

# REPORT

## **Reducing plastic waste in Canada through voluntary instruments**

Learning from the EU Green Deal implementation

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## List of Abbreviations

<b>CPA</b>	Circular Plastics Alliance
<b>EU</b>	European Union
<b>GHG</b>	Greenhouse Gases
<b>OECD</b>	Organisation for Economic Co-Operation and Development
<b>UNFCC</b>	United Nations Framework Convention on Climate Change

## 1 Introduction: Purpose of this policy brief

Reducing plastic waste is a complex challenge that requires a combination of different measures and actions: informational tools, market-based instruments, regulations and voluntary initiatives.

Among these, regulatory efforts can play a crucial role. They can contribute to the creation of a framework for the reduction of plastic waste by promoting the reduction of plastic production, more sustainable and circular design of plastic products, recycling and recovery. They can also incentivise companies to invest in more sustainable practices, technologies and business models. Regulatory efforts can also help to change consumer behaviour. In essence, regulatory efforts can create a sense of urgency around the issue of plastic waste by setting targets and deadlines for reduction and recycling.

However, regulatory instruments require lengthy development processes and can be costly to implement. Complementary approaches to implementing a circular economy for plastic packaging may still face barriers that require further collaborative efforts. Against the background of accumulating plastic waste, voluntary initiatives can be an additional instrument for complementing mandatory regulations, ensuring a comprehensive approach in combating plastic pollution.

Voluntary instruments refer to measures that companies and organizations can voluntarily adopt and join, that is where no legal or any other kind of mandatory obligation exists to adopt the measure (Diana et al. 2022). They range from self-regulation through (?) over industry agreements to environmental standards. Essentially, they provide flexibility to companies in their efforts to reduce plastic waste. Companies decide what actions are most feasible for them to implement, enabling them to innovate and find new solutions. In addition, voluntary instruments can help to build trust and cooperation between companies, governments, and other stakeholders. Industry agreements, for example, can bring together companies from different sectors to collaborate on shared challenges and find common solutions. This is particularly important to address plastic pollution and waste where approaches across the entire lifecycle of plastics and thus cooperation among different actors in the plastics value chain are urgently needed. Voluntary standards, such as product labelling and certifications, can also help to inform consumers and encourage companies to adopt more sustainable practices.

The European Union (EU) has been pursuing ambitious goals to reduce plastic waste through a combination of voluntary instruments, regulations and informational tools. Several different voluntary instruments are applied to achieve the targets set out by the European Green Deal's Circular Economy Action Plan. This policy brief provides insights and examples from the European region regarding the implementation and support of voluntary measures as a policy instrument. Selected case studies of voluntary approaches, such as industry agreements, standards or classification systems, are examined.

Learning from the EU experiences on the contribution of voluntary initiatives toward for plastic waste reduction, and examining the 'Green Deals' approach may inform Canadian businesses, organisations and governments to identify best approaches and design suitable policy instruments. The analysis of voluntary measures as a complementary policy tool offers Canadian stakeholders' insights into the European comprehensive approach to managing plastic waste.

## 2 European Union policies on plastics

Over time the EU has developed and implemented a relative comprehensive set of overarching strategies, general policies and specific measures to address plastic pollution. Essentially, the current EU policy on plastic is generally guided by two overarching policy frameworks: the new Circular Economy Action Plan of 2020 (European Commission (EC) 2020b) and the European Strategy for Plastics in a Circular Economy of 2018 (European Commission (EC) 2018a, S. 1).

Both strategies share and proclaim the basic vision of a transition to a more circular plastics economy. Already the first EU Circular Economy Action Plan, adopted in 2015, announced the adoption of a strategy for a circular plastics economy and emphasized the need for of a lifecycle approach that addresses the entire plastics value chain (European Commission (EC) 2015) The European Strategy for Plastics in a Circular Economy reiterates this basic vision. It aims at nothing less than a “new plastics economy, where the design and production of plastics and plastic products fully respect reuse, repair and recycling needs and more sustainable materials are developed and promoted” (European Commission (EC) 2018a) and demands actions from all stakeholders in the plastics value chain.

To achieve a circular plastics economy, the European Strategy for Plastics and the new Circular Economy Action Plan identify several key priority areas and formulate basic aims, specific targets and actions across the entire value chain of plastics, from production and design of plastics and products over consumption to end-of-life treatment (European Commission (EC) 2018a, 2020b).

Current key priority areas and basic aims are

- increases in the recyclability, reusability and recycled content of plastic products and packaging;
- improvements and expansion of collection, sorting and recycling capacities;
- the reduction of single-use plastics and plastic bags;
- the prevention of releases of microplastics into the environment;
- the abatement of marine plastic litter;
- the limitation of exports of plastic waste; and
- the promotion of sustainable production, use and end-of-life treatment of bio-based, biodegradable and compostable plastics (European Commission (EC) 2018a, 2020b).

For many key priority areas and basic aims the EU has formulated more specific policies and targets for its internal market and member states. Currently, the EU has four directives in place that specifically target plastic pollution: the Packaging Directive (European Union (EU) 2018), Plastic Bags Directive (European Union (EU)), Single-Use Plastic Directive (European Union (EU) 2019) and the Plastic Waste Shipment Rules (European Commission (EC) 2020a). It has recently adopted a non-binding policy framework for bio-based, biodegradable and compostable plastics (European Commission (EC) 2022b) and is currently preparing an initiative on microplastics.

