
European Commission

Research and Innovation

# THE EU RESEARCH & INNOVATION PROGRAMME

2021 – 2027

**Horizon Europe Information Days – Cluster 4**

**International Space Info Day and Brokerage Event Presentations**

**03 June 2025**

**Destination 5: Open Strategic Autonomy in Developing, Deploying and Using Global Space-Based Infrastructure, Services, Applications and Data**

# WORK PROGRAMME 2025 – DESTINATION 5

## Open Strategic Autonomy in Developing, Deploying and Using Global Space-Based Infrastructure, Services, Applications and Data

**HORIZON-CL4-2025-SPACE**
**Opening: 22 May 2025**
**Deadline(s): 25 Sep 2025**
**&**
**HORIZON-EUSPA-2026-SPACE**
**Opening: 14 Oct 2025**
**Deadline(s): 10 Feb 2026**

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# Call – SPACE 2025

## Accessing Space

- HORIZON-CL4-2025-02-SPACE-11: CSA on access to European spaceports
- HORIZON-CL4-2025-02-SPACE-12: Digital solutions for autonomy for space transportation systems, design and simulation tools - Digital enablers and building blocks
- HORIZON-CL4-2025-02-SPACE-13: Digital solutions for autonomy for space transportation systems, design and simulation tools – targeting demonstration

# HORIZON-CL4-2025-02-SPACE-11: CSA on access to European spaceports

**Expected Outcomes:**

- Awareness of stakeholders on practices and regulations;
- A comprehensive overview of technical challenges to be addressed in terms of guidelines and best practices;
- An assessment of the paths for the European spaceports regulations, guidelines and best practices to support safe and sustainable launch operations;
- An identification of the benefits for the European space market development, for European sovereignty as well as for international cooperation.
- Standards and guidelines should contribute to ease to launching from various spaceports.

**Indicative budget: EUR 1 million**
**EU contribution per project: EUR 1 million, in the form of lump sum**
**Type of Action: CSA**

**Participation restricted to: entities in EU27 + in all Associated Countries**

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# HORIZON-CL4-2025-02-SPACE-12: Digital solutions for autonomy for space transportation systems, design and simulation tools - Digital enablers and building blocks

**Expected Outcomes:**

- Improved space transportation systems and launcher sustainability, reduced costs and operational constraints as well as enhanced system monitoring and autonomy;
- Technology developments for New Space Transportation Solutions, including addressing software and digital tools;
- Models for mission, system design and optimisation, able to integrate life cycle analysis, engineering and environmental models for optimisation of development through manufacturing and mission implementation.

**Indicative budget: EUR 3 million**
**EU contribution per project: EUR 1-3 million, in the form of lump sum**
**Type of Action: RIA**
**TRL: TRL 4-5 by the end of the project**

**Participation restricted to: entities in EU27 + NO, IS, NZ, UK, CA, CH**

More information on the Space Partnership and the Partnership SRIA
at the SPACE Aisbl website: https://www.space-aisbl.org
Register to the SRIA outreach event at the **Digital EU Space Ecosystem Partnership Hub**

https://digital-space-ecosystem.eu

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# HORIZON-CL4-2025-02-SPACE-13: Digital solutions for autonomy for space transportation systems, design and simulation tools – targeting demonstration

**Expected Outcomes:**

- The ability to identify and locate structural damage remotely (like cracks, corrosion, delamination or structural weakening) within the transportation systems before it leads to significant failure.
- The ability to provide autonomous thermo-mechanical monitoring enabling tracking changes in temperature, mechanical behaviour and loads experienced by the transportation systems, to predict and autonomous prevent failures.

**Indicative budget: EUR 7 million**
**EU contribution per project: EUR 4-7 million, in the form of lump sum**
**Type of Action: IA**
**TRL: TRL 7-8 by the end of the project**

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# Call – SPACE 2025

Topics supported by an applicable **Guidance Document**, providing more details on the project implementation and mission preparation.

