



CIRCULAR ECONOMY

Driving Innovation & Investments

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Director General for Environment

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THE CHALLENGES WE FACE



**Social and
demographic
challenges**



**The environmental
challenge: living
within planetary
boundaries**



**Economic and
competitiveness
challenges**

DAVOS - The Global Risks Report 2019

- 1. Extreme meteorological events (floods, droughts, etc.)**
- 2. Failure of the fight against climate change**
- 3. Major natural catastrophes (e.g. earthquakes, tsunamis, volcano eruptions)**
4. Massive incidents of fraud/theft
5. Large scale cyberattacks
- 6. Environmental degradation and human induced catastrophes (E.g. oil spills, radioactive contamination)**

IRP: Global Resources Outlook 2019

- **Use of resources tripled since 1970 (and still increasing)**
- **Linked to material extraction:**
 - **90% of biodiversity loss and water stress**
 - **half of global greenhouse gas emissions**
 - **Material Efficiency Rate Reduced**



More people are politically 'activated' than ever before





Young people mobilize themselves for the planet

Eurobarometer

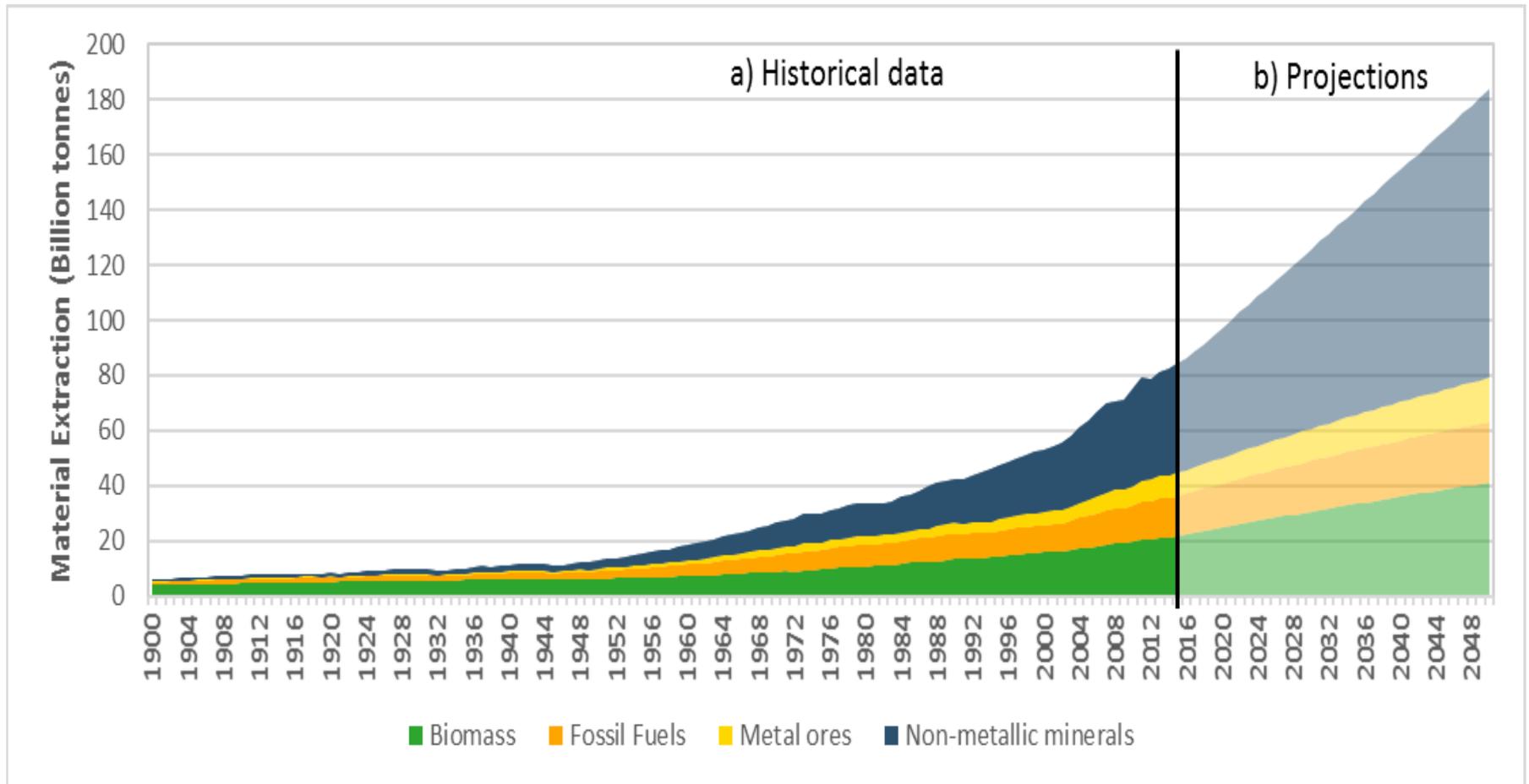


95% of citizens consider environmental protection to be a priority.

