circular' in the Critical Raw Materials Communication

The **Critical Raw Materials Communication explicitly mentions the term 'circular'** in the context of recognising that enhanced circularity of resources has a role to play in the EU achieving resource security, resilience against future shocks and increased strategic autonomy, in particular with regards to critical raw materials. It is noted (in a footnote) that the circular economy monitoring framework indicators include indicators on EU self-sufficiency for 23 raw materials, including 12 from the critical raw materials list.

### Contribution of the EU Critical Raw Materials Communication to CEAP objectives

Apart from these explicit mentions of circularity, the **Communication appears to have a somewhat limited potential to contribute to the CEAP's objectives**. It mentions **sustainable product design** as having the potential to contribute to resource security and mitigating supply risks. It also notes that **waste reprocessing** has a role in keeping valuable materials in use as secondary raw materials, and that more information is needed on the quantities of raw materials potentially available for recovery or recycling. One action announced in the Communication is to 'map the potential supply of secondary critical raw materials from EU stocks and wastes and identify viable recovery projects' by 2022; this has the potential to make a contribution to circular economy in the EU. Finally, the Communication notes that critical raw materials are used in **electronics, batteries, packaging, textiles, construction and agri-food systems**. This aligns quite well with the CEAP classification of key sectors which includes electronics, batteries and vehicles, packaging, textiles, construction and buildings, and food, water and nutrients.

### 3.3.2 How do circular economy initiatives contribute to achieving EU resource security?

**Table 13: Circular economy initiatives' contribution to resource security**

Circular economy initiative	Explicit reference to resource security	Relevance to EU resource security objectives
<b>Core initiatives</b>		
CircLean Initiative (2021)	No, not specifically mentioned	No, not specifically mentioned
Sustainable consumption of goods – promoting repair and reuse (2022)	No, not specifically mentioned	No, not specifically mentioned
Sustainable products initiative (2022)	No, not specifically mentioned	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>Reduction of material dependencies, strategic autonomy and resilience (explanatory memorandum)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>Core monitoring indicators on contribution of recycled materials to raw materials demand; and circular material use rate (Legislative financial statement)</li> <li>Product ecodesign requirements on minimum recycled content (explanatory memorandum, Art. 1, Art. 5)</li> </ul>
EU Batteries Regulation (2022)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>CEAP required new Batteries Regulation to consider security of material supply (pre-amble 8)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Critical raw materials in batteries where strategic autonomy and resilience should be enhanced (pre-amble 19, 60)</li> <li>Batteries labelling and electronic data (digital passport) must include critical raw materials, and digital passport must include recycled content information (Annex VI, XIII)</li> </ul>

		<ul style="list-style-type: none"> <li>• Mitigating supply risk for raw materials (explanatory memorandum)</li> <li>• Increasing use of recovered materials to support CE and reduce EU dependency on material imports (pre-amble 20)</li> <li>• Collection and high quality recycling to boost uptake of/create markets for secondary raw materials (explanatory memorandum, pre-amble 9, 78)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>• Targets for minimum share of recycled cobalt, lead, lithium and nickel by 2030/2035 (Art. 8)</li> <li>• Batteries EPR fees may take into account level of recycled content (Art. 47)</li> </ul>
Directive on Radio Equipment (2021)	No, not specifically mentioned	No, not specifically mentioned
Strategy for a Sustainable Built Environment (2021)	No, not specifically mentioned	No, not specifically mentioned
Packaging and Packaging Waste Directive revision (2022)	No, not specifically mentioned	<p>No, not specifically mentioned</p> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>• Improved competitiveness of/demand and markets for secondary materials from recycled packaging (IA)</li> <li>• Packaging recycling targets (IA)</li> <li>• Possible recycled content targets for specific packaging (IA)</li> </ul>
EU Strategy for sustainable and circular textiles (2022)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Impact of war in Ukraine on security of raw material supply (introduction)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Raw material resilience of EU textile sector, reducing dependencies on virgin raw materials (introduction)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>• Recycled fibres in EU textile products (introduction)</li> </ul>

		<ul style="list-style-type: none"> <li>Possible ecodesign requirements on mandatory recycled fibre content (section 2)</li> </ul>
Bio-based plastics and biodegradable or compostable plastics policy framework (2022)	No, not specifically mentioned	No, not specifically mentioned
ELV Directive revision (2022)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Need to address challenges of critical raw material use (IA)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>Boosting market/demand for, and higher use of, recycled content and secondary raw materials (especially plastics) in vehicles (IA)</li> </ul>
Scoping possible further EU-wide end-of-waste and by-product criteria (2022)	No, not specifically mentioned	<p>No, not specifically mentioned</p> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>EoW criteria will be developed for two priority streams, plastic (PET, LDPE, HDPE, mixed plastics, polystyrene and expanded polystyrene, and PP recovered/recycled from plastic waste) and textiles (clothes/textiles collected for re-use, and cellulosic fibres and mixed fibres recovered/recycled from textile waste)</li> </ul>
Waste Framework Directive revision (2023) – including measures on waste reduction, waste prevention, separate collection and waste oils	No, not specifically mentioned	<p>No, not specifically mentioned</p> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>Separate waste collection, optimal recycling results, avoiding contamination of recyclable waste (IA call for evidence)</li> <li>Waste separation and separate collection to facilitate re-use, high-quality recycling and competitiveness of secondary raw materials markets (IA call for evidence)</li> </ul>
RoHS Directive revision (2022)	No, not specifically mentioned	<p>No, not specifically mentioned</p> <p>On resource efficiency more broadly:</p>

		<ul style="list-style-type: none"> <li>• Support for use of secondary resources (IA call for evidence)</li> <li>• Possible provisions on recycled material and critical raw materials (IA call for evidence)</li> </ul>
Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)	No, not specifically mentioned	No, not specifically mentioned
Updating the Circular Economy Monitoring Framework (2022)	No, not specifically mentioned	No, not specifically mentioned
<b>Supporting initiatives</b>		
Industrial Emissions Directive revision (2022)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Strategic importance of raw materials in strengthening EU economic resilience (pre-amble 3)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>• Need for more effective contribution to CE, and where possible permits to establish mandatory environmental performance limit values on recycled materials, based on BAT (pre-amble 16)</li> </ul>
Microplastics Regulation (2022)	No, not specifically mentioned	No, not specifically mentioned
Revised Regulation on Waste Shipments (2021)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Waste exports represent loss of resources for EU recycling industries (explanatory memorandum)</li> <li>• Facilitating shipments of waste for re-use and recycling in the EU, to help address EU strategic dependencies on raw materials (pre-amble 3)</li> </ul> <p>On resource efficiency more broadly:</p>



		<ul style="list-style-type: none"> <li>Contributing to feedstocks for recycling, and building secondary materials markets (explanatory memorandum)</li> </ul>
Persistent Organic Pollutants Regulation revision (2021)	No, not specifically mentioned	<p>No, not specifically mentioned</p> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>Toxic-free material cycles, increased recycling and uptake of safe secondary raw materials (explanatory memorandum)</li> </ul>
New Guidelines on State aid for climate, environmental protection and energy (CEEAG) (2022)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>State aid can support circularity in production processes and creating secondary raw materials markets to help strengthen resilience (section 4.4)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>Aid allowed for: replacement of primary raw materials/feedstock with secondary (reused or recycled) or recovered raw materials/feedstock; decontamination and recycling of waste (section 4.4)</li> </ul>
<b>Complementary initiatives</b>		
EU Industrial Strategy (2020)	No, not specifically mentioned	<p>Yes, in the following contexts (May 2021 update of Strategy):</p> <ul style="list-style-type: none"> <li>Need for resilient supply chains (sections 2, 3)</li> <li>Aims to better understand EU dependencies in key strategic areas and develop tools to address them (e.g. diversifying international supply chains, pursuing international partnerships, supporting new industrial alliances) (section 4)</li> </ul>
Construction Products Regulation revision (2022)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Enhanced circularity of construction products to strengthen EU resilience on access to construction materials (explanatory memorandum)</li> </ul> <p>On resource efficiency more broadly:</p>

		<ul style="list-style-type: none"> <li>• Minimum recycled content obligations to be set in harmonised technical specifications (Art. 22, Annex I) and recycled content maximised (Annex I)</li> </ul>
Chemicals strategy for sustainability (2020)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Strengthening the EU's open strategic autonomy (section 2.1.4)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Manufacturing and supply chains for critical chemicals (section 1)</li> <li>• Identification of strategic dependencies and measures to reduce them (section 2.1.4)</li> <li>• EU resilience of supply and sustainability of chemicals used in essential applications (section 2.1.4)</li> </ul> <p>On resource efficiency more broadly:</p> <ul style="list-style-type: none"> <li>• Markets for safe secondary raw materials (section 2.1.2)</li> </ul>

### Explicit reference to 'resource security' in circular economy initiatives

Only two of the core CE initiatives include an explicit reference to term '**resource security**': the EU Batteries Regulation, which notes in its pre-ambles that the CEAP required the Regulation to consider security of material supply, and the Textiles Strategy, which mentions security of raw material supply in the context of the impacts of the war in Ukraine. In addition, one of the complementary initiatives, the Chemicals strategy for sustainability includes a specific section on strengthening the EU's open strategic autonomy with regards to critical chemicals. None of the other CE initiatives specifically mention the term resource security.

