



OPPORTUNITIES IN HORIZON EUROPE FOR SMART AGRICULTURE

Nad'a Koníčková, Smart Agriculture conference, 22 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

www.horizontevropa.cz

Tel.: + 420 234 006 100

tc@tc.cz; horizont@tc.cz



AGENDA

1

—
Horizon Europe
structure and
budget



2

—
HE - Opportunities
for smart
agriculture



3

—
HE – EC infodays
and brokerage
events – calls 2021



HORIZON EUROPE (2021-2027) STRUCTURE



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

HORIZON EUROPE BUDGET

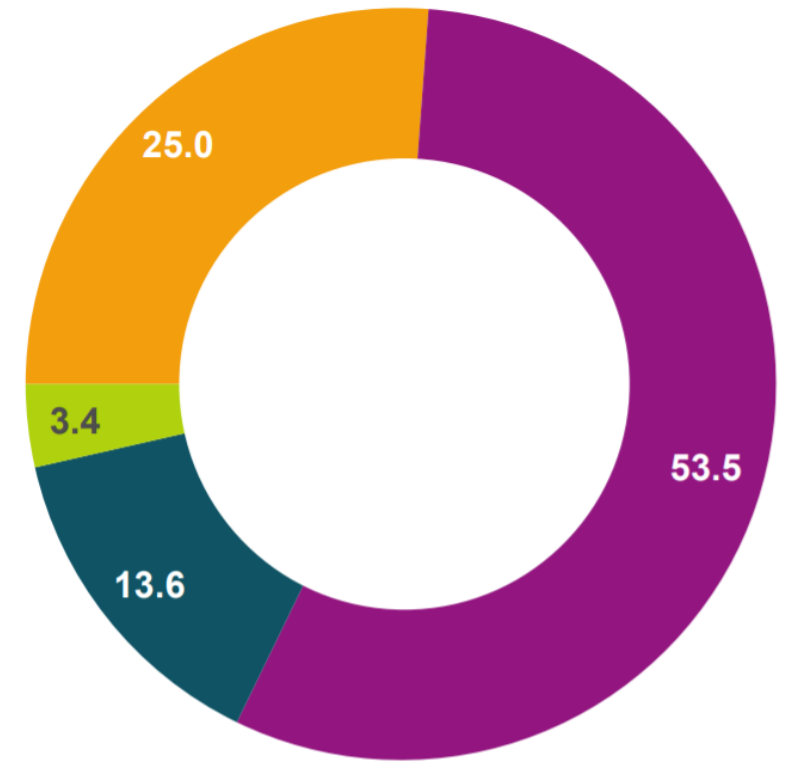
- Budget Horizon Europe: 95.5 bn € (2021-2027) – 30 % increase compared to H2020

(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)



PORTAL EC: FUNDING & TENDER OPPORTUNITIES

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

European Commission | Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

English

Register Login

SEARCH FUNDING & TENDERS HOW TO PARTICIPATE PROJECTS & RESULTS WORK AS AN EXPERT SUPPORT

Horizon Europe (HORIZON)

Type your Keywords...

☒ Match whole words only

☒ GRANTS ☒ TENDERS

Submission status

☒ Forthcoming(6) ☒ Open for submission(2) ☒ Closed

Programming period

Select a Programme period...

Horizon Europe (HORIZON)

Funding and tenders (8)

Need help?

Sort by: Submission status

Grant ERC STARTING GRANTS

Open for submission

Programme	Horizon Europe (HORIZON)	Deadline model	single-stage
ID	ERC-2021-STG	Opening date	25 February 2021
Types of action	HORIZON ERC Grants	Deadline date	08 April 2021 17:00:00 Brussels time

Grant EU Prize for Women Innovators

Open for submission

Programme	Horizon Europe (HORIZON)	Deadline model	single-stage
ID	HORIZON-EIC-2021-WomenInnovatorsPrize	Opening date	18 March 2021
Types of action	HORIZON Recognition Prize	Deadline date	30 June 2021 17:00:00 Brussels time

Grant The European Capital of Innovation Awards

Registration

Search Funding and Tenders

- ✓ Key words or programme structure

How to Participate Reference Documents

- ✓ Work programmes
- ✓ templates
- ✓ model grant agreement



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

Call 2021 opening 22 June 2021, deadline 6 Oct 2021

OPPORTUNITIES IN CLUSTER 6

Dest. 1 Biodiversity and Ecosystem Services

2021

Understanding the impacts of and the opportunities offered by digital transformation, new emerging technologies and social innovation on biodiversity

Observing and mapping biodiversity and ecosystems, with particular focus on coastal and marine ecosystems

