



TECHNOLOGICKÉ
CENTRUM AV ČR

CASEE IN H2020 AND OPPORTUNITIES IN HORIZON EUROPE

Nad'a Koníčková, CASEE conference, 7 June 2021



TECHNOLOGY CENTRE CAS

- supports the participation of the Czech Republic in the European Research Area
- prepares analytical and conceptual studies for research and development
- performs international technology transfers
- supports the creation and development of small innovation firms

Technology centre CAS

Ve Struhách 1076/27, Praha 6 – Podbaba

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AGENDA

1

—
Horizon Europe
structure and
budget

2

—
HE - Opportunities
for Life Sciences
(agro,food,
bioeconomy,
clima...

3

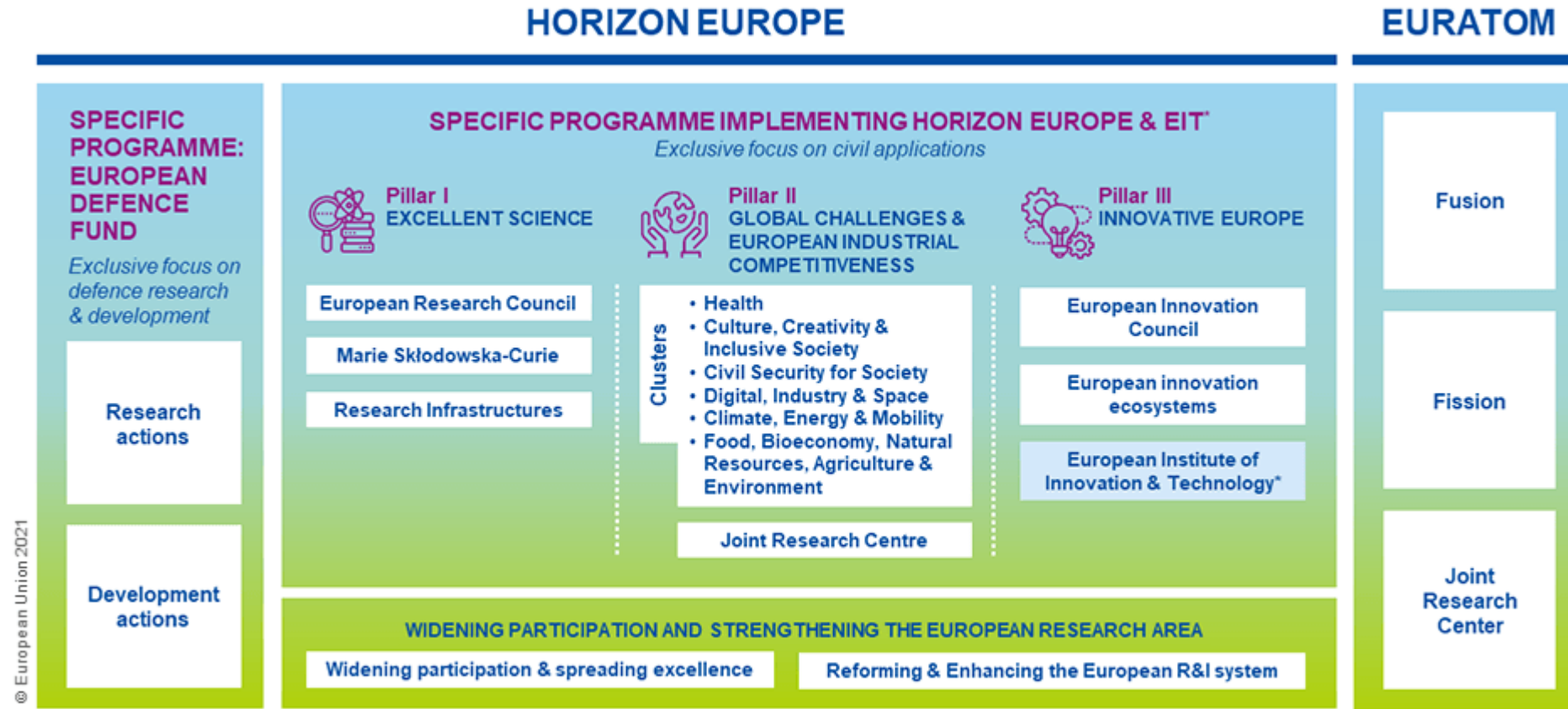
—
HE - MSCA actions
– opportunities for
mobility of
researchers

