Closing the loop:

The Circular Economy Action Plan

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Honorary Director
DG Environment at the European Commission
What is Circular Economy?
Why do we need a Circular Economy?

- **Environment**
  - inefficient use of resources
  - greenhouse gas and other emissions
  - depletion of resources
  - impacts on landscape
  - water pollution

- **Access to raw materials**
  - scarcity or depletion of resources
  - future trends

- **Societal pressures**
  - global middle class = 5 billion by 2030

*Estimated world population and projections*
I will put forward my plan for a future-ready economy, our new industrial strategy. We will be a world leader in circular economy and clean technologies.

I will propose a New Circular Economy Action Plan focusing on sustainable resource use, especially in resource-intensive and high impact sectors such as textiles and construction.

I want Europe to lead on the issue of single-use plastics... We need to get serious about how we turn the tide... I want to open a new front in our fight against plastic waste by tackling micro-plastics.

Europe needs to move towards a zero-pollution ambition. I will put forward a cross-cutting strategy to protect citizens’ health from environmental degradation and pollution, addressing air and water quality, hazardous chemicals, industrial emissions, pesticides and endocrine disrupters.
### Circular Economy Action Plan

#### 1st Circular Economy Action Plan

**4+1 key areas**

- **5 priority sectors**
- **54 actions**

### 1st Circular Economy Action Plan

**Actions**

<table>
<thead>
<tr>
<th>Production</th>
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<tbody>
<tr>
<td>Improve or eliminate plastic in products by:</td>
</tr>
<tr>
<td>2016</td>
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| Eco-design for energy products and services. |
| 2017 |
| 2018 |

| Proposed for implementing regulation on batteries and displays |
| 2015 |
| 2016 |

| Circular economy, recycling and re-use in the consumer electronics sector. |
| 2016 |
| 2017 |

| Guidance and support to the Circular Economy Action Plan for SMEs |
| 2016 |
| 2017 |

| Implementation of the Circular Economy Action Plan for energy sector |
| 2016 |
| 2017 |

| Innovation in the Circular Economy |
| 2015 |
| 2016 |

<table>
<thead>
<tr>
<th>Sectoral action</th>
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<tr>
<td><strong>Plastics</strong></td>
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<tr>
<td>Strategy on plastics in the circular economy</td>
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| Specific action to reduce marine litter implementing the 2020 Directive on plastic waste |
| 2016 |

| Food waste |
| Development of a common methodology and indicators to measure food waste |
| 2016 |

| Stakeholder platforms to assess how to achieve the 2020 target on food waste, share best practices and evaluate progress |
| 2016 |

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<td><strong>Critical raw materials</strong></td>
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<td>Report on critical raw materials in the European economy</td>
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| Impacts of the new approach on the European economy |
| 2016 |

| European standards for material-efficient sharing of design information |
| 2016 |

| Sharing of best practice for the recovery of critical raw materials from mining, waste and by-products |
| 2017 |

<table>
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<tr>
<td><strong>Constituents and demolition</strong></td>
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<td>Preservation assessment guidelines on the construction sector</td>
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| Volunteer industry-wide recycling protocol for construction and demolition waste |
| 2016 |

| Core indicators for the assessment of the European environmental performance of buildings, and incentives for their use |
| 2017 |

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<th>Biomass and bio-based materials</th>
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<td><strong>Renewable energy production and use</strong></td>
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<td>Bioenergy for the circular economy</td>
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| Improving bio-based and bio-inspired materials for energy and transport applications |
| 2016 |

| Final report on bio-based and bio-inspired materials for energy and transport applications |
| 2017 |

|撰写和传播有关生物材料在循环经济中的作用为制定未来5-10年可持续采购指导原则 | | |
| 2018 |

<table>
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<td><strong>Renewable energy production and use</strong></td>
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<td>Initiatives 2020 and the Circular Economy - Circular Horizon 2020</td>
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<tr>
<td>2016</td>
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| Pilot project for innovation and demonstration to address regulatory obstacles for innovation |
| 2017 |

| Targeted measures to encourage applications for funding under Horizon 2020, and support the development of policies and investment platforms relevant to the circular economy |
| 2018 |

| Smart cities and communication activities to foster circular economy models and initiatives already in place |
| 2019 |

| Support for Member States and regions to strengthen innovation for the circular economy through smart specialization |
| 2018 |

| Assessment of the possibility of implementing a platform together with the EUSI and national bodies to support the financing of the circular economy |
| 2019 |

| Development of a monitoring framework for the circular economy |
| 2016 |
Final package on Circular Economy
adopted 4 March 2019