## Acting in space

- HORIZON-CL4-2025-02-SPACE-21: ISOS Pilot Mission Detailed Design – **Servicing component**
- HORIZON-CL4-2025-02-SPACE-22: ISOS Pilot Mission Detailed Design – **HOST component**
- HORIZON-CL4-2025-02-SPACE-23: ISOS Pilot Mission Detailed Design – **Logistics component**
- HORIZON-CL4-2025-02-SPACE-24: ISOS Pilot Mission Detailed Design – **satAPPs component**
- HORIZON-CL4-2025-02-SPACE-ISOS-CSA: ISOS Pilot Mission **Coordination and Support Action**

Expected Outcomes (common):

- A sustainable, highly automated, flexible and economically viable space infrastructure, building on technologies and concepts for a circular economy in space, e.g. plug-and-play spacecraft functionality introducing recycling/re-use of spacecraft modules/functionalities;
- ISOS Pilot mission preparation up to detailed mission and system detail design for the […] component, and maturation of enabling technologies and innovative system and operational concepts;
- Elaboration of interfaces between the different components of the mission, together with the other mission components and the ISOS Pilot Mission Coordination and Support Action (CSA);
- Contribution to the ISOS Pilot Mission Objectives;
- Elaboration of clear use cases and relevant business models focusing on governmental and/or commercial needs;

**ISOS info event: 21 May 2025**

Follow-up of the event (**Q&A**):
- at the **Digital EU Space Ecosystem**
- and the **Funding and Tenders portal**
https://digital-space-ecosystem.eu



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# HORIZON-CL4-2025-02-SPACE-21: ISOS Pilot Mission Detailed Design – Servicing component

**Expected Outcomes:**

- A sustainable, highly automated and digitalised, flexible and economically viable space infrastructure, building on technologies and concepts for a circular economy in space, e.g. plug-and-play spacecraft functionality introducing recycling/re-use of spacecraft modules/functionalities;
- ISOS Pilot mission preparation up to detailed mission and system design for the servicing component and maturation of enabling technologies and innovative system and operational concepts;
- Elaboration of interfaces between the different components of the mission, together with the other mission components (i.e. HOST, logistics and satAPPs) and the ISOS Pilot Mission Coordination and Support Action (CSA);
- Contribution to the ISOS Pilot Mission Objectives;
- Elaboration of clear use cases and relevant business models focussing on governmental and/or commercial needs;

This topic is supported by an applicable **Guidance Document,** providing more details on the project implementation and mission preparation.

**Indicative budget: EUR 18 million**
**EU contribution per project: EUR 6-12 million**
**Type of Action: RIA**
**TRL: TRL 6 by the end of the project**

**Participation restricted to: entities in EU27 + NO & IS**

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# HORIZON-CL4-2025-02-SPACE-22: ISOS Pilot Mission Detailed Design – HOST component

**Expected Outcomes:**

- A sustainable, highly automated, flexible and economically viable space infrastructure, building on technologies and concepts for a circular economy in space, e.g. plug-and-play spacecraft functionality introducing recycling/re-use of spacecraft modules/functionalities;
- ISOS Pilot mission preparation up to detailed mission and system detail design for the HOST component, and maturation of enabling technologies and innovative system and operational concepts;
- Elaboration of interfaces between the different components of the mission, together with the other mission components (i.e. servicing, logistics and satAPPs) and the ISOS Pilot Mission Coordination and Support Action (CSA);
- Contribution to the ISOS Pilot Mission Objectives;
- Elaboration of clear use cases and relevant business models focusing on governmental and/or commercial needs;
- Provision of enhanced opportunities for IOD/V by actively promoting experiment plug and play on the HOST;

This topic is supported by an applicable **Guidance Document,** providing more details on the project implementation and mission preparation.

**Indicative budget: EUR 17.5 million**
**EU contribution per project: EUR 12-17.5 million**
**Type of Action: RIA**
**TRL: TRL 6 by the end of the project**

**Participation restricted to: entities in EU27 + NO & IS**

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# HORIZON-CL4-2025-02-SPACE-23: ISOS Pilot Mission Detailed Design – Logistics component

**Expected Outcomes:**

- A sustainable, highly automated, flexible and economically viable space infrastructure, building on technologies and concepts for a circular economy in space, e.g. plug-and-play spacecraft functionality introducing recycling/re-use of spacecraft modules/functionalities;
- ISOS Pilot mission preparation up to detailed mission and system design for the logistics component and maturation of enabling technologies and innovative system and operational concepts;
- Elaboration of interfaces between the different components of the mission, together with the other mission components (i.e. servicing, HOST and satAPPs) and the ISOS Pilot Mission Coordination and Support Action (CSA);
- Contribution to the ISOS Pilot Mission Objectives;
- Elaboration of clear use cases and relevant business models focussing on governmental and/or commercial needs.