4

—
CASEE in H2020



HORIZON EUROPE (2021-2027) STRUCTURE



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

HORIZON EUROPE BUDGET

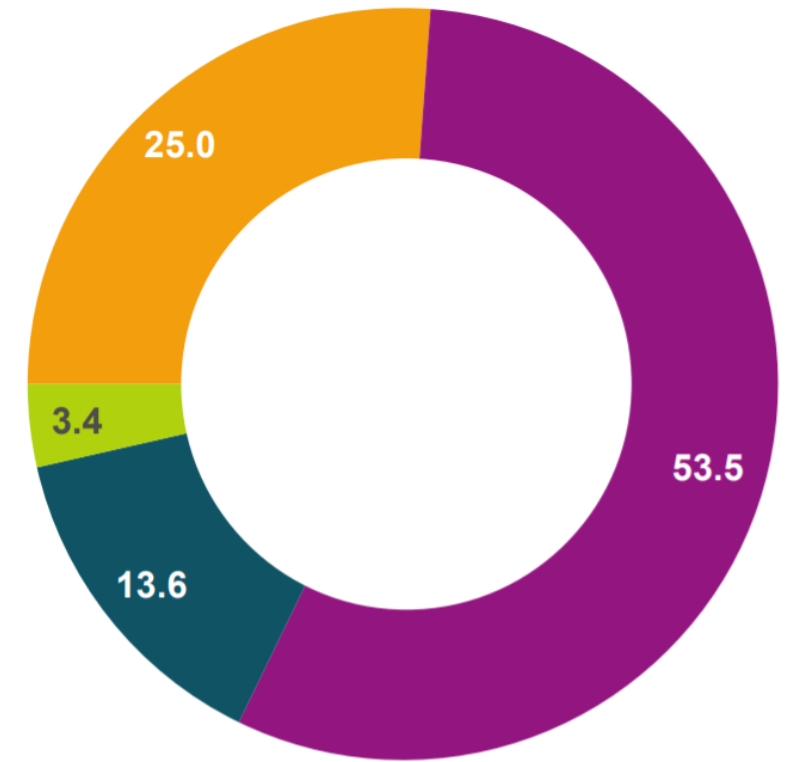
- Budget Horizon Europe: 95.5 bn € (2021-2027) – 30 % increase compared to H2020

(includes 5.4 bn € from NGEU – Next Generation Europe – programme of EU for Recovery from COVID-19 crisis)

- ❖ Excellent Science– 25 bn €
- ❖ Global Challenges and European Industrial Competitiveness - 53,5 bn €
- ❖ Innovative Europe – 13,6 bn €
- ❖ Widening Participation and ERA – 3,4 bn €



- Euratom:
1,38 bn € (2021 – 2025)



CLUSTER 6 - FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT



1 paradigm

- need for a transformative change of the EU economy and society
- aimed at reducing environmental degradation, halting and reversing the decline of biodiversity and to better manage natural resources
- serving the EU's climate objectives and ensuring food and water security

6 impacts

- climate neutrality
- biodiversity aiming to recovery, ecosystems preserved
- circular management and use of natural resources, bioeconomy
- food and nutrition security
- sustainable development of rural, coastal and urban areas
- innovative governance models

7 destinations

WORK PROGRAMME 2021-2022

- ✓ Separate calls for each destination
(1 for 2021, 1-2 for 2022)
- ✓ Opening: 22 June 2021
- ✓ **Deadlines for 2021: 6 October 2021**
(one stage calls only)
- ✓ Deadlines for 2022: 15 February 2022
(1 stage call and 1st stage of 2 stage call);
1 September 2022 (2nd stage of 2 stage call)
- ✓ 568 pages!



TABLE OF ALL TOPICS PREPARED BY TC



HORIZON EUROPE
Témata „CLUSTER 6“ (Food, Bioeconomy Natural Resources, Agriculture and Environment)
pro období 2021-2022

