



HORIZON 2020

Climate action, environment, resource efficiency and raw materials

> **10 September 2019, CULS** Jana Čejková, TC CAS



HORIZON 2020

I. Excellent Science

ERC

FET

Marie-Sklodowska-Cu Actions

Infrastructures

Excellent	II. Industrial	III. Societal Challenges		
Leadership		Health, demographic change and		
RC	LEIT (ICT, Nanotechnologies, Advanced materials, Biotechnology, Manufacturing and Processing, Space)	wellbeing		
T		Food security, sustainable agriculture and bioeconomy Secure, clean and efficient energy		
arie- klodowska-Curie ctions				
		Smart, green and integrated transport		
frastructures	Access to Risk Finance	Climate action, environment,		
	Innovation in SMEs	resource efficiency and raw materials		
		Inclusive, innovative and reflective societies		
		Secure societies		
Spreading excellence and widening participation				
Spreading excelle	ence and widening participa	ition		
Spreading excelled Science with and	51 1	ition		

Joint Research Centre (JRC)

The European Institute of Innovation and Technology (EIT)



STRATEGIC DOCUMENTS AND INITIATIVES

- COP 21 Paris Agreement <u>http://unfccc.int/paris_agreement/items/9485.php</u>
- UN's Sustainable Development Goals (SDGs) http://www.un.org/sustainabledevelopment/sustainable-development-goals/
- 7th Environmental Action Programme
- Circular economy policies
- EU Biodiversity Strategy
- Joint programming initiatives (JPI) Water, Cultural heritage, Climate knowledge
- European innovation partnerships (EIP) Water, Raw materials

- ...





Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement (PA)

- budget: 2020 189,5 mil. eur
- deadline 2020: 13.2.2020 (1st stage), 3.9.2020 (2nd stage)
- efforts to limit global temperature rise to well below 2°C (in comparison with pre-industrial period)
- solutions for the achievement of the PA's mitigation and adaptation goals
- scientific knowledge for the implementation of relevant policies

Greening the economy in line with the Sustainable Development Goals (SDGs)

- budget: 2020 128,86 mil. eur
- deadline 2020: 13.2.2020 (1st stage), 3.9.2020 (2nd stage)
- moving to a greener, more resource efficient and climate-resilient economy, reduction of waste production, circular economy in cities, ...

2stage evaluation: all IAs a RIAs **1stage evaluation:** all CSAs, ERA-NET Cofunds



Competitive, low carbon and circular industries

- Work Programme: Cross-cutting activities
- deadline 2020: 5.2.2020 (1st stage), 3.9.2020 (2nd stage)
- clustering of projects around certain activities into portfolios
- research challenges related to the Circular Economy (priority since the 2015 Circular Economy Action Plan)
- to reaching carbon neutral industries (Communication "A Clean Planet for all– A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy,")



INTERNATIONAL COOPERATION

- EU member states +H2020 associated countries (AC)
- Countries outside EU and AC
 - > In general supported in all topics
 - In some topics encouraged / strongly encouraged
 - sometimes specific target groups defined, e.g. in LC-CLA-17-2020 countries that took part in the Arctic Science Ministerial meetings
 - In some topics required (eligibility condition)

Funding

- AC under the same conditions as EU Member States
- Participants from ca 130 developing countries automatically eligible for funding
- Industrialised countries and emerging economies exceptionally only (provision in WP, bilateral agreement, essential for project)



Decarbonisation

- ✓ LC-CLA-10-2020: Scientific support to designing mitigation pathways and policies (3x RIA, 3-5 mil. €) -> (climate policies for coming decade; lifestyle changes; support to preparation of NDCs)
- ✓ LC-CLA-11-2020: Innovative nature-based solutions for carbon neutral cities and improved air quality (IA, 10 mil. €) -> (under different conditions and urban designs; min. 4 cities from diff. MS or AC)

Climate adaptation, impacts and services

- ✓ LC-CLA-12-2020: Advancing climate services (3x RIA, 4-6 mil. €) -> (coastal infrastructure at sea-level risk; extreme events detected by AI; impacts of overshooting)
- ✓ LC-CLA-13-2020: Climate resilience of European coastal cities and settlements (RIA, 10 mil. €) -> (coastal resilience plans and management)
- ✓ LC-CLA-23-2020: Towards a comprehensive European mountain research strategy (CSA, 1,5 mil. €)

