

# HORIZON 2020

## Climate action, environment, resource efficiency and raw materials

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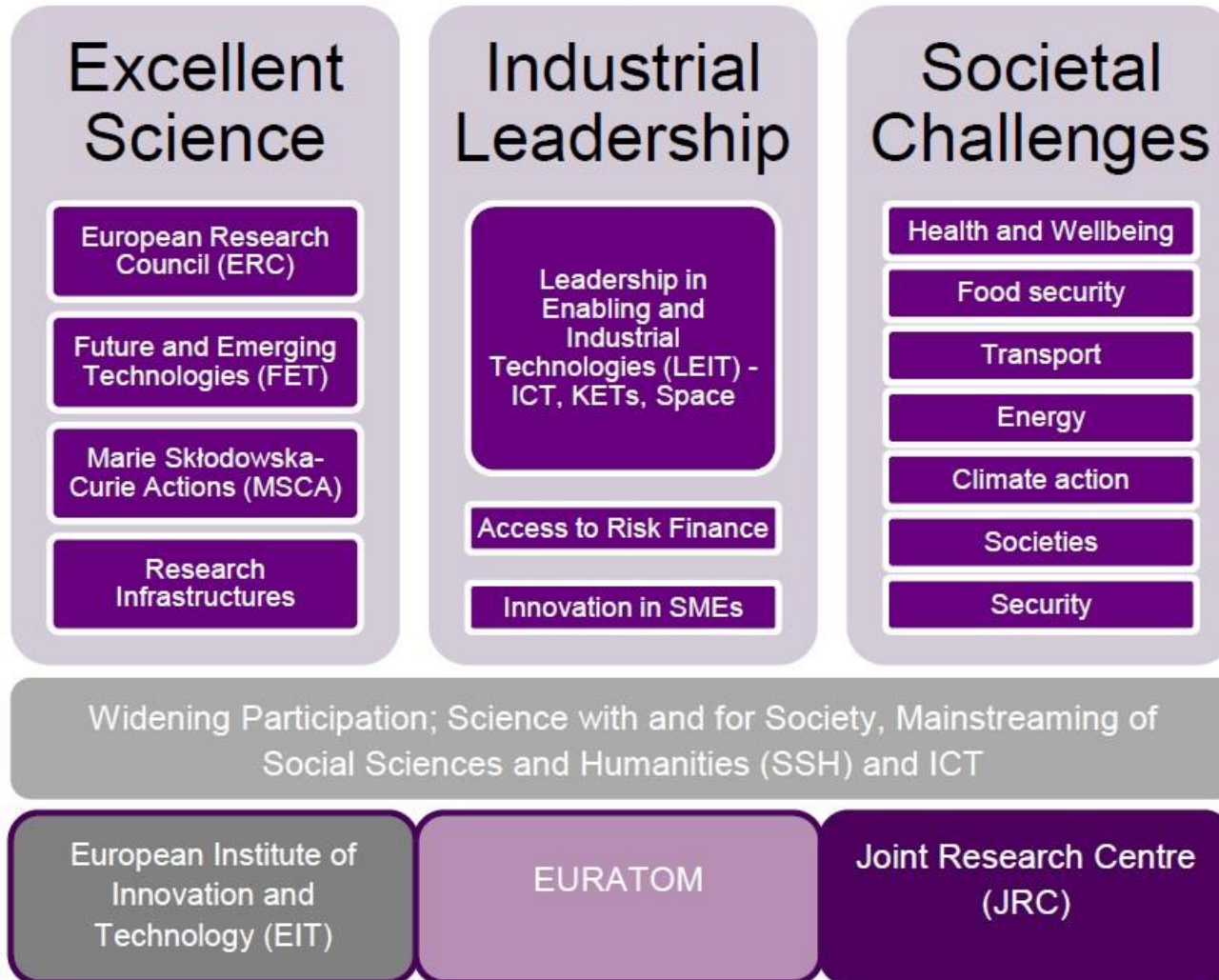
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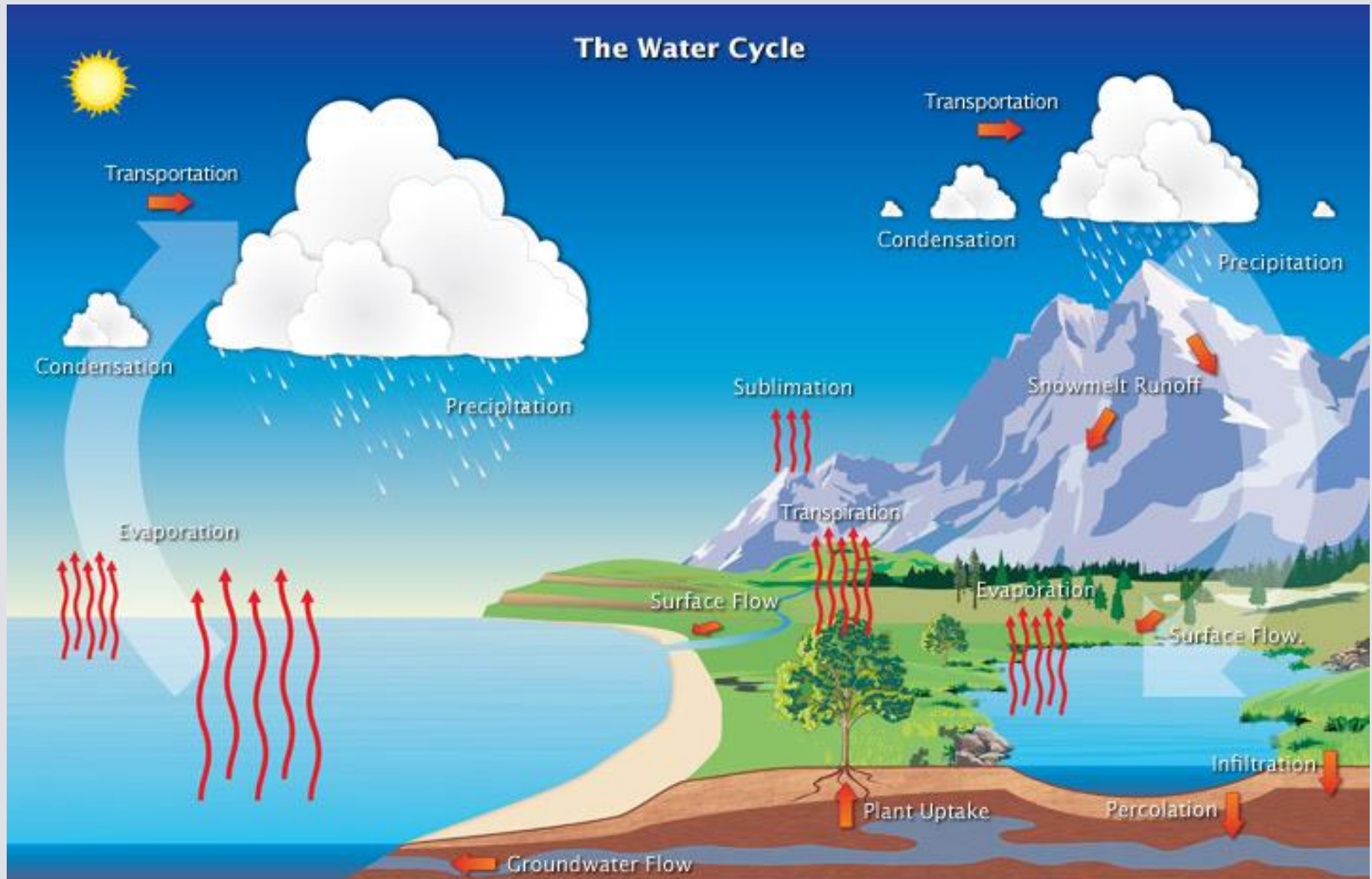
# Objective of this Societal Challenge



