



## Closing the loop: Commission delivers on Circular Economy Action Plan

Brussels, 4 March 2019

**All 54 actions under the plan launched in 2015 have now been delivered or are being implemented. This will contribute to boost Europe's competitiveness, modernise its economy and industry to create jobs, protect the environment and generate sustainable growth.**

The European Commission today published a comprehensive report on the implementation of the [Circular Economy Action Plan](#) it adopted in December 2015. The report presents the main results of implementing the action plan and sketches out open challenges to paving the way towards a climate-neutral, competitive circular economy where pressure on natural and freshwater resources as well as ecosystems is minimised. The findings of the report will be discussed during the annual [Circular Economy Stakeholder Conference](#) taking place in Brussels on 6 and 7 March.

First Vice-President Frans **Timmermans**, responsible for sustainable development, said: *"Circular economy is key to putting our economy onto a sustainable path and delivering on the global Sustainable Development Goals. This report shows that Europe is leading the way as a trail blazer for the rest of the world. At the same time more remains to be done to ensure that we increase our prosperity within the limits of our planet and close the loop so that there is no waste of our precious resources."*

Vice-President Jyrki **Katainen**, responsible for jobs, growth, investment and competitiveness, said: *"This report is very encouraging. It shows that Europe is on the right track in creating investment, jobs and new businesses. The future potential for sustainable growth is huge and Europe is indeed the best place for an environmentally-friendly industry to grow. This success is the result of European stakeholders and decision-makers acting together."*

### Moving from a linear to a circular economy

Three years after adoption, the Circular Economy Action Plan can be considered fully completed. Its 54 actions have now been delivered or are being implemented. According to the findings of the report, implementing the Circular Economy Action Plan has accelerated the transition towards a circular economy in Europe, which in turn has helped putting the EU back on a path of job creation. In 2016, sectors relevant to the circular economy employed more than four million workers, a 6% increase compared to 2012.

Circularity has also opened up new business opportunities, given rise to new business models and developed new markets, domestically and outside the EU. In 2016, circular activities such as repair, reuse or recycling generated almost €147 billion in value added while accounting for around €17.5 billion worth of investments.

### EU Strategy for Plastics

The [EU Strategy for Plastics in a Circular Economy](#) is the first EU-wide policy framework adopting a material-specific lifecycle approach to integrate circular design, use, reuse and recycling activities into plastics value chains. The strategy sets out a clear vision with quantified objectives at EU level, so that *inter alia* by 2030 all plastic packaging placed on the EU market is reusable or recyclable.

To boost the market for recycled plastics, the Commission launched a voluntary pledging campaign on recycled plastics. 70 companies have already made pledges, which will increase the market for recycled plastics by at least 60% by 2025. However, there is still a gap between supply and demand for recycled plastics. To close this gap, the Commission launched the [Circular Plastics Alliance](#) of key industry stakeholders supplying and using recycled plastics.

The rules on [Single-Use Plastics](#) items and fishing gear, addressing the ten most found items on EU beaches place the EU at the forefront of the global fight against marine litter. The measures include a ban of certain single-use products made of plastic (such as straws and cutlery) when alternatives are available and of oxo-degradable plastic, and propose actions for others such as consumption reduction targets, product design requirements and Extended Producers Responsibility schemes.

### Innovation and Investments

To accelerate the transition to a circular economy, it is essential to invest in innovation and to provide

support for adapting Europe's industrial base. Over the period 2016-2020, the Commission has stepped up efforts in both directions totalling more than €10 billion in public funding to the transition.

To stimulate further investments, the [Circular Economy Finance Support Platform](#) has produced recommendations to improve the bankability of circular economy projects, coordinate funding activities and share good practices. The platform will work with the European Investment Bank on providing financial assistance and exploiting synergies with the action plan on financing sustainable growth.

### **Turning Waste into Resources**

Sound and efficient waste management systems are an essential building block of a circular economy. To modernise waste management systems in the Union a revised [waste legislative framework](#) entered into force in July 2018. This includes, among others, new ambitious recycling rates, clarified legal status of recycled materials, strengthened waste prevention and waste management measures, including for marine litter, food waste, and products containing critical raw materials.

### **Circular Design and Production Processes**

Smart design at the beginning of a product's lifecycle is essential for ensuring circularity. With the implementation of the [Ecodesign Working Plan 2016-2019](#), the Commission has further promoted the circular design of products, together with energy efficiency objectives. Ecodesign and Energy Labelling measures for several products now include rules on material efficiency requirements such as availability of spare parts, ease of repair, and facilitating end-of-life treatment. The Commission has also analysed, in a dedicated Staff Working Document, its policies for products, with the intention to support circular, sustainable products.

### **Empowering Consumers**

The transition towards a more circular economy requires an active engagement of citizens in changing consumption patterns. The Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF) methods developed by the Commission can enable companies to make environmental claims that are trustworthy and comparable and consumers to make informed choices.

### **Strong Stakeholder Engagement**

Stakeholder engagement is vital for the transition. The systemic approach of the action plan has given public authorities, economic and social players and civil society a framework to replicate in order to foster partnerships across sectors and along value chains. The role of the Commission in speeding up the transition and leading international efforts for circularity was also recognised at the World Economic Forum 2019 where the Commission received [the Circulars Award](#) in the Public Sector Category.