This topic is supported by an applicable **Guidance Document,** providing more details on the project implementation and mission preparation.

**Indicative budget: EUR 12 million**
**EU contribution per project: EUR 10-12 million**
**Type of Action: RIA**
**TRL: TRL 6 by the end of the project**

**Participation restricted to: entities in EU27 + NO & IS + CA, NZ, CH, UK**



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# HORIZON-CL4-2025-02-SPACE-24: ISOS Pilot Mission Detailed Design – satAPPs component

**Expected Outcomes:**

- A sustainable, highly automated, flexible and economically viable space infrastructure, building on technologies and concepts for a circular economy in space, e.g. plug-and-play spacecraft functionality introducing recycling/re-use of spacecraft modules/functionalities;
- ISOS Pilot mission preparation up to detailed mission and system design for the satAPPs component, and maturation of enabling technologies and innovative system and operational concepts;
- Elaboration of interfaces between the different components of the mission, together with the other mission components (i.e. servicing, HOST and logistics) and the ISOS Pilot Mission Coordination and Support Action (CSA);
- Enhancing opportunities for IOD/V through satAPPs by actively promoting experiment plug and play on the HOST and prepared assets;
- Contribution to the ISOS Pilot Mission Objectives;
- Elaboration of clear use cases and relevant business models focusing on governmental and/or commercial needs.
- Contributing to a ‘European catalogue of satAPPs’, following the AppStore approach and fostering system modularisation and flexibility.

This topic is supported by an applicable **Guidance Document,** providing more details on the project implementation and mission preparation.

**Indicative budget: EUR 5 million**
**EU contribution per project: EUR 2-3 million, in the form of lump sum**

**Type of Action: RIA**

**TRL: TRL 6, by the end of the project**

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# HORIZON-CL4-2025-02-SPACE-ISOS-CSA: ISOS Pilot Mission Coordination and Support Action

**Expected Outcomes:**

- Creating and promoting an inclusive, transparent and scalable ISOS ecosystem that allows on-boarding of governmental or commercial actors' initiatives putting Europe at the centre of a new in-space economy offering global in-space services;
- Contribution to the ISOS Pilot Mission Objectives;
- Elaboration of the ISOS Pilot mission detailed architecture, based on the high-level mission requirements;
- Coordination of the implementation of the four components identified in topics HORIZON-CL4-2025-02-SPACE-21/22/23/24, in particular with regards to the determination of interfaces among the mission components, identification of dependencies, exchange of requirements and performance indicators;
- Support to the elaboration of key standards for future institutional and commercial ISOS missions together with the projects implementing the four mission components and other relevant stakeholders.

This topic is supported by an applicable **Guidance Document,** providing more details on the project implementation and mission preparation.

**Indicative budget: EUR 2.5 million**
**EU contribution per project: EUR 2-2.5 million, in the form of lump sum**
**Type of Action: CSA/Identified Beneficiary Action managed by DEFIS**
**Participation restricted to: entities in EU27 + NO & IS**

**Call opening with Information to applicants of Components calls**

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# Call – SPACE 2025

## Using Space on Earth, Telecommunications

- HORIZON-CL4-2025-02-SPACE-31: Digital enablers and building blocks for Earth Observation and Satellite telecommunication for Space solutions
- HORIZON-CL4-2025-02-SPACE-32: Preparing demonstration missions for collaborative Earth Observation and Satellite telecommunication for Space solutions

European Commission

# HORIZON-CL4-2025-02-SPACE-31: Digital enablers and building blocks for Earth Observation and Satellite telecommunication for Space solutions

**Expected Outcomes:**

- Enable the European Space Industry to maintain a significant share of the global connectivity market by increasing the performance of space satellite networks, new type of control, space and ground segments being fully integrated into the terrestrial networks;
- New commercial services and applications enabled by increased digitalisation of space solutions;
- Advanced Earth observation payloads, technologies and processing means (on ground and/or in space), for all types of observation missions.

