

Horizon 2020 Societal Challenge 5

Climate action, environment, resource efficiency and raw materials



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Horizon 2020 Societal Challenges

1. Health, demographic change and well-being
2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
- 5. *Climate action, environment, resource efficiency and raw materials***
6. Europe in a changing world — inclusive, innovative and reflective societies
7. Secure societies — protecting freedom and security of Europe and its citizens

Background

Objective

Achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems

Considerations

- Focus on investing in innovation for a green economy
- Social and public sector innovation
- Waste and water are particular priorities



Three calls

- **Waste: A Resource to Recycle, Reuse and Recover Raw Materials**
H2020-WASTE-2014, €73 million, 5 topics
- **Water Innovation: Boosting its value for Europe**
H2020-WATER-2014, €67 million, 5 topics
- **Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials**
H2020-SC5-2014, €166 million, 16 topics

Deadlines: April 2014

Waste: A Resource to Recycle, Reuse and Recover Raw Materials

- Moving towards a circular economy through industrial symbiosis
- A systems approach for the reduction, recycling and reuse of food waste

Note: China and other third countries

- Recycling of raw materials from products and buildings

Waste: A Resource to Recycle, Reuse and Recover Raw Materials

- Towards near-zero waste at European and global level
 - An EU near-zero waste stakeholder platform
 - Global waste dimension
 - Note: third countries*
 - Secondary raw materials inventory
- Preparing and promoting innovation procurement for resource efficiency

Water Innovation: Boosting its value for Europe

- Bridging the gap: from innovative water solutions to market replication
 - First application and market replication of near-market water solutions
- Integrated approaches to water and climate change
 - Water cycle under future climate
- Stepping up EU research and innovation cooperation in the water area
 - ERA-Net on the Strategic Research Agenda of the Water Joint Programming Initiative (JPI)

Water Innovation: Boosting its value for Europe

- Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens
 - Dissemination and exploitation of EU funded activities
 - Take stock of existing practical and scientific knowledge in the various sectors and identify research gaps
 - Promote water-related innovation and business development
 - Coordinated approach to the integration of the water and waste sectors
- Strengthening international R&I cooperation in the field of water
 - Strategic cooperation partnerships *Note: third country focus*

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Fighting and Adapting to Climate Change

- Climate Services for Europe and globally
- Advanced Earth-system models
- The economics of climate change and linkages with sustainable development

Note: IPCC input

- Coordinating and supporting research and innovation for climate action
 - Climate change mitigation options

Note: emerging and developing economies

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Protecting the Environment, Sustainably Managing Natural Resources, Water, Biodiversity and Ecosystems

- Biodiversity and ecosystem services: drivers of change and causalities
- Preparing and promoting innovation procurement for soil decontamination
- Consolidating the European Research Area on biodiversity and ecosystem services *Note: third countries*
- Coordinating and supporting research and innovation for the management of natural resources
 - Enhancing mapping ecosystems and their services
 - Structuring research on soil, land-use and land management in Europe

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Ensuring the Sustainable Supply of Non-Energy and Non-Agricultural Raw Materials

- New solutions for sustainable production of raw materials
 - Mining of small and complex deposits and alternative mining
 - Flexible processing technologies
- Innovative and sustainable solutions leading to substitution of raw materials
 - Materials for electronic devices
- Coordinating and supporting raw materials research and innovation
 - Mineral deposits of public importance
 - Strategic international dialogues and cooperation on raw materials with technologically advanced countries *Note: technologically advanced countries*

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Enabling the Transition Towards a Green Economy and Society Through Eco-Innovation

- Consolidating global knowledge on the green economy in support of sustainable development objectives in the EU and internationally

Note: third countries

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Developing Comprehensive and Sustained Global Environmental Observation and Information Systems

- Making Earth Observation and Monitoring Data usable for ecosystem modelling and services
- Coordinating and supporting Earth Observation research and innovation in the EU
 - Coordinating European Observation Networks to reinforce the knowledge base for climate, natural resources and raw materials

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Cross-Challenge Topics

- Coordinating and supporting research and innovation in the area of climate action, environment, resource efficiency and raw materials
 - Facilitating transnational cooperation between NCPs in Societal Challenge 5
- Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials

Note: SME focus

Thank you