**Table 1 Specific targets in key priority areas of EU policies**

Key priority area	Specific targets
<b>Recyclability, reusability and recycled content of plastic products and packaging</b>	<ul style="list-style-type: none"> <li>• By 2030, all plastic packaging in the EU internal market are either reusable or cost-efficiently recyclable</li> <li>• By 2030, 55 percent of plastic packaging is recycled/ by 2025 50 percent</li> <li>• By 2030, 50 percent of all plastic waste in the EU is recycled</li> <li>• By 2030, demand for recycled plastic increased by factor 4 (baseline 2018)</li> <li>• Replacement or phase-out of (chemical) substances that hamper recycling</li> <li>• By 2030, all plastic beverage bottles contain at least 30 percent of recycled content/ by 2025 all PET beverage bottles at least contain 25 percent of recycled plastic</li> <li>• By 2025, at least 10 million tons of recycled plastics are used in new products in the EU internal market by 2025 (through voluntary commitments)</li> </ul>
<b>Collection, sorting and recycling capacities</b>	<ul style="list-style-type: none"> <li>• By 2030, recycling capacities increase by factor 4 (baseline 2015)</li> <li>• By 2029, 90 percent of all plastic bottles are collected/ by 2025 77 percent</li> </ul>
<b>Single-use plastics and plastic bag</b>	<ul style="list-style-type: none"> <li>• By 2025, annual consumption of lightweight plastic carrier bags per person does not exceed 40</li> </ul>
<b>Exports of plastic waste</b>	<ul style="list-style-type: none"> <li>• By 2030, phase-out of exports of poorly sorted plastic waste</li> </ul>
<b>Releases of microplastics into the environment</b>	<ul style="list-style-type: none"> <li>• By 2030, releases of microplastics are reduced by 30 percent (baseline 2016)</li> </ul>
<b>Marine plastic litter</b>	<ul style="list-style-type: none"> <li>• By 2030, plastic litter at sea is reduced by 50 percent (baseline 2016)</li> </ul>

Sources: (European Commission (EC) 2018a, 2020a, 2020b; European Union (EU); European Union (EU) 2018; European Union (EU) 2019; European Commission (EC) 2021)

In order to achieve its basic aims and the more specific targets the EU uses or encourages in its policies and initiatives its member states to use the full range of available policies and instruments:

- **regulatory measures**, namely bans, mandatory requirements for recycled content in plastic products or other standards for plastic products that can be put on the EU internal market;
- **market-based instruments**, namely economic or fiscal incentives and rewards, public procurement, investment targets, Extended Producer Responsibility schemes or Deposit Refund Schemes;
- **informational or knowledge-related instruments**, namely labelling and certification, guidelines, harmonization of methods (e.g. for measuring recycled content in products), support and provision of scientific knowledge, monitoring, lifecycle assessments and environmental cost-benefit analyses, or awareness raising and education campaigns; and
- **supportive measures**, namely funds for research and development or financial support of innovations.

Finally, the EU often emphasizes the important and indispensable role and responsibility of the business sector in addressing plastic waste. It regularly promotes and calls for voluntary commitments and collaboration across the entire plastic value chain, in particular in its European Plastics Strategy (European Commission (EC) 2018a) where it calls on industry to voluntarily increase the recycled content in plastic products in the internal market to at least 10 million tonnes by 2025 (see first case study in next section).



### 3 Case studies and examples

#### 3.1 Circular Plastics Alliance

In December 2018, the European Commission launched the Circular Plastics Alliance (CPA) as an initiative under the European Strategy for Plastics in a Circular Economy. In the strategy, the European Commission invited stakeholders to submit voluntary pledges that ensure at least 10 million tons of recycled plastics are used in new products in the EU internal market by 2025 (European Commission (EC) 2018a). While the initiative is voluntary and business-driven, yet, it continues to be driven by the EU with the pressure of regulatory action if results are not delivered. The role of public authorities is substantive: first, the European Commission independently defined the target in advance; second, regulations could be developed in the absence of progress. In fact, the European Commission did announce that it would begin developing further measures if an assessment showed that the voluntary commitments submitted by October 2018 were not sufficient to meet the target, including regulatory action (European Commission (EC) 2018b).

The CPA made two basic sets of commitments in its founding declaration that as of January 2023 has been signed by more than 300 organizations from industry, science, civil society and public authorities (Circular Plastics Alliance (CPA) 2019). On the one hand, the CPA endorsed and committed to achieving the quantified target for the market share of recycled plastics that was defined by the European Commission. To this end, 70 companies from fifteen European countries<sup>1</sup> had pledged voluntary commitments by October 2018 that in the assessment of the European Commission were deemed to be sufficient to meet the target (European Commission (EC) 2019). The companies come from a wide range of sectors, they cover all steps in the plastics value chain, and their pledges address a variety of plastic materials. In addition to individual companies, several business associations representing the entire plastics value chain as well as local and regional authorities submitted pledges.

**Table 2 Coverage of CPA**

Sectors	Value chain	Plastic materials
<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Appliances</li> <li>• Automotive</li> <li>• Building and construction</li> <li>• Electrical and electronic</li> <li>• Furniture</li> <li>• Packaging</li> <li>• Textiles</li> <li>• Household, leisure and sports</li> </ul>	<ul style="list-style-type: none"> <li>• Primary producers</li> <li>• Converters</li> <li>• Brand owners</li> <li>• Retail</li> <li>• Waste collectors</li> <li>• Recyclers</li> <li>• Technology provider</li> <li>• Machinery and equipment supplier</li> </ul>	<ul style="list-style-type: none"> <li>• LD Polyethylene</li> <li>• HD Polyethylene</li> <li>• Polypropylene</li> <li>• Polystyrene</li> <li>• Expanded Polystyrene</li> <li>• Polyethylene Terephthalate</li> <li>• Polyurethane</li> <li>• Poly-Vinyl-Chloride</li> <li>• Polyamide</li> <li>• Acrylonitrile butadiene styrene</li> </ul>

Source: <https://circulareconomy.europa.eu/platform/en/commitments/pledges>

On the other hand, the CPA committed to actively support with various measures the adoption of a lifecycle approach and the promotion of a circular plastics economy in five areas: (1) design for recycling, (2) collection and sorting, (3) recycled content, (4) investments in

<sup>1</sup> Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Italy, Portugal, Spain, Sweden, Switzerland, the Netherlands and United Kingdom. In addition, several global companies operating on the European market submitted pledges.

research and development and, (5) monitoring (Circular Plastics Alliance (CPA) 2019). As general measures in these areas, the CPA committed to improve and expand cooperation with all relevant public and private stakeholders and to actively support the development, revision and update of European and other industry standards or guidelines related to recycling and recyclability. More specifically, the CPA committed to developing various studies, guidelines and analytical overviews that support and contribute to the achievement of the quantified target. Most of these specific commitments have already been met.

