Cluster 4. Digital, Industry and Space

Destination 5 - Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

Tandi Zsuzsanna Space program NCP

NKFI Hivatal

Horizont Európa online webinárium, 2021. március 3.



A Horizont Európa Keretprogram szerkezete

€ 95,5 billion

(HE budget in current prices)







WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Joint Research Centre

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

European Partnerships Max 50% of pillar II budget Missions
Max 10% of pillar II budget

Destination 5.

Key Strategic Orientations



A 'Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains to accelerate and steer the digital and green transitions through human-centred technologies and innovations.'

B' Restoring Europe's ecosystems and biodiversity, and managing sustainably natural resources to ensure food security and a clean and healthy environment.

C 'Making Europe the first digitally led circular, climate-neutral and sustainable economy through the transformation of its mobility, energy, construction and production systems.'

D'Creating a more resilient, inclusive and democratic European society, prepared and responsive to threats and disasters, addressing inequalities and providing high-quality health care, and empowering all citizens to act in the green and digital transitions.'



- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector

Destination 5.



Call	Budgets (EUR million)		Deadline(s)	Number of
	2021	2022		calls
HORIZON-CL4-2021-SPACE-01	124.70		07 Sep 2021	11
HORIZON-CL4-2021-SPACE-02	32.60		07 Sep 2021	3
HORIZON-CL4-2022-SPACE-01		86.00	06 Sep 2022	11
HORIZON-CL4-2022-SPACE-02		47.60	06 Sep 2022	6
Overall indicative budget	157.30	133.60		

- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector





Topics	Type of Action	Budgets (EUR million) 2021	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: 06 Ma	ay 2021			
Deadline(s): 07 S	Sep 2021			
HORIZON-CL4-2021-SPACE-01-11	RIA	11.90	4.00 to 6.00	2
End-to-end satellite communication systems and associated services				
HORIZON-CL4-2021-SPACE-01-12	RIA	5.90	1.00 to 2.00	3
Future space ecosystems: on-orbit operations, new system concepts				
HORIZON-CL4-2021-SPACE-01-21	RIA	43.00	35.00 to	1
Reusability for EU strategic space launchers - technologies and operation maturation including flight test demonstration			43.00	



- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector



			/ / / /			
	Topics	Type of	Budgets	Expected EU	Number	
		Action	(EUR	contribution	of	
_			million)	per project	projects	
			2021	(EUR million)	expected	
					to be	
					funded	
	Opening: 06 May 2021 / Dea	adline(s):	07 Sep 20	21		
	HORIZON-CL4-2021-SPACE-01-22	RIA	19.80	15.00 to 19.00	1	
	Low cost high thrust propulsion for EU strategic space					
	launchers - technologies maturation including ground					
	tests					
	HORIZON-CL4-2021-SPACE-01-23	IA	3.00	1.00 to 1.50	2	
	New space transportation solutions and services					
	HORIZON-CL4-2021-SPACE-01-41	RIA	11.10	10.00 to 12.00	1	
	Copernicus Climate Change Service evolution					



- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector



Topics	Type of Action	Budgets (EUR million) 2021	Expected EU contribution per project (EUR million)	expected to				
Opening: 06 May 2021 Deadline(s): 07 Sep 2021								
HORIZON-CL4-2021-SPACE-01-42 Copernicus Atmosphere Monitoring Service evolution	RIA	7.40	6.00 to 8.00	1				
HORIZON-CL4-2021-SPACE-01-43 Copernicus Security and Emergency Services evolution	RIA	4.60	4.00 to 5.00	1				
HORIZON-CL4-2021-SPACE-01-44 Copernicus evolution for cross-services thematic	RIA	5.60	Around 3.00	2				





- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector



Topics	Type of Action	Budgets (EUR million) 2021	Expected EU contribution per project (EUR million)	projects expected			
Opening: 06 M	lay 2021						
Deadline(s): 07 Sep 2021							
HORIZON-CL4-2021-SPACE-01-62	RIA	16.80	15.00 to 17.00	1			
Quantum technologies for space gravimetry							
HORIZON-CL4-2021-SPACE-01-81	RIA	11.90	2.00 to 3.00	4			
Space technologies for European non-dependence and							
competitiveness							
Overall indicative budget		130.70					



- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector



Topics	Type of Action	Budgets (EUR million) 2021	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: 06 May 2021	/ Deadline(s): 07 Sep 2021		
HORIZON-CL4-2021-SPACE-02-51 EGNSS and Copernicus applications fostering the European Green deal	IA	14.00	2.00 to 3.00	5
HORIZON-CL4-2021-SPACE-02-52 EGNSS applications for Safety and Crisis management	IA	9.30	2.00 to 3.00	3
HORIZON-CL4-2021-SPACE-02-53 EGNSS applications for the Digital Age	IA	9.30	2.00 to 3.00	3
Overall indicative budget		32.60		



- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and startups) and skills
- 8. Targeted and strategic actions supporting the EU space sector



- 1. Foster competitiveness of space systems
- 2. Reinforce our capacity to access to space
- 3. Evolution of Space and ground infrastructures for Galileo/EGNOS
- 4. Evolution of services for Galileo, EGNOS and Copernicus
- 5. Development of applications for Galileo, EGNOS and Copernicus
- 6. Innovative space capabilities: SSA, GOVSATCOM, Quantum
- 7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- 8. Targeted and strategic actions supporting the EU space sector

Köszönöm a figyelmet!



Tandi Zsuzsanna

Zsuzsanna.tandi@hso.hu

Nemzeti Kutatási, Fejlesztési és Innovációs Hivatal <u>www.nkfih.gov.hu</u> <u>http://www.h2020.gov.hu/</u>