SC5



Inter-relations between climate change, biodiversity and ecosystem services

- ✓ LC-CLA-14-2019: Understanding climate-water-energy-food nexus and streamlining water-related policies (RIA, 4-5 mil. €) -> (innovative solutions and management for water, energy & food security and safety; TRL 5)
- ✓ LC-CLA-15-2020: Forest Fires risk reduction: towards an integrated fire management approach in the E.U. (RIA, 10 mil. €)
- ✓ LC-CLA-16-2020: Multi-hazard risk management for risk-informed decision-making in the E.U. (RIA, 3-5 mil. €) -> (geological, hydrological, meteorological and biological hazards)



Cryosphere

- ✓ LC-CLA-17-2020: Polar climate: understanding the polar processes in a global context in the Arctic and Antarctic Regions (RIA, 7-8 mil. €)
 -> (key physical and chemical processes in the ocean and atmosphere and the key ocean-atmosphere-ice interactions)
- ✓ LC-CLA-21-2020: Coordination of European Polar research (CSA, 3 mil. €) -> (prioritisation of research areas, strategies for capacity building, ...)

Knowledge gaps

- ✓ LC-CLA-18-2020: Developing the next generation of Earth System Models (RIA Lump Sum, 10-12 mil. €) -> (Earth system processes linked to climate change)
- ✓ LC-CLA-22-2020: Enhancing the Belmont Forum Collaborative Research Action on Climate, Environment and Health (CSA, 3 mil. €)



Earth Observation

- ✓ LC-CLA-19-2020: Integrated GEOSS climate applications to support adaptation and mitigation measures of the Paris Agreement (RIA, 4-5 mil. €)
- ✓ LC-CLA-20-2020: Supporting the implementation of GEOSS in the Arctic in collaboration with Copernicus (RIA, 15 mil. €)



Connecting economic and environmental gains - the circular economy

- ✓ CE-SC5-24-2020: Improving the sorting, separation and recycling of composite and multi-layer materials (RIA, 4-5 mil. €)
- ✓ CE-SC5-25-2020: Understanding the transition to a circular economy and its implications on the environment, economy and society (RIA, 3-4 mil. €)
- ✓ CE-SC5-28-2020: Develop and pilot circular systems in plastics, textiles and furniture sectors (IA, 7-8 mil. €; TRL 6-7)
- ✓ CE-SC5-29-2020: A common European framework to harmonise procedures for plastics pollution monitoring and assessments (CSA, 2 mil.€)
- ✓ CE-SC5-30-2020: Plastics in the environment: understanding the sources, transport, distribution and impacts of plastics pollution (RIA, 5 mil. €)
- ✓ CE-SC5-31-2020: Develop, implement and assess a circular economy oriented product information management system for complex products from cradle to cradle (IA, 7-8 mil. €; TRL 5-7) – implemented through Crosscutting activities WP; deadline 5.2.2020 (1st stage), 3.9.2020 (2nd stage)



Raw materials

- ✓ CE-SC5-07-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes (5x IA, 8-13 mil. €) -> (TRL 6-7; primary and/or secondary raw materials; end-of-life products; buildings; sorting systems for high-performance recycling; sustainable metallurgical processes) - implemented through Cross-cutting activities WP; deadline 5.2.2020 (1st stage), 3.9.2020 (2nd stage)
- ✓ CE-SC5-08-2020: Raw materials policy support actions for the circular economy - Expert network on Critical Raw Materials (CSA, 3 mil. €) – implemented through Cross-cutting activities WP; deadline 5.2.2020 (1st stage), 3.9.2020 (2nd stage)
- ✓ SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of sustainable mining - (2x IA, 8-13 mil. €; TRL 6-7) -> (mining pilots; pilots on substitution of critical and scarce raw materials)
- ✓ CE-SC5-26-2020: Sustainable management in extractive industries (CSA, 2 mil. €)



Innovating cities

 ✓ SC5-27-2020: Strengthening international collaboration: enhanced natural treatment solutions for water security and ecological quality in cities (RIA, 5 mil. €) -> (design and implementation of urban enhanced natural treatment systems, integration into urban water cycle; 3 cities in diff. MS or AC)

Protecting and leveraging the value of our natural and cultural assets

- ✓ SC5-32-2020: Addressing wild pollinators decline and its effects on biodiversity and ecosystem services (RIA, 5 mil. €)
- ✓ SC5-33-2020: Monitoring ecosystems through research, innovation and technology (CSA, 3 mil. €)