**Indicative budget: EUR 6 million**
**EU contribution per project: EUR 1-5 million, in the form of lump sum**
**Type of Action: RIA**
**TRL: TRL 4-5 by the end of the project**

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# HORIZON-CL4-2025-02-SPACE-32: Preparing demonstration missions for collaborative Earth Observation and Satellite telecommunication for Space solutions

**Expected Outcomes:**

- Enable the European Space Industry to maintain a significant share of the global connectivity market by increasing the performance of space satellite networks, new type of control, space and ground segments being fully integrated into the terrestrial networks;
- New commercial services and applications enabled by an increased digitalisation of space solutions;
- Advanced Earth observation payloads, technologies and processing means, for multiple spectrum and frequency bands capabilities (on ground and in space), as well as optimisation of data downlink for all types of observation missions.

**Indicative budget: EUR 11 million**
**EU contribution per project: EUR 2-6 million, in the form of lump sum**
**Type of Action: IA**
**TRL: TRL 7-8 by the end of the project**

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# Call – SPACE 2025

## Using Space on Earth – Earth Observation

- HORIZON-CL4-2025-02-SPACE-41: Copernicus Climate Change Service (C3S) evolution: new and innovative processing and methods for future Sentinels and other satellites for reanalyses
- HORIZON-CL4-2025-02-SPACE-42: Copernicus Atmosphere Monitoring Service (CAMS) evolution: improved soil-vegetation-atmosphere modelling and data assimilation of atmospheric constituents
- HORIZON-CL4-2025-02-SPACE-43: Copernicus Anthropogenic $CO_2$ Emissions Monitoring & Verification Support (CO2MVS) capacity: new and innovative methods to estimate the impact of fires on vegetation and related carbon fluxes
- HORIZON-CL4-2025-02-SPACE-44: Copernicus Marine Environment Monitoring Service (CMEMS) evolution: new and innovative ocean data assimilation techniques
- HORIZON-CL4-2025-02-SPACE-45: Supporting the AI/ML digital transition of Copernicus Services
- HORIZON-CL4-2025-02-SPACE-46: Innovative Earth observation services in support of maritime litter detection and ship source pollution policies

European Commission

# HORIZON-CL4-2025-02-SPACE-41: Copernicus Climate Change Service (C3S) evolution: new and innovative processing and methods for future Sentinels and other satellites for reanalyses

**Expected Outcomes:**

- Innovative methods to prepare and pre-process observational input for Earth-system reanalysis datasets, including the Copernicus Sentinel missions, which will lead to an increase in the use of observations for Earth-system reanalysis;
- Enhanced sparse data assimilation and initialisation methods of climate sub-component (e.g., atmosphere, ocean, land, hydrology) in Copernicus products;
- Comprehensive and better information about the climate records to be extracted from the available observations improving our overall monitoring of the climate and climate change;
- Expanded range of reanalyses products towards centennial reanalyses, and enhanced climate counterfactuals data sets to support data-driven predictions and the ongoing operationalisation of extreme event attribution.

**Indicative budget: EUR 10 million**
**EU contribution per project: EUR 10 million, in the form of lump sum**
**Type of Action: RIA**
**TRL: TRL 5-6 by the end of the project**

European Commission

# HORIZON-CL4-2025-02-SPACE-42: Copernicus Atmosphere Monitoring Service (CAMS) evolution: improved soil-vegetation-atmosphere modelling and data assimilation of atmospheric constituents

**Expected Outcomes:**

- Accurate simulation of the biogenic fluxes of Volatile Organic Compounds (VOCs) and other atmospheric constituents to represent the corresponding processes in numerical models;
- Enhanced monitoring of environmental policies regarding eutrophication and acidification of soils and ecosystems as well as for regulatory reporting commitments;
- Improved management of soils and vegetation with view to reduce health impacts from pollen and VOCs.