The overall coherence between the CE initiatives and resource security objectives therefore appears rather weak, with few specific mentions of the concept in the CE initiatives.

### Contribution of circular economy initiatives to resource security objectives

Although very few of the CE initiatives specifically mention the term resource security, many of them still have the **potential to contribute to the EU moving towards greater resource security**.

Three of the core CE initiatives note the need to **reduce EU dependencies, increase strategic autonomy, increase resilience, and/or mitigate supply risks**: the Sustainable products initiative, the Batteries Regulation and the Textiles Strategy. Three of the supporting CE initiatives and three of the complementary CE initiatives also include this consideration.

Three of the core CE initiatives refer specifically to enabling supply of **critical materials**: the Batteries Regulation, the ELV Directive revision and the RoHS Directive revision. One of the complementary CE initiatives also mentions critical materials (the Chemicals strategy for sustainability).

### Synergies between circular economy and resource security

The **coherence between CE initiatives and the EU's resource security objectives** appear to be fairly well spread amongst the core, supporting and complementary CE initiatives, although only around half of the core initiatives seem to be of particular relevance to achieving resource security. This is possibly due to the nature of the products or materials addressed by the core CE initiatives, some of which are not so acutely dependent on imports from third countries, and which therefore do not pose such an issue in terms of ensuring resource security.

Overall, the **CE initiatives seem to overlap with resource security objectives to a moderate extent**. The most common overlaps relate to the need for the EU

to reduce its dependencies, increase strategic autonomy and resilience, and/or mitigate supply risks. A smaller number of the CE initiatives relate to critical materials.

Overall, the **Critical Raw Materials Communication** appears to have rather limited synergies with the CEAP's objectives. The relationship between the two seems to be predominantly in terms of greater circularity having the potential to contribute to the EU's resource security. This is likely due to the focus of the Communication on security of access to resources and materials, with circularity being only one of the means available to achieve that objective.

### A footnote on broader resource efficiency

It is worth noting that many of the CE initiatives mention the broader concept of '**resource efficiency**', the development of a resource efficient circular economy and/or the promotion of markets for, and use of, recycled materials. Although this differs from the concept of resource security, which relates more specifically to the EU's access to critical materials and products, these approaches also contribute to the security of material supply in the EU. These elements of the initiatives are therefore discussed briefly here, in particular how they relate to increasing the use of recycled or secondary material in the EU.

Seven of the core CE initiatives aim in some way to support or promote the use of **recycled or secondary materials**: the Sustainable products initiative, Batteries Regulation, the revisions of the PPW, ELV, Waste Framework and RoHS Directives and the Textiles Strategy. Four of these discuss setting **targets** for recycled or secondary material use/content: the proposed Batteries Regulation (recycled cobalt, lead, lithium and nickel); the PPW Directive revision (recycled content in specific packaging formats); the Textiles Strategy (possible ecodesign requirements on mandatory recycled fibre content in textiles); and the ELV Directive revision (use of recycled plastics in new cars). Four aim to support or boost **markets** for recycled or secondary materials, and one (the Batteries Regulation) will require **labelling** to indicate the quantity of recycled content. In addition, three of the supporting CE initiatives and two of the complementary CE initiatives refer to recycled or secondary materials, three in the context of boosting markets, and one intending to set targets for recycled content (the Construction Products Regulation revision).

The need for improved **waste collection and recycling** in support of promoting quality recycling is mentioned in two core CE initiatives (the Batteries Regulation and WFD review), as well as two supporting CE initiatives (the Waste Shipment Regulation and POPs Regulation revisions). Finally, one of the core CE initiatives (the WFD review), two of the supporting CE initiatives (the POPs Regulation

revision and the State aid guidelines, and one complementary CE initiative (the Chemicals strategy for sustainability), note the need to ensure **safe secondary materials**, for example by avoiding contamination of waste or by reducing hazardous substances in waste streams.

### 3.4 Circular economy and climate

The circular economy transition brings forward a number of solutions to advance climate action in the EU. Extraction and processing of natural resources causes more than 50% of greenhouse gas emissions. Implementing circular economy measures has a potential to contribute to climate mitigation and adaptation<sup>22</sup>, by reducing greenhouse gas emissions and waste as well as minimise energy usage through the development of circular products and materials. Ultimately, it also contributes to decreasing material and resource consumption<sup>23</sup>.

The **CEAP** highlights circularity as a prerequisite for climate neutrality and notes the potential of circular economy measures to reduce greenhouse gas emissions. In particular it highlights the role of circularity in delivering substantial material savings, generate additional value and create economic opportunities. The CEAP recognises the importance of interlinkages between circularity and climate neutrality in the context of a number of initiatives, such as the revision of the Monitoring Framework for the Circular Economy<sup>24</sup>.

To guide the EU action on climate, the European Commission has committed to **achieve climate neutrality by 2050 and cut greenhouse gas emissions by at least 55% by 2030**, compared to 1990 levels. Those commitments were embedded in the European Climate Law in July 2021<sup>25</sup> and followed by a package of proposals called Fit for 55 that the European Commission adopted in July and December 2021. Fit for 55 translates the 55% emissions reduction target into specific sectors by strengthening existing legislation and presenting new initiatives,

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<sup>22</sup> Stockholm Environment Institute (2021). A circular economy: a tool to bridge climate mitigation and adaptation? [Link](#)

<sup>23</sup> Ellen McArthur Foundation (2021). Fixing the economy to fix climate change [Link](#)

<sup>24</sup> European Commission (2020). A new Circular Economy Action Plan: For a cleaner and more competitive Europe. [Link](#)

<sup>25</sup> Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') [Link](#)

in the areas of climate, energy and fuels, transport, buildings, land use and forestry<sup>26</sup>.

The **European Green Deal**<sup>27</sup> also recognises the importance of industry for a transition to a climate neutral and circular economy highlighting in particular the role of key energy-intensive sectors, such as steel, chemicals and cement. It emphasizes the importance of new business models to ensure low-emissions technologies, services and products. Additionally, it notes the challenges of the green and digital transition highlighting the importance of the circular economy performance of the sector.

### 3.4.1 How does the European Climate Law contribute to achieving circular economy?

**Table 14: European Climate Law contribution to circular economy**

Key strategy	Explicit reference to circular economy	Relevance to EU CEAP objectives
<b>European Climate Law</b>	No, not specifically mentioned	Yes, in the following contexts: <ul style="list-style-type: none"> <li>public and social engagement on climate action (preamble point 28; article 9)</li> <li>identification of the following sectors as key: transport, buildings, agriculture (preamble point 7)</li> </ul>

#### Explicit reference to 'circular' in the European Climate Law

There is no explicit reference to the word 'circular' in the European Climate Law. The European Climate Law solely mentions the CEAP once in the preamble and it does so by restating CEAP's commitment to develop 'a regulatory framework for certification of carbon removals' in the context of the role of carbon sinks in the transition to climate neutrality.

#### Contribution of the European Climate Law to CEAP objectives

The European Climate Law does not specifically mention the word 'circular' which may signal its **limited potential to contribute to the EU moving towards circular economy**. However, it does include elements related to the objectives of

<sup>26</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality [Link](#)

<sup>27</sup> European Commission (2019). The European Green Deal. [Link](#)

CEAP. It mentions **empowering citizens and stakeholders** in the context of the importance of public and social engagement on climate action. The European Climate Law also identifies **transport, buildings and agriculture** as key sectors advancing climate action and reducing greenhouse gas emissions. This somewhat aligns with the CEAP classification of key sectors which includes batteries and vehicles, construction and buildings, and food, water and nutrients.