- 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

- SWD on Sustainable Products in a Circular Economy
- SWD on the Assessment of the voluntary pledges under Annex III of the Strategy on Plastics
- Summary Report of the Public Consultation on the main issues identified in the Commission's Communication on the interface between chemical, product and waste legislation
- Report on Horizon 2020 R&I projects supporting the transition to a Circular Economy
- Publication with Insights from research and innovation to inform policy and funding decisions
- Report on Improving access to finance for circular economy project
- Guidance and promotion of best practices in the mining waste management plans
Impacts

Employment in CE related activities:
• 4 million workers
• 2012-2016: +6%

Repair, reuse, recycling:
• €147 billion value added
• €17.5 billion investments

Recycling and use of recycled materials = steadily growing
Recycled materials = 12% of raw material demand

More info
Ingredients of success (1)

Systemic approach along entire value chains – full life cycle

In some cases, material-wide approach: plastics strategy
Single Use Plastic Items Directive & Circular Plastics Alliance

Strong Stakeholder Engagement

EU Circular Economy Stakeholder Platform
EU Platform on Food Losses and Food Waste
Circular Economy Finance Support Platform
Ingredients of success (2)

Investing in the transition:
More than €10 billion since 2016
- €1.4 billion from Horizon 2020 until 2018
- €7.1 billion from Cohesion Policy
- €2.1 billion European Fund for Strategic Investments and Innovfin
- €100 million at least invested through LIFE

Report on Improving access to finance for circular economy project

Circular Economy - a core priority in next MFF

European Regional Development Fund and Cohesion Fund
Horizon Europe programme
LIFE
Digital Europe
Invest EU
Open challenges identified in the Report

Follow up to the CEAP actions
• Circular products and services
• Empowering circular consumers
• Implementation of legislation
• Develop markets for secondary raw materials

Pursuing together other systemic transformations
• Using biological resources in a circular way, respecting the ecological boundaries and contributing to halting biodiversity loss
• Exploiting the synergies with a climate neutral economy
• Integrating digital transformations (while recognizing other impacts)
• Reinforcing social and territorial cohesion and balanced distribution of jobs
• Fostering circular and sustainable finances

Circularity in other sectors
• IT, electronics, mobility, built environment, furniture, textile, food and drinks
### Action Plan

**1 action plan**

**4+1 key areas**

**5 priority sectors**

**54 actions**

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<th>Timestable</th>
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<tr>
<td>1. Enhance the quality of raw materials: reduce waste, improve recycling and energy recovery.</td>
<td>2025</td>
</tr>
<tr>
<td>2. Reduce the environmental impact of products and services: ensure that products and services are environmentally sustainable.</td>
<td>2025</td>
</tr>
<tr>
<td>3. Support the development of new technologies for the circular economy.</td>
<td>2025</td>
</tr>
<tr>
<td>4. Develop strategies and tools to promote the circular economy.</td>
<td>2025</td>
</tr>
<tr>
<td>5. Increase the participation of stakeholders in the implementation of the circular economy.</td>
<td>2025</td>
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### Sectoral action

**Plastics**

- Strategy on plastics in the circular economy (2026)
- Specific action to reduce single-use plastics (2026)

**Food waste**

- Development of a common methodology and indicators to monitor food waste (2026)
- Stakeholders platform to improve EU regulation on food waste, shared best practices and evaluate progress (2026)
- Clarify relevant EU legislation related to waste, food and feed in order to facilitate food production and utilization of former foodstuffs for animal feed (2026)
- Capture options for more effective use and understanding of data (2026)

### Critical raw materials

- Report on critical raw materials in the industry and economy (2026)
- Impact of changes in raw materials production on the industry and economy (2026)
- European standards for material efficient mining of critical raw materials (2026)
- Monitoring of best practice for the recovery of critical raw materials from mining waste and by-products (2026)

### Constitution and demolition

- Preservation assessment guidelines for the construction sector (2026)
- Volunteer: industry-wide recycling platform for construction and demolition waste (2026)
- Core indicators for the assessment of the lifecycle environmental performance of buildings and structures for new use (2026)

### Biomass and bio-based materials

- Resistance and dissemination of best practice in the recycling of bio-based and biodegradable materials (2026)
- Ensuring effective synergies with the circular economy when examining the sustainability of bioenergy (2026)
- Assessment of the contribution of the Circular Bioeconomy Strategy to the circular economy and possible reforms (2026)

### Innovation and investments

- Innovation 2020 and the Circular Economy Fund (2026)
- New project to support innovation: proposals for new regulatory frameworks (2026)
- Targeted assistance to encourage applications for funding under Horizon 2020 and support the development of products and innovative platforms relevant to the circular economy (2026)
- Support to Member States and regions to strengthen innovation for the circular economy (2026)
- Assessment of the possibility of establishing a platform together with the EFS and national bodies to support the financing of the circular economy (2026)
- Development of a monitoring framework for the circular economy (2026)
Embed circularity in the design of new products and the materials they are made of.