### **Open Challenges**

The circular economy is now an irreversible, global trend. Yet, much is still needed to scale up action at EU level and globally, fully close the loop and secure the competitive advantage it brings to EU businesses. Increased efforts will be needed to implement the revised waste legislation and develop markets for secondary raw materials. Also, the work started at EU level on some issues (like chemicals, the non-toxic environment, eco-labelling and eco-innovation, critical raw materials and fertilisers) needs to be accelerated if Europe wants to reap the full benefit of a transition to a circular economy.

Interaction with stakeholders suggests that some areas not yet covered by the action plan could be investigated to complete the circular agenda. Building on the example of the European Strategy for Plastics in a Circular Economy, many other sectors with high environmental impact and potential for circularity such as IT, electronics, mobility, the built environment, mining, furniture, food and drinks or textiles could benefit from a similar holistic approach to become more circular.

### **Background**

In 2015, the Commission adopted an ambitious new Circular Economy Action Plan to stimulate Europe's transition towards a circular economy, which would boost global competitiveness, foster sustainable economic growth and generate new jobs. It was foreseen that the proposed actions would contribute to "closing the loop" of product lifecycles through greater recycling and re-use, and bring benefits for both the environment and the economy. The plans would help extract the maximum value and use from all raw materials, products and waste, fostering energy savings and reducing greenhouse gas emissions and would be supported financially by ESIF funding, Horizon 2020, the EU structural funds and investments in the circular economy at national level.

A full state of play of the implementation of the action plan is presented in an accompanying Staff Working Document.

### **For More Information**

[MEMO: Questions and Answers](#)

[Report on the implementation of the Circular Economy Action Plan](#)

[Staff working document with details and references for the 54 actions that were listed in the action plan](#)

[Staff working document on Sustainable Products in a Circular Economy](#)

[Staff working document on the Assessment of the voluntary pledges under Annex III of the Strategy on Plastics](#)

[Eurostat press release on progress in the monitoring framework](#)

IP/19/1480

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Brussels, 4.3.2019  
COM(2019) 190 final

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE  
COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE  
COMMITTEE OF THE REGIONS**

**on the implementation of the Circular Economy Action Plan**

{SWD(2019) 90 final}

## 1 INTRODUCTION

In December 2015, the Commission adopted a Circular Economy Action Plan<sup>1</sup> to give a new boost to jobs, growth and investment and to develop a carbon neutral, resource-efficient and competitive economy. The 54 actions under the action plan have now been completed or are being implemented, even if work on some will continue beyond 2019.

The EU Monitoring Framework for the Circular Economy<sup>2</sup> shows that the transition has helped put the EU back on a path of job creation. In 2016, sectors relevant to the circular economy employed more than four million workers<sup>3</sup>, a 6% increase compared to 2012. Additional jobs are bound to be created in the coming years in order to meet the expected demand generated by fully functioning markets for secondary raw materials<sup>4</sup>.

Circularity has also opened up new business opportunities, given rise to new business models and developed new markets, domestically and outside the EU. In 2016, circular activities such as repair, reuse or recycling generated almost €147 billion in value added while standing for around €17.5 billion worth of investments<sup>5</sup>.

In Europe, recycling of municipal waste during the period 2008-2016 has increased and the contribution of recycled materials to the overall materials demand shows continuous improvement. However, on average, recycled materials only meet less than 12 % of the EU demand for materials<sup>6</sup>. This is echoed by a recent stakeholder report suggesting that full circularity would apply to only 9%<sup>7</sup> of the world economy, leaving vast areas for improvement.

The **EU Monitoring Framework for the Circular Economy** presented by the Commission in 2018 includes 10 key indicators covering each phase of the lifecycle of products as well as competitiveness aspects. All indicators are regularly updated and available on a dedicated website<sup>8</sup>.

Some Member States have developed additional national circular economy indicators, thus complementing the overview provided by the EU framework. The European Parliament<sup>9</sup>, the Council<sup>10</sup> and the European Economic Social Committee<sup>11</sup> have also highlighted the role played by other indicators in capturing missing aspects of the circular economy, such as evaluating material flows in industrial symbiosis and accounting for natural capital.

The action plan promoted for the first time a systemic approach across entire value chains. With it, the Commission has mainstreamed circular principles into plastic production and consumption, water management, food systems and the management of specific waste streams. This was made possible by strong support and engagement of Member States, the

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<sup>1</sup> COM (2015) 614

<sup>2</sup> COM (2018) 29 final

<sup>3</sup> [https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=cei\\_cie010&language=en](https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=cei_cie010&language=en)

<sup>4</sup> European Commission, *Impacts of circular economy policies on the labour market*, April 2018

<sup>5</sup> [https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=cei\\_cie010&language=en](https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=cei_cie010&language=en)

<sup>6</sup> [https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=cei\\_srm030&plugin=1](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=cei_srm030&plugin=1)

<sup>7</sup> Circle Economy, *The Circularity Gap Report*, January 2018

<sup>8</sup> <https://ec.europa.eu/eurostat/web/circular-economy>

<sup>9</sup> Question for oral answer O-000087/2018

<sup>10</sup> 10447/18 – Council Conclusions Delivering on the EU Circular Economy Action Plan

<sup>11</sup> NAT/722-EESC-2018-00464

European Parliament, the business community and citizens. It has also contributed to moving towards the achievement of the 2030 Agenda for Sustainable Development<sup>12</sup>.