**Indicative budget: EUR 3  million**
**EU contribution per project: EUR 3 million, in the form of lump sums**
**Type of Action: RIA**
**TRL: TRL 5-6 by the end of the project**

European Commission

# HORIZON-CL4-2025-02-SPACE-43: Copernicus Anthropogenic $CO_2$ Emissions Monitoring & Verification Support (CO2MVS) capacity: new and innovative methods to estimate the impact of fires on vegetation and related carbon fluxes

**Expected Outcomes:**

- Enable accounting for the interaction between droughts, fires and vegetation in the CO2MVS capacity;
- Improve the estimation of fire emissions in the Copernicus Atmosphere Monitoring Service (CAMS);
- Improve the fire risk forecasting in the Copernicus Emergency Management Service (CEMS);
- Improve the assimilation of Copernicus Land Monitoring Service (CLMS) products in vegetation fire impact and carbon fluxes assessments.

**Indicative budget: EUR 3 million**
**EU contribution per project: EUR 3 million, in the form of lump sum**
**Type of Action: RIA**
**TRL: TRL 5-6 by the end of the project**

European Commission

# HORIZON-CL4-2025-02-SPACE-44: Copernicus Marine Environment Monitoring Service (CMEMS) evolution: new and innovative ocean data assimilation techniques

**Expected Outcomes:**

- To improve ocean monitoring and predictions, and to remain at the forefront at the international level;
- To ensure CMEMS users take full advantage from advances in observations, reanalysis, analysis and forecasting systems;
- To strengthen data assimilation development exchanges between operational centres and to facilitate scientific community contributions.

**Indicative budget: EUR 5 million**
**EU contribution per project: EUR 5 million, in the form of lump sums**
**Type of Action: RIA**
**TRL: TRL 5-6 by the end of the project**

European Commission

# HORIZON-CL4-2025-02-SPACE-45: Supporting the AI/ML digital transition of Copernicus Services

**Expected Outcomes:**

- Integrated AI/ML strategy across Copernicus Services, value chains and workflows;
- Improved quality, timeliness, reliability and resilience of Copernicus data, products and applications;
- Improved time-to-solution and energy-to-solution of Copernicus operational workflows;
- Transformed user experience through enhanced interactivity and on-demand capabilities for Copernicus services;
- Exchange of knowledge, benchmarking and best practices on using AI/ML in the context of Copernicus;
- Enhanced AI-readiness of Copernicus data, in particular open and free high-value labelled Copernicus data sets.

**Indicative budget: EUR 12 million**
**EU contribution per project: EUR 12 million, in the form of lump sum**
**Type of Action: RIA**
**TRL: TRL 5-6 by the end of the project**

European Commission

# HORIZON-CL4-2025-02-SPACE-46: Innovative Earth observation services in support of maritime litter detection and ship source pollution policies

## Expected Outcomes:

- National maritime authorities and enforcement bodies will benefit from improved detection services to fulfil the requirements of the Ship Sourced Pollution Directive (SSPD), ultimately resulting in a higher environmental protection of sea waters and preservation of marine ecosystems;
- Increased accuracy from the developed solutions will allow more efficient and quick responses to potential spill incidents.

**Indicative budget: EUR 5 million**
**EU contribution per project: EUR 5 million, in the form of lump sums**
**Type of Action: IA**
**TRL: TRL 7-8 by the end of the project**

European Commission

# Call – SPACE 2025

## Boosting Space through non-dependence of the EU for key critical space technologies – Space EEE Components and Equipment

- HORIZON-CL4-2025-02-SPACE-71: Space Critical EEE Components for EU non-dependence – **RISC-V Microprocessor on 7nm**
- HORIZON-CL4-2025-02-SPACE-72: Space Critical Equipment and Related Technologies for EU non-dependence – **Chip Scale Atomic Clocks and Solar Cells**
- HORIZON-CL4-2025-02-SPACE-73: Space Critical EEE Components for EU non-dependence – **Connectors**
- HORIZON-CL4-2025-02-SPACE-74: Space Critical EEE Components for EU non-dependence – **Advanced Packages and Memories**

## Expected Outcomes:

- **Reinforcing EU strategic autonomy by reducing non-EU dependencies on critical space EEE components** and related technologies across their entire supply chain;
- **Providing unrestricted access** to critical space EEE components and related technologies relevant for EU space missions;
- Developing or regaining capacity to operate independently in space by developing resilient space EEE components and related technologies supply chains, relying on EU supply chains and/or **trustable and reliable supply chains not affected by non-EU export restrictions**;
- **Enhancing competitiveness** by developing products and capabilities reaching equivalent or superior performance level than those from outside the EU and compete at worldwide level;
- Opening new opportunities for manufacturers by reducing dependency on non-EU export restricted technologies.