# Focus areas

- Waste: A resource to recycle, reuse and recover raw materials
- Water innovation: Boosting its value for Europe
- Growing a low carbon, resource efficient economy with a sustainable supply of raw materials
  - Fighting and adapting to climate change
  - Sustainably managing natural resources and ecosystems
  - Ensuring the sustainable supply of non-energy and non-agricultural raw materials
  - Enabling the transition towards a green economy through eco-innovation
  - Developing comprehensive and sustained global environmental observation and information systems





# Main environment-related novelties

- Integrated, systemic and challenge-driven approach
- Transformation towards a green economy and society
- More eco-innovation, including social innovation
- More socio-economic and forward-looking activities
- Inclusion of raw materials
- Environment and health now under "Health" Challenge



# Use of data of other EC initiatives

- GEOSS (Global Earth Observation System of Systems)  
<https://www.earthobservations.org/index.shtml>
- Copernicus (Global Earth Observation Programme)  
<http://www.copernicus.eu/>
- ESA Earth Science data
- Open Research Data Pilot

# Work programme, suitable opportunities

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

# Type of actions

- Research & innovation actions (RIAs)
- Innovation actions (IAs)
- Coordination & support actions (CSA)
- Marie Curie actions (MSCA)
- ERC grants (ERC)
- SME instrument (SME)
- Fast track to innovation (FTI)
- ERA-NET

# Opportunities

- Link to existing projects
  - Brokerages, partners search, bilateral cooperation, etc.
- Coordination and support actions
- Specific research topics
  - Finding niche

# Priority directions of scientific research of Belarus for 2011-2015

- Energy supply, energy conservation, energy efficiency, energy-efficient technologies
- Ecology, natural resources, resource saving, rational environmental management and protection from emergency situations