This report presents the main results of implementing the action plan. It also sketches out future challenges to shaping our economy and continuing to create a competitive advantage, paving the way towards a climate-neutral economy where pressure on natural and freshwater resources as well as ecosystems is minimised. The report comes in response to a request of the Council<sup>13</sup> for "an annual written update on the progress made on the implementation of the action plan", a request also echoed by the European Parliament<sup>14</sup>. A full state of play of the action plan implementation is presented in an accompanying Staff Working Document (SWD)<sup>15</sup>.

## 2 BUILDING A CIRCULAR ECONOMY

### 2.1 Circular Design and Production Processes

Design stands at the beginning of products' lifecycle and is essential for ensuring circularity. With the implementation of the Ecodesign Working Plan 2016-2019<sup>16</sup>, the Commission has further promoted the **circular design of products**, together with energy efficiency objectives.

- Ecodesign and Energy Labelling measures for several products now include rules on material efficiency requirements such as availability of spare parts, ease of repair, and facilitating end-of-life treatment
- The Commission has tasked the European Standardisation Organisations<sup>17</sup> with developing horizontal criteria to measure durability, reusability, reparability, recyclability and the presence of critical raw materials. These criteria should be applied in existing and new standards.

Products and services designed in a circular way can minimise resource use and foster materials' reuse, recovery and recyclability down the road. Various EU policies already address resource efficiency: beyond the Ecodesign directive and Energy-labelling regulation, these policies also include voluntary tools, such as the EU Ecolabel or Green Public Procurement criteria. The SWD on product-related policies<sup>18</sup>, published together with this report, examines options to better articulate the various existing product policy tools at EU level and their contribution to the circular economy. This includes consideration of expanding the Ecodesign policy, which has been successful for energy-related products, to non-energy-related product groups, and to further support the repair sector in the EU. The document also analyses possible opportunities in additional sectors, for instance packaging, textiles and furniture. Work is ongoing to review the essential requirements for packaging, which will aim at improving design for re-use and high-quality recycling of packaging.

<sup>12</sup>E.g. SDGs 2 (promoting water reuse and organic fertilisers, facilitating food donation), 3 (addressing microplastics), 8 and 9 (boosting innovation, jobs and added value), 12 (supporting waste prevention and responsible management of waste and chemicals, addressing food waste and supporting Green Public Procurement), 13 (potential of material efficiency to reduce CO<sub>2</sub> emissions) 14 (decisive actions to fight marine litter)

<sup>13</sup> 10518/16 Closing the loop - An EU action plan for the Circular Economy; 15159/17 Eco-innovation: enabling the transition towards a circular economy; 10447/18 - Delivering on the EU Circular Economy Action Plan

<sup>14</sup> <http://www.europarl.europa.eu/cmsdata/103519/06%2007%20-%20Coordinators%20Results.pdf>

<sup>15</sup> SWD(2019) 90

<sup>16</sup> COM(2016) 773 final

<sup>17</sup> Twelve generic standards are expected by March 2020

<sup>18</sup> SWD(2019) 91

Circularity also means adapting industrial processes. The Commission has introduced circularity aspects (energy consumption and material use, waste prevention, recycling and reduction of hazardous chemicals) in specific Best Available Techniques Reference Documents (BREFs)<sup>19</sup> under the Industrial Emissions directive<sup>20</sup>, turning them into reference standards for Member States when granting permits for industrial plants. In addition, the result of the fitness check of the Environmental Management and Audit Scheme (EMAS) confirmed its potential to improve organisations' environmental performance.

Small and Medium-Sized Enterprises (SMEs) are at the core of the transition. They can access the advice of the Enterprise Europe Network<sup>21</sup> and the European Resource-Efficiency Knowledge Centre<sup>22</sup> to improve their resource efficiency and production processes. In addition, the Commission has established a dedicated pan-European network for innovative advanced manufacturing technologies and is developing a knowledge base for the substitution of hazardous substances of concern. SMEs also benefit from the Environmental Technology Verification pilot programme, a programme for technology developers to prove performance claims on innovative technologies and gain credibility on new markets.

## 2.2 Empowering Consumers

The transition towards a more circular economy requires an active engagement of citizens in changing consumption patterns. To this end, the accompanying document on product-related policies elaborates on a strategic approach to increase the effectiveness of the EU Ecolabel to offer consumers accurate environmental information, in line with the recommendations of the fitness check<sup>23</sup>. It also presents a detailed evaluation of the Environmental Footprint pilot phase.

The Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF) methods developed by the Commission can enable companies to **make environmental claims that are reliable, reproducible and comparable**. The methods allow the identification of environmental hotspots and support companies in greening their supply chain and in, becoming more sustainable and circular. Consumers will also be able to make informed choices based on reliable information.

About 300 companies from 27 different sectors<sup>24</sup> and more than 2,000 stakeholders worked for 5 years to test these methods that they consider a best practice in Life Cycle Assessment.