These topics are supported by an applicable Technical Guidance Document available here: https://defence-industry-space.ec.europa.eu/technological-non-dependence_en (and on the F&T portal)

European Commission

# HORIZON-CL4-2025-02-SPACE-71: Space Critical EEE Components for EU non-dependence – RISC-V Microprocessor on 7nm

## Expected Development:

This action should pave the way for the development of the next **EU based rad-hard space compatible microprocessor, based on 7nm FinFet technology**. This activity will cover the design of **specific** functionalities, integrated **IP cores, tape out and testing** (in a representative environment) and demonstrate the final requirements as per the **Technical Guidance Document (TGD)**.

**Indicative budget: EUR** 5 **million**
**EU contribution per project: EUR 4.5-5 million**
**Type of Action: RI**A
**TRL:** TRL 5 by the end of the project

**Participation restricted to:** entities in EU27 + NO & IS

## Expected Outcomes:

- **Reinforcing EU strategic autonomy by reducing non-EU dependencies on critical space EEE components** and related technologies across their entire supply chain;
- **Providing unrestricted access** to critical space EEE components and related technologies relevant for EU space missions;
- Developing or regaining capacity to operate independently in space by developing resilient space EEE components and related technologies supply chains, relying on EU supply chains and/or **trustable and reliable supply chains not affected by non-EU export restrictions**;
- **Enhancing competitiveness** by developing products and capabilities reaching equivalent or superior performance level than those from outside the EU and compete at worldwide level;
- Opening new opportunities for manufacturers by reducing dependency on non-EU export restricted technologies.

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https://defence-industry-space.ec.europa.eu/technological-non-dependence_en

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# HORIZON-CL4-2025-02-SPACE-72: Space Critical EEE Components for EU non-dependence – Chip Scale Atomic Clocks and Solar Cells

## Expected Development:

For **CSAC**: The activity should focus on the development of precise clocks for navigation and timing applications. In particular, **Chip Scale Atomic Clocks (CSAC) for ground and space segment** responding to requirements reported in the Technical Guidance Document.

For **Solar Cells**: The activity should focus on the design, development, manufacture and space evaluation for **high efficiency (>33% BoL) solar cells** as well as **increasing the manufacturing capacity in EU**. The targeted solar cells should exceed the performance offered by current products on the EU market as per the Technical Guidance Document.

**Indicative budget: EUR** 8 **million**
**EU contribution per project: EUR** 3.5 - 4 **million**
**Type of Action: RI**A
**TRL:** TRL 5-6 by the end of the project

**Participation restricted to:** entities in EU27 + NO & IS

## Expected Outcomes:

- **Reinforcing EU strategic autonomy by reducing non-EU dependencies on critical space EEE components** and related technologies across their entire supply chain;
- **Providing unrestricted access** to critical space EEE components and related technologies relevant for EU space missions;
- Developing or regaining capacity to operate independently in space by developing resilient space EEE components and related technologies supply chains, relying on EU supply chains and/or **trustable and reliable supply chains not affected by non-EU export restrictions**;
- **Enhancing competitiveness** by developing products and capabilities reaching equivalent or superior performance level than those from outside the EU and compete at worldwide level;
- Opening new opportunities for manufacturers by reducing dependency on non-EU export restricted technologies.

This Topic is supported by an applicable Technical Guidance Document available here:
https://defence-industry-space.ec.europa.eu/technological-non-dependence_en

# HORIZON-CL4-2025-02-SPACE-73: Space Critical EEE Components for EU non-dependence – Connectors

## Expected Development:

The development should cover the following connectors:

1) **Circular high voltage connector for low temperature** range (< -65°C)

2) **High density, high frequency interconnects/connector from Ka to W band** targeting active antenna RF front-end

3) **Solderless board to board connector** (DC and RF)

4) **Solderless board to board connector for high data rate applications** according to different architecture standards