9 out of 10 believe climate change is a serious problem.

72% want more European harmonisation of environmental standards.

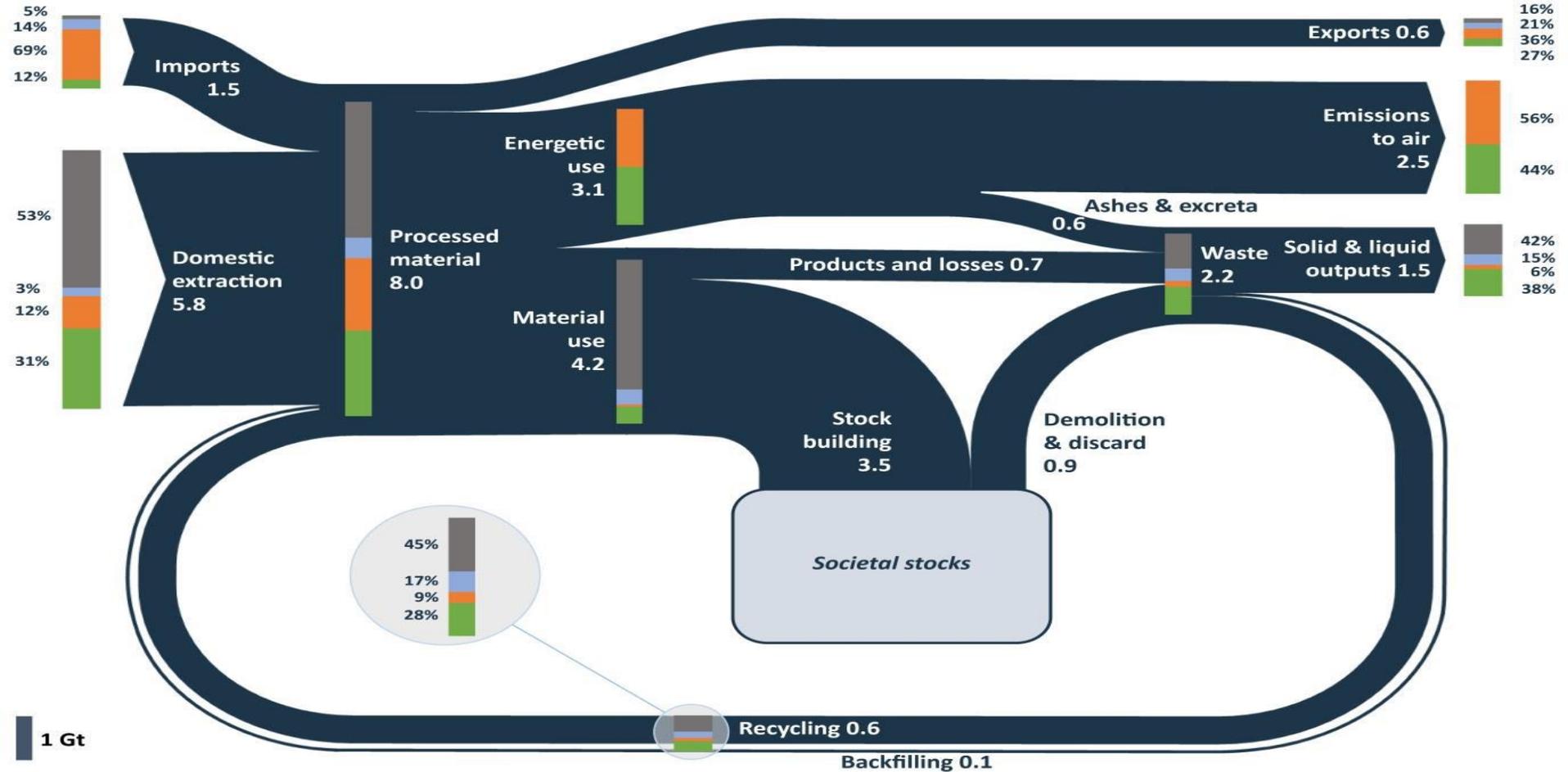
The Raw Materials Challenge



The EU response: The transition to a Circular Economy

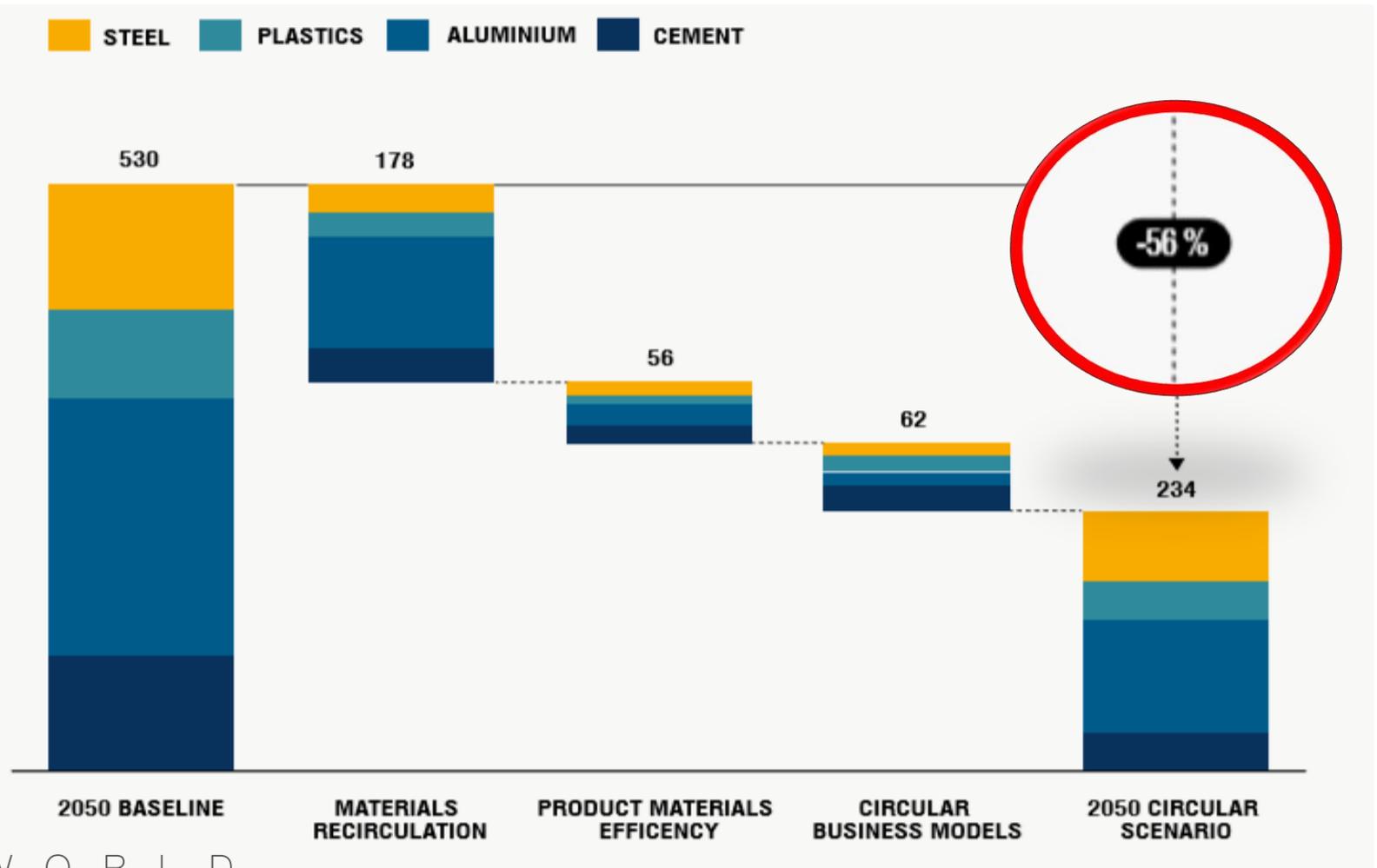


Why is the Circular Economy so important for us?



Note: Numbers may not sum up to total due to rounding.

Material Economics – “The Circular Economy a Powerful Force for Climate Mitigation”



Actions	Timetable
Production	
Emphasis on circular economy aspects in future product requirements under the Eco-design directive.	2016 onwards
Eco-design work plan 2015-2017 and request to European standardisation organisations to develop standards on material efficiency for setting future Eco-design requirements on durability, reparability and recyclability of products.	December 2015
Proposal for an implementing regulation on televisions and displays	End 2015 or beginning 2016
Examine options and actions for a more coherent policy framework of the different strands of work of EU product policy in their contribution to the circular economy	2016
Include guidance on circular economy into Best Available Techniques reference documents (BREFs) for several industrial sectors	2016 onwards
Guidance and promotion of best practices in the mining waste management plans	2016
Establishing an open, pan-European network of technological infrastructures for SMEs to integrate advanced manufacturing technologies into their production processes	2016
Examine how to improve the efficiency and uptake of the EU Eco-Management and Audit Scheme (EMAS) and the pilot programme on environmental technology verification (ETV)	2017
Develop an improved knowledge base and support to SMEs for the substitution of hazardous substances of very high concern	2016