Information on products' durability and reparability<sup>25</sup> can also shift purchasing decisions towards more sustainable choices. Building on the positive experience acquired under the Energy-Labeling regulation, the Commission is developing a scoring system on product reparability. In addition, to protect consumers against defective products, the proposal<sup>26</sup> on certain aspects concerning contracts for sales of goods, currently undergoing final steps in the

<sup>19</sup> Common Waste Water and Waste Gas Treatment / Management systems in the chemical sector (6/2016), Intensive Rearing of Poultry or Pigs (7/2017), Large Combustion Plants (7/2017), Production of Large Volume Organic Chemicals (12/2017) and Waste Treatment (8/2018)

<sup>20</sup> Directive 2010/75/EU

<sup>21</sup> <https://een.ec.europa.eu/>

<sup>22</sup> [www.resource-efficient.eu](http://www.resource-efficient.eu)

<sup>23</sup> COM (2017) 355 final

<sup>24</sup> Representing about 2/3 of the European market on a consumption basis

<sup>25</sup> European Commission, *Behavioural Study on Consumers' Engagement in the Circular Economy*, October 2018

<sup>26</sup> COM (2017) 637 final - 2015/0288 (COD) Political agreement reached on 29 January 2019 [http://europa.eu/rapid/press-release\\_STATEMENT-19-742\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-19-742_en.htm)

legislative process, extends the reversal of the burden of proof period, which will help consumers to apply their legal guarantee of rights<sup>27</sup>.

Furthermore, the Commission has proposed to reinforce the protection of consumers against false environmental claims and premature obsolescence practices<sup>28</sup> through better opportunities for individual and collective redress against unfair commercial practices<sup>29</sup>. This complements the information provided in the revised guidance to apply and implement the Unfair Commercial Practices Directive<sup>30</sup>.

To reap public authorities' potential to boost markets for circular products and services, the Commission has adopted new and revised EU Green Public Procurement criteria including circular economy aspects and has promoted their uptake through guidance documents<sup>31</sup> and training sessions. The Commission is leading by example in its own procurement. The Commission services in Brussels used green public procurement criteria in 93% of all their contracts greater than 60.000 EUR.<sup>32</sup>

### 2.3 Turning Waste into Resources

Sound and efficient waste management systems are an essential building block of a circular economy. To modernise waste management systems in the Union and to consolidate the European model as one of the most effective in the world, a **revised waste legislative framework**<sup>33</sup> entered into force in July 2018. This includes:

- new ambitious yet realistic recycling rates<sup>34</sup>
- simplification and harmonisation of definitions and calculation methods and clarified legal status for recycled materials and by-products;
- **reinforced rules and new obligations on separate collection (bio-waste, textiles and hazardous waste produced by households, construction and demolition waste);**
- minimum requirements for Extended Producer Responsibility;
- **strengthened waste prevention and waste management measures, including for marine litter, food waste, and products containing critical raw materials;**

The Commission is supporting and engaging with Member States in the implementation of the waste legislation<sup>35</sup> to increase visibility and understanding of circular economy opportunities in those Member States that have the biggest challenges in meeting their recycling targets. Through targeted country visits led by Commissioners, experts from

<sup>27</sup>The initial proposal presented in December 2015 and amended in 2017 to extend its scope to offline sales.

<sup>28</sup>Further knowledge on the nature of premature obsolescence practices as well as on how to address them will be gathered through a four-year Horizon 2020 independent testing programme running until 2023.

<sup>29</sup>Revision of the Consumer Protection Cooperation Regulation and the legislative proposals under the New Deal for Consumers

<sup>30</sup>Directive 2005/29/EC

<sup>31</sup>[http://ec.europa.eu/environment/gpp/pubs\\_en.htm](http://ec.europa.eu/environment/gpp/pubs_en.htm)

<sup>32</sup>[http://ec.europa.eu/environment/emas/pdf/other/2018%2012%2007\\_ES%202018\\_Consolidated%20Volume.pdf](http://ec.europa.eu/environment/emas/pdf/other/2018%2012%2007_ES%202018_Consolidated%20Volume.pdf)

<sup>33</sup>OJ, 14.6.2018, L 150, p 93, 100, 109,141 Directive 2008/98/EC on waste, Directive 1999/31/EC on the landfill of waste, Directive 94/62/EC on packaging and packaging waste, Directive 2000/53/EC on end-of life vehicles, Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators, Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)

<sup>34</sup>The revised waste legislation requires that by 2030, 70% of all packaging waste and, by 2035, 65% of municipal waste should be recycled, while reducing landfilling of municipal waste to 10%. A 5-year time extension is granted to Greece, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, Romania, Slovakia and Bulgaria.

<sup>35</sup>Early warning report COM (2018)656 final

different Member States will share experiences and advise on how to reach best the objectives of the waste policies.

The Commission has clarified the relation and relevance of different waste-to-energy processes<sup>36</sup> with a view to avoiding unnecessary loss of valuable resources through landfilling and incineration. Furthermore, Member States have been encouraged to identify energy and material efficient recovery technologies, to make better use of economic instruments and improve planning to avoid incineration overcapacity.

