



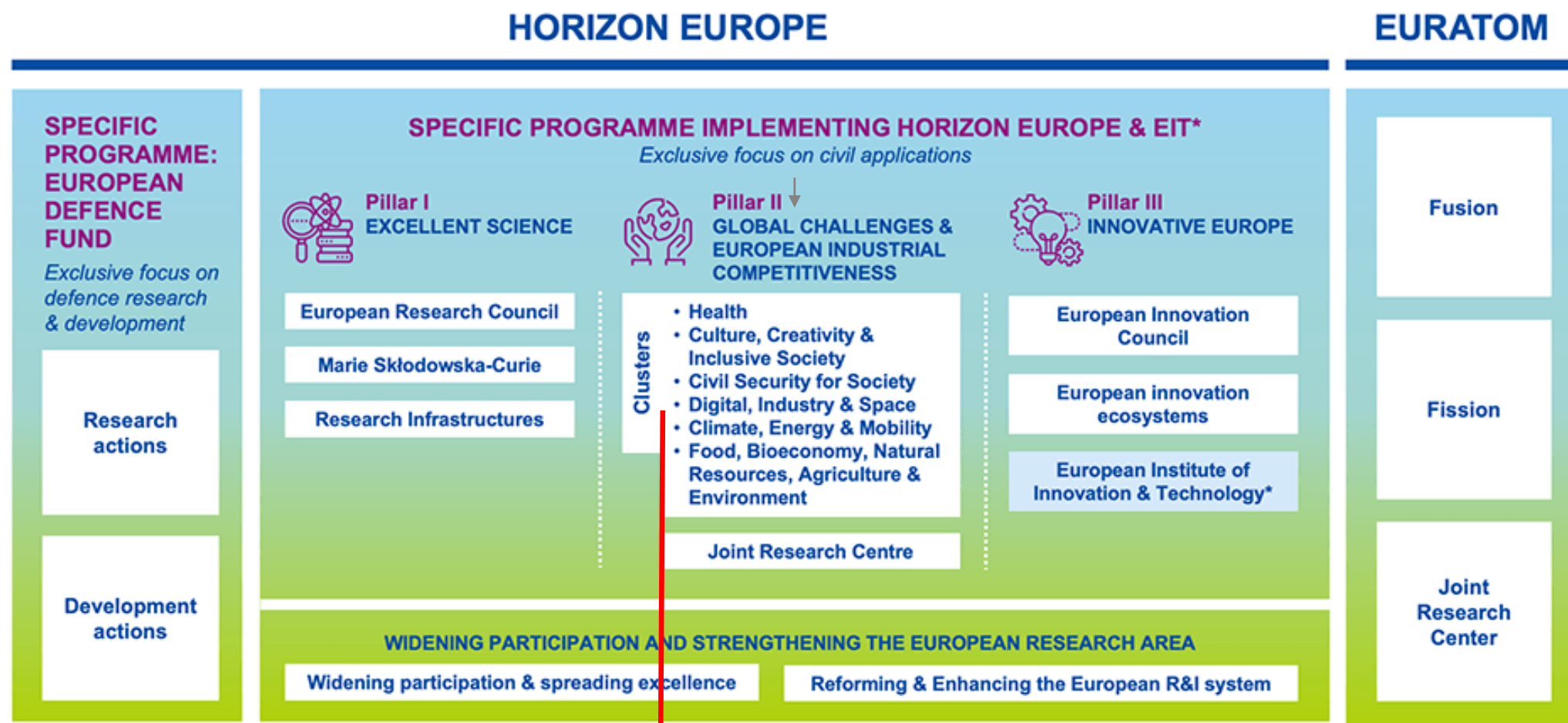
#HorizonEU

**THE EU
RESEARCH & INNOVATION
PROGRAMME**

2021 – 2027

Space work programme 2023-2024

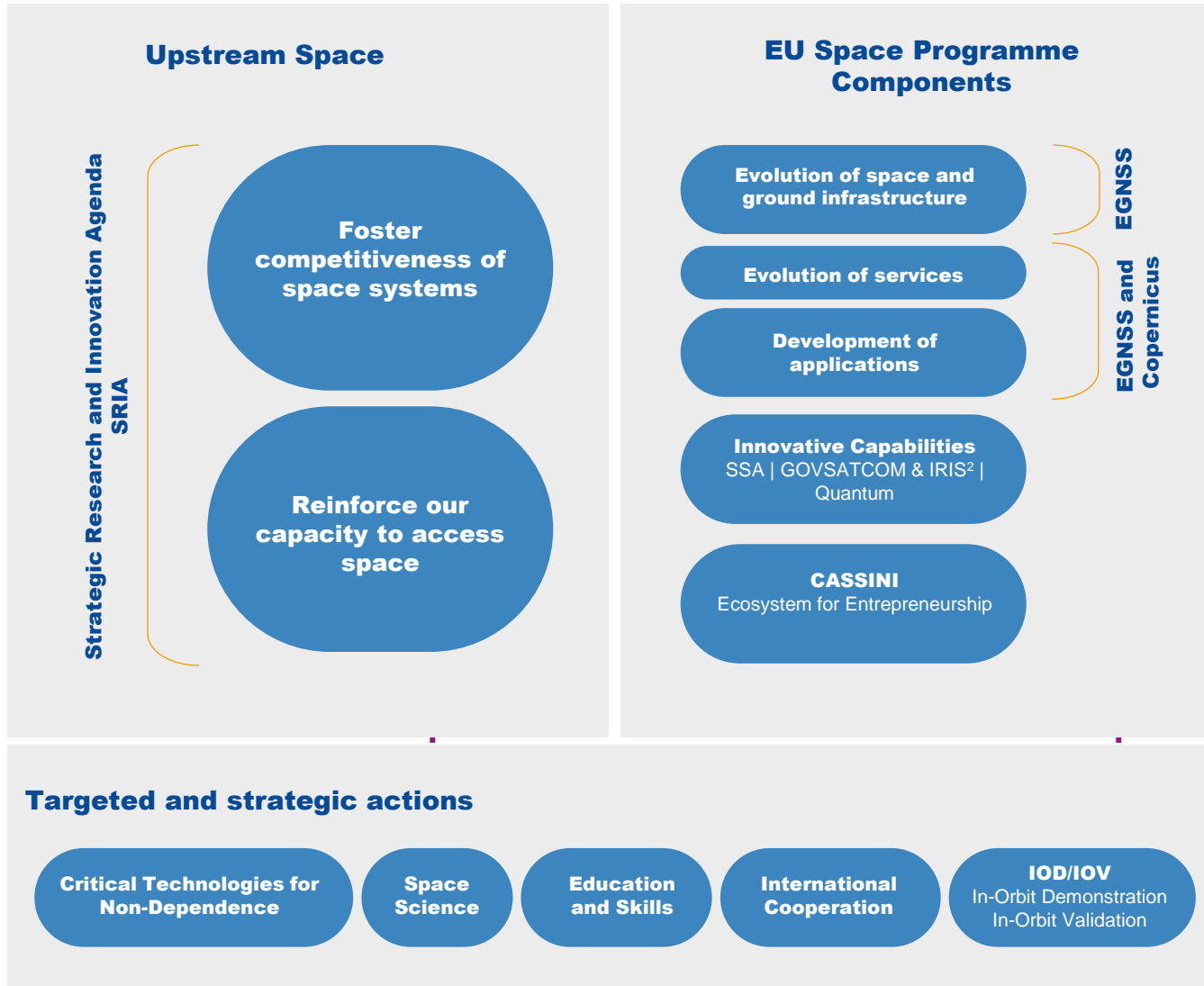
Space under Horizon Europe



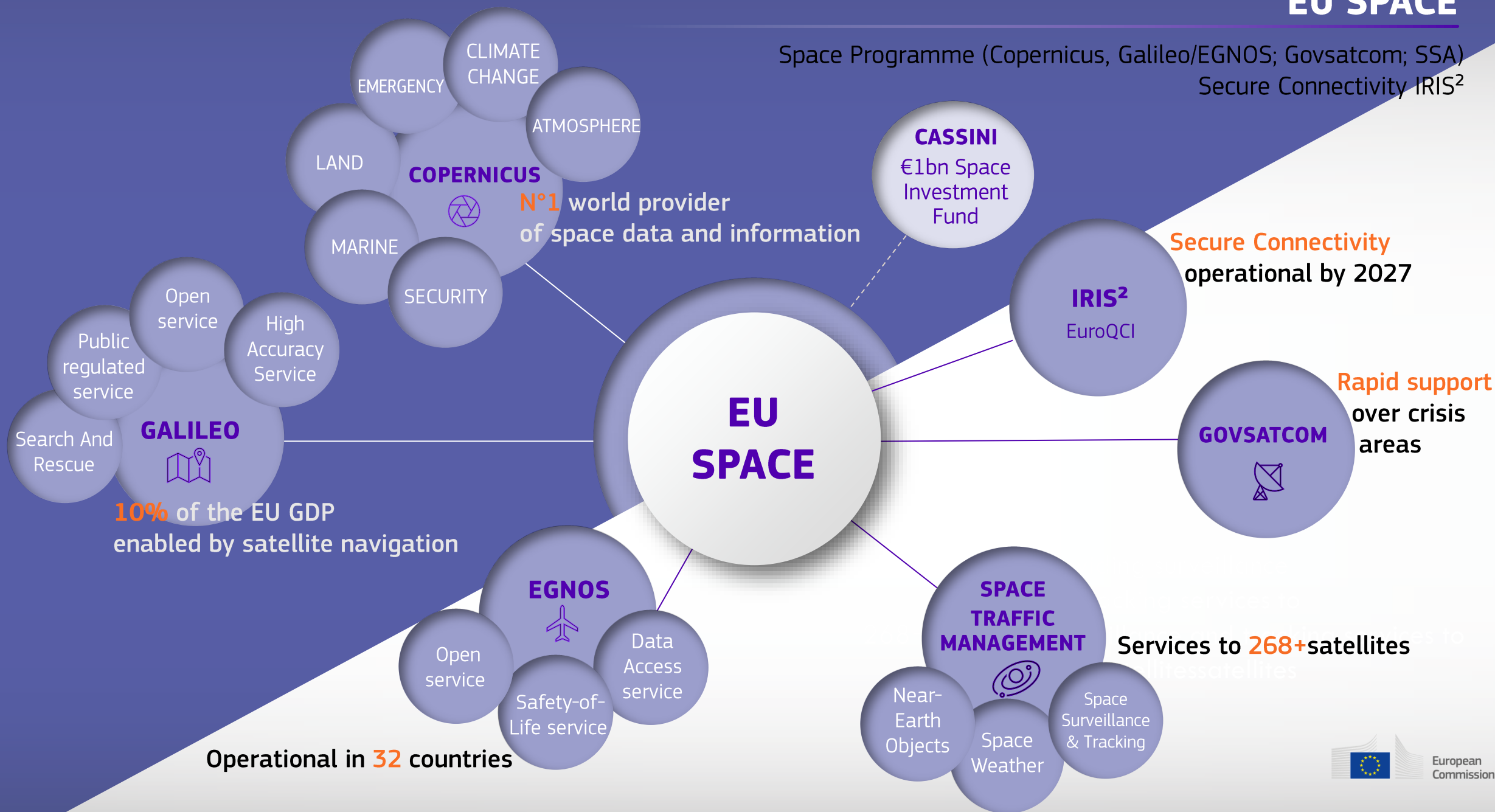
* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

- 1) Manufacturing Technologies
- 2) Key Digital Technologies
- 3) Advanced Materials
- 4) Emerging Enabling Technologies
- 5) Artificial Intelligence and Robotics
- 6) Next Generation Internet
- 7) Advanced Computing and Big Data
- 8) Circular Industries
- 9) Low-carbon and Clean Industries
- 10) Space

EU-funded space R&I



Space Programme (Copernicus, Galileo/EGNOS; Govsatcom; SSA)
Secure Connectivity IRIS²



DESTINATION – OPEN STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE- BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

Call HORIZON-CL4-**2023**-SPACE-01

139,0 Meur

22/12/2022 – **28/03/2023**

Call HORIZON-CL4-**2024**-SPACE-01

46,3 Meur

21/11/2023 – **20/02/2024**

HADEA

Call HORIZON-EUSPA-**2023**-SPACE-01

APPLICATIONS

46,5 Meur

tbd/02/2024

EUSPA

Other Actions

(procurements, IBA,
delegation to ESA, EUSPA)

Open strategic autonomy in developing, deploying and using global Space based infrastructures, services, applications and data: 2023-2024