Consumption	
Better enforcement of existing guarantees on tangible products, accompanied by a reflection on improvements (upcoming Commission proposal for online sales of goods, and Fitness Check of consumer legislation)	2015-2017
Action on false green claims, including updated guidance on unfair commercial practices	2016
Analysis of the possibility to propose horizontal requirements on repair information provision in the context of Eco-design	2016
REFIT of Ecolabel, to be followed by actions to enhance its effectiveness	2016
Assessment of the possibility of an independent testing programme on planned obsolescence	2016
Subject to evaluation of the current ongoing pilots, explore the possible uses of the Product Environmental Footprint to measure and communicate environmental information	2016 onwards
Action on Green Public Procurement: enhanced integration of circular economy requirements, support to higher uptake including through training schemes, reinforcing its use in Commission procurement and EU funds	2016 onwards

Waste management	
Revised legislative proposal on waste	Dec 2015
Improved cooperation with Member States for better implementation of EU waste legislation, and combat illicit shipment of end of life vehicles	2015 onwards
Stepping up enforcement of revised Waste Shipment regulation	2016 onwards
Promotion of industry-led voluntary certification of treatment facilities for key waste/recyclate streams	2016 onwards
Initiative on waste to energy in the framework of the Energy Union	2016
Identification and dissemination of good practices in waste collection systems	2016 onwards

Market for secondary raw materials	
Development of quality standards for secondary raw materials (in particular for plastics)	2016 onwards
Proposal for a revised fertilisers regulation	Early 2016
Proposed legislation setting minimum requirements for reused water for irrigation and groundwater recharge	2017
Promotion of safe and cost-effective water reuse, including guidance on the integration of water reuse in water planning and management, inclusion of best practices in relevant BREFs, and support to innovation (through the European Innovation Partnership and Horizon 2020) and investments	2016-2017

Analysis and policy options to address the interface between chemicals, products and waste legislation, including how to reduce the presence and improve the tracking of chemicals of concern in products	2017
Measures to facilitate waste shipment across the EU, including electronic data exchange (and possibly other measures)	2016 onwards
Further development of the EU raw materials information system	2016 onwards

Sectorial action	
Plastics	
Strategy on plastics in the circular economy	2017
Specific action to reduce marine litter implementing the 2030 Sustainable Development Goals	2015 onwards

Food waste	
Development of a common methodology and indicators to measure food waste	2016
Stakeholders platform to examine how to achieve SDGs goals on food waste, share best practice and evaluate progress	2016
Clarify relevant EU legislation related to waste, food and feed in order to facilitate food donation and utilisation of former foodstuffs for animal feed	2016
Explore options for more effective use and understanding of date marking on food	2017

Critical raw materials	
Report on critical raw materials and the circular economy	2017
Improve exchange of information between manufacturers and recyclers on electronic products	2016 onwards
European standards for material-efficient recycling of electronic waste, waste batteries and other relevant complex end-of-life products	2016 onwards
Sharing of best practice for the recovery of critical raw materials from mining waste and landfills	2017

Construction and demolition	
Pre-demolition assessment guidelines for the construction sector	2017
Voluntary industry-wide recycling protocol for construction and demolition waste	2016
Core indicators for the assessment of the lifecycle environmental performance of a building, and incentives for their use	2017 onwards

Biomass and bio-based materials	
Guidance and dissemination of best practice on the cascading use of biomass and support to innovation in this domain through Horizon 2020	2018-2019
Ensuring coherence and synergies with the circular economy when examining the sustainability of bioenergy under the Energy Union	2016
Assessment of the contribution of the 2012 Bio-economy Strategy to the circular economy and possible review	2016

Innovation and investments	
Initiative "Industry 2020 and the circular economy" under Horizon 2020	October 2015
Pilot project for "innovation deals" to address possible regulatory obstacles for innovators	2016
Targeted outreach to encourage applications for funding under EFSI, and support the development of projects and investment platforms relevant to the circular economy	2016 onwards
Targeted outreach and communication activities to assist Member States and regions for the uptake of Cohesion Policy funds for the circular economy	2016 onwards
Support to Member States and regions to strengthen innovation for the circular economy through smart specialisation	2016 onwards
Assessment of the possibility of launching a platform together with the EIB and national banks to support the financing of the circular economy	2016
Engagement with stakeholders in the implementation of the action plan through existing fora in key sectors	2016 onwards
Support to a range of stakeholders through actions on public-private partnerships, cooperation platforms, support to voluntary business approaches, and exchanges of best practices	2015 onwards

Monitoring	
Development of a monitoring framework for the circular economy	2017

When I came last year...