Environmentally sound management of waste, inside and outside the EU, is key to achieve a more circular economy. Waste operators and custom officials have benefitted from greater clarity brought into the EU Customs Code<sup>37</sup> to identify waste streams more easily. Improved interchange of electronic data has also contributed to better enforcement of the Waste Shipment Regulation<sup>38</sup>. Finally, proposed obligations to separately collect waste from ships visiting EU ports facilitate better waste management<sup>39</sup>.

## 2.4 Closing Loops of Recovered Materials

The new **Fertilising Products regulation**<sup>40</sup>, undergoing final steps of the legislative process, introduces harmonised rules for organic fertilisers manufactured from secondary raw materials such as agricultural by-products and recovered bio-waste. The new regulation:

- will substantially reduce significant market entry barriers for more sustainable and circular products;
- includes new limits on hazardous substances for all fertilisers, including from virgin raw materials, lowering the risk of material cycles containing dangerous levels of certain toxic elements;
- includes end-of-waste criteria, thereby contributing to the smooth functioning of the interface between chemicals, products and waste legislation and giving investors more legal certainty.

Boosting the use of secondary raw materials (SRMs) is one of the objectives of the circular economy action plan. It requires understanding the key challenges faced by market operators and should rely on a strong and effective Single Market<sup>41</sup>. The Raw Materials Information System<sup>42</sup> launched in 2017 identifies knowledge needs for strategic industrial sectors, with focus on the monitoring of recycling of relevant materials and the availability of data in key sectors<sup>43</sup>.

The Communication on the interface between chemicals, product and waste legislation<sup>44</sup> launched a wide debate on the way to tackle four main obstacles impeding the safe uptake of SRMs. A preliminary analysis of the results of the consultation<sup>45</sup> confirms general agreement

<sup>36</sup> COM(2017) 34 final, the role of waste-to-energy in the circular economy

<sup>37</sup> Regulation 952/2013

<sup>38</sup> Regulation 1013/2006

<sup>39</sup> COM (2018) 033 - 2018/012 (COD), political agreement reached on 12 December 2018, [http://europa.eu/rapid/press-release\\_IP-18-6867\\_en.htm](http://europa.eu/rapid/press-release_IP-18-6867_en.htm)

<sup>40</sup> COM(2016) 157, 2016/0084 (COD) political agreement reached on 12 December 2018, [http://europa.eu/rapid/press-release\\_IP-18-6161\\_en.htm](http://europa.eu/rapid/press-release_IP-18-6161_en.htm)

<sup>41</sup> COM(2018) 772

<sup>42</sup> <http://rmis.jrc.ec.europa.eu/>

<sup>43</sup> <http://rmis.jrc.ec.europa.eu/?page=contributions-of-h2020-projects-236032>

<sup>44</sup> COM(2018) 32

<sup>45</sup> The public consultation ended in October 2018 and received 460 responses. A synopsis report on its results will be delivered in 2019

among stakeholders on the relevance of the issues identified. It shows strong support for improving substance traceability and information flows; better enforcement and use of other measures to ensure a level playing field between EU and non-EU operators; improved harmonisation and mutual recognition of end-of-waste criteria; and support for reinforcing circular economy aspects in instruments such as the Ecodesign directive. In addition, three studies on different aspects of the interface have been launched and will deliver further relevant information in 2019 and early 2020.

Access to information about presence and composition of hazardous substances in waste stream is key to improving dismantling and decontamination techniques, which facilitate the recovery of waste. The European Chemical Agency is setting up a database to gather information and to improve knowledge about substances of concern in products and in products when they become waste. In addition, the EU platform ‘Information for Recyclers’<sup>46</sup> is collecting and sharing information about preparation for re-use and treatment of new equipment placed for the first time on the Union’s market.

Information about the composition of waste can also be used to enable efficient recovery of critical raw materials (CRMs). The Commission’s report on ‘Critical Raw Materials and the Circular Economy’<sup>47</sup> identifies key actions necessary to tap into these potential benefits – extraction at end-of-life of key components, improving data management on mining waste and mobilising funding. However, the report also showed that there is significant room to improve recycling and to ensure that CRMs remain in Europe.

To help build confidence in secondary raw materials, the Commission together with the European Standardisation Organisations has initiated a standardisation process and as a first step launched a comprehensive analysis of related standardisation activities. Standardisation organisations are also working on possible standards for material-efficient high-quality recycling of CRMs out of waste batteries, waste electrical and electronic equipment and other complex end-of-life products.

The action plan also seeks to boost the market for reused water, in order to tackle water scarcity across the EU. The Commission proposed dedicated legislation setting minimum requirements for reused water for agricultural irrigation<sup>48</sup>. In addition, practices on water reuse are integrated into water planning and management<sup>49</sup> or in the review of the relevant BREFs.

## 2.5 A Systemic Approach: the EU Strategy for Plastics in a Circular Economy

The EU Strategy for Plastics in a Circular Economy<sup>50</sup> is the first EU-wide policy framework adopting a **material-specific lifecycle** approach to integrate circular design, use, reuse and recycling activities into plastics value chains. As such, it is a catalyser for action. The strategy sets out a clear vision with quantified objectives at EU level, so that *inter alia* by 2030 all plastic packaging placed on the EU market is reusable or recyclable.