### 3.4.2 How do circular economy initiatives contribute to achieving EU climate objectives?

**Table 15: Circular economy initiatives' contribution to EU climate objectives**

Circular economy initiative	Explicit reference to 'climate'	Relevance to the EU CL objectives
<b>Core initiatives</b>		
CircLean Initiative (2021)	No, not specifically mentioned	No, not specifically mentioned
Sustainable consumption of goods – promoting repair and re-use (2022)	No, not specifically mentioned	No, not specifically mentioned
Sustainable products initiative (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Objectives of the proposal (pre-amble 5, 7, 88)</li> <li>Lifecycle emissions of products (explanatory memorandum, section 1)</li> <li>Energy efficiency of products (pre-amble 87)</li> <li>Prioritisation of products (pre-amble 42)</li> <li>Ecodesign requirements (Arts. 4(a)(i), 16)</li> <li>Sustainability of consumption and production (pre-amble 7)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>Emissions of products (explanatory memorandum, section 1)</li> </ul>
EU Batteries Regulation (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Objectives of the proposal (explanatory memorandum, section 2; preamble 18 and 99)</li> <li>Climate neutrality (preamble 2)</li> <li>Carbon footprint (preamble 18)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Road transport (explanatory memorandum, section 1)</li> <li>Electric vehicles (explanatory memorandum, section 1)</li> <li>Carbon-neutral energy storage (explanatory memorandum, section 1)</li> </ul>



		<ul style="list-style-type: none"> <li>• Carbon footprint monitoring (explanatory memorandum, section 5)</li> <li>• Shift from the use of fossil fuels in vehicles to electromobility (preamble 1)</li> <li>• Batteries as enablers of climate neutrality (preamble 2)</li> <li>• Maximum carbon footprint threshold (preamble 18)</li> </ul>
Directive on Radio Equipment (2021)	No, not specifically mentioned	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Emissions of mobile phone charging devices (explanatory memorandum, section 3)</li> <li>• Environmental benefits of a mandatory option (explanatory memorandum, section 3)</li> <li>• Objectives of the proposal (pre-ample 3)</li> </ul>
Strategy for a Sustainable Built Environment (2021)	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Material efficiency (objectives of the proposal)</li> <li>• Climate impacts of the built environment (objectives of the proposal)</li> <li>• Circularity principles throughout the life cycle of buildings (objectives of the proposal)</li> </ul>	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Emissions from material extraction, manufacturing, construction and renovation of buildings (content section)</li> </ul>
Packaging and Packaging Waste Directive revision (2022)	No, not specifically mentioned	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Environmental impacts of the proposal (section C)</li> </ul>
EU Strategy for sustainable and circular textiles (2022)	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Climate impacts of textile products (sections 1, 2, 3 and 5)</li> <li>• Climate footprint of the sector (section 1)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Conditions for making green claims related to future environmental performance (Section 2.5)</li> </ul>

Bio-based plastics and biodegradable or compostable plastics policy framework (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>Climate impacts of the biological feedstock (section A)</li> </ul>	No, not specifically mentioned
ELV Directive revision (2022)	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>Impacts of the proposal (section C)</li> </ul>
Scoping possible further EU-wide end-of-waste and by-product criteria (2022)	No, not specifically mentioned	No, not specifically mentioned
Waste Framework Directive revision (2023) – including measures on waste reduction, waste prevention, separate collection and waste oils	Yes, in the following context: <ul style="list-style-type: none"> <li>Climate impacts of waste oils (section A)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Climate impacts of waste oils (section A)</li> <li>Emissions from waste collection and treatment (section A)</li> </ul>
RoHS Directive revision (2022)	No, not specifically mentioned	No, not specifically mentioned
Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)	Yes, in the following context: <ul style="list-style-type: none"> <li>Problem statement (section 1)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>Barriers, knowledge and governance gaps, and bottlenecks in decoupling economic growth from greenhouse gas emissions (section 2)</li> </ul>
Updating the Circular Economy Monitoring Framework (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Objectives of the proposal (section A)</li> <li>Links between circular economy and climate (section B)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Indicators that consider links between circularity and climate neutrality (section A)</li> </ul>

<b>Supporting initiatives</b>		
Industrial Emissions Directive revision (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Industry's resilience to the impacts of climate change (explanatory memorandum, section 1)</li> <li>• Transformation plans of operators (Art. 27d)</li> </ul>	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Decarbonisation techniques and technologies (Explanatory memorandum, section 1; pre-amble28)</li> <li>• Deep agro-industrial transformation contributing to reaching carbon neutrality (Explanatory memorandum, section 1)</li> <li>• Impacts of the proposal (Explanatory memorandum, section 3)</li> <li>• Objectives of the proposal (Art. 1)</li> <li>• A transformation plan for each installation (Art. 27d)</li> </ul>
Microplastics Regulation (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>• Likely environmental impacts (section C)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>• Linear plastics industry model (section B)</li> </ul>
Revised Regulation on Waste Shipments (2021)	No, not specifically mentioned	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Emissions of waste management operations (Article 39)</li> <li>• Criteria on exported waste (Annex X)</li> </ul>
Persistent Organic Pollutants Regulation revision (2021)	No, not specifically mentioned	No, not specifically mentioned
New Guidelines on State aid for climate, environmental protection and energy (CEEAG) (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Conditions for the economic activity under aid (Section 3)</li> <li>• Aid for nature-based solutions for climate change adaptation &amp; mitigation (sections 2, 4.6)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>• Aid for reduction and removal of greenhouse gas emissions, including through support for renewable energy and energy efficiency (sections 2, 4.6)</li> </ul>

	<ul style="list-style-type: none"> <li>• Aid for studies or consultancy services on matters relating to climate (section 4.13)</li> <li>• Problem statement (multiple sections)</li> </ul>	
<b>Complementary initiatives</b>		
EU Industrial Strategy (2020)	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Industries facing climate challenges (section 5)</li> <li>• Climate-neutral products (section 5)</li> </ul>	No, not specifically mentioned
Construction Products Regulation revision (2022)	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Info. on construction products' climate performance (Explanatory memorandum, point 1)</li> <li>• Environmental, climate and safety performance of construction products (Art. 1)</li> <li>• Rationale of the procurement criteria (pre-amble 91)</li> </ul>	<p>Yes, in the following context:</p> <ul style="list-style-type: none"> <li>• Energy efficiency and thermal performance of construction works (Annex, I, part A)</li> </ul>
Chemicals strategy for sustainability (2020)	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Chemical pollution as amplifier of climate change (section 1)</li> <li>• Sustainable sourcing of chemicals (section 1)</li> <li>• Sustainable innovations and technologies (section 2)</li> <li>• Information on climate impacts of substances (section 2)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>• Information requirements on environmental footprint of chemicals (section 2.4)</li> </ul>

### Explicit reference to 'climate' in circular economy initiatives

Eight of the core CE initiatives include an **explicit reference to the word 'climate'**: Sustainable Products Initiative, the CE Monitoring Framework revision, the Global Alliance on CE and RE, the Waste Framework Directive revision, Bio-based plastics and biodegradable or compostable plastics policy framework, EU Textiles Strategy, Built Environment Strategy and the EU Batteries Regulation. Three of the supporting initiatives and three (all) of the complementary initiatives include direct references to the term 'climate'.

This often comes in the form of noting climate change in the problem statement, referring to the climate impacts of products or services covered by the given initiative, or highlighting the climate change challenges and opportunities for the industry. In other cases, **climate is mentioned in the following contexts**: ecodesign requirements; circularity principles throughout the life cycle of buildings; chemical pollution as amplifier of climate change; sustainable sourcing of chemicals; sustainable innovations and technologies; rationale of the procurement criteria; conditions for the economic activity under aid; aid for nature-based solutions for climate change adaptation and mitigation; aid for studies or consultancy services on matters relating to climate; transformation plans of operators and overall links between circular economy and climate. Majority of the direct references to climate can be found in the initiatives' preambles or context sections and some in the articles in the core texts of the proposals. None of the other CE initiatives specifically mention the word 'climate'.