# Coordination and support actions

Call	Topics		Budget (EUR million)		Deadline
			2014	2015	
WASTE	Towards near-zero waste at European and global level	4	4,5	4	08.04.2014 10.03.2015
WASTE	Preparing and promoting innovation procurement for resource efficiency	5	1	-	08.04.2014
WATER	Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens	4	5	6	a) 08.04.2014 b) 10.03.2015
WATER	Strengthening international R&I cooperation in the field of water (a+b)	5	5	6	a) 08.04.2014 b) 10.03.2015
SC5 (1.)	Coordinating and supporting research and innovation for climate action	5	9	9	a) 08.04.2014 b) 10.03.2015
SC5 (2.)	Preparing and promoting innovation procurement for soil decontamination	8	2	-	08.04.2014

# Coordination and support actions

Call	Topics		Budget (EUR million)		Deadline
			2014	2015	
SC5 (2.)	Coordinating and supporting research and innovation for the management of natural resources	10	9	9	a-b) 08.04.2014 c) 10.03.2015
SC5 (3.)	Coordinating and supporting raw materials research and innovation	13	5	8	a-b) 08.04.2014 C-f) 10.03.2015
SC5 (4.)	Consolidating global knowledge on the green economy in support of sustainable development objectives in the EU and internationally	14	9	9	08.04.2014
SC5 (5.)	Coordinating and supporting Earth Observation research and innovation in the EU, and in the North African, Middle East, and Balkan region	18	a) 2 b) 9	- b) 9	a) 08.04.2014 b) 10.03.2015
SC5 (6.)	Coordinating and supporting research and innovation in the area of climate action, environment, resource efficiency and raw materials	19	2	5	a) 08.04.2014 b) 10.03.2015

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

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
1	Moving towards a circular economy through industrial symbiosis	IA	44	30	08.04.2014 16.09.2014
2	A system approach for the reduction, recycling and reuse of food waste	RIA	9	14	08.04.2014 16.09.2014
3	Recycling of raw materials from products and buildings	RIA	14,5	-	08.04.2014
6	Promoting eco-innovative waste management and prevention as part of sustainable urban development	a) IA b) RIA	a) 44	a) 30 b) 10	16.10.2014 10.03.2015
7	Ensuring sustainable use of agricultural waste, co-products and by-products	RIA	9	14	16.10.2014 10.03.2015



# Call – Water Innovation: Boosting its value for Europe Treasuring our water

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
1	Bridging the gap: from innovative water solutions to market replications	IA	39	45	08.04.2014/16.09.2014 16.10.2014/10.03.2015
2	Integrated approaches to water and climate change	RIA	13	15	a) 08.04.2014/16.09.2014 b) 16.10.2014/10.03.2015
3	Stepping up EU research and innovation cooperation in the water area	ERA-NET Cofund	10	15	08.04.2014/10.03.2015
5	Strengthening international R&I cooperation in the field of water	c) RIA	-	c) 15	c) 16.10.2014/10.03.2015

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

## *1. Fighting and adapting to climate change*

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
1	Advanced Earth-system models	RIA	42	15	08.04.2014
3	The economics of climate change and linkages with sustainable development	RIA			16.09.2014
4	Improving the air quality and reducing the carbon footprint of European cities	RIA			16.10.2014
2	ERA for Climate Services	ERA-NET Cofund	-	25	10.03.2014

## 2. Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
6	Biodiversity and ecosystem services: drivers of change and causalities	RIA	20	15	08.04.2014 16.09.2014
7	More effective ecosystem restoration in the EU	RIA			16.10.2014 10.03.2015
9	Consolidating the European Research Area on biodiversity and ecosystem services	ERA-NET Cofund	12	15	08.04.2014

## 3. Ensuring the sustainable supply of non-energy and non-agricultural raw materials

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
11	New solutions for sustainable production of raw materials	RIA	33	48	a-b) 08.04.2014 c-e) 10.03.2015
12	Innovative and sustainable solutions leading to substitution of raw materials	RIA	10	10	a) 08.04.2014 b) 10.03.2015

## 5. Developing comprehensive and sustained global environmental observation and information systems

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
15	Strengthening the European Research Area in the domain of Earth Observation	ERA-NET Cofund	12	15	10.03.2015
16	Making Earth Observation and Monitoring Data usable for ecosystem modelling and services	RIA	14	20	08.04.2014 16.09.2014
17	Demonstrating the concept of „Citizen Observatories“	IA			16.10.2014 10.03.2015

## 6. Cross-challenge topics

Topics		Type of action	Budget (EUR million)		Deadline
			2014	2015	
20	Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials	SME Instrument (70 %)	17	19	-

# Partner search/project preparation

# Partner search/project preparation

- Project partner or coordinator?
  - Topic selection
  - Top down vs. bottom up
  - Consortium composition
  - European
- Expected impact

# (Thematic) partner search

- Existing cooperation/contacts
- Brokerages
- Partner search: <https://www.nks-umwelt.de/partnersuche>
  - Catalogue of EU funded projects in Environmental research → link to existing consortia
- CORDIS search <https://cordis.europa.eu/partners>
- LinkedIn

# University Centre for Energy Efficient Buildings





# University Centre for Energy Efficient Buildings



# Key strategies for green economy

- Reduce
- Reuse
- Recycle



- Implications for sustainable buildings

# Reduce



Natural materials

# Reuse



# Recycle



Thank you for your attention

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