Deal with current and future materials which are not circular.

Ecodesign Working Plan 2016-2019

- Durability
- Reparability
- Recyclability
New Deal for Consumers

Proposed 11 April 2018

Objective:
To ensure that all European consumers fully benefit from their rights under Union law

Complementing the EU Circular Economy Action Plan

Stronger enforcement and better opportunities for individual redress against unfair commercial practices

Deterring misleading environmental claims or planned obsolescence practices
Empowering consumers to make thoughtful choices

Helping public authorities to choose sustainable products and services
72,797 products and services available on the market (March 2019)

3,866 organisations registered

TOTAL EU ECOLABEL PRODUCTS & SERVICES PER COUNTRY (MARCH 2019)
The new rules will make the EU a global leader in recycling:

• By 2030, at least **70 % of all packaging waste** in each EU country should be recycled

• By 2035, all EU countries should **recycle at least 65 %** and **landfill less than 10 % of municipal waste**

There are also **recycling targets** for specific packaging materials:

• Paper and cardboard: 85 %
• Ferrous metals: 80 %
• Aluminium: 60 %
• Glass: 75 %
• Plastic: 55 %
• Wood: 30 %
A comprehensive approach

- Forward-looking calculation rules
- Landfilling restrictions for separately collected and recyclable waste
- Measures on prevention & encouraging the reuse of packaging
- Minimum requirements for producer responsibility schemes: producers to bear the cost of waste management
- Continuously improving separate collection
Closing the loop

- By removing existing barriers to the trade of SRM,
- By improving waste management practices
- By guaranteeing high quality standards.

- Quality standard for secondary raw materials (ie plastics)- ongoing

- Revised fertilisers regulation- **undergoing the legislative process**

- Proposal to set minimum quality requirement for reused water for irrigation- **up-coming**
Analysis interface between Chemicals, Products and Waste legislation

Obstacles

- Insufficient information
- Presence of substances of concern
- Difficulties in application of waste classification rules - impact on recycling
- Uncertainties about how materials cease to be waste

Examples of proposed actions

- Consider REACH restrictions
- Take steps to develop a specific decision-making framework
- Publish guidance on waste classification
- Study on Member States' implementation of end-of-waste provisions

Adopted January 2018
<table>
<thead>
<tr>
<th>EU28</th>
<th>Percentage</th>
<th>Thought</th>
</tr>
</thead>
<tbody>
<tr>
<td>think products should be designed to ease recycling</td>
<td>94%</td>
<td></td>
</tr>
<tr>
<td>think that industry and retailers should try to reduce plastic packaging</td>
<td>94%</td>
<td></td>
</tr>
<tr>
<td>think local authorities should provide more and better collection facilities for plastic waste</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>think people should be educated on how to reduce their plastic waste</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>think consumers should be charged more for single-use plastic goods like cutlery</td>
<td>61%</td>
<td></td>
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</table>
**Plastics Strategy**

All plastic packaging will be **reusable or recyclable** (by 2030)

**Boost the market** for recycled plastics

Actions on **single-use plastics and microplastics**

**Strategic Research Innovation Agenda for Plastics** (2018)

Support to **multilateral initiatives** on plastics
Directive on single-use plastics and fishing gear

Different measures for each item taking into account:
- consumer behaviour/needs
- opportunities for businesses

Adopted by EP: March 2019
Council’s vote: April 2019
Proposal for a Directive on the reduction of the impact of certain plastic products on the environment

**Items with available sustainable alternatives**
- Promote less harmful alternatives: market bans

**Items with no clear alternatives**
- Prevention measures: design requirements, consumption reduction, consumer information
- Better waste management: separate collection, extended producer responsibility + clean-up
Consumption reduction (Article 4)

- **Ambitious and sustained** / measurable quantitative reduction in consumption by 2026 compared to 2022 of
  - Food containers
  - Cups for beverages including covers and lids