The overall coherence between CE initiatives and climate objectives therefore appears generally strong, with a majority of core and supporting initiatives and all complementary initiatives referring to climate. This may reflect that climate change is broadly identified as a challenge in the overarching circular economy agenda of the EU. However, its importance in the context of circular economy, though recognised, has a potential to be strengthened to ensure that all circular economy initiatives recognise the role of climate change in the circular economy transition

### Contribution of circular economy initiatives to climate objectives

In addition to majority of the CE initiatives specifically mentioning the word 'climate', many of them have the **potential to contribute to the EU moving towards climate neutrality and reducing greenhouse emissions**.

Ten of the core CE initiatives note the need to **reduce greenhouse gas emissions and/or reach climate neutrality**: revision of the CE Monitoring Framework, Global Alliance on Circular Economy and Resource Efficiency, Waste Framework

Directive revision, ELV Directive revision, EU Textiles Strategy, Packaging and Packaging Waste Directive revision, EU Built Environment Strategy, Directive on Radio Equipment, EU Batteries Regulation and the Sustainable products initiative. Four of the supporting initiatives and two of the complementary initiatives are relevant to the objectives of the European Climate Law.

This often comes in the form of referring to emissions of products, such as charging devices, or processes, such as waste collection and treatment. Additionally, it relates to various aspects of the decarbonisation of the road transport and extraction of resources for various industries. In other cases, **the content of the European objectives can be found in the following contexts:** information requirements on environmental footprint of chemicals; criteria on exported waste barriers; knowledge and governance gaps, and bottlenecks in decoupling economic growth from greenhouse gas emissions; conditions for making green claims related to future environmental performance; carbon footprint monitoring; carbon-neutral energy storage and aid for reduction and removal of greenhouse gas emissions.

Majority of the direct references to climate can be found in the initiatives' preambles or context sections as opposed to articles in the core texts of the proposals. None of the other CE initiatives specifically mention the terms 'emissions', 'greenhouse' or 'neutral'.

The overall coherence between CE initiatives and the European Climate Law objectives therefore appears generally strong, with a majority of core, supporting and complementary initiatives referring to climate. This may reflect that following a strong recognition of the role of climate change in the circular economy agenda, circular economy initiatives indeed embed European Climate Law objectives into their direction.

### Synergies between circular economy and climate

The **coherence between CE initiatives and the EU's climate agenda** appear to be fairly well spread amongst the core, supporting and complementary CE initiatives, with supporting and complementary referring to climate and/or EU Climate Law objectives in most cases. Overall, many circular economy initiatives seem to appear to be linked with the climate agenda. However, though climate change is broadly identified as a challenge in the overarching environmental agenda of the EU, its importance in the context of circular economy, though recognised, has a potential to be strengthened. At the same time, circular economy appears to have little direct recognition in the climate objectives of the EU, with limited potential contributions made to the objectives of the CEAP.

Overall, the **CE initiatives seem to overlap with climate objectives to a high extent** though predominantly in the direction of circular economy contributions to the climate agenda. In other words, circular economy initiatives recognise the role of climate however the recognition of circular economy in the EU climate objectives is very limited. The most common overlaps relate to the need for the **EU to reduce its emissions and reach climate neutrality through the use of circular economy solutions**. A smaller number of the CE initiatives relate to energy efficiency, waste management and conditions for the circular performance of products or services.

### 3.5 Circular economy and biodiversity

Extraction and processing of natural resources causes 90% of biodiversity loss<sup>28</sup>. Biodiversity is being lost at the fastest rate since the last mass extinction that happened 66 million years ago. Increased conservation and restoration efforts have a potential to contribute to addressing this challenge, yet the root cause of biodiversity loss lies in our linear consumption and production system. Circular economy offers the potential to halt biodiversity loss by eliminating waste and pollution, designing circular products and strengthening regenerative approaches in the most destructive sectors, most notably food and agriculture, textiles, construction and forestry<sup>29</sup>. It addresses the key drivers of biodiversity loss, such as climate change, pollution and land use change and ultimately has a potential to reduce our extraction of natural resources<sup>30</sup>.

The **CEAP** highlights the role of circular economy in reducing the negative impacts of resource extraction and contributing to restoring biodiversity in the EU. It also mentions biodiversity in the context of the development regulatory framework for certification of carbon removals completed in full respect of the biodiversity objectives.

To guide EU action on biodiversity, the EU Biodiversity Strategy was published in May 2020. Its overarching objective is to *'put Europe's biodiversity on the path to recovery by 2030 for the benefit of people, climate and the planet'*<sup>31</sup>.

EU's targets on biodiversity focus predominantly on nature protection and restoration with a number of objectives set out to be achieved by 2030 and major

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<sup>28</sup> International Resource Panel (2019). Global Resources Outlook [Link](#)

<sup>29</sup> Ellen McArthur Foundation (2021). Shaping a nature-positive future with the circular economy [Link](#)

<sup>30</sup> Sitra (2022). Tackling root causes: Halting biodiversity loss through the circular economy [Link](#)

<sup>31</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions EU Biodiversity Strategy for 2030 Bringing nature back into our lives [Link](#)

drivers of biodiversity loss identified as natural resource extraction, land use change, climate change and pollution<sup>32</sup>.

The **European Green Deal**<sup>33</sup> also recognises the importance of preserving and restoring biodiversity with changes in land and sea use, direct exploitation of natural resources, and with climate change as the main drivers of biodiversity loss. Moreover, it highlights the role of promoting imported products and value chains that do not involve deforestation and forest degradation.

### 3.5.1 How does the Biodiversity Strategy contribute to achieving circular economy?

**Table 16: Biodiversity Strategy contribution to circular economy**

Key strategy	Explicit reference to circular economy	Relevance to EU CEAP objectives
<b>EU Biodiversity Strategy</b>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Increasing the quantity, quality and resilience of EU forests due to their important role in providing materials, products and services, which are key for the circular bio-economy (pre-amble, section 2.2.4)</li> </ul>	<p>Yes, in the following contexts:</p> <ul style="list-style-type: none"> <li>Reliance of industry and companies on genes, species, and ecosystem services for production (section 1)</li> <li>Identification of the following sectors as key: construction, agriculture, and food and drink (section 1)</li> <li>Natural capital accounting initiative, including assessing the environmental footprint of products to measure the value of nature (section 3)</li> </ul>

#### Explicit reference to 'circular' in the Biodiversity Strategy

The **EU Biodiversity Strategy explicitly mentions the term 'circular'** in the context of materials, products and services from forests marking them as key for circular bio-economy. It does not however refer to circular economy in itself as a standalone term.

<sup>32</sup> European Parliament resolution of 9 June 2021 on the EU Biodiversity Strategy 'EU Biodiversity Strategy for 2030: Bringing nature back into our lives' [Link](#)

<sup>33</sup> European Commission (2019). The European Green Deal. [Link](#)



### Contribution of the EU Biodiversity Strategy to CEAP objectives

Apart from these explicit mentions of circularity, the Strategy appears to have a somewhat limited potential to contribute to the CEAP's objectives. It highlights the reliance of industry and companies on genes, species, and ecosystem services for production. Moreover, it notes the development of the natural capital accounting initiative, including assessing the environmental footprint of products to measure the value of nature. The EU Biodiversity Strategy also identifies **buildings, agriculture and food and drink** as key sectors dependent on nature. This somewhat aligns with the CEAP classification of key sectors which includes construction and buildings, and food, water and nutrients.