SECTIONS	NUMBER OF TOPICS/ACTIONS	ESTIMATED BUDGET (EUR M)
Competitiveness	3 Topics	28.6
Access to space	3 Topics	53.1
EGNSS upstream	3 Other Actions (OA)	96.0
Copernicus services evolution	6 Topics	30.6
EGNSS and Copernicus downstream applications	6 Topics	36.5
Secure Connectivity / GOVSATCOM	1 Topic, 2 OA	68.6
SSA (SST/STM, NEO, Space Weather)	6 OA	62.2
Quantum	3 Topics	22.2
Cassini space entrepreneurship	3 OA	14.3
In-Orbit-Demonstration/Validation (IOD/IOV)	1 OA	28.1
Targeted and Strategic Actions (incl. Space science)	3 Topics	50.8
Other (studies, outreach etc)		3.0
TOTAL estimated budget WP 2023-2024		494

Call - STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

27.1 MEur
DDL: 28/03/2023

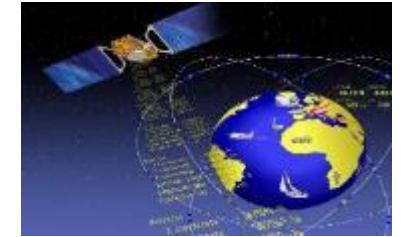
HORIZON-C4-2023-2024-SPACE-

Foster competitiveness of space systems

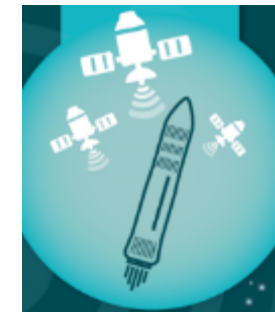
2023-11: End-to-end Earth observation systems and associated services

2023-12: Future space ecosystems and enabling technologies

2023-13: Future space ecosystems
- Coordination and Support Action



	Action	Budget M€	proposal size	#
2023-11	IA	10.10	1.00 to 2.50	5
2023-12	RIA	15.00	0.50 to 2.50	7
2023-13	CSA	2.00	2.00	1



Call - STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

53.1 MEur
DDL: 28/03/2023

HORIZON-CL4-2023-2023-SPACE-

Reinforce EU capacity to access and use space

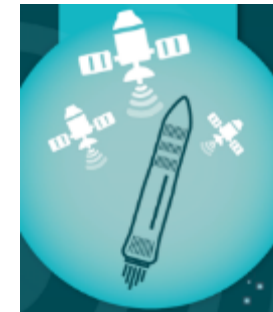
2023-21: Low cost high thrust propulsion for European strategic space launchers - technologies maturation including ground system tests

2023-22: New space transportation solutions and services

2023-23: Modern, flexible and efficient European test, production and launch facilities



	Action	Budget M€	proposal size	#
2023-21	RIA	20.00	20.00	1
2023-22	RIA	23.10	4.00 to 10.00	4
2023-23	RIA	10.00	2.00 to 5.00	3



Call - STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

HORIZON-CL4-2023-2024-SPACE

30.6 MEur

DDL: 28/03/2023 & 20/02/2024

Evolution of Copernicus services

2023-31: Copernicus for Atmosphere and Climate change,
including CO2 monitoring

2023-32: Copernicus for Emergency Management

2023-33: Copernicus in-situ component

2023-34: Copernicus for Marine Environment Monitoring

	Action	Budget M€	proposal size	#
2023-31	RIA	8.60	2.00 to 3.00	3
2023-32	RIA	3.00	3.00	1
2023-33	RIA	2.00	2.00	1
2023-34	RIA	5.00	5.00	1
2024-35	RIA	4.00	1.50 to 2.00	2
2024-36	RIA	8.00	4.00	2

2024-35: *Copernicus for Land and Water*

2024-36: *Copernicus for Security*

Guidance document on Copernicus
service evolution published



Call - STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

HORIZON-CL4-2023-2024-SPACE-

73.0 MEur

DDL: 28/03/2023 & 20/02/2024

Innovative space capabilities: Quantum

2023-62: Quantum communication technologies for space systems

2023-63: Quantum space gravimetry phase-A study

2024-64: *Quantum space gravimetry phase-B study & technology maturation*

	Action	Budget M€	proposal size	#
2023-62	RIA	5.00	2.00 to 2.50	2
2023-63	RIA	3.00	1.00 to 1.50	2
2024-64	RIA	14.20	14.00	1

Targeted and strategic actions supporting the EU space sector

2023-71: Scientific exploitation of space data

2023-72: Space technologies for European non-dependence and competitiveness (*)

2024-73: *Space technologies for European non-dependence and competitiveness (*)*

	Action	Budget M€	proposal size	#
2023-71	RIA	10.70	1.00 to 1.50	8
2023-72	RIA	20.00	2.00 to 3.00	7
2024-73	RIA	20.10	2.00 to 3.00	7