- **Member States to choose appropriate measures**
  - Consumption reduction targets
  - Economic instruments
  - Increase the availability of alternatives e.g. re-usable
  - Items not provided free of charge

- **National marketing restrictions** for those products are only possible to substitute those products with reusable ones or with alternatives that do not contain plastics

- Monitoring and reporting obligation for MS with a view to binding quantitative Union consumption reduction targets
Separate collection (Article 9)

Separate collection target for plastic beverage bottles

➔ by 2025 – 77%
➔ by 2029 – 90%

➢ Support high quality recyclates and uptake of secondary raw materials

➢ Support plastic packaging recycling target of 55% by 2030
Circular Economy Monitoring Framework

Measuring progress at EU and national level in the transition to a circular economy

EU self-sufficiency in raw materials
Green public procurement
Waste generation
Food waste

Overall recycling rates
Recycling rates for specific waste streams

Contribution of recycled materials to raw materials demand
Trade in recyclable raw materials

Private investments, jobs and gross value added
Patents
Financing the circular transition

- **Horizon 2020 (2018-2020)** Focus area "Connecting economic and environmental gains - the Circular Economy": € 941 million

- **European Structural and Investment Funds**, implementing Cohesion Policy

- **European Fund for Strategic Investments (EFSI)**, focusing more on investments to meet the Paris Agreement targets and help the transition to a circular and low carbon economy

- **LIFE programme**
More resources for the LIFE programme

Principle of mainstreaming *Climate & Environment* via the EU budget more central across different policy areas

Integrating *circular economy objectives* into all relevant major EU funds, in particular Cohesion Policy

New national contribution to the Union budget based on the amount of non-recycled plastic packaging waste in each Member State (0.80 € per kilo)
Action Plan on financing sustainable growth

- Reorient capital flows towards a more sustainable economy
- Mainstream sustainability in risk management
- Foster transparency and long-termism

Actions

- Establish an EU classification system for sustainable activities
- Create standards and labels for green financial products
- Foster investment in sustainable projects
- Incorporate sustainability in providing investment advice
- Develop sustainability (low-carbon) benchmarks
- Better integrate sustainability in ratings and market research
- Clarify institutional investors' and asset managers' duties
- Incorporate sustainability in prudential requirements
- Strengthen sustainability disclosure and accounting rule-making
- Foster sustainable corporate governance and attenuate short-termism in capital markets
Circular Economy Implementation Report (CEIR)

Opportunity to update on the progress in the transition towards a Circular Economy

- Illustrates the results of the implementation
- Includes latest data from the Monitoring Framework
- Presents key milestones actions delivered
- Sketches out open challenges

Chapeau Report addressed to the Council, the Parliament, the European Economic Social Committee, and the Committee of the Regions
Circular Economy 2.0

Jyrki Katainen @jyrkikatainen · 18 mag
I believe that #CircularEconomy is one of the biggest global megatrends. You can compare it e.g. to digitalisation & globalisation. The more we can create new business models and recycle raw materials, the more added value stays in Europe.

Retweeted 16 times
Frans Timmermans @TimmermansEU · Jun 15
We need to mainstream the #CircularEconomy in everything we do - energy, internal market, infrastructure, #EFSI, structural funds...
Stakeholders' engagement

European Circular Economy Stakeholder Platform
A joint initiative by the European Commission and the European Economic and Social Committee

• Advancing the circular economy concept on the ground
• Strengthening cooperation among stakeholders' networks

representatives of networks of businesses, civil society and local, regional and national public authorities

Submit your own good practices, knowledge, strategies and voluntary commitments!

Link to website: http://circulareconomy.europa.eu/platform/
Circular Economy: an international dimension

2030 Sustainable Agenda, adopted by the United Nations in Sept 2015

EU's international commitments

COP21, historic agreement on 2°C global warming limit in Dec 2015

G7 Alliance for Resource Efficiency, building more sustainable supply chains and global markets for secondary raw materials
Circular Economy Missions to Partner Countries

- Increase **cooperation between EU and partner countries** in the field of environmental policy
- Better understanding of the **environmental challenges faced by partner countries**
- Promote green solutions through **business partnerships** abroad (matchmaking events between European and local entrepreneurs, exchange of views with targeted audiences)

- **2016** (Chile, China)
- **2017** (South Africa, Colombia)
- **2018** (India, Japan, Indonesia)
- **2019** (Mexico, Singapore, Malaysia)
Success factors

- Business case
- Comprehensive approach
- Involving stakeholders - Critical mass
- On top of the political agenda
Learn more about the circular economy

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