**Indicative budget: EUR 1 million**
**EU contribution per project: EUR 0.8-1 million**
**Type of Action: RI**A
**TRL:** TRL 5-6 by the end of the project

**Participation restricted to:** entities in EU27 + NO & IS

## Expected Outcomes:

- **Reinforcing EU strategic autonomy by reducing non-EU dependencies on critical space EEE components** and related technologies across their entire supply chain;
- **Providing unrestricted access** to critical space EEE components and related technologies relevant for EU space missions;
- Developing or regaining capacity to operate independently in space by developing resilient space EEE components and related technologies supply chains, relying on EU supply chains and/or **trustable and reliable supply chains not affected by non-EU export restrictions**;
- **Enhancing competitiveness** by developing products and capabilities reaching equivalent or superior performance level than those from outside the EU and compete at worldwide level;
- Opening new opportunities for manufacturers by reducing dependency on non-EU export restricted technologies.

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# HORIZON-CL4-2025-02-SPACE-74: Space Critical EEE Components for EU non-dependence – Advanced Packages and Memories

## Expected Development:

For **Advanced Packages**: The goal of this development action is to design, manufacture, and test **organic substrates based on embedded silicon or glass interposer with very fine line spacing** (below 10 µm, goal 5 µm) for very high-density integration, targeting space applications.

For **Memories**: This action should support the industrialization of EU based MRAM non-volatile memories for space applications.

**Indicative budget: EUR 6 million**
**EU contribution per project: EUR** 2.5 - 3 **million**
**Type of Action: RI**A
**TRL:** TRL 6-7 by the end of the project

**Participation restricted to:** entities in EU27 + NO & IS

## Expected Outcomes:

- **Reinforcing EU strategic autonomy by reducing non-EU dependencies on critical space EEE components** and related technologies across their entire supply chain;
- **Providing unrestricted access** to critical space EEE components and related technologies relevant for EU space missions;
- Developing or regaining capacity to operate independently in space by developing resilient space EEE components and related technologies supply chains, relying on EU supply chains and/or **trustable and reliable supply chains not affected by non-EU export restrictions**;
- **Enhancing competitiveness** by developing products and capabilities reaching equivalent or superior performance level than those from outside the EU and compete at worldwide level;
- Opening new opportunities for manufacturers by reducing dependency on non-EU export restricted technologies.

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# Call – SPACE 2025

## Boosting Space through international cooperation

- HORIZON-CL4-2025-02-SPACE-81: EU-Japan cooperation on the exploitation of Quantum Space Gravimetry data

# HORIZON-CL4-2025-02-SPACE-81: EU-Japan cooperation on the exploitation of Quantum Space Gravimetry data

**Expected Outcomes:**

- Support the EU space policy and the EU green deal by preparing the grounds for an innovative Quantum Space Gravimetry (QSG) mission.
- Foster EU-Japan cooperation in the field of quantum sensing from space.
- Allow scientists from EU and Japan to prepare for the exploitation of QSG mission data.

**Indicative budget: EUR 0.5 million**
**EU contribution per project: EUR 0.4-0.5 million, in the form of lump sum**
**Type of Action: RIA**
**TRL: TRL 3 by the end of the project**

European Commission

# Call – EUSPA-SPACE-2026

## Services & Data coming from satellites

- HORIZON-EUSPA-2026-SPACE-02-51: Space Data Economy
- HORIZON-EUSPA-2026-SPACE-02-52: Innovative space-based applications enhancing capabilities for a resilient Europe

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# HORIZON-EUSPA-2026-SPACE-02-51: Space Data Economy

**Expected Outcomes:**

- Foster the development and prepare for the commercialisation of innovative space-based solutions that supports an informed decision making of relevant stakeholders (e.g. energy operators, city and regional authorities, financial institutions, insurance companies, corporations, food/industrial manufacturing etc.);
- Leverage EGNSS-based and Copernicus-based capabilities to modernize and increase the efficiency and resilience of energy infrastructure and/or urban environment, and/or support the use of green financing schemes addressing environmental challenges as well as implementing climate resilient practices in the downstream sector;
- Analyse and support the consolidation of the sectorial demand for solutions based on EGNSS and Copernicus services and data, possibly also exploring the synergies with EU space based secure communication and surveillance, addressing the challenges identified in priority areas and leveraging the relevant regulatory environment.