Destination - Biodiversity and ecosystem services	Nástroj	Příspěvek EU na projekt (mil. €)	Rozpočet tématu (mil. €)	Odhad podpoř. projektů
<i>Výzva HORIZON-CL6-2021-BIODIV-01 pro rok 2021, uzávěrka 6.10.2021</i>				
HORIZON-CL6-2021-BIODIV-01-01: European participation in global biodiversity genomics endeavours aimed at identifying all biodiversity on Earth	RIA	10-20	20	2
HORIZON-CL6-2021-BIODIV-01-02: Data and technologies for the inventory, fast identification and monitoring of endangered wildlife and other species groups	RIA	3-5	10	2
HORIZON-CL6-2021-BIODIV-01-03: Understanding and valuing coastal and marine biodiversity and ecosystems services	RIA	16	16	1
HORIZON-CL6-2021-BIODIV-01-04: Assess and predict integrated impacts of cumulative direct and indirect stressors on coastal and marine biodiversity, ecosystems and their services	RIA	10	10	1
HORIZON-CL6-2021-BIODIV-01-05: The economics of nature-based solutions: cost-benefit analysis, market development and funding	RIA	5	5	1
HORIZON-CL6-2021-BIODIV-01-06: Nature-based solutions, prevention and reduction of risks and the insurance sector	CSA	4	4	1
HORIZON-CL6-2021-BIODIV-01-07: Ecosystems and their services for an evidence-based policy and decision-making	RIA	13	13	1
HORIZON-CL6-2021-BIODIV-01-08: Supporting the development of a coherent and resilient Trans-European Nature	IA	7	10	1
HORIZON-CL6-2021-BIODIV-01-09: Assessing and consolidating recent scientific advances on freshwater ecosystem restoration.	CSA	0,5	0,5	1
HORIZON-CL6-2021-BIODIV-01-10: Demonstration of measures and management for coastal and marine ecosystems restoration and resilience in simplified socio-ecological systems	IA	10	10	1
HORIZON-CL6-2021-BIODIV-01-11: What else is out there? Exploring the connection between biodiversity, ecosystems services, pandemics and epidemic risk	IA	4-6	12	2
HORIZON-CL6-2021-BIODIV-01-12: Improved science based maritime spatial planning and identification of marine	RIA	3-4	7	2

- available at www.horizontevropa.cz
- for several clusters, 5 and 6 included



DESTINATIONS

Biodiversity and Ecosystem Services

(DNA-based biodiversity identification; monitoring of endangered wildlife; impact of stressors on marine biodiversity; economics of nature-based solutions; Trans-European Nature Network; freshwater ecosystem restoration; biodiversity in primary production; crop breeding; governance and decision-making tools, ...)

Fair, healthy and environmentally-friendly food systems from primary production to consumption

(organic farming and aquaculture; digitalisation in agroecological farming systems; plant pests; animal diseases and welfare; decision-making towards zero food waste; microbes for healthy food; dietary behaviour; food safety issues; EU-China pest management in agriculture, ...)

DESTINATIONS – CONT.

Circular economy and bioeconomy sectors

(Circular Cities and Regions Initiative – solutions and project development assistance; over-packaging and single-use plastics; non-plant biomass for industrial applications; algae potential,...)

Clean environment and zero pollution

(N and P load reduction; optimization of nutrient budget in primary production; pollution in urban waters runoff; envi performance in bio-based sectors; certification schemes for bio-based systems; impacts of alternative fertilising products; bioremediation for soil, sediments, water,...)

DESTINATIONS – CONT.

Land, oceans and water for climate action

(water resources availability; polar processes driving climate change; network on climate-smart farming; agroecological approaches; forests including agroforestry or old-growth forests; EU-China on resilience of forests, ...)

Resilient, inclusive, healthy and green rural, coastal and urban communities

(rural diversity for tailored policies; training centre for rural innovation; smart solutions for remote farming, forestry and rural areas; urban food system policies,...)

Innovative governance, environmental observations and digital solutions in support of the Green Deal

(furthering food system science; regional governance models; education; environmental observations; land use; data economy, ...)

BUDGET AND INSTRUMENTS FOR 2021

Destination	Budget for 2021 (mil. €)	Number of topics for			
		IA	RIA	CSA	Cofund
1 - Biodiversity	214,5	3	14	4	1
2 - Food	186	5	12	2	
3 - Circular	126,5	7		2	
4 - Pollution	65	1	5	4	
5 - Climate	108		7	2	1
6 - Communities	53	1	3	2	
7 - Governance	223	2	11	15	

PARTNERSHIPS IN CLUSTER 6

- Accelerating farming systems transition
- Animal health: Fighting infectious diseases
- Environmental Observations for a sustainable EU agriculture
- **Rescuing biodiversity to safeguard life on Earth** (Cofund in 2021 WP)
- A climate neutral, sustainable and productive Blue Economy
- Safe and Sustainable Food System for People, Planet & Climate
- Circular bio-based Europe
- **Water4All: Water security for the planet** (Cofund in 2021 WP)

https://ec.europa.eu/info/horizon-europe/european-partnerships-horizon-europe_en



CLUSTER 5 – CLIMATE, ENERGY, MOBILITY

Aim

- transformation of economy, industry and society with a view to achieving climate neutrality in Europe by 2050

8 destinations

The most relevant:

- **Climate sciences and responses for the transformation towards climate neutrality**

(greenhouse gas fluxes, CO₂ removal technologies; modelling the role of circular economy; synergies of EU climate change research; economic methods for decision making on climate; standardising of climate services; restoration of natural wetlands, forest management, ...)