**Table 3 Additional commitments of the CPA**

Area	Commitment
<b>Design for recycling</b>	<ul style="list-style-type: none"> <li>• Workplan for deliverables (Circular Plastics Alliance (CPA) 2021c)</li> <li>• Development, revision and regular update of design guidelines for recycling of plastic products</li> <li>• Contribution to updates of European and other industry standards on recyclability of plastic products (European Commission (EC) 2022a)</li> <li>• Analysis of current status of the production of recycled plastics in the EU, including untapped recycling potential and necessary investments to reach the quantified target (Circular Plastics Alliance (CPA) 2021b)</li> </ul>
<b>Collection and sorting</b>	<ul style="list-style-type: none"> <li>• Analysis of current status on collection and sorting of plastic waste in the EU, including untapped recycling potential and necessary investments to reach the quantified target (Circular Plastics Alliance (CPA) 2020)</li> </ul>
<b>Recycled content</b>	<ul style="list-style-type: none"> <li>• Analysis of existing and identification of necessary legal, economic and technical requirements for the increased uptake for recycled plastics (Circular Plastics Alliance (CPA) 2022a)</li> </ul>
<b>Investments in research and development</b>	<ul style="list-style-type: none"> <li>• Development of a research and development agenda on circular plastics that helps overcoming technological barriers to an increased uptake of recycled plastics, including an assessment of investment and funding needs (Circular Plastics Alliance (CPA) 2022b)</li> </ul>
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• Establishment of a harmonized and independently audited monitoring system for volumes of recycled plastics in plastic products in the EU internal market (Circular Plastics Alliance (CPA) 2021d)</li> </ul>

Document with finalized deliverable in brackets

The CPA has an elaborate governance mechanism to organize the collaboration between its signatories (Circular Plastics Alliance (CPA) 2021a). It consists of six Working Groups, four Thematic Coordination Teams, a Steering Committee, a General Assembly and a Secretariat.

The Working Groups are the primary decision-making bodies and carry out the operational work necessary to meet the target and deliver the commitments. They consist of a Chair, a Thematic Coordinator and representatives from the different groups of stakeholders that are members of the CPA.<sup>2</sup> Each Working Group decides by consensus. The Chairs and the Thematic Coordinators report to the Steering Committee.

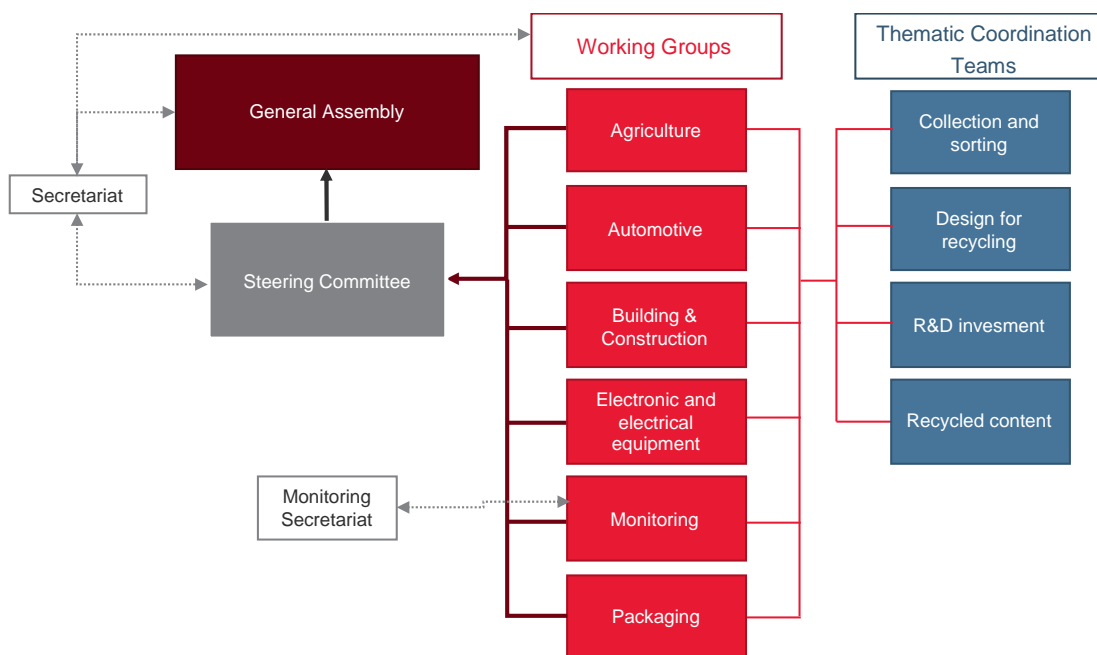
The four Thematic Coordination Teams work on themes and issues that cut across the Working Groups, promote the exchange between the Working Groups and identify synergies, gaps and inconsistencies in the work of the CPA. They consist of the Thematic Coordinators of each Working Group.

<sup>2</sup> They comprise representatives from each sector (one), polymer value chain (one), key stage in the plastics value chain (one), the European Standardization Organization (one), co-signing member states (up to five), co-signing regions and cities (up to two), NGOs (up to two), European Commission (up to two) and relevant Directorate-Generals (up to two).