**Indicative budget: EUR 10 million**
**EU contribution per project: EUR 1.5-2.5 million, in the form of lump sum**
**Type of Action: IA**
**TRL: TRL 7-9 by the end of the project**

European Commission

# HORIZON-EUSPA-2026-SPACE-02-52: Innovative space-based applications enhancing capabilities for a resilient Europe

## Expected Outcomes:

- Foster the development and validation of integrated synergistic space technologies that support the operational work of crisis and security practitioners (e.g. law enforcement, customs, first/second responders, critical infrastructure operators, border or coast guards, civil protection authorities etc)
- Improve, operationalize and mainstream EGNSS-based and possibly Earth observation-based services that enhance the resiliency and security (including cybersecurity) of the EU, reinforcing their acceptance, adoption and usage of the developed solution(s) among practitioners. Synergies with secure satellite communications can also be explored;
- Improve the wide uptake and penetration of EU Space Programme data and services, and in particular EGNSS differentiators (OSNMA - Open Service Navigation Message Authentication, HAS - High Accuracy Service, RLS - Return Link Service, EWSS – Emergency Warning Satellite Service etc.), in the everyday operations and tasks of crisis and security practitioners, increasing their awareness and ability to operate efficiently and with safety;
- Identify new, and analyse existing, capability gaps of security practitioners, that space technologies can bridge, demonstrating on the field innovative solutions based on EGNSS and possibly other EU Space Programme components such as Copernicus;
- Create new space-based commercial opportunities for innovative businesses serving practitioner organisations.

**Indicative budget: EUR 5 million**
**EU contribution per project: EUR 1.5-1.8 million, in the form of lump sum**
**Type of Action: IA**
**TRL: TRL 7-9 by the end of the project**

European Commission

# Other actions not under calls – SPACE 2025

## Other actions procured by the European Commission or granted to a pre-identified beneficiary

- EGNSS Evolution Mission and Service-related R&D activities : Study to be launched by the Commission (open tender) to investigate potential new user needs, as well as the resulting enhancement of services of EGNOS and Galileo. **Budget of €2 million.**
- Boosting Space through training and education activities : Procurements to be launched by the Commission (open tender) for training and education actions in support of upskilling and reskilling efforts in the Space sector, notably the continuation of pilot actions (CASSINI Space Camps, Space Career Launchpad and voucher scheme, EU Space Academy Learning Platform). **Total budget of €5 million.**
- Boosting Space via support to entrepreneurship – 2025 CASSINI activities : Procurements to be launched by the Commission (open tender) for activities supporting start-ups and SMEs in the European Space sector, with the objective to make them investment-ready and able to secure venture capital funding. **Total budget of €8,5 million.**
- Consolidate European commercial SST capabilities on sensors : grant to the EU SST Partnership for an amount of **€15 million**. The EU SST Partnership will subsequently launch grants to support the development of innovative commercial sensors.
- Consolidate European commercial SST capabilities on Services : grant to the EU SST Partnership for an amount **of €4 million**. The EU SST Partnership will subsequently launch grants to support the development of techniques and technologies to develop future SST commercial services or to substantially improve existing ones.

European Commission

# Other actions not under calls – SPACE 2025

## Other actions delegated to ESA, the European Space Agency

- EGNSS Evolution: Technology and infrastructure-related R&D activities: Set of activities to further develop the EGNOS and Galileo infrastructure. **Budget of €58 million.** ESA will subsequently launch procurements to the space industry, published through its ESA*Star portal. HE delegates are systematically informed.

- IRIS2 Space infrastructure: Development and Validation: As per the Secure Connectivity Regulation, development of the new IRIS2 constellation. **Total budget of €75,5 million.** The concessionaire will subsequently launch procurements to the space industry.

- In Orbit Demonstration/Validation (IOD/IOV) service: opportunities offered to the European space industry to test technologies in orbit and to launch satellites. **Total budget of €8 million.** Experiments are selected through the open calls for expression of interest. ESA is in charge of implementation of IOD/IOV projects. ESA will launch procurement actions for the provision of IOD/IOV services (aggregation, launch service, operation) through its ESA *Star portal.

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# THANK YOU!

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