> 80% actions delivered

2019

1 action plan 5 priority sectors 54 actions

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European standards for material-efficient recycling of electronic products and other relevant complex end-of-life products	2016 onwards
Develop a common methodology and indicators to measure critical raw materials from	2017

Report on the state of the Union 2017	2017
RE	2016
Assess	2017 onwards

Subject to evaluation of the current uses of the Product Environmental Footprint to communicate environmental information	2016 onwards
Action on Green Public Procurement: enhanced integration of circular economy requirements, support to higher uptake including through training schemes, reinforcing its use in Commission procurement and EU funds	2016 onwards
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Monitoring	
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Better enforcement of Commission	2016 onwards
Action on	2016 onwards
Analysis of	2016 onwards
RE	2016 onwards
Assess	2016 onwards

100% actions delivered



The Circular Economy Creates Jobs, Growth and Investment in Industry

JOBS, GROWTH AND INVESTMENT IN CIRCULAR ECONOMY SECTORS



4.0 million jobs



Value added in 2016
EUR 147 billion



An increase of **11%**
compared to 2012



Private Investments
EUR 17.5 billion



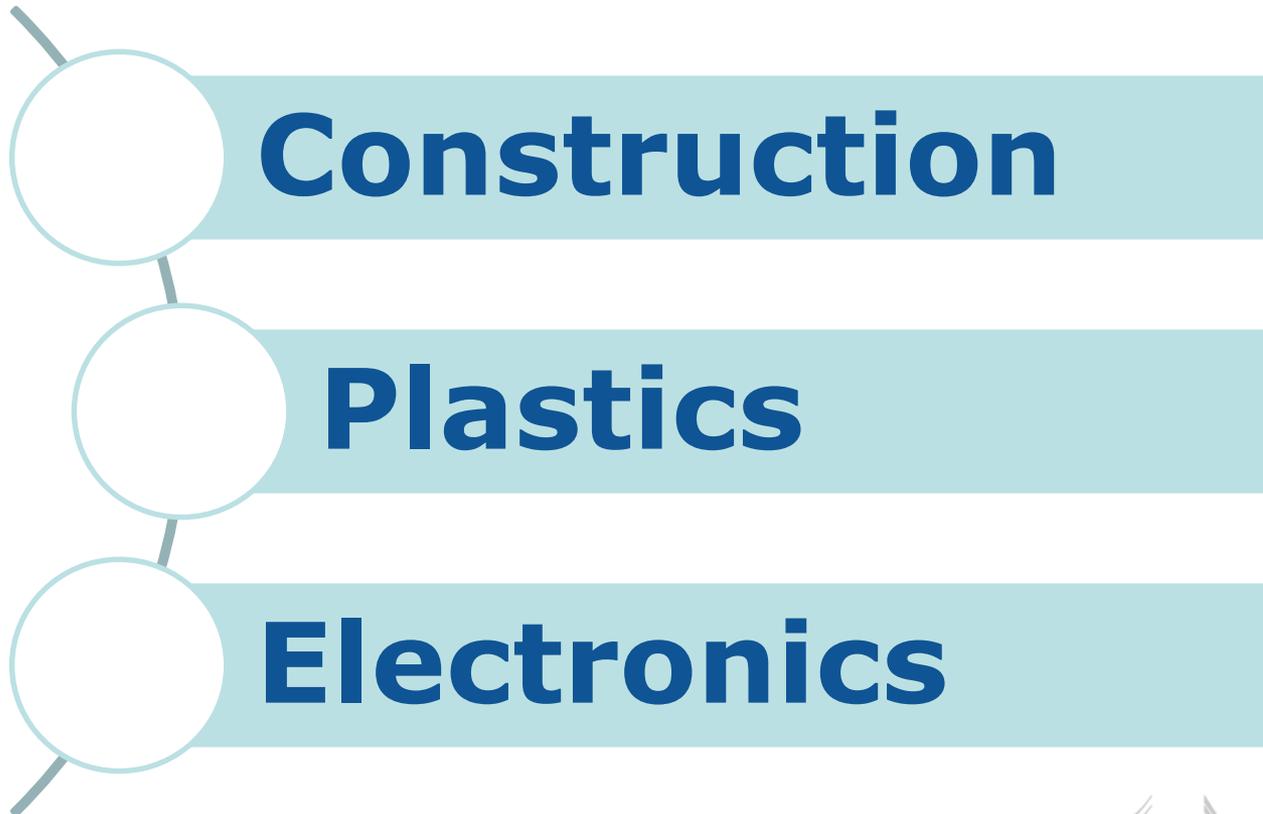
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Let's look at 3 specific cases