### 3.5.2 How do circular economy initiatives contribute to achieving EU biodiversity objectives?

**Table 17: Circular economy initiatives' contribution to EU biodiversity objectives**

Circular economy initiative	Direct reference to 'biodiversity'	Relevance to EU BS objectives
<b>Core initiatives</b>		
CircLean Initiative (2021)	No, not specifically mentioned	No, not specifically mentioned
Sustainable consumption of goods – promoting repair and reuse (2022)	No, not specifically mentioned	No, not specifically mentioned
Sustainable products initiative (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>Objectives of the proposal (preamble)</li> </ul>	No, not specifically mentioned
EU Batteries Regulation (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>Supply chain due diligence (preamble 66)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>Supply chain due diligence (preamble 66)</li> </ul>
Directive on Radio Equipment (2021)	No, not specifically mentioned	No, not specifically mentioned
Strategy for a Sustainable Built Environment (2021)	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>Soil quality and use (objectives of the proposal)</li> </ul>
Packaging and Packaging Waste Directive revision (2022)	No, not specifically mentioned	Yes, in the following context: <ul style="list-style-type: none"> <li>Likely environmental impacts of the proposal (section C)</li> </ul>

EU Strategy for sustainable and circular textiles (2022)	Yes, in the following contexts <ul style="list-style-type: none"> <li>• Benefits of the transition to sustainable and circular textiles (section 5)</li> </ul>	No, not specifically mentioned
Bio-based plastics and biodegradable or compostable plastics policy framework (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>• Biodiversity impacts of the biological feedstock (section A)</li> </ul>	No, not specifically mentioned
ELV Directive revision (2022)	No, not specifically mentioned	No, not specifically mentioned
Scoping possible further EU-wide end-of-waste and by-product criteria (2022)	No, not specifically mentioned	No, not specifically mentioned
Waste Framework Directive revision (2023) – including measures on waste reduction, waste prevention, separate collection and waste oils	No, not specifically mentioned	No, not specifically mentioned
RoHS Directive revision (2022)	No, not specifically mentioned	No, not specifically mentioned
Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>• Problem statement (section 1)</li> <li>• Objectives of the proposal (section 2)</li> </ul>	No, not specifically mentioned
Updating the Circular Economy Monitoring Framework (2022)	No, not specifically mentioned	No, not specifically mentioned
<b>Supporting initiatives</b>		
Industrial Emissions Directive revision (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>• Effects of the proposal (section 1)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>• Protecting ecosystems (Explanatory memorandum, section 1)</li> </ul>

Microplastics Regulation (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>Impacts of microplastics (section A)</li> </ul>	No, not specifically mentioned
Revised Regulation on Waste Shipments (2021)	No, not specifically mentioned	No, not specifically mentioned
Persistent Organic Pollutants Regulation revision (2021)	No, not specifically mentioned	No, not specifically mentioned
New Guidelines on State aid for climate, environmental protection and energy (CEEAG) (2022)	Yes, in the following context: <ul style="list-style-type: none"> <li>Aid for restoration of biodiversity (sections 2, 4.6)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>Financial support contribution to protecting and restoring biodiversity and ecosystems (section 4.6)</li> </ul>
<b>Complementary initiatives</b>		
EU Industrial Strategy (2020)	No, not specifically mentioned	No, not specifically mentioned
Construction Products Regulation revision (2022)	Yes, in the following contexts: <ul style="list-style-type: none"> <li>Rationale of the procurement criteria (pre-amble 91)</li> </ul>	No, not specifically mentioned
Chemicals strategy for sustainability (2020)	Yes, in the following context: <ul style="list-style-type: none"> <li>Chemical pollution as amplifier of biodiversity loss (section 1)</li> </ul>	Yes, in the following context: <ul style="list-style-type: none"> <li>Chemical pollution as amplifier of biodiversity loss (section 1)</li> <li>Impacts of chemicals on ecosystem resilience and productivity of soils (sections 2.2.3, 2.4.2)</li> </ul>

### Explicit reference to 'biodiversity' in circular economy initiatives

Five of the core CE initiatives include an **explicit reference to the term 'biodiversity'**: the Sustainable Products Initiative, the EU Batteries Regulation, the EU Strategy for sustainable and circular textiles, bio-based plastics and biodegradable or compostable plastics policy framework and the Global Alliance on Circular Economy and Resource Efficiency. Three of the supporting initiatives and two of the complementary initiatives include direct references to the term 'biodiversity'. This often comes in the form of **noting biodiversity loss in the problem statement, as one of the initiative's tackled impacts or the importance of the wider action on biodiversity**. Direct references to biodiversity in the circular economy initiatives focus on aspects such as supply chain due diligence, textiles industry transition, impacts of microplastics and chemical pollution as amplifiers of biodiversity loss. Majority of the direct references to biodiversity can be found in the initiatives' preambles or context sections as opposed to the articles in the core texts of the proposals. The remaining CE initiatives do not make any explicit reference to the term 'biodiversity'.

The overall coherence between CE initiatives and biodiversity therefore seems to be **weaker in the core CE initiatives than in the supporting and complementary initiatives**. This may be due to the stronger links between circular economy and biodiversity associated with the resource and materials cycles and extraction of resources.

### Contribution of circular economy initiatives to Biodiversity Strategy objectives

In addition to majority of the CE initiatives specifically mentioning the word 'biodiversity', some of them have the **potential to contribute to the EU protecting and restoring nature in the EU**.

CE policies relevant to the objectives of the EU BS include three core initiatives, namely the EU Batteries Regulation, the Strategy for a Sustainable Built Environment and the Packaging and Packaging Waste Directive revision, two of the supporting initiatives and one of the complementary initiatives. Similarly to the direct references, this often comes in the form of **noting biodiversity loss in the problem statement, as one of the initiative's tackled impacts or the importance of the wider action on biodiversity**. Direct references to biodiversity in the circular economy initiatives focus on aspects such as supply chain due diligence, soil quality and use, financial support contribution to protecting and restoring biodiversity and ecosystems, chemical pollution as amplifier of biodiversity loss, impacts of chemicals on ecosystem resilience and productivity of soils. Majority of the indirect references to biodiversity can be found in the initiatives' main

sections, although similarly as in the case of direct references, not in the articles in the core texts of the proposals. The remaining CE initiatives do not make any explicit reference to the terms 'protect', 'restor', 'nature', 'conserv'.

### Synergies between circular economy and biodiversity

The **coherence between CE initiatives and the EU's biodiversity agenda** appears to be fairly well spread amongst the core, supporting and complementary CE initiatives, with supporting and complementary referring to biodiversity and/or the EU Biodiversity Strategy objectives in most cases. However, biodiversity seems to be more recognised in the context of the challenge of biodiversity loss or the desired outcome of advancing biodiversity. The initiatives which would contribute to the objectives of the EU Biodiversity Strategy appear to receive less attention. At the same time, circular economy appears to have little recognition in the biodiversity objectives of the EU, with little potential contributions made to the objectives of the CEAP.

Overall, the **CE initiatives seem to overlap with biodiversity objectives to a moderate extent** with stronger links on the wider biodiversity agenda as opposed to specific objectives on restoration, nature protection and others. It generally leans more in the direction of circular economy contributions to the biodiversity agenda than the other way around. The most common overlaps relate to the need for the EU to advance a sustainability transition of its industry and production more broadly. A smaller number of the CE initiatives relate to soli quality and use as well as financial support and infrastructure to protect ecosystems and restore biodiversity.

## 4. CONCLUSIONS AND SUMMARY

### 4.1 State of play of EU circular economy policy

The nature of the initiatives arising from the CEAP and the EGD seems to indicate that the Commission increasingly recognises the **need to use legally binding measures to strengthen the transition to circular economy in the EU**.

So far, the majority of the initiatives discussed in this report have not yet been adopted. However, several strategic initiatives that have been adopted deal with textiles, industry and chemicals, which are key sectors for the circular economy transition recognised in the CEAP and the EGD. The European Commission is therefore **setting the basis for future action** in these key sectors. Moreover, some of those strategies also announce the introduction of future regulatory measures, such as the review of the textile labelling regulation in the EU Textiles Strategy.

**EU Member States can expect important regulatory measures on circular economy in the coming years**, since around half of the regulatory initiatives discussed in this report have been proposed but not yet adopted, and the other half still remain to be proposed.

One strategy which is still in the planning stage covers a high impact sector for the circular economy transition, namely the Strategy for a Sustainable Built Environment. Little information is available regarding its timeline, despite the fact that the European Commission has already put forward overarching visions for the future of other sectors, namely textiles, industry and chemicals.

EU circular economy initiatives continue to **place significant attention on recycling and recovery**, which are actions located at the bottom of the waste hierarchy. However, an **increasing number of EU circular economy initiatives are placing more importance on actions higher up the waste hierarchy**, namely reducing and reusing products. Nevertheless, the **lack of concerted measures targeting the top of the waste hierarchy** – refusing and rethinking our products – limits the potential for absolute reduction of resource consumption in the EU.

### 4.2 Synergies between circular economy and other EU environmental policy areas

As well as addressing circular economy specifically, CE-related initiatives can contribute to achieving objectives in other areas of EU environmental policy. This report considers the **relationship between CE initiatives and zero pollution**,

**resource security, climate and biodiversity**, as some of the key areas of focus for the EU's environmental policies.

At present, it appears that there is a **high degree of synergy between CE initiatives and the zero pollution agenda**, with a majority of the initiatives discussed having the potential to contribute in this area. The main synergy relates to the **ZPAP's waste prevention and reduction** objective and the **CEAP's aim to promote 'less waste and more value'**, which are mutually supportive. In addition, some of the initiatives should contribute to the ZPAP's objective of reducing water pollution from plastics and microplastics. However, it should be remembered that addressing pollution tackles the end-of-pipe impacts of waste rather than focusing on the creation of a circular economy further up the value chain.