- Opening: 24.6.2021
- Deadline: 14. 9.2021
- Budget: 136 mil. eur
- Instruments: 7x RIA, 2x CSA

CLUSTER 5 – CLIMATE, ENERGY, MOBILITY

- Cross-sectoral solutions for the climate transition

(mainly batteries, but also Emerging breakthrough technologies and climate solutions: methane cracking; non-CO2 greenhouse gases removal; direct atmospheric carbon capture and conversion, ...; Citizens and stakeholder engagement

- Opening: 24.6.2021
- Deadline: 19.10.2021

SOME IMPORTANT CHANGES IN PROPOSAL

- for full RIA and IA proposal 45 page limit (exception e.g. for IA in Cluster 5), for CSA 30 pages
- changes in administration part A (e.g. researchers description included here)
- Gender equality plan – from 2022 on necessary for public bodies, research organisations, higher education
- in „excellence“ section open science practices description needed
- in „impact“ section summary in tables required
- assessment of „management structure“ removed from evaluation



Key features of the MSCA



Researchers' training, skills and career development (all stages of career)



Excellent research in all domains (bottom-up approach)



International, cross-sectoral & interdisciplinary mobility



Attractive working and employment conditions



Structuring impact on organisations through excellent programmes



Strong collaboration with industry and SMEs

MSCA IN HORIZON EUROPE (2021-2027)

<u>Action</u>	<u>Objective</u>	<u>Who?</u>
MSCA Doctoral Networks (DN)	Doctoral programmes in and outside academia incl. joint and industrial doctorates	doctoral candidates
MSCA Postdoctoral Fellowships (PF)	Support to excellent postdoctoral researchers	postdoctoral researchers
MSCA Staff Exchanges (SE)	Support for research and innovation staff exchanges	any type of research-related staff
MSCA COFUND (COFUND)	Co-funding doctoral and postdoctoral programmes	doctoral candidates, postdoctoral researchers
MSCA and Citizens (CITIZENS)	Public outreach events (NIGHT)	public

MSCA POSTDOCTORAL FELLOWSHIPS

- **Individual research project:** training-through-research under direct supervision
- Researchers who receive funding have to move from one country to another to acquire new knowledge, skills and competences (mobility rule)
- **Two types of fellowships:**
 - **European Postdoctoral Fellowships:** researchers coming to Europe from any country in the world or moving within Europe (12-24 months)
 - **Global Postdoctoral Fellowships:** researchers going outside EU Member States and Horizon Europe AC for 1-2 years (outgoing phase) + one-year mandatory return phase in EU/AC (24-36 months)
- **Focus on the scientifically younger generation than in Horizon 2020** (a maximum of 8 years full-time equivalent experience in research)
- **PhD degree is newly required** (successfully defended doctoral thesis)

MSCA DOCTORAL NETWORKS

Opportunities for institutions:

- Consortium including at least three independent legal entities, each established in a different MS/AC and with at least one of them established in a MS prepares a training programme for PhD students
- Types of programmes:
 - **Doctoral Networks**
 - **Industrial Doctorates**
 - **Joint Doctorates**

Opportunities for individuals:

- Doctoral candidates can participate in DN by carrying out their research projects (Doctoral Networks) or they can be jointly supervised by academic and non-academic institutions (Industrial Doctorates) or trained within a joint doctoral programme leading to the delivery of joint, double or multiple doctoral degrees (Joint Doctorates)
- Doctoral candidates have to be enrolled in a doctoral programme

MSCA STAFF EXCHANGES

Opportunities for institutions:

- Consortium of at least three independent legal entities in three different countries, two of which in a MS/AC
- Collaborative research and innovation projects of max. 48 months, budget of a max. 360 person-months per project
- Based on exchange of staff (secondments) – inter-sectoral, international and interdisciplinary mobility

Opportunities for individuals:

- Any type of staff at the participating institution: doctoral candidates, postdoctoral researchers, administrative, managerial and technical staff
- They carry out their secondments of 1-12 months

MSCA CO-FUNDING OF REGIONAL, NATIONAL AND INTERNATIONAL PROGRAMMES

- European Commission supports national, regional, international schemes for doctoral training and postdoctoral fellowships:
 - Doctoral Programmes
 - Postdoctoral Programmes

Opportunities for institutions:

- These programmes can be managed by a government ministry, regional authority, funding agency, university, research organisation, enterprise etc.
- EU contribution is limited to EUR 10 million per beneficiary per call and for max. 5 years

Opportunities for individuals:

- Doctoral candidates/postdoctoral researchers of any nationality can submit their application if they fulfill selection criteria
- Fellowships: min. 3 months
- You can find available offers on EURAXESS jobs portal: [COFUND Programmes](#)

MSCA CALLS 2021-2022

Pending the Adoption of the MSCA Work Programme 2021-2022!!