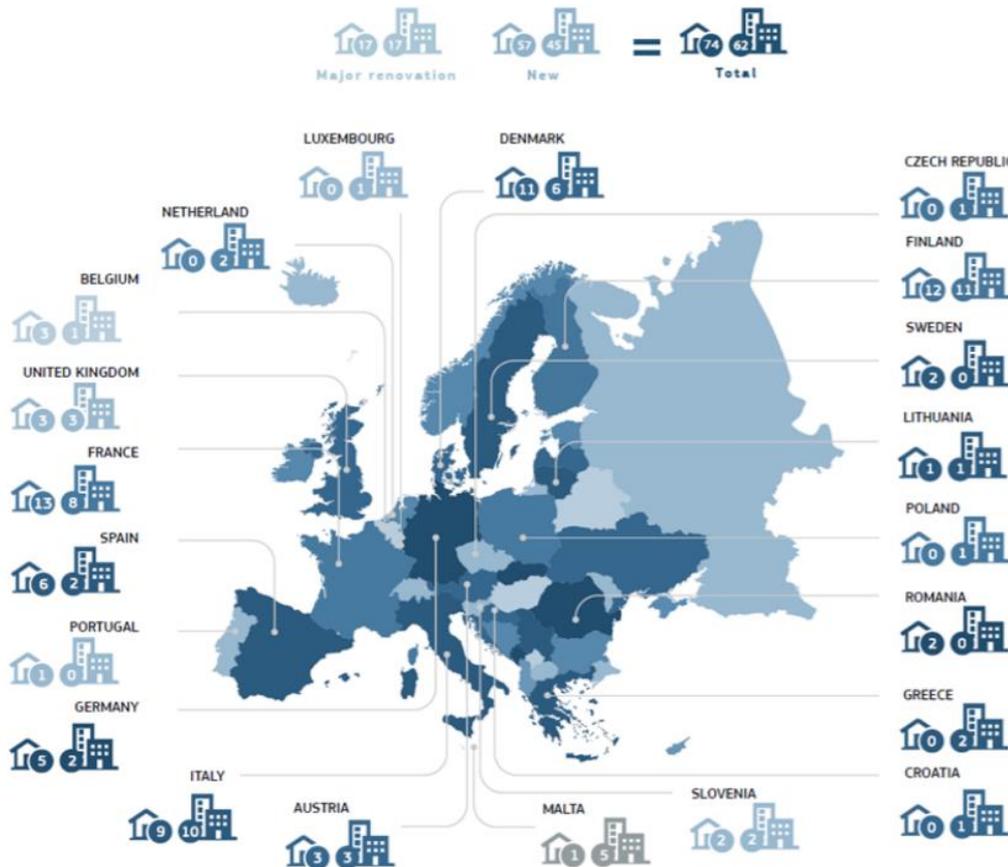
Construction



- The construction industry is very important to the EU economy.
 - The sector provides **18 million direct jobs**
 - Contributes to about **9%** of the EU's GDP.
- Buildings are responsible for approximately **40% of energy consumption** and **36% of CO₂**
- Single largest energy consumer in Europe.
- At present, about 35% of the EU's buildings are over 50 years old and almost 75% of the building stock is inefficient. At the same time, only 0.4-1.2% of the building stock is renovated each year.

Construction

Level(s)



Voluntary reporting framework to improve the sustainability of buildings. Using existing standards, Level(s) provides a common EU approach to the assessment of environmental performance in the built environment.

Level(s) being tested by
+130 projects in 21
countries ahead of launch

March 2020

Plastics

A EUROPEAN STRATEGY FOR PLASTICS

Improve the economics and quality of plastics recycling

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



Curb plastic waste and littering

Boost the market for recycled plastics

Actions on single-use plastics and microplastics



Drive investments and innovation towards circular solutions

Strategic Research Innovation Agenda for Plastics (2018)



Harness global action

Towards an international agreement on plastics



Policy Objectives



- **Stimulate design for circularity**
- **Better separate waste collection**
- **Boosting recycled content**

-  **By 2030**
- All plastics packaging reusable or recyclable
 - >50% of plastic waste recycled
 - Sorting & recycling capacity X 4 (vs. 2015)



Measures



- **Eco-design: requirements** to support recyclability of plastics
- **Evaluation:** Construction Products & End-of-life Vehicles
- Revision of the **essential requirements** in the PPWD
- Working on **food-contact materials**
- Development of **quality standards** (sorted and recycled plastics)
- **Ecolabel and GPP: incentives** for recycled plastics
- **EPR / deposit:** Member States
- Industry **pledges / voluntary commitments**