The Steering Committee mainly fulfils oversight and coordination tasks. With support and preparatory input from the Working Groups, it monitors progress, establishes roles and responsibilities and produces annual reports. It also has an advisory role and may, for example, propose revisions of certain actions. Moreover, if a Working Group cannot reach a consensual decision, the Chair of the Steering Committee runs and facilitates a conciliation process.<sup>3</sup> Members of the Steering Committee are the Chairs of the Working Groups, four Thematic Coordinators (one per Thematic Coordination Theme) as well as representatives from the signatories.

The overarching body is the CPA General Assembly to which all other bodies report. It has no decision-making power.

**Figure 1 Circular Plastics Alliance governance structure**



The CPA has established an EU wide monitoring system with a sophisticated methodology to track its progress towards the quantified target of increasing the amount of recycled plastics that is used in new products in the EU internal market to at least 10 million tons by 2025 (Circular Plastics Alliance (CPA) 2021d). The monitoring system requires not only those companies that submitted voluntary pledges, but all companies that produce or use recycled plastics in the EU internal market to report data to one of two platforms.<sup>4</sup> A separate Monitoring Secretariat collects, reviews and aggregates data from the two platforms and verifies its validity. Independent auditors<sup>5</sup> that are approved by the Monitoring Secretariat then audit the submitted data, following a detailed auditing scheme (Circular Plastics Alliance (CPA) 2021e). The first monitoring report is scheduled to be published in early 2023.

<sup>3</sup> If this process also ends without consensus, disagreeing stakeholders report their objections in the annual report of the CPA.

<sup>4</sup> The platform MORE (Monitoring Recyclates in Europe, <https://www.moreplatform.eu>) collects data on the use of recycled plastics and is run by the European Association of Plastic Converters (EuPC). The platform RecoTrace (<https://recoTRACE.com>) collects data on the production and use of recycled plastics and is run by PolcyRec, a non-profit industry association.

<sup>5</sup> Six auditors are currently approved (<https://ec.europa.eu/docsroom/documents/50034/attachments/1/translations/en/renditions/native>).

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### 3.2 The EU Taxonomy – Aligning future investments with circularity to reduce plastic waste

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This case study examines the EU taxonomy and highlights how the classification system is designed to encourage companies to align their economic activities with the goal of minimising plastic waste.

The EU taxonomy for sustainable activities is a classification system that aims to identify economic activities that make a substantial contribution to climate change mitigation and adaptation, as well as to the protection of the environment and the transition to a sustainable economy. **It is intended to help investors align their activities with the European Union's (EU) goal of achieving climate neutrality by 2050.** The taxonomy provides a framework for investors to assess the sustainability of their investments and for companies to disclose information on the environmental performance of their activities. The taxonomy defines six environmental objectives that an economic activity must meet in order to be considered sustainable, and provides a set of technical screening criteria for each objective. The six objectives are:

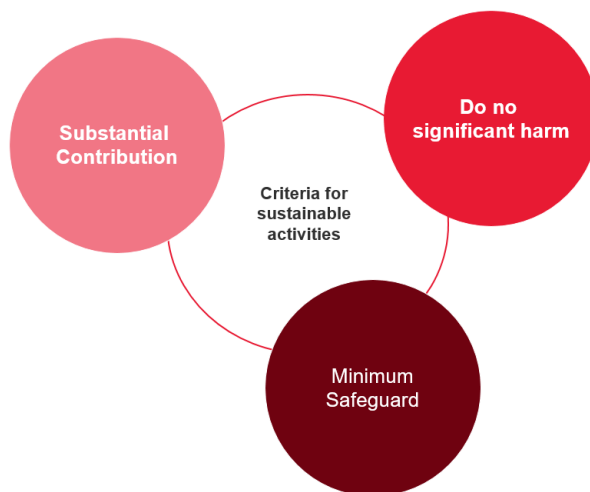
1. Climate change mitigation
2. Climate change adaptation
3. Pollution prevention and control
4. Resource efficiency and circular economy
5. Biodiversity conservation and sustainable use of natural resources
6. Water and marine resource protection

The taxonomy provides a framework for investors to assess the sustainability of their investments and for companies to disclose information on the environmental performance of their activities. It is an important component of the EU's broader sustainable finance agenda, which aims to redirect financial flows towards sustainable activities and investments (European Commission 2021).

For an economic activity to be aligned with the EU Taxonomy, it must:

- Substantially contribute to at least one of the six environmental objectives, as defined in the technical screening criteria;
- Do no significant harm to any of the other five environmental objectives, as defined in the technical screening criteria;
- Comply with minimum safeguards such as the OECD Guidelines on Multinational Enterprises and the UN Guiding Principles on Business and Human Rights

These three core conditions are shown in Figure 2.

**Figure 2: EU Taxonomy criteria for sustainable activities**

Source: adapted from (Patrick Moloney 2022)