There is also a **high degree of synergy between CE initiatives and climate**, with several initiatives having the potential to contribute to the EU's goals in this area. The main synergies relate to **reducing** greenhouse gas emissions **and reaching climate neutrality through the use of circular economy solutions**. However, it appears that the **European Climate Law has more limited synergies with the CEAP's objectives**, with the main relationship being the potential of circularity to contribute to climate neutrality, rather than the other way around.

There is a **moderate degree of synergy between CE initiatives and resource security**, with several initiatives having the potential to contribute to the EU's goal of achieving greater resource security. The main synergies relate to **reducing EU dependencies, increasing strategic autonomy and resilience**, and/or **mitigating specific supply risks**. Some of the core initiatives have less relevance to resource security, since they do not address critical products or materials. Overall, it appears that the **Critical Raw Materials Resilience Communication has rather limited synergies with the CEAP's objectives**, with the main relationship being the potential role of greater circularity in contributing to resource security, rather than the other way around.

There is also a **moderate degree of synergy between CE initiatives and biodiversity**, with some of the initiatives having the potential to contribute to the EU's goal of tackling biodiversity loss. The main synergies relate to **advancing a sustainability transition of industry and production** and/or **financial support and infrastructure to protect ecosystems and restore biodiversity**. Overall, it appears that the **Biodiversity Strategy has rather limited synergies with the CEAP's objectives**, with the main relationship being the potential role of greater circularity in contributing to advancing biodiversity loss, rather than the other way around.



The analysis indicates that **biodiversity** is the only area of environmental policy where, despite many of the circular economy initiatives noting its importance, few seem to actively contribute to the EU's biodiversity objectives. Meanwhile, few of the CE initiatives mention **resource security** explicitly, but many of them have the potential to contribute towards achieving greater EU resource security. In the areas of **resource security, climate and biodiversity, circular economy seems to be used predominantly as a tool** to help achieve EU objectives, rather than the other way around. On the other hand, **the zero pollution and circular economy agendas seem to be mutually reinforcing**, with relevant initiatives helping to advance EU objectives in both areas.

The connections between circular economy and the other highlighted areas point to the **biggest driver of those challenges**, namely the linear consumption and production system. This serves as an indication that tackling the way we produce and consume has the potential to address a number of environmental challenges, including pollution, resource security, climate change and biodiversity loss.

### 4.3 The way forward

The analysis of the EU circular economy initiatives in this report indicates that the concept of the circular economy at the EU level has been changing. It has moved beyond a focus on waste and towards addressing more priorities higher up the waste hierarchy, such as reducing and reusing products. However, so far it does not adequately recognise the importance of absolute reduction of resource consumption to achieve a full circular economy transition in the EU.

## 5. ANNEXES

### 5.1 CE initiatives considered in this report

**Key:** Adopted initiatives; Proposed initiatives; Planned initiatives; Initiatives included in another initiative

CEAP (or EGD) action	Title (date) of initiative	Type	Objective / description	Target areas / sectors	'R' strategy relevance	Timeline / key dates
<b>Core initiatives</b>						
Launch of an industry-led <b>industrial symbiosis</b> reporting and certification system (2022)	<a href="#">CircLean Initiative (2021)</a>	Voluntary	Network of industries, public authorities and industry associations Aims: create common methodology to measure and report on resource exchange and benefits from symbiotic exchanges; develop online assessment module and tool; and establish common voluntary methodology and CircLean Label	Not yet clear – will depend on the industries/ businesses identified as being symbiotic	R3 Reuse	Network launched: 23/02/21 Self-assessment tool: autumn 2021 Online matching tool (beta): autumn 2021 Reporting methodology & CircLean label: tbc
Legislative and non-legislative measures establishing a new <b>"right to repair"</b> (2021)	<a href="#">Sustainable consumption of goods – promoting repair and reuse (2022)</a>	Regulatory	Aims: promote more sustainable use of goods and reduce unsustainable consumption; encourage consumers to make sustainable choices by providing incentives/tools to use goods for longer, including through repair; encourage producers to design durable and repairable goods.		R2 Reduce R3 Reuse R4 Repair R5 Refurbish	Public consultation: Jan-Apr 2022 Commission proposal (Directive): Q3 2022
Legislative proposal for a <b>sustainable product policy initiative (2022)</b>	<a href="#">Sustainable products initiative (2022)</a>	Regulatory	Ecodesign for Sustainable Products Regulation, following the successful 'Ecodesign approach'. Aims: make sustainable products the norm in the EU market; provides for product-level requirements on energy efficiency, circularity and reduction of environmental and climate impacts. Requirements to be set in product-specific legislation. Also addresses CEAP actions on substances of concern in recycled materials and mandatory GPP criteria.	Most physical goods placed on the EU market (including components and intermediate products)	R2 Reduce R3 Reuse R4 Repair R5 Refurbish R6 Remanufacture R8 Recycle R9 Recover	Commission proposal (Regulation): 30/03/22 Latest status: 1st EP committee reading (02/05/22); Council discussions (19/07/22) Entry into force: 20 days after publication in OJEU

Mandatory <b>Green Public Procurement (GPP)</b> criteria and targets in sectoral legislation and phasing-in mandatory reporting on GPP (from 2021)	See Sustainable products initiative above	-	Ecodesign for Sustainable Products Regulation (Article 58) provides for adoption of mandatory GPP criteria (technical specifications, selection criteria, award criteria, contract performance clauses, or targets). Criteria will take account of value/volume of public contracts for the product group, need to ensure sufficient demand for sustainable products, and economic feasibility sustainable products.	Not yet clear	-	See above
Methodologies to track and minimise the presence of <b>substances of concern in recycled materials</b> and articles made thereof (2021)	See Sustainable products initiative above	-	Addressed in sustainable products initiative proposal (see above).	Recycled materials	-	See above
Proposal for a new regulatory framework for <b>batteries</b> (2020)	<a href="#">Proposal for an EU Batteries Regulation (2020)</a>	Regulatory	Aims: strengthen internal market functioning (including products, processes, waste batteries and recyclates) by ensuring level playing field; promoting a circular economy, including recovery of valuable material; and reducing lifecycle environmental and social impacts of batteries.	Batteries	R3 Reuse R4 Repair R6 Remanufacture R7 Repurpose R8 Recycle R9 Recover	Commission proposal (Regulation): 10/12/20 Latest status: 1st EP reading decision (10/03/22); Council discussions (17/03/22) Entry into force: 20 days after publication in OJEU Application of selected provisions: 65% collection rate by 31/12/25, 70% by 31/12/30; battery passports and electronic info system 01/01/26; labelling 01/01/27
<b>Circular Electronics Initiative, common charger</b> solution, and reward systems to <b>return</b> old devices (2020/2021)	<a href="#">Proposal for a Directive amending Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (2021)</a>	Regulatory	Aims: reduce e-waste generated by the sale of radio (accessory) equipment; reduce extraction of raw materials and the CO2 emissions generated by production, transportation and disposal of chargers.	Radio equipment (accessories to electronic equipment)	R2 Reduce R3 Reuse	Commission proposal (Directive): 23/09/21 Latest status: EP committee approved text from 1st reading interinstitutional negotiations (11/07/22); EP