- **Guidance on eco-modulation of EPR fees**
- **Strategic Research Innovation Agenda for Plastics (2018)**
- **H2020 additional €100 million investments (up until 2020)**
- **Support the development of alternative feedstocks**
→ **lifecycle assessments** including biomass



Innovation for a circular and sustainable plastics industry

BETTER PRODUCT DESIGN MAKES PLASTICS RECYCLING EASIER



**Saving 77-120 EUR
for each tonne
of plastic waste
collected**

Source: Ellen MacArthur Foundation (2016)

CO₂ BENEFITS OF PLASTICS RECYCLING



Action on single-use plastics and fishing gear



Proposal for a
Directive 28/5/18



Different measures for each item taking into account:

- consumer behaviour/needs
- opportunities for businesses



Politically
Agreed
Dec 2018

10 most common plastic objects found on European beaches



Cigarette butts



Food containers



Drink bottles



Bags



Crisp packets/
sweet wrappers



Cups & lids



Cutlery,
straws &
stirrers

Sanitary applications



Cotton buds

Balloons and balloon sticks



Single-use plastic items represent
50%
of marine litter

European Initiative on Batteries



- **Secure access to raw materials for batteries**
- **Support scaled European battery cell manufacturing and a full competitive value chain in Europe.**

Development and implementation of a "certification system" for batteries manufactured within the EU.

- **Strengthen industrial leadership through accelerated research and innovation support to advanced (e.g. Lithium-ion) and disruptive (e.g. solid state) technologies**
- **Develop and strengthen a highly skilled workforce along the whole value chain to close the skills gap.**
- **Support the sustainability of EU battery**

Development of battery sustainability 'design and use' requirements, keeping in mind different regulatory instruments such as the Ecodesign Directive and the Energy Labelling Regulation and the EU Batteries Directive

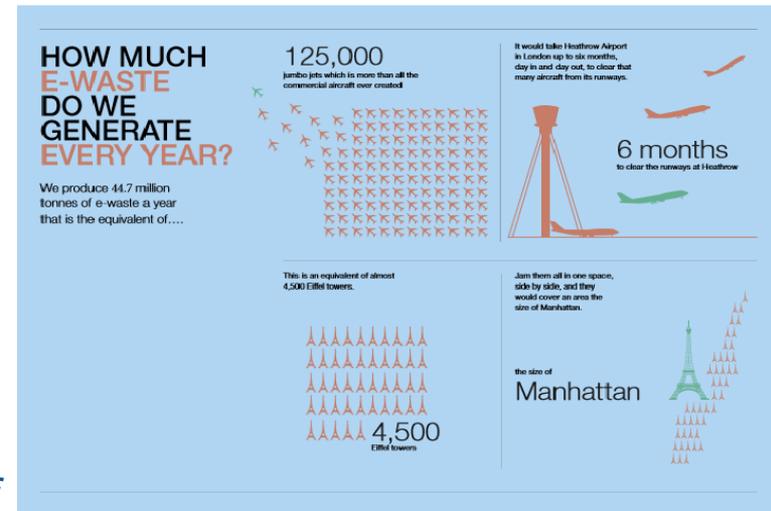
Electronic waste (e-waste)

We need to move from waste management to efficient resource management to find circular solutions

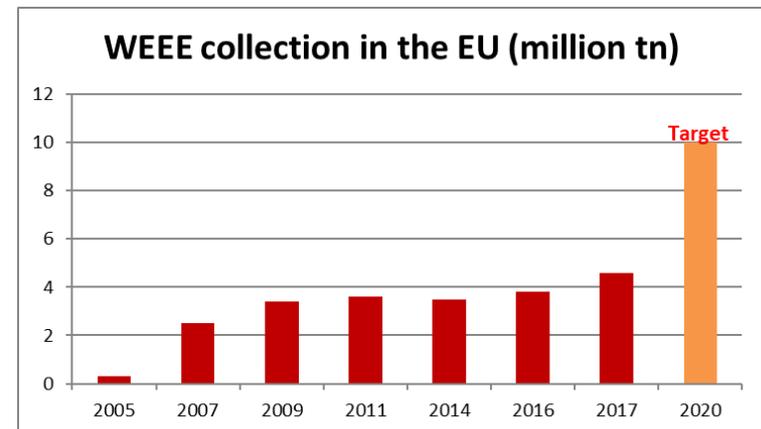
1. Valuable materials are trapped into electronics during production.