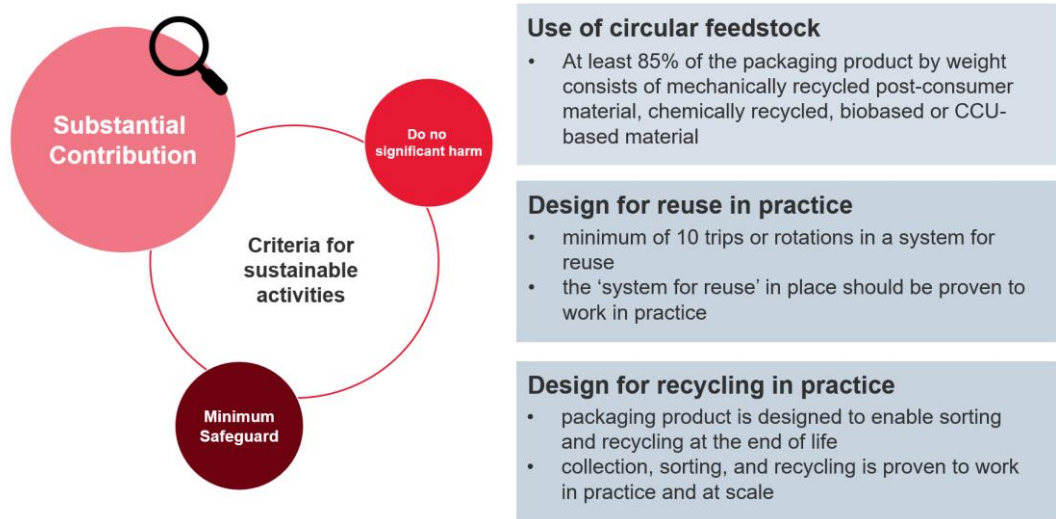
The legislation of the EU taxonomy consists of the Taxonomy Regulation, which was adopted by the European Parliament and the European Council, and several Delegated Regulations, which were or will be adopted by the Commission to operationalise the Taxonomy Regulation. The technical screening criteria for each environmental objective are developed in the delegated acts (Dorsch et al. 2022). For each economic activity considered, the technical screening criteria specify environmental performance requirements that ensure the activity makes a substantial contribution to the environmental objective in question and does no significant harm to the other environmental objectives (European Commission 2021). It should be noted that there is "...no obligation on companies to have activities aligned with the EU Taxonomy and there is no obligation on investors to invest in Taxonomy-aligned activities..." as per the European Commission (European Commission 2021).

The Climate Delegated Act contains the technical screening criteria for in the sectors that are most relevant for achieving climate neutrality and delivering on climate change adaptation (energy, forestry, manufacturing, transport and buildings). It was published on 9 December 2021 and is applicable since January 2022. In March 2022 the EU Platform on Sustainable Finance published a report which included recommendations on the technical screening criteria for the four remaining environmental objectives of the EU taxonomy, including resource efficiency and circular economy (Platform on Sustainable Finance 2022b). The so-called Environment Delegated Act, which addresses the remaining objectives, including resource efficiency and circular economy, is expected to be published in early 2023. It is expected to have only minor deviations from the recommendations provided by the Platform on Sustainable Finance.

In the context of reducing plastic waste and plastic pollution, the most significant objective of the EU taxonomy is "resource efficiency and circular economy". For the transition to a circular economy there are a total of 19 economic activities that have been identified as relevant within the report grouped into manufacturing (plastics, packaging, textiles, electronics), civil engineering, buildings, restoration & remediation, sewerage and waste management (Patrick Moloney 2022). Economic activities would be determined as sustainable, if they are able to fulfil the technical screening criteria proposed within the report, which consist of activity specific provisions for the criteria highlighted in **Error! Reference source not found..** To illustrate the exact methodology of the EU taxonomy the case study explores the conditions, which

manufacturers of plastic packaging goods would have to fulfil in order to be declared as taxonomy aligned.

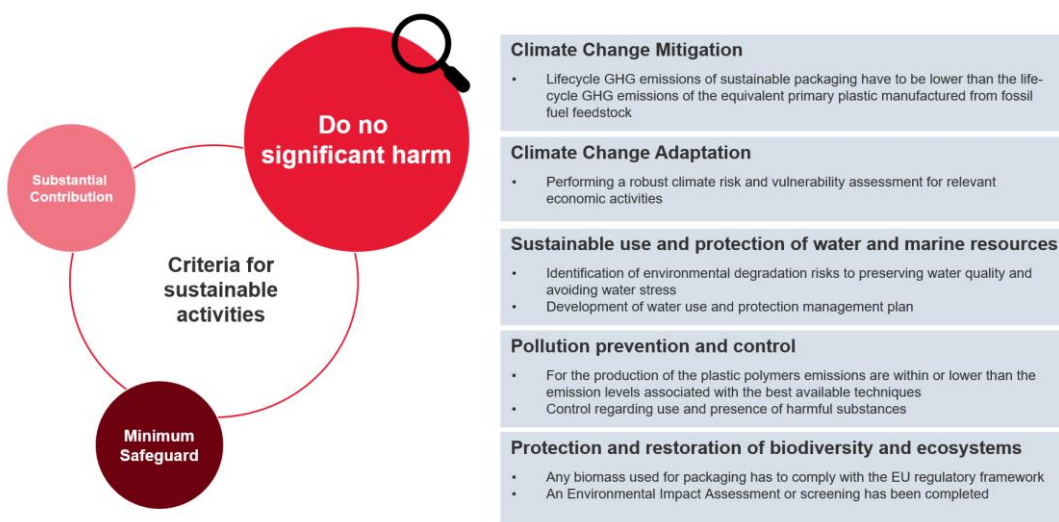
**Figure 3: EU Taxonomy – Technical Screening Criteria for plastic manufacturers for the criteria of “Substantial Contributions”**



Source: Platform on Sustainable Finance (2022)

Furthermore, they would have to prove that they do not significantly harm against any of the other environmental objectives of the EU taxonomy. The recommendations also list the criteria which manufacturers of plastic packaging goods would have to fulfil in order to comply with the requirement of doing no significant harm to any of the other five environmental objectives. The components of the “Do no significant harm” criteria for plastic manufacturers are shown in Figure .

**Figure 4: EU Taxonomy - Technical Screening Criteria for plastic manufacturers for the criteria of “Do no significant harm”**



Source: Platform on Sustainable Finance (2022)



Last but not least they would have to ensure that they comply with the standards laid out within the Minimum Safeguards on human and labour rights, bribery, taxation and fair competition (Nordea 2022).