The strategy also identifies key actions **enabling multi-stakeholder engagement** and collaboration along the value chain. For instance, the call from the Commission on stakeholders to make voluntary pledges triggered strong momentum in the industry to boost

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<sup>46</sup> <https://i4r-platform.eu/>

<sup>47</sup> SWD(2018) 36 final

<sup>48</sup> COM(2018) 337 final 2018/0169 (COD)

<sup>49</sup> [http://ec.europa.eu/environment/water/pdf/Guidelines\\_on\\_water\\_reuse.pdf](http://ec.europa.eu/environment/water/pdf/Guidelines_on_water_reuse.pdf)

<sup>50</sup> COM(2018) 28

the uptake of recycled plastics in products. However, as identified in the accompanying document assessing these pledges<sup>51</sup>, more efforts are necessary to reach the objective set out in the strategy, namely to ensure that 10 million tonnes of recycled plastics find their way into new products by 2025. While pledges received from suppliers of recycled plastics, if delivered as expected, meet this target, the demand for recycled plastics based on the industry pledges amounts to approximately 6.2 million tonnes per year by 2025. The recently established Circular Plastics Alliance<sup>52</sup> will facilitate next steps by businesses to bridge this mismatch and help achieve the above-mentioned target in line with the objective of the strategy to improve the quality and economics of plastics recycling in Europe.

Key milestones were already delivered to achieve higher quality recycling of plastics. These include the new recycling target for plastic packaging, set at 55% in 2030, obligations for separate collection and improvements in Extended Producer Responsibility (EPR) schemes. The latter are expected to facilitate design for recyclability through ‘eco-modulation’ of producers’ fees. Future improvements will stem from the review of the essential requirements for packaging planned for the end of 2020.

The strategy creates **synergies between economic and environmental goals**. Evidence of potential health and environmental risks of microplastic pollution justifies restricting the use of intentionally added microplastics and to gather knowledge on measuring and labelling in the case of microplastics resulting from unintentional release. **The Commission also committed to develop a framework on biodegradability of plastics, to ensure that the development and use of such plastic products is only encouraged, when it is beneficial to the environment and does not interfere with waste management systems nor compromise food safety. Actions in this regard include providing information on how to handle them at the end-of-life stage (e.g. marking of home compostable plastic carriers bags). Further policy synergies in particular in combination with research needs are also explored in the recently published report on circular economy of plastics<sup>53</sup>.**

The strategy **spurs change beyond Europe’s border**. Building on exemplary actions, in particular on Single-Use Plastics, EU leadership in bilateral and multilateral fora has been instrumental to keep up the international momentum around the plastic agenda, as shown by initiatives such as the Global Plastics Platform with UN Environment and the upcoming International Partnership on Plastic Waste in the context of the Basel Convention. In parallel, the EU is supporting developing countries in their efforts to tackle plastic pollution.

The rules on **Single-Use Plastics** items and fishing gear<sup>54</sup>, addressing the ten most found items in EU beaches, **port reception facilities** and the Commission’s proposals on **fisheries control**<sup>55</sup>, place the EU at the forefront of the global fight against marine litter, one of the major concerns of EU citizens regarding plastic pollution. These rules offer opportunities for EU companies to innovate in products, materials, technologies and business models taking into account consumers’ behaviour and available alternatives.

<sup>51</sup> SWD (2019) 92

<sup>52</sup> [http://europa.eu/rapid/press-release\\_IP-18-6728\\_en.htm](http://europa.eu/rapid/press-release_IP-18-6728_en.htm)

<sup>53</sup> [https://ec.europa.eu/info/publications/circular-economy-plastics-insights-research-and-innovation-inform-policy-and-funding-decisions\\_en](https://ec.europa.eu/info/publications/circular-economy-plastics-insights-research-and-innovation-inform-policy-and-funding-decisions_en)

<sup>54</sup> COM(2018) 340 final 2018/0172 (COD), A preliminary political agreement was reached on 19 December 2018: [http://europa.eu/rapid/press-release\\_IP-18-6867\\_en.htm](http://europa.eu/rapid/press-release_IP-18-6867_en.htm)

<sup>55</sup> COM(2018) 368 final 2018/0193 (COD)

These sets of tailored measures, undergoing final steps of the legislative procedure, include:

- A ban of single use products made of plastic<sup>56</sup> and of oxo-degradable plastic.
- Measures to reduce consumption of food containers and beverage cups made of plastic and specific marking and labelling of certain products<sup>57</sup>.
- A target to incorporate 30% of recycled plastic in beverage bottles as from 2030 and 25% for PET bottles as from 2025 as well as a 90% separate collection target of plastic bottles by 2029 and the introduction of design requirements to connect caps to bottles.
- EPR schemes covering the cost to clean-up litter, applied to products such as tobacco filters and fishing gear.
- Measures aimed at reducing plastic litter from ships such as the establishment of a flat fee for waste from ships.
- Improved reporting obligations for lost fishing gear and obligations for marking and control of fishing gear for recreational fisheries.