2. Globally the production of electronics continue to increase and so the generation of e-waste...
3. Regulated management of e-waste in the EU results in significant increase of e-waste collected and treated.
4. **Next years:** focus on making EU rules fully operational and assist Member States in reaching the targets, keep the valuable resources in the EU, promote Circular Economy.



Source: E-waste Monitor, 2017; figures from 2016



***The Importance of an
Enabling Environment
Innovation &
Investments***

The Circular Economy Stimulates Innovation & Investments

Objectives

- *create the right environment for innovation and investment*



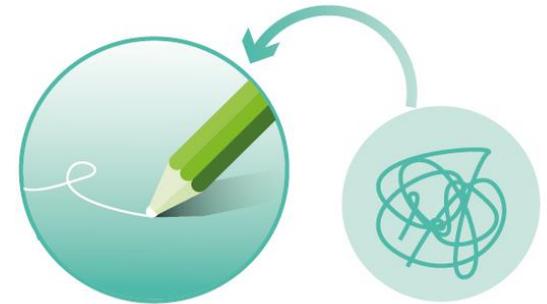
EU Programs

- **Horizon 2020** initiative launched on 'Industry 2020 in the Circular Economy' (EUR 650 million)
- pilot '**innovation deals**' to address potential regulatory obstacles for innovators
- targeted outreach of EU funding, as **Cohesion Policy** (European Structural and Investment Funds)
- **EFSI** (European Fund for Strategic Investments)
- **new platform for financing Circular Economy** with European Investment Bank and national promotional banks

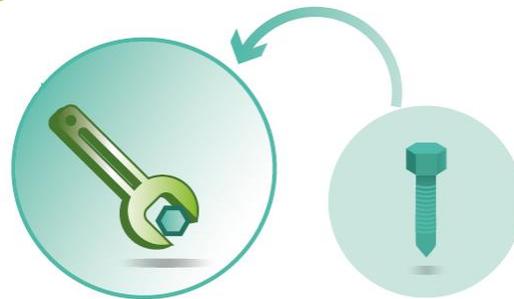
Horizon 2020

"Industry 2020 in the
Circular Economy"
2016-2017: €650 million

- circular economy
- raw materials
- waste management



***Designing
products
& processes***



Servicizing



Waste valorisation

CE Finance Support Platform

Transition to circular economy will constitute a fundamental transformation



Investment capital needed



Platform together with the EIB, national promotional banks, and other CE stakeholders to support the financing of circular economy

EIB Lending

- **largest multilateral lender/borrower in the world**
- 2016: 84bn lent, 90% in EU, 20% environment, 24% infrastructure, 16% innovation, 40% SMEs
- lending, blending, advising with products matching project sizes and risk profiles
- as the EU Bank, **supporting EU transition to a circular economy is high on the EIB agenda - in 2012-2016 EIB lent EUR 2.4 bn to CE projects**
- **more EIB CE info: www.eib.org/circular-economy**

EFSI - The Investment Plan for Europe

- focus on **green investments, with RDI, environment and resource efficiency projects** (incl. energy efficiency and renewable energy projects) having already substantially benefitted from EFSI backing
- **aim** is to **mobilise EUR 315 billion of new investments** with a maximum of private sector capital, initially over 3 years
- **green** economy projects can also benefit from the European Investment Advisory Hub (EIAH)
- **extend EFSI until 2020** and focus it more on sustainable investments meet Paris agreement targets and help transition to resource efficient, circular and zero carbon economy
- **COM** has set up the **European Investment Project Portal** offering better visibility for projects in Europe to international investors: <https://ec.europa.eu/eipp/desktop/en/>

WE NEED TO ADVANCE IN THE CIRCULAR ECONOMY AGENDA WITH OUR INTERNATIONAL PARTNERS



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)**

The EU's next step...Circular Economy 2.0



The Sustainable Industrial Transition

Circular Economy 2.0

- **Digitalisation and decarbonisation are key drivers**

Priorities:

- Implementation of the new CE targets
- Food systems and Bioeconomy
- Textiles
- Product Policy: Environmental Footprint and Ecodesign
- 'Sustainable Chemicals Strategy'
- Critical Raw Materials



CONCLUSION

A European Pact for a more competitive, social and sustainable Europe

- Is a **priority for European citizens, in particular young people**
- Holds the potential to **bring Europe closer together**
- Offers great opportunities for **economic and industrial actors**
- Has a strong **social dimension**
- Must take form in the **global perspective**

Thank you for your attention!

#CEstakeholderEU

European Circular Economy Stakeholder Platform

A joint initiative by the European Commission and the European Economic and Social Committee

Home Good Practices Strategies Knowledge Policy & Commitments Dialogue Contribute! News & Events About

- 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/>