While the framework of the EU taxonomy on circular economy activities has been laid out within the report, the technical screening criteria for the transition to a circular economy is yet to be adopted into the Taxonomy Regulation through the Environment Delegated Act. Hence, the substantial effects of the EU Taxonomy on plastic manufacturers can only be identified after the market has tested its functionality and applicability. However, a few findings from the Climate Delegated Act on climate change mitigation and adaptation, which has been applicable as of 1 January 2022, might indicate the effect of the new taxonomy regulations on EU companies.

Businesses which have already actively been trying to advance sustainability within their operations, should have little to no issues in aligning their activities to the technical screening criteria and subsequently to the EU taxonomy. While the necessary reporting requirements to fulfil the technical screening criteria, can place a strain on the company resources, a commitment to becoming taxonomy aligned will be vital for the credibility of the sustainability efforts set out by the individual businesses (Johannesson und Carlsbogård 2022).

However, it remains unclear if investors will require taxonomy-alignment from companies in the future, to what extent taxonomy alignment will be supported by financial institutions and how it will be valued by investors (Sundqvist 2022). Even with the release of the EU taxonomy, the financial performance of sustainable investments remains uncertain in the short-term. The full long-term effect, will be clarified as the markets test the functionality of the Taxonomy (Sothmann 2022). The effectiveness of the EU Taxonomy in the end depends on sustained interest of investors in businesses that receive a taxonomy-based accreditation (Sundqvist 2022). **Overall it is expected that the EU Taxonomy stirs action in the market to increase sustainable activities, innovation and technologies, as well as improve sustainability reporting, disclosure and compliance (Syrjälä 2022).**

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### 3.3 Textile Exchange's Recycled Polyester Challenge

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Plastic is one of the major raw materials used by the textile sector. More than half of the global fibre production is polyester, making it the most common synthetic fibre (55 million tonnes in 2018) (Textile Exchange, 2019). Globally, it is estimated that only 0.06 % of all textile waste (typically cotton-rich products) is recycled into fibres for use in new textile products (Textile Exchange, 2020). Recycling of synthetic fibres is not observed at scale. An estimated 42 million tonnes of plastic textile waste was generated globally in 2015. This accounts for 13 % of all plastic waste, making textiles the third largest contributor to plastic waste generation (Geyer, et al., 2017).

This case study section explores a voluntary initiative established by a non-profit entity to tackle the challenge of growing textile waste with high plastic content.

In April 2021, the Textile Exchange<sup>6</sup> and the United Nations Framework Convention on Climate Change (UNFCCC)'s Fashion Industry Charter for Climate Action<sup>7</sup> launched the '2025 Recycled

<sup>6</sup> Textile Exchange defines itself as a not-for-profit organisation driving positive action on climate change across the fashion and textile industry.

<sup>7</sup> Under the auspices of UN Climate Change, fashion stakeholders worked during 2018 to identify ways in which the broader textile, clothing and fashion industry can move towards an holistic commitment to climate action. They created the Fashion Industry Charter for Climate Action which contains the vision to achieve net-zero emissions by 2050. The Fashion Industry Charter was launched at COP24 in Katowice, Poland, in December 2018 and renewed at COP26 in Glasgow, UK, in November 2021.

Polyester Challenge'. The motivation is to spur a shift in the market towards the uptake of recycled polyester and realise associated reduction in greenhouse gas emissions. The ultimate goal is also a reduction of the industry's reliance on fossil-based resources.

The '2025 Recycled Polyester Challenge' recognises polyester as the most popular material used in the fashion and textile industry<sup>8</sup> and the need for reducing the greenhouse gases (GHG) associated with its use. For this, the initiative suggests the strategy of recycling as opposed to use of virgin polyester for reducing the GHG. In this respect, it is in line with the overall vision of the Fashion Industry Charter for Climate Action to achieve net-zero emissions by 2050. Concretely, it calls on companies to become signatories and commit to sourcing from 45% to 100% of their polyester from recycled sources by 2025. Hence, the specific mission is to spur further a shift in the market towards the uptake of recycled polyester (rPET) and the associated reduction in GHG. In fact, the Challenge can also be seen as an acceleration of the Textile Exchange's 2017 Recycled Polyester Commitment.

In terms of governance, the Textile Exchange solely oversees the acquisition of signatories and reporting process.

Signing up to a fibre challenge, companies agree to a set of requirements, as well as to respect a list of values of integrity, inclusive community, learning, and collaboration.

The Recycled Polyester Challenge Report tracks participating companies' progress toward replacing all or part of their virgin polyester with recycled by 2025.

According to the first annual report, 132 companies signed up to the 2025 Recycled Polyester Challenge between its launch in April 2021 and December 2021. Data from signatories was collected via Textile Exchange's, Corporate Fibre and Materials Benchmark Program between July and December 2021 for the 2020 reporting cycle. 83% of the signatories are brands (retailers) and 17% of the signatories are suppliers (manufacturers). (Textile Exchange, 2022)

In 2019, the baseline year for the 2025 Recycled Polyester Challenge, the apparel industry accounted for 32 million tonnes of the 58 million tonnes of polyester fibre used that year. Only approximately 14% of this was recycled, despite having a significantly lower carbon footprint than its conventional counterpart.

To keep the industry on track toward its climate targets, according to the report, this percentage needs to increase to 45% by 2025, assuming a 3% growth rate in the apparel industry. The long-term vision is to bring this up to 90% by 2030, as shown in Figure 5.