### 3 ACCELERATING THE TRANSITION

#### 3.1 Innovation and Investments

To accelerate the transition to a circular economy, it is necessary to invest<sup>58</sup> in innovation and to provide support for adapting the industrial base. Over the 2016-2020 period, the Commission has stepped up efforts in both directions **totalling more than €10 billion** in public funding to the transition. This includes:

- €1.4 billion from Horizon 2020 until 2018 (on areas such as sustainable process industries, waste and resource management, closed loop manufacturing systems or the circular bio-economy), among which € 350 million are allocated to making plastics circular. The Commission has published an inventory<sup>59</sup> of the projects relevant to the circular economy funded under H2020 between 2016 and 2018.
- At least €7.1 billion from Cohesion Policy (€1.8 billion for uptake of eco-innovative technologies among SMEs and €5.3 billion to support the implementation of the EU waste legislation); in addition, significant support is available through smart specialisation for market-led innovation and deployment.
- €2.1 billion through financing facilities such as the European Fund for Strategic Investments and Innovfin.
- At least €100 million invested through LIFE in more than 80 projects contributing to a circular economy.

To stimulate further investments, the Circular Economy Finance Support Platform has produced recommendations<sup>60</sup> to improve the bankability of circular economy projects, coordinate funding activities and share good practices<sup>61</sup>. The platform will work with the

<sup>56</sup> Plastic cutlery, plates, beverage stirrers, balloon sticks, straws, food and beverage containers and cups for beverages made of expanded polystyrene, cotton bud sticks made of plastic.

<sup>57</sup> Sanitary items, wet wipes, cups for beverages and tobacco products with filters

<sup>58</sup> According to the report, *Achieving Growth Within*, (SYSTEMIQ in collaboration with the Ellen MacArthur Foundation), the investment gap is estimated at €320 billion by 2025.

<sup>59</sup> <https://ec.europa.eu/research/environment/index.cfm?pg=output&pubs=thematic>

<sup>60</sup> [https://ec.europa.eu/info/publications/accelerating-transition-circular-economy\\_en](https://ec.europa.eu/info/publications/accelerating-transition-circular-economy_en)

<sup>61</sup> <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3517>

European Investment Bank on providing financial assistance and exploiting synergies with the action plan on financing sustainable growth<sup>62</sup>.

In addition to funding the transition, the Commission has also addressed regulatory obstacles that may hinder circular innovation with two pilot Innovation Deals launched in 2016<sup>63</sup>. Based on the experience of these two pilots, the Commission is now looking at testing the approach in other sectors.

Circularity should remain a pillar of the Cohesion Policy over the 2021-2027 programming period. The Commission's proposal for a new European Regional Development Fund and Cohesion Fund<sup>64</sup> places the circular economy as a priority in EU's efforts to achieve a greener and smarter Europe and excludes investments in landfills and facilities for the treatment of residual waste, in line with the waste hierarchy.

### 3.2 Strong Stakeholder Engagement

Stakeholder engagement is vital for the transition. The systemic approach of the action plan has given public authorities, economic actors and civil society a framework to replicate in order to foster partnerships across sectors and along value chains.

EU actions have inspired national debates on circular economy and a majority of Member States have adopted or are in the process of adopting national strategies for the transition to a circular economy. These frameworks are often replicated at regional and local level, bringing the circular economy closer to citizens and businesses. The role of the Commission in promoting this systemic approach and in placing the circular economy in European and international agendas was also recognized at the World Economic Forum 2019 where the Commission received the Circularity award<sup>65</sup> in the Public Sector Category.

The European Circular Economy Stakeholder Platform brings together numerous networks and initiatives on the circular economy. It acts as a multiplier for best practices from the public and the private sectors. In its first year of activity<sup>66</sup>, the Platform gathered and disseminated more than 300 examples of best practices, strategies and reports.

Stakeholders are driving the transition in different sectors. For example, industry engagement has led to the adoption of the EU Construction and Demolition Waste Protocol and Guidelines<sup>67</sup> with the final objective of increasing confidence in the waste management process and in the quality of recycled materials in the sector. In addition, businesses have committed to improving the resource performance of buildings and are testing Level(s)<sup>68</sup>, the first framework of indicators for measuring sustainability in the sector, in more than 130 projects through Europe.

Similarly, key players from the public and private sector along the food value chain are working together in the EU Platform on Food Losses and Food Waste to accelerate EU's progress towards the Sustainable Development Goal target of halving per capita food waste

<sup>62</sup> COM(2018) 97

<sup>63</sup> The two deals cover anaerobic membrane technology for reuse of wastewater in agriculture and the reuse of end-of-life propulsion batteries as stationary energy storage. [https://ec.europa.eu/info/research-and-innovation/law-and-regulations/innovation-friendly-legislation/identifying-barriers\\_en](https://ec.europa.eu/info/research-and-innovation/law-and-regulations/innovation-friendly-legislation/identifying-barriers_en)

<sup>64</sup> COM(2018)372 final - 2018/0197 (COD)

<sup>65</sup> <https://thecirculars.org/our-finalists>

<sup>66</sup> [https://circulareconomy.europa.eu/platform/sites/default/files/ecesp\\_annual\\_report\\_2018.pdf](https://circulareconomy.europa.eu/platform/sites/default/files/ecesp_annual_report_2018.pdf)

<sup>67</sup> [https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0\\_en](https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en)

<sup>68</sup> <http://ec.europa.eu/environment/eussd/buildings.htm>

by 2030. The Platform has enabled the Commission to make important progress in implementing food waste prevention actions, including guidelines to facilitate food donation, the development of food waste measurement methodology and the improvement of date marking practices.