Specific support and implementation aspects

- ✓ SC5-34-2020: ERA-NET Cofund action on conservation and restoration of degraded ecosystems and their biodiversity, including a focus on aquatic systems (ERA-NET Cofund, příspěvek EU 5 mil. €)
- ✓ SC5-35-2020: ERA-NET Cofund action on enhancing urban transformation capacities (ERA-NET Cofund, příspěvek EU 5 mil. €)
- ✓ SC5-36-2020: ERA-NET Cofund action on raw materials (ERA-NET Cofund, příspěvek EU 5 mil. €)



JOINT COFUND CALLS

Project BiodivERsA (funded under the H2020 ERA-NET COFUND scheme)

Call on **Biodiversity and Climate Change**

- ✓ Consequences of climate change on biodiversity and nature's contributions to people
- ✓ Climate-biodiversity feedback processes
- Potential of nature-based solutions for mitigating and adapting to climate change
- Synergies and trade-offs between policies on biodiversity, climate and other relevant sectors, and the role of agents of change
- launched on 2.9.2019
- closing date on 10.4.2020
- mandatory submission of pre-proposals by 5.11.2019 !
- Czech national rules: Technology Agency CR; info webinar 13.9.2019





JOINT COFUND CALLS

Project ERA-MIN 2 (funded under the H2020 ERA-NET COFUND scheme)

Call on non-energy non-agricultural raw materials

- ✓ Supply of raw materials from exploration and mining
- ✓ Design
- Processing, Production and Remanufacturing
- ✓ Recycling and Re-use of End-of-Life Products
- ✓ Cross-cutting topics
- launched in November 2019
- Czech national rules: Technology Agency CR

Cofund on Aquatic pollutants (consortium of partners from JPI Water, Oceans and Antimicrobial Resistance)

Joint call will be announced in early 2020 Czech national rules: Technology Agency CR



EC INFORMATION DAY

- 16-17 September 2019
- > Brussels
- Information sessions + matchmaking (234 participants registered for the networking)
- Infoday is webstreamed and recordings will be available after the event: <u>https://h2020-sc5-info-day.b2match.io/</u>



INFORMATION SOURCES

H2020 webpage administrated by TC CAS

http://www.h2020.cz

News, events, Newsletter subscription, publications, presentations, analysis

Funding & tender opportunities Portal

<u>https://ec.europa.eu/info/funding-</u> tenders/opportunities/portal/screen/home

Entry point for electronic administration of proposals and projects

CORDIS

http://cordis.europa.eu/projects/

Funded projects, partner searches







MORE ON FUNDING & TENDER OPPORTUNITIES

European Commission Single Electronic Data Intercha	der opportunities nge Area (SEDIA)			English 🛤 Register Login
SEARCH FUNDING & TENDERS - HOW TO PARTICIPATE	PROJECTS & RESULTS WORK AS AN EXPERT SUPP	ORT 🔻		select programme
Horizon 2020 Framework	120)			clear filter 😒
Type your Keywords or CPV code Q Match whole words only GRANTS TENDERS	Funding and tenders Source O 242 results	opening date title title	O ID O deadline	Online manual
Filter by submission status	See all calls for tenders published by EC Crant FutureEnginePrize-01-2016 H202			"Find a grant"
Filter by programme (only for grants) H2020 X	Types of action: Inducement Prize Programme: H Open for submission	orizon 2020 Opening date: 20 April 2016	Deadline modet: single-stage Deadline date: 20 August 2019 17.00.00 Brussels time	~
Filter by programme part Societal Challenges	Grant Horizon prize for CO2 reuse LCE-1 Types of action: Inducement Prize Programme: H			
Filter by focus area Select a Focus area	Open for submission	Opening date: 05 July 2016	Deading model: single-stage Deadline Tage 03 April 2019 17:00:00 Brussels time	
Filter by cross-cutting priority	Grant Horizon prize for a Combined Hea RenewableHospital-01-2016 Types of action: Inducement Prize Programme: H	at and Power (CHP) Installation in a hospital using 100%	Renewable Energy Sources LCE-Prize-	
Select a Priority +	Open for submission	Opening date: 05 July 2016	Deadline model: single-stage Deadline date: 03 April 2019 17:00:00 Brussels time	

 For example:
 Search Funding and Tenders
 Calls
 Search Topics

How to Participate Reference Documents Work Programmes Proposal template Model grant agreement H2020 online manual



Any questions?



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