Call	Type of Action	Opening date	Deadline
MSCA-PF-2021 MSCA-PF-2022	Postdoctoral Fellowships	22/06/2021 14/04/2022	12/10/2021 14/09/2022
MSCA-DN-2021 MSCA-DN-2022	Doctoral Networks	22/06/2021 03/05/2022	16/11/2021 15/11/2022
MSCA-CITIZENS-2022	MSCA and Citizens	22/06/2021	7/10/2021
MSCA-SE-2021 MSCA-SE-2022	Staff Exchanges	07/10/2021 6/10/2022	9/03/2022 8/03/2023
MSCA-COFUND-2021 MSCA-COFUND-2021	COFUND	12/10/2021 11/10/2022	10/02/2022 9/02/2023

CASEE IN H2020 - PARTICIPATIONS

UNIV	H2020 ALL
University of Ljubljana	203
University of Zagreb	142
University of Natural Resources and Life Sciences, Vienna	113
University of Novi Sad	49
Warsaw University of Life Sciences	20
Czech University of Life Sciences, Prague	17
Szent Istvan University	12
University of Sarajevo	11
The Slovak University of Agriculture in Nitra	9
USAMV - University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca	8
USAMV - University of Agricultural Sciences and Veterinary Medicine Bucuresti	5
BUASVM - Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara	5
"Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary Medicine of Iasi	1
Agricultural University of Tirana	1

CASEE PARTICIPATION IN H2020: SC2 FOOD, SC1 HEALTH, SC5 ENVIRONMENT, LEIT - BIOTEC

UNIV	FOOD	HEALTH	ENV	LEIT-BIOTEC
University of Ljubljana	22	17	2	1
University of Zagreb	6	14	6	1
University of Natural Resources and Life Sciences, Vienna	32	1	16	5
University of Novi Sad	2	3	2	
Warsaw University of Life Sciences	13			
Czech University of Life Sciences, Prague	9	2		
Szent Istvan University	7	1		
University of Sarajevo		1		
The Slovak University of Agriculture in Nitra	5		1	
USAMV - University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca	6			
USAMV - University of Agricultural Sciences and Veterinary Medicine Bucuresti	3			
BUASVM - Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara	3			
"Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary Medicine of Iasi	1			
Agricultural University of Tirana	1			

CASEE IN H2020 – MSCA, ERC

UNIV	MSCA	ERC
University of Ljubljana	35	6
University of Zagreb	21	3
University of Natural Resources and Life Sciences, Vienna	24	8
University of Novi Sad	18	
Warsaw University of Life Sciences	4	2
Czech University of Life Sciences, Prague	1	
Szent Istvan University	2	1
University of Sarajevo	1	
The Slovak University of Agriculture in Nitra		
USAMV - University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca	1	
USAMV - University of Agricultural Sciences and Veterinary Medicine Bucuresti	1	
BUASVM - Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania" from Timisoara	2	
"Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary Medicine of Iasi		
Agricultural University of Tirana		

HORIZON EUROPE – EC INFO DAYS IN JUNE/JULY



Event organised by:

BRIDGE2HE
with NCPs

HORIZON EUROPE

#HorizonEU

INFO DAYS 2021
BROKERAGE
EVENT

CLUSTER | FOOD, BIOECONOMY,
NATURAL RESOURCES,
AGRICULTURE AND ENVIRONMENT

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THE EU RESEARCH & INNOVATION PROGRAMME 2021 - 2027

EUROPEAN UNION

The banner features a central illustration of the words 'HORIZON EUROPE' in large, 3D block letters. A person is climbing a gear on the 'O' of 'HORIZON'. Below the letters, a diverse group of people is shown: a person in a wheelchair, a person with a backpack, a person with a lightbulb idea, and a person in a lab coat. In the background, there is a tree, a person sitting on the grass, and a person hanging from a rope. The top right corner shows a rocket launching into space. The bottom right corner features the European Union flag.

<https://www.horizon-europe-infodays2021.eu/>

Cluster 6: Info day 7-8 July, brokerage event 9 July: <https://he-cluster6.b2match.io/>



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