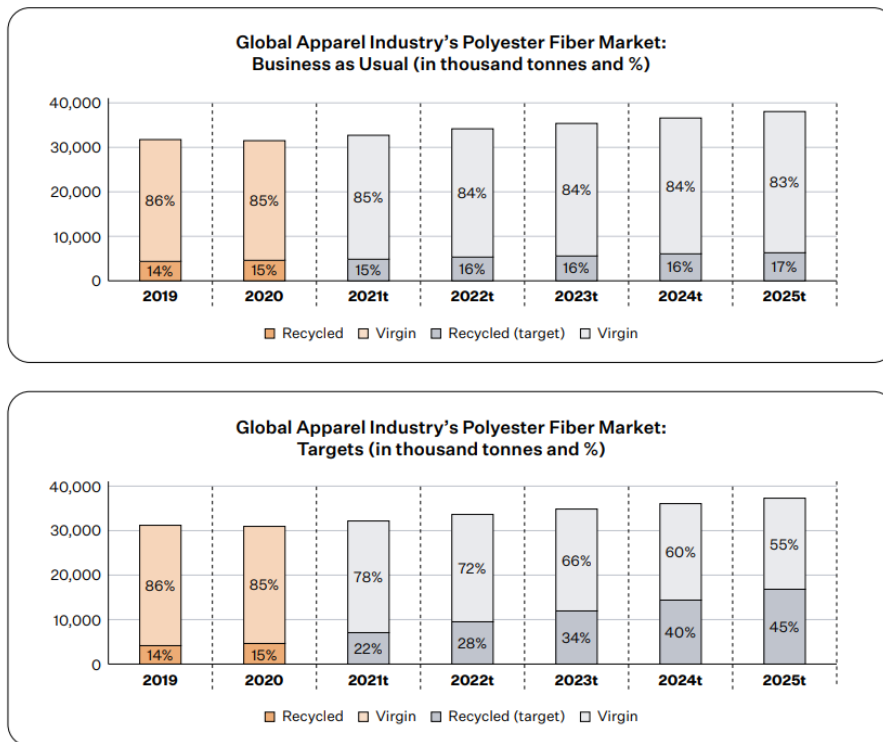
The key takeaways from this initial report include:

- Over half (56%) of the 132 companies (including subsidiaries) have committed to replacing 100% of their virgin fossil-based polyester with recycled by 2025;
- Almost a fifth (17%) already use more than 45% recycled polyester and 7% achieved their target in 2020;
- Almost a third (31%) reduced their total polyester fibre volume from 2019 to 2020;
- Almost half (49%) were able to report their total polyester volumes not only for 2020 but also for 2019.

<sup>8</sup> According to the Textile Exchange Preferred Fibre & Materials Report polyester is the most widely used fibre in the world, accounting for roughly half of the fibre market overall and about 80 percent of all synthetic fibres,



**Figure 5: Global Apparel Industry’s Polyester Fibre Market (BAU and Targets).**



Source: (Textile Exchange, 2022)

All in all, the Textile Exchange, a non-profit entity has successfully challenged a number of apparel brands to explore lower impact sourcing options for the apparel industry's most used fibre polyester. Systematic collection of data helps to monitor progress and measure impact towards the industry’s climate goal for 2030, which is when GHG emissions need to be halved.

**Finally, support mechanisms are needed to facilitate the scaling up of existing solutions and innovation-based investment to complement monitoring schemes. These levers can encourage more companies to commit to ambitious targets above 45% to accelerate the transition from virgin to recycled polyester in their materials portfolios.**

### 3.4 Circular Economy sector agreements in the EU member states

Implementation of the various approaches and strategies aimed at resource protection and material recovery require the cooperation and collaboration of a large number of diverse actors, especially in the private sector. To formalize and encourage participation, EU countries have developed and implemented voluntary agreements between industry sectors and government agencies on a case-by-case basis.

This case study section examines circular economy agreements concluded by the governments of the Netherlands and France.

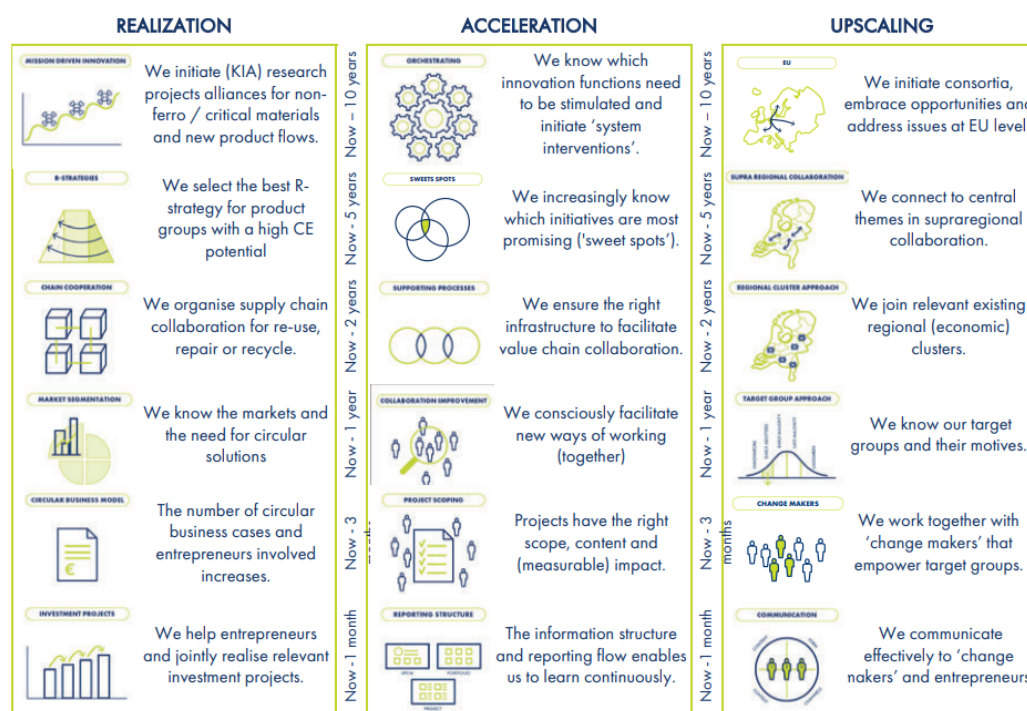
The Netherlands is one of the more ambitious European countries in terms of striving to establish a circular economy. Already in 2017, the national government drafted the “Letter of intent to develop transition agendas for the Circular Economy together” together with a number

of different business associations and private stakeholders. As a result of the national agreement, five different transition agendas were developed, for the following sectors:

- Food and Biomass,
- Plastics
- Manufacturing
- Construction
- Consumer Goods

One of the initiatives that originated from the transitional agenda, is the “Implementation Program Circular Manufacturing Industry” (further abbreviated UPCM), a partnership between the business community, government and knowledge institutions that is committed to the circular transition of the Dutch manufacturing industry. The Circular Manufacturing Industry Implementation Programme in the UPCM aims to bring about a systemic change through sectoral roadmaps that outline both short-term and medium-to-long-term activities. To accomplish this goal, decision horizons are established to help coordinate and plan these activities according to their scale, complexity, and implementation timeline (Ministry of Economic Affairs and Climate Policy Netherlands und UPCM 2019). The roadmap and subsequent activities of the programme are shown below.

**Figure 6: Circular Manufacturing Industry Implementation Programme Netherlands**



Source: Circulaire Maakindustrie 2019

A key element in the structure of the roadmaps is a set of decision horizons for various timeframes. Projects or trajectories implemented within the programme cover multiple decision horizons. Short term activities are focussed on practical approaches and on bringing stakeholder together, while the long-term focus is directed towards knowledge development and its practical implementation. Change strategies for each decision horizon have been translated into action perspectives in the three different program pillars (Realisation, Acceleration, Broadening), as shown in Figure .

Other private-public partnership initiatives that have been promoted by the Netherlands are the ICT-Pact, for circular and fair ICT products, the Circular Construction Economy, the Consumer Goods Transition Team and the Green Deal on Circular Festivals.

In France, one of the cornerstones of the Circular Economy Roadmap published in 2018 were voluntary commitments by companies, pledging to incorporate more recycled raw materials in the following sectors: packaging, building, automotive, and electronic and electrical equipment (Republique Francaise 2018). This measure, which was aimed at organizing a common vision for the sectors, also foresees the declaration of target volumes of recycled raw materials. As a subsequent result, the member companies of the French Association of Private Companies (Afep) have formulated yearly commitments in favour of the circular economy. Having started in 2017, the newest report on the Circular Economy commitments includes a total of 148 pledges from 17 different sectors (afep 2020a). The commitments are separated into several different working themes, including:

- recycling and recovery of waste
- development of eco-design of products
- reuse and promotion of functional economy
- reduction of consumption of resources
- identification and use of renewable materials
- reduction of food waste
- extending the lifespan of products,
- reduction of packaging and improvement of their recyclability,
- use of recycled materials in production

In total 82% of commitments target specific quantitative/qualitative objectives and 77% of commitments are ongoing, while 23% have been completed. Among the commitments carried out, 96% achieved the objectives set. These monitoring reports on circular economy commitments aid to establish a constructive dialogue between public stakeholders, companies and the Association (afep 2020b).

## 4 Lessons learned

This section provides several high-level recommendations for policy makers regarding the use of voluntary instruments for tackling plastic waste based on the case studies reviewed in the previous sections.

### **Employ for providing guidance to drive collective action**

Circular economy agreements and commitments help promote collaboration and cooperation between companies, governments, and other stakeholders in the transition towards a circular economy. As in the case of the EU taxonomy, voluntary instruments provide a framework and guidance for companies to identify and implement circular economy practices, such as the use of circular business models and the development of circular products and services.

As in the case of the Recycled Polyester Challenge, a voluntary reporting scheme can create peer pressure and facilitate data collection creating a clear picture on the achievers and challenges the laggards are facing. It can also provide findings on how to move the critical mass (in the respective case study, signatories) to achieve the shift envisioned.

### **Utilise for driving innovation**

Voluntary instruments can also promote innovation and create new business opportunities for companies and help to build trust between companies, stakeholders and consumers. Furthermore, they can be a good approach to track and monitor the progress of companies and the industrial sector as a whole in their transition towards a circular economy. It should be noted however that the lack of financial incentives and support can be a barrier for companies to implement circular economy practices.

### **Use for driving transparency and bankability**

Voluntary classification systems, which the EU Taxonomy partially is, can be a useful tool for companies to report on their sustainable activities, increasing the transparency and comparability of sustainable companies. Sustainable activities, which aim to minimize plastic waste, can be easily identified through the classification system, making them eligible for green investment purposes. Furthermore, it provides a clear guideline for companies to align their economic activities to a sustainable framework. As many companies have expressed interest in using the taxonomy to help identify and invest in environmentally sustainable activities, a classification system can encourage companies to move towards more sustainable practices, which can be beneficial for both the environment and the economy. Additionally, the EU Taxonomy can also be used to benchmark the companies' activities against the best available techniques and practices in the field and help to identify areas for improvement.

### **Apply in combination with informational and financial instruments**

The implementation of the voluntary initiatives as in the case of a taxonomy can be complex and resource-intensive for companies, particularly for small and medium-sized enterprises. In order to mitigate these challenges, some stakeholders have called for the provision of technical assistance and further financial incentives to support companies in using the taxonomy. Furthermore, since classification systems are generally seen as a medium to long-term approach to mitigate plastic waste, the framework has to acknowledge and plan for the implementation along a longer time horizon.

All in all, it can be deduced from the case studies that having informational and financial instruments accompanying the voluntary initiatives can increase their effectiveness. Industrial transformation (for example increasing recycled material availability in the market) requires infrastructural development and might need public investments. Hence, voluntary instruments can be seen as part of a policy mix instead of a stand-alone instrument.

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