Stakeholders are also exporting the transition outside Europe. European companies regularly engage in joint circular economy missions<sup>69</sup>, reinforcing the ties between European institutions, NGOs, companies and relevant stakeholders in third countries.

#### 4 OPEN CHALLENGES

The circular economy is now an irreversible, global mega trend. Yet, much is still needed to scale up action at EU level and globally, fully close the loop and reap the competitive advantage it brings to EU businesses. Interaction with stakeholders suggests that areas not covered by the action plan could be investigated to complete the circular agenda.

Should the EU want to maintain its leadership in designing and producing circular products and services and in better empowering consumers to adopt more sustainable lifestyles, new actions would be needed. As suggested in the Reflection Paper Towards a sustainable Europe by 2030<sup>70</sup>, the circular economy should be made a backbone of the EU industrial strategy, enabling circularity in new areas and sectors, life-cycle assessments of products should become a norm and the eco-design framework should be broadened as much as possible. **The work started on chemicals, the non-toxic environment, eco-labelling and eco-innovation, critical raw materials and fertilisers needs to be accelerated if the EU want to reap the full benefit of a transition to a circular economy.** Similarly consumers should be empowered to make informed choices and efforts should be enhanced by the public sector through sustainable public procurement.

With the support of the Commission, Member States – in particular in regions identified as at risk of missing the 2020 recycling targets or facing specific challenges<sup>71</sup> – and businesses will need to step up their efforts to implement the revised waste legislation and develop markets for secondary raw materials. **The objective is to ensure that materials going back into the economy are cost-efficient and safe for citizens and the environment.**

The EU should also continue supporting research, innovation and investment in the priority sectors identified<sup>72</sup> in the action plan. Building on the example of the European Strategy for Plastics in a Circular Economy, many other sectors with high environmental impact and potential for circularity such as IT, electronics, mobility, the built environment, mining, furniture, food and drinks or **textiles** could benefit from a similar holistic approach to become circular. In none of them, the full potential of the EU's Single Market has yet been tapped into<sup>73</sup>.

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<sup>69</sup> Circular Economy Missions in Chile and China (2016), South Africa and Colombia (2017), Japan and Indonesia and India (2018)

<sup>70</sup> COM(2019)22

<sup>71</sup> To speed up the development of the circular economy, specific attention should also be devoted to regions with specific characteristics leading to considerable environmental and resource challenges, for example in the area of waste management, such as islands or EU outermost regions.

<sup>72</sup> Plastics, food waste, critical raw materials, construction and demolition and biomass and bio-based products

<sup>73</sup> COM(2018)772

Implementing the recently updated Bioeconomy Strategy<sup>74</sup> and the revised renewable energy framework<sup>75</sup> will be further steps towards using biological resources in a circular way, respecting the ecological boundaries and contributing to halting biodiversity loss.

As stated in the strategic long-term vision for a prosperous, modern, competitive and climate-neutral economy by 2050<sup>76</sup>, the transition towards a circular economy and a climate-neutral economy should be pursued together, based on a strong industrial ambition and reaping the EU businesses' first-mover advantage in these areas<sup>77</sup>. New circular business models, recycling, energy and material efficiency and new consumption patterns have a significant potential to cut global greenhouse gas emissions. Promoting this joint approach in companies – including SMEs – and communities can at the same time reduce production costs and support new forms of business interaction such as industrial symbiosis. **In addition, circularity and sustainability in the sourcing, use and treatment of raw materials (in particular critical ones) will be key to ensure the necessary security of supplies, a level playing field with industrial competitors and the EU's global leadership in the production of key enabling and low-carbon technologies.**

Artificial intelligence and digitalisation<sup>78</sup> have the potential to optimise energy and resource use and make information available in support of circular business models and responsible consumption choices. However, a circular digital economy must have a positive net resource impact and address substantial challenges, including the risk of fuelling unsustainable consumption patterns, shortening durability of smart products and compromising security of sensitive business data.

Above all, the circular economy transition reinforces social and territorial cohesion and favours a balanced distribution of jobs meeting health and safety standards, enabling generation of fair and sustainable growth.

## 5 CONCLUSIONS

Implementing the Circular Economy Action Plan has accelerated the transition towards a circular economy in Europe. At the same time, a stronger, shared vision of the circular economy can only boost ongoing efforts to modernise the EU industrial base to ensure its global competitive edge and preserve and restore the EU's natural capital.

These elements and successful actions from the Action Plan as referred to in this report can help and guide future work by the European institutions, Member States, businesses and social partners.

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<sup>74</sup> COM(2018) 673 final

<sup>75</sup> OJ,L328, 21.12.2018, p 82 Directive 2018/2001 on the promotion of the use of energy from renewable sources

<sup>76</sup> COM(2018) 773 final

<sup>77</sup> COM(2017) 479 final, investing in a smart, innovative and sustainable Industry A renewed EU Industrial Policy Strategy

<sup>78</sup> COM(2015) 192 final, A Digital Single Market Strategy for Europe