						plenary (03/10/22) Entry into force: 20 days after publication in OJEU MS transposition: 12 months after entry into force Application of provisions: 24 months after entry into force
Strategy for a <b>Sustainable Built Environment</b> (2021)	<a href="#">Strategy for a Sustainable Built Environment (2023)</a>	Strategic/overarching	Aims: increase material efficiency and reduce climate impacts of the built environment, particularly promoting circularity principles throughout the life cycle of buildings.	Buildings	R8 Recycle R9 Recover	Commission proposal: tbc
<a href="#">Review to reinforce the essential requirements for packaging and reduce (over)packaging and packaging waste (2022)</a>	Not yet proposed - will be part of proposal for a <b>revision of the Packaging and Packaging Waste Directive</b> (2022)	Regulatory	Will include changes to: improve packaging design for reuse & recycling; reinforce essential requirements for packaging; increase recycled content (mandatory EU recycled content target planned for plastics packaging; industry calling for 30% by 2030); tackle excessive (over)packaging; and reduce generation of packaging waste.	Packaging	R2 Reduce R3 Reuse R8 Recycle R9 Recover	Public consultation: Sep 2020-Jan 2021 Commission proposal (Directive): 2022
EU Strategy for <b>sustainable and circular textiles</b> (2022)	<a href="#">EU Strategy for sustainable and circular textiles (2022)</a>	Strategic/overarching	Aims: promote (by 2030) long-lived & recyclable textiles in EU, to a great extent made of recycled fibres, free of hazardous substances & produced in respect of social rights & environment; tackle fast fashion; promote economically profitable re-use and repair services; producer responsibility along the value chain, including waste phase; increase capacity for fibre-to-fibre recycling; minimise incineration and landfilling of textiles.	Textiles	R2 Reduce R3 Reuse R4 Repair R8 Recycle	Commission adoption (Communication): 30/03/22 Actions to be implemented: 2022-2024
Policy framework for <b>bio-based plastics and biodegradable or compostable plastics</b> (2022)	<a href="#">Policy Framework on biobased, biodegradable and compostable plastics (2022)</a>	Not (yet) clear	Aims: promote bio-based, biodegradable and compostable plastics with genuine environmental benefits (possibly including criteria); contribution to sustainable plastics economy & carbon neutral circular economy; address sourcing, labelling & appropriate use of bio-based plastics, and use of biodegradable & compostable plastics; ensure clear/trustworthy consumer options.	Plastics, more specifically bio-based, biodegradable and compostable plastics	R8 Recycle	Policy roadmap published: Sep 2021 Public consultation: Jan-Mar 2022 Commission adoption (Communication): 2022

Review of the rules on <b>end-of-life vehicles</b> (2022)	<a href="#">Revision of Directive 2000/53/EC on end-of-life vehicles (2022)</a>	Regulatory	May include: extending scope to additional vehicles; adoption of life-cycle approach; obliging producers to improve circularity of vehicles; adopting a separate reuse target to promote CE transition; adopting material-specific recycling targets; increased use of recycled plastic (possibly mandatory recycled content target); charges to owners for temporary de-registration; improved traceability; and tackling illegal exports.	End-of-life vehicles and their components	R2 Reduce R3 Reuse R4 Repair R6 Remanufacture R8 Recycle R9 Recover	Public consultation: Jul-Oct 2021 Commission proposal (Directive): Q4 2022
Scoping the development of further <b>EU-wide end-of-waste and by-product criteria</b> (2021)	<a href="#">EU-wide end-of-waste and by-product criteria for plastics and textiles (2024)</a>	Regulatory	Identified two categories of waste for further development of EU-wide EoW or by-product criteria: plastics (specifically PET, LDPE, HDPE, mixed plastics, polystyrene and expanded polystyrene, and PP recovered/recycled from plastic waste); and textiles (specifically separately collected clothes and other textiles prepared for re-use, and cellulosic fibres and mixed fibres recovered/recycled from textile waste).	Plastic waste and textile waste	R3 Reuse R8 Recycle R9 Recover	Stakeholder consultation: Jul-Oct 2021 Scoping report published: Mar 2022 Commission/JRC to develop plastic waste EoW criteria: Q2 2022-Q1 2024 Commission/JRC to develop textile waste EoW criteria: from 2023
<b>Waste reduction targets</b> for specific streams and other measures on <b>waste prevention</b> (2022)	<a href="#">Revision of EU Waste Framework Directive (2023)</a>	Regulatory	WFD review may propose: waste reduction targets for specific waste streams (food waste reduction targets to be proposed in EU Farm to Fork Strategy); improve data collection; use of economic instruments e.g. PAYT; quantitative reuse targets for products; enhanced implementation of EPR scheme requirements; incentives for and sharing of good waste recycling practices.	Overall waste generation, municipal waste, food waste	R2 Reduce R8 Recycle R9 Recover	Public consultation: May-Aug 2022 Commission proposal (Directive): Q2 2023
EU-wide harmonised model for <b>separate collection of waste</b> and labelling to facilitate separate collection (2022)	<a href="#">Revision of EU Waste Framework Directive (2023)</a>	-	Aims to harmonise separate waste collection systems, including: identifying most effective separate collection models; assessing density and accessibility of separate collection points; consider common bin colours/harmonised symbols; consumer product labels and information campaigns; use of economic instruments; standardisation of waste quality management systems (in particular for food contact material).	Waste collection sector, consumers	-	See above

Review of rules on proper treatment of <b>waste oils</b> (2022)	<a href="#">Revision of EU Waste Framework Directive (2023)</a>	-	Aim: to consider most effective measures to ensure collection and environmentally sound treatment of waste oils. May include: quantitative targets for regeneration of waste oils; and further measures to promote regeneration of waste oils.	Waste oils (as defined in WFD: mineral or synthetic lubrication or industrial oils, incl. engine, gearbox, lubricating, turbine & hydraulic oils)	-	See above
Review of the Directive on the <b>restriction of the use of certain hazardous substances in electrical and electronic equipment</b> and guidance to clarify links with REACH & Ecodesign requirements (2021)	<a href="#">Review: Restriction of the use of hazardous substances in electronics (2022)</a>	Regulatory	Aim: promote safer and cleaner waste streams; contribute to ensuring high-quality recycling; simplify and increase efficiency of current rules; improve enforcement.	EEE and WEEE	R2 Reduce R8 Recycle R9 Recover	Public consultation: Mar-Jun 2022 Commission proposal (Directive): Q4 2022
Proposing a <b>Global Circular Economy Alliance</b> and initiating discussions on an international agreement on the management of natural resources (from 2021)	<a href="#">Global Alliance on Circular Economy and Resource Efficiency (GACERE) (2021)</a>	Voluntary	Global alliance of governments, networks and organisations. Aims: support global just transition to a resource efficient & circular economy; promote equitable resource use; sustainable consumption & production; inclusive & sustainable industrialisation. Members will build on ongoing international efforts and advocate in multilateral fora, incl. UN and G7/G20. Current members: EU, Canada, Chile, Colombia, India, Japan, Kenya, Morocco, New Zealand, Nigeria, Norway, Peru, S. Korea, Rwanda, South Africa, Switzerland, UNEP, UNIDO.	CE policy and initiatives at the international/ global level	R2 Reduce R3 Reuse R6 Remanufacture R8 Recycle R9 Recover	Alliance launched: 22 Feb 2021, at UNEA-5 First High-Level Meeting; 14 Sep 2021, at World Circular Economy Forum
Updating the <b>Circular Economy Monitoring Framework</b> to reflect new policy priorities and develop further indicators on resource use, including consumption and material footprints (2022)	<a href="#">Circular economy – revision of the monitoring framework (2022)</a>	Strategic/overarching	Will include new indicators relevant to CEAP and links between circularity, climate neutrality and zero pollution, including indicators on resource use, consumption and material footprints, to help monitor and assess progress towards decoupling economic growth from resource use and its impacts in the EU and beyond.	Current Monitoring Framework addresses: production & consumption; waste management; secondary raw materials; competitiveness & innovation	Not yet clear	Call for evidence: May-Jun 2022 Commission proposal (Communication): Q3 2022

