



# Research and Innovation for Circular Economy

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# Urgent actions are needed



- From 1970 to 2017, the annual global extraction of materials **tripled** and it continues to grow.

Source: [The International Resource Panel, Global Resources Outlook, 2019](#)



- More than **90%** of biodiversity loss and water stress come from resource extraction and processing.

Source: [The International Resource Panel, Global Resources Outlook, 2019](#)



- Annual waste generation will increase by **70%** by 2050

Source: [World Bank](#)  
What a waste 2.0, 2018



- Only **12%** of the materials used by EU industry come from recycling.

Source: [Eurostat](#),  
2016 figures

# European Green Deal



# A new vision for Europe



## *35 actions along the entire life cycle of products, to:*

- Make **sustainable products** the norm in the EU
- **Empower** consumers and public buyers
- **Focus also on key product value chains:** electronics and ICT; batteries and vehicles; packaging; plastics; textiles; construction and buildings; food; water and nutrients
- Ensure **less waste**
- Make circularity work for **people, regions** and **cities**
- **Lead global efforts** on circular economy

# Key product value chains



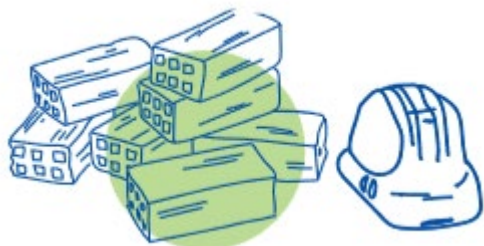
**Food, water & nutrients**



**Electronics and ICT**



**Batteries & vehicles**



**Construction & buildings**



**Packaging**



**Textiles**



**Plastics**

# Water is too precious to waste

- Today 11% of the European population and 17% of its territory have been affected by water scarcity.
- Approximately only 2.4% of the treated urban wastewater effluents and less than 0.5% of annual EU freshwater withdrawals is currently reused.
- Applying the circular economy's main principles – reduce, reuse and recycle – in the water sector can bring significant environmental, social and economic benefits.
- Extracting and exploiting relevant resources such as nutrients, minerals, metals and also energy that are embedded in used water streams, open up new market opportunities for the water-related industry and significant potential in terms of the creation of green jobs in (it is estimated that a 1% increase in the rate of growth of the water industry in Europe could create up to 20.000 new jobs).

# Research and Innovation – A key role for Circular Economy

- Demonstrate the potential of circular economy innovation across sectors and value chains
- Focus on important material streams and sectors highlighted in the Circular Economy Action Plan, as well as on the biological segment of circular economy – circular bioeconomy
- Facilitate the integration of circular economy approach in addressing other societal challenges including climate change, sustainable water management, sustainable food and protection of oceans and seas
- Future actions will to large extent focus on systemic solutions and close to market large-scale demonstrations (e.g. at regional scale ) of circular solutions
- Supported in the context of Horizon Europe, the 95,5 billion Research and Innovation Framework Programme for 2021-2027, as well as, other financial instruments (e.g. Circular Bioeconomy Investment Fund, InvestEU, Structural Funds and the Recovery and Resilience Facility).
- 1<sup>st</sup> Horizon Europe calls expected mid-June

# Thank you

Learn more here:

[https://ec.europa.eu/environment/circular-economy/index\\_en.htm](https://ec.europa.eu/environment/circular-economy/index_en.htm)

<http://ec.europa.eu/horizon-europe>



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