(*) Guidance document published

Call - Downstream Space Applications and Services

46,5 MEur
DDL: tbd/02/2024

HORIZON-EUSPA-2023-SPACE-01-

- 41: Transition toward a green, smart and more secure post-pandemic society
- 42: Closing the gaps in mature, regulated and long lead markets
- 43: Copernicus-based applications for businesses and policy makers
- 44: The Galileo PRS Service for governmental-authorized use cases
- 45: Joint test activities for PRS
- 46: Designing space-based downstream applications with international partners
- 61: EU GOVSATCOM for a safer and more secure EU

	Action	Budget M€	proposal size	#
2023-41	IA	3.50	1.50 to 2.50	2
2023-42	IA	8.00	1.50 to 2.50	4
2023-43	RIA	7.00	1.00 to 2.00	5
2023-44	IA	9.00	1.00 to 2.00	5
2023-45	IA	3.00	1.50 to 3.00	2
2023-46	RIA	6.00	0.80 to 1.00	7
2023-61	IA	10.00	3.00 to 4.00	3



OTHER ACTIONS NOT SUBJECT TO CALLS FOR PROPOSALS



2024

Grants to identified beneficiaries

1. HORIZON-CL4-2024-SSA-SST-MS - New & improved EUSST Missions and Services
2. HORIZON-CL4-2024-SSA-SST-AE - SST & STM system architecture and evolutions
3. HORIZON-CL4-2024-SSA-SST-SB - Space-based SST (mission, system and sensors network)
4. HORIZON-CL4-2024-SSA-SST-SP - SST Sensors and Processing
5. HORIZON-CL4-2024-SSA-SST-SD - SST Networking, Security & Data sharing

EU Space Partnership – coordination & support action

Public procurement

EGNSS Evolution: Mission and Service related R&D activities

Other budget implementation instruments

1. Indirectly managed actions

1.1 Indirectly managed actions delegated to ESA

1.2 Indirectly managed actions delegated to EUSPA

- EGNSS upstream
- Space Weather and NEO
- GOVSATCOM tech. Dev.
- IOD/IOV

- EGNSS operation and service
- CASSINI entrepreneurship
- EGNSS and Copernicus downstream (open calls)

THE ROAD TO NEW SPACE

- Clear vision for European space businesses and markets
- New industry setup
- New entrants
- New private investment
- New markets
- New solutions

PROMOTION

CASSINI Hackathons
& Mentoring

**INNOVATION
COMPETITIONS**
CASSINI Prizes

BUSINESS GROWTH
CASSINI Business Accelerator

INVESTMENT

CASSINI Seed and Growth Funding
Facility (InvestEU)

MATCHMAKING

CASSINI Matchmaking with Investors
CASSINI Industrial Partnering

IOD/IOV

In-Orbit Demonstration
and Validation

NEW BUSINESS CONCEPTS

CASSINI Secure
Connectivity



Associated Countries, International Cooperation

- Associated Countries
 - Norway, Iceland via EFTA/EEA
 - Association agreement with 16 countries, plus UK, Morocco and New Zealand – until association agreements enter into force
 - Canada: formal negotiations ongoing, Switzerland: no official negotiations
 - Participation limited to MS+ in certain topics (Article 22.5)
- General opening of Horizon Europe
 - Low- and middle-income countries can participate with EU funding
 - Other countries can participate, normally without EU funding, except in justified cases
- International cooperation explicitly encouraged:
 - HORIZON-EUSPA-2023-SPACE-01-46
Designing space-based downstream applications with international partners

Ref. https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/list-3rd-country-participation_horizon-euratom_en.pdf

Expected timing

- Call opening and closing:
 - HORIZON-CL4-2023-SPACE-01: **22 December 2022 – 28 March 2023;**
 - HORIZON-CL4-2024-SPACE-01: **21 November 2023 – 20 February 2024;**
 - HORIZON-EUSPA-2023-SPACE: **October 2023 – February 2024;**
- Horizon Europe Work Programme, Cluster 4, 2023-2024:
 - https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-7-digital-industry-and-space_horizon-2023-2024_en.pdf
 - https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-13-general-annexes_horizon-2023-2024_en.pdf



EU SPACE

Thank you for your attention

Contact: mats.ljungqvist@ec.europa.eu

<https://defence-industry-space.ec.europa.eu>

HorizonEU

<http://ec.europa.eu/horizon-europe>