Supporting initiatives						
Review of the <b>Industrial Emissions Directive</b> , including the integration of circular economy practices in upcoming Best Available Techniques reference documents (2022)	<a href="#">Proposal for a revision of the Industrial Emissions Directive (IED) (2022)</a>	Regulatory	CE-relevant aims: increase investment in new, cleaner, more resource-efficient technologies; support sustainable growth of key CE sectors; set up INCITE (Innovation Centre for Industrial Transformation and Emissions); require installation-specific Transformation Plans to show contribution to EU zero pollution ambition, circular economy and decarbonisation aims (by Jun 2030, or 2034 for livestock farms).	IED currently applies to around 30,000 large industrial plants and 20,000 large poultry/pig farms. Revision proposes extension to: metal, rare earth metal and industrial mineral mines; 'Giga-factories' for electro-mobility batteries; and larger-scale cattle farming and additional pig and poultry farms (of over 150 livestock units (LSU)), to cover 13% of EU's largest livestock farms (185,000)	R2 Reduce R3 Reuse R8 Recycle	Commission proposal (Directive): 05/04/22 Feedback period: Apr-Jun 2022 Latest status: 1st EP committee reading (02/05/22); Council discussions (05/07/22) Entry into force: 20 days after publication in OJEU Transposition: 18 months after entry into force Operator transformation plans: 30/06/30
Restriction of intentionally added <b>microplastics</b> and measures on unintentional release of microplastics (2022)	<a href="#">Proposal for a Microplastics Regulation (2022)</a>	Regulatory	Aim: to tackle microplastics unintentionally released into the environment; focus on labelling, standardisation, certification and regulatory measures for the main sources of these plastics; improve the science on risks and occurrence of microplastics in the environment, tap water and food; reduce environmental pollution and potential health risks while respecting single market principles and encouraging competitiveness and innovation.	Microplastics (intentionally added to products)	R2 Reduce R6 Remanufacture R8 Recycle	Public consultation: Feb-May 2022 Commission proposal (Regulation): Q4 2022
Revision of the rules on <b>waste shipments</b> (2021)	<a href="#">Revised Regulation on Waste Shipments (2021)</a>	Regulatory	Aim: boost circular economy; ensure waste exports do not harm the environment or human health outside the EU; minimise waste shipments between MS for disposal; waste exports to non-OECD countries must meet environmental waste treatment standards (exporters must independently check); any "surge" in exports to OECD countries to be investigated by Commission; creation of a waste shipment enforcement group; legally binding	Waste exports	R2 Reduce R3 Reuse R8 Recycle R9 Recover	Commission proposal (Regulation): 17/11/21 Latest status: Council discussions (15/03/22); EP committee draft report (11/04/22) Entry into force: 20 days after publication

			definition of 'used goods' for e.g. vehicles & batteries (to avoid waste being labelled as used goods); harmonised system of waste classification in EU to facilitate/boost recycling & recycling capacity.			in OJEU Application of provisions: 2 months / 2 years / 3 years after entry into force
Proposal to update rules on <b>persistent organic pollutants in waste</b> (2021)	<a href="#">Revision of the Persistent Organic Pollutants Regulation (2021)</a>	Regulatory	Aim: to eliminate or minimise emissions of POPs from waste. Proposes stringent limits for: perfluorooctanoic acid (PFOA), its salts and related compounds (found in waterproof textiles and fire-fighting foams); the pesticide dicofol (previously used in agriculture); and pentachlorophenol, its salts and esters (found in treated wood and textiles). Also proposes tighter maximum limits in waste for five already-regulated substances/substance groups: 5 PBDEs (flame retardants); HBCDD (flame retardant); SCCPs (flame retardant); PCDD/Fs (present as impurities in some ashes and industrial waste); and dioxin-like PCBs (present as impurities in some ashes and industrial oils).	Specific POPs in waste (including older consumer products e.g. waterproof textiles, furniture, plastics, EEE)	R2 Reduce R8 Recycle	Commission proposal (Regulation): 28/10/21 Latest status: EP committee approved text from 1st reading interinstitutional negotiations (11/07/22) Entry into force: 20 days after publication in OJEU Application of provisions: 6 months / 3 years / 5 years after entry into force
Reflecting circular economy objectives in the revision of the guidelines on <b>state aid</b> in the field of environment and energy (2021)	<a href="#">New Guidelines on State aid for climate, environmental protection and energy (CEEAG) (2022)</a>	Voluntary	Aim: align climate, environment and energy state aid rules with European Green Deal, energy and environment regulatory changes, and climate protection. Includes sections to support: renewables, energy efficiency, clean mobility, infrastructure, circular economy, pollution reduction, protection, restoration of biodiversity and security of energy supply. On CE: clearer rules for aid to increase companies' resource efficiency and allow for the development of circular economy. On resource efficiency: incentivise businesses to reduce waste and resource use. The rules: still allow aid for waste management (collection, sorting and processing of waste); include provisions on aid for reduction, prevention, preparing for re-use, recovery and recycling of waste and products; include aid for investments to improve resource efficiency of production by reducing resource consumption or using secondary raw materials. No aid for production of products contributing to the green transition.	State aid related to environment, climate and energy, including CE	R2 Reduce R3 Reuse R8 Recycle R9 Recover	Commission adoption (Communication): 27/01/22 Application: 27/01/22 MS to align to new rules: 31/12/23



Complementary initiatives						
EU Industrial Strategy (2020)	<a href="#">EU Industrial Strategy (2020)</a>	Strategic/overarching	<p>Aims: support the twin transition to a green and digital economy; make EU industry more competitive; enhance EU strategic autonomy. On CE specifically the Strategy called for: reduced carbon and material footprint of EU industry; circularity to be embedded across the economy; incentives for industry to revolutionise design, production, use and disposal of things; public authorities to choose greener procurement; and announced a new sustainable product policy framework and measures to empower consumers.</p> <p>May 2021 update: new measures to strengthen EU single market resilience; aiming to better understand key strategic EU dependencies and present toolbox to address them; new measures to accelerate the green and digital transitions; and increased monitoring of key EU economy competitiveness indicators, including single market integration, productivity growth, international competitiveness, public and private investment and R&amp;D investment.</p>	Broad strategy to direct EU industry towards the green and digital transitions	None specifically mentioned	<p>Commission adoption (Communication): Mar 2020</p> <p>Commission adoption (Communication): May 2021 - Strategy updated to reflect COVID-19 crisis</p> <p>Actions to be implemented: starting 2021-2022</p>
Proposal for a revised Construction Products Regulation (2022)	<a href="#">Proposal for a revised Construction Products Regulation (2022)</a>	Regulatory	<p>Aims to address construction products' sustainability performance. Revision includes: creating a harmonised framework to assess &amp; communicate environmental/climate performance of products; new product requirements (durability, repairability, recyclability, ease of re-manufacture); easing creation of common European standards; increased use of digital solutions e.g. construction products database, Digital Product Passports.</p> <p>Manufacturers must provide product lifecycle information and comply with various obligations, including: product &amp; packaging design and manufacture to reach state of the art environmental sustainability; preferential use of recyclable &amp; recycled materials; minimum recycled content obligations; info. on product use and repair; product design to facilitate re-use, remanufacturing and recycling.</p>	Construction products (buildings responsible for around 50% of resource extraction & consumption, 30%+ of EU waste per year, 40% of EU energy consumption, 36% of energy-related ghg emissions)	R3 Reuse R4 Repair R5 Refurbish R6 Remanufacture R8 Recycle R9 Recover	<p>Public consultation: Sep-Dec 2020</p> <p>Commission proposal (Regulation): Mar 2022</p> <p>Latest status: 1st EP committee reading (18/05/22); Council discussions (14/07/22)</p> <p>Entry into force: 20 days after publication in OJEU</p> <p>Application of provisions: 1 month after entry into force</p>

<p><b>Chemicals strategy for sustainability</b> (2020)</p>	<p><a href="#">Chemicals strategy for sustainability (2020)</a></p>	<p>Strategic/ overarching</p>	<p>The Strategy addresses the interface between chemicals, products &amp; waste legislation. Aims: improve protection of citizens and environment; boost innovation for safe-by-design &amp; sustainable chemicals. Actions: banning the most harmful chemicals in consumer products (unless essential); accounting for the cocktail effect of chemicals in risk assessment; phasing out per- and poly-fluoro-alkyl substances (PFAS) (unless essential); boosting investment and innovation for production and use of safe and sustainable chemicals; promoting EU resilience of supply and sustainability of critical chemicals; establishing simpler risk and hazard assessments; and playing a leading global role.</p>	<p>Safe and sustainable use of chemicals, including in products</p>	<p>R2 Reduce R8 Recycle</p>	<p>Commission adoption (Communication): Oct 2020 Actions to be implemented: 2021-2024 Public consultation on REACH revision: Jan-Apr 2022 Commission proposal on REACH revision (Regulation): Q4 2022</p>
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## 5.2 References and key sources used for this report

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### Key sources used for circular economy initiatives

Initiative	Key source used
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Proposal for an EU Batteries Regulation (2020)	Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) No 2019/1020 (COM/2020/798 final). <a href="#">Link</a>
Directive on Radio Equipment (2021)	Proposal for a Directive amending Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (COM/2021/547). <a href="#">Link</a>
Strategy for a Sustainable Built Environment (2023)	European Parliament (2022). LEGISLATIVE TRAIN 06.2022. STRATEGY FOR A SUSTAINABLE BUILT ENVIRONMENT. <a href="#">Link</a>
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<b>Complementary initiatives</b>	
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