Dest. 2 Fair, healthy and environmentally-friendly food systems from primary production to consumption

2021

Digitalisation as an enabler of agroecological farming systems

Research & innovation roadmap for blockchain technologies in the agri-food sector

OPPORTUNITIES IN CLUSTER 6

Dest. 2 Fair, healthy and environmentally-friendly food systems from primary production to consumption

2022

Innovative solutions to prevent adulteration of food bearing quality labels: focus on organic food and geographical indications

Effective systems for authenticity and traceability in the food system

Smart solutions for the use of digital technologies for small- and medium-sized, farms and farm structures

OPPORTUNITIES IN CLUSTER 6

Dest. 3 Circular economy and bioeconomy sectors

2022

Life sciences and their convergence with digital technologies for prospecting, understanding and sustainably using biological resources

Harnessing the digital revolution in the forest-based sector

OPPORTUNITIES IN CLUSTER 6

Dest. 4 Clean environment and zero pollution

2021

Optimisation of nutrient budget in agriculture

2022

Preventing groundwater contamination and protecting its quality against harmful impacts of global and climate change

Securing drinking water quality by protecting water sources against pollution, providing innovative monitoring and treatment solutions and ensuring safe distribution

OPPORTUNITIES IN CLUSTER 6

Dest. 5 Land, oceans and water for climate action

2021

Demonstration network on climate-smart farming – linking pilot farms

2022

Demonstration network on climate-smart farming – boosting the role of advisory services

OPPORTUNITIES IN CLUSTER 6

Dest. 6 Resilient, inclusive, healthy and green rural, coastal and urban communities

2021

Grasping rural diversity and strengthening evidence for tailored policies enhancing the contribution of rural communities to ecological, digital and social transitions

Expertise and training centre on rural innovation

Smart XG, last-mile and edge solutions for remote farming, forestry and rural areas

2022

Smart solutions for smart rural communities: empowering rural communities and smart villages to innovate for societal change

OPPORTUNITIES IN CLUSTER 6

Dest. 7 Innovative governance, environmental observations and digital solutions in support of the Green Deal

2021

Tools to support the uptake and accessibility/exploitability of environmental observation information at European and global level

Common European Green Deal data space to provide more accessible and exploitable environmental observation data in support of the European Green Deal priority actions

Mapping and improving the data economy for food systems

Development of the markets and use of digital technologies and infrastructure in agriculture – state of play and foresight: digital and data technologies for the agricultural sector in a fast changing regulatory, trade and technical environment

Data economy in the field of agriculture – effects of data sharing and big data

Potential of drones as multi-purpose vehicle – risks and added values

Assessing the impacts of digital technologies in agriculture – cost, benefits and potential for sustainability gains

OPPORTUNITIES IN CLUSTER 6

Dest. 7 Innovative governance, environmental observations and digital solutions in support of the Green Deal

2022

Innovative tools and methods to evaluate the design and support, monitoring and implementation of effective CAP strategic plans

Uptake and validation of citizen observations to complement authoritative measurement within the urban environment and boost related citizen engagement

Piloting approaches and tools to empower citizens to exercise their “data rights” in the area of food and nutrition

Upscaling (real-time) sensor data for EU-wide monitoring of production and agri-environmental conditions

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 (expected 2023-24)
- Animal health: Fighting infectious diseases
- Environmental Observations for a sustainable EU agriculture (2023-24)
- **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](#)

CLUSTER 4 – DIGITAL, INDUSTRY AND SPACE

Aim

- transformation the way industry develops, creates new products and services,

6 destinations

The most relevant:

Destination - Digital and emerging technologies for competitiveness and fit for the Green deal

Functional electronics for green and circular economy

AI, Data and Robotics for the Green Deal

Destination Open strategic autonomy in developing, deploying and using global space – based infrastructures, services, applications and data

Copernicus Land Monitoring Service evolution (2022)

EGNSS and Copernicus applications fostering the European Green deal (solutions which provide for food security and traceability across the entire supply chain)

Opening: 22.6. 2021

Deadlines: September, October 2021

EIC ACCELERATOR

Objectives and calls

- Support to companies (principally start-ups and SMEs) to scale up high impact innovations with the potential to create new markets or disrupt existing ones
- EIC Accelerator fosters particularly innovations
 - building on scientific discovery or technological breakthroughs ('deep tech')
 - where significant funding is needed over a long timeframe before returns can be generated ('patient capital')

The first call open on March 18 with cut-offs on June 16 and October 6, 2021

HORIZON EUROPE – EC INFO DAYS IN JUNE/JULY



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

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



Nad'a Koníčková, NCP

konickova@tc.cz

www.tc.cz