MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR, DE LA RECHERCHE ET DE L'INNOVATION

Info Day régional Horizon Europe Espace
Présentation des appels 2025

Toulouse, le 28 avril 2025

Avec le soutien de :

AGENDA

9H00 Café d'accueil

9H30 Introduction (A.Laborie, Directrice Générale Aerospace Valley)

9H35 Présentation des financements européens pour le spatial (I.Maes, Commission Européenne) : Horizon Europe Espace 2025, EIC, ESA, EDF

10H40 Questions/Réponses

11H00 Point d'info IRIS² (JP.Diris)

11H20 Questions/Réponses

11H40 Témoignage de lauréat : Sté COMAT (L.Herrero)

12H00 Support PCN et aides au montage (F.Daveran)

12H15 L'accompagnement des entreprises dans leur demande de financement européen (B.Dupias, Enterprise Europe Network - CCI Occitanie)

12H30 Fin de la matinée

Déjeuner libre

14H00 Rendez-vous individuels avec le PCN et le Réseau Enterprise Europe Network (sur inscription)

17H00 Fin de la journée

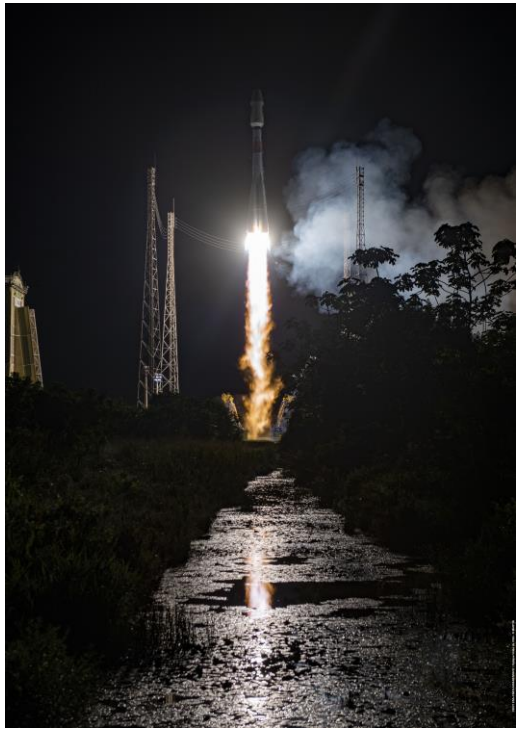
Présentation Isabelle MAES

Commission Européenne


European Commission
#HorizonEU
HORIZON EUROPE
THE EU RESEARCH & INNOVATION PROGRAMME
2021 – 2027
28 April 2025
Cluster 4, Destination 5:
Open Strategic Autonomy in Developing, Deploying and Using Global Space-Based Infrastructure, Services, Applications and Data
Research and Innovation

EU Space R&I

- Space is a **dynamically changing domain** marked by growing competition and major technology advances
- The EU space sector requires **continued, smart and coordinated investments**
- Horizon Europe (2021-27) has a budget of €95 billion, with close to **€1.9 billion dedicated to space research**
- Space entrepreneurship is supported by the CASSINI initiative with **€1 billion VC fund** and other activities
- Space R&I actions and projects are implemented
  - by the Health and Digital Executive Agency (**HaDEA**),
  - the EU Agency for the Space Programme (**EUSPA**),
  - the European Space Agency (**ESA**) and
  - the **European Commission**



1) HE WORK PROGRAMME 2025
Will be adopted on 14 May and published on 15 May

a) Call HORIZON-CL4-2025-SPACE (HaDEA)
Opening: 22 May 2025
Deadline(s): 25 Sep 2025

b) Call HORIZON-EUSPA-2026-SPACE (EUSPA)
Opening: 14 Oct 2025
Deadline(s): 10 Feb 2026

c) Other actions not under calls (ESA, EC)

2) EIC space accelerator challenge

3) EDF space topics

4) EP action on Innovative Deployable Antennas

European Commission

1) HE Space 2025 WP

European Commission

Call – HORIZON-CL4-2025-SPACE

1) Accessing Space (launchers & launch pads)

- 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

Scope:

- Assessing best practices, standards and guidelines for launch operations from European spaceports, taking into account experiences from worldwide existing spaceports.
- Proposing a set of common regulatory practices and guidelines for European Spaceports and evaluating their impact on the launch operations.
- Involving European stakeholders participating in the development of safety equipment with the aim to strengthen the spaceports interoperability with their technological solutions.

=> Assessing best practices and guidelines and proposing a set of common regulatory practices to facilitate access to European spaceports and increase their attractiveness for European launchers.

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

European Commission

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

Scope:

- Maturation of eco-design software tools enhancing reconfigurability in orbit
- Maturation of disruptive/game changing technologies related to digitalisation

Proposals are expected to promote cooperation between different actors (industry, SMEs and research institutions) and consider opportunities to quickly turn technological innovation into commercial use in space.

=> Maturation of software tools for reconfigurability in orbit and for game changing digitalization technologies.

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

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

Scope:

- R&I on advanced technologies and digital sensors for new space transportation, such as smart avionics with modularity and reusability drivers, health monitoring system and smart sensors, and structural health monitoring addressing thermo-mechanical monitoring and damage detection, ground and flight software for data management even by use of AI-algorithms.
- The developments should aim at on-ground or in-orbit demonstration focusing on software and digital tools.
- Proposals are expected to promote cooperation between different actors (industry, SMEs and research institutions) and consider opportunities to quickly turn technological innovation into commercial use in space via e.g., on-ground or in orbit demonstration.

=> Maturation of advanced technologies and digital sensors and of ground and flight software for data management. On-ground or in-orbit demonstration.

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

European Commission

Call – HORIZON-CL4-2025-SPACE

2) Acting in space (in-space operations and services – ISOS)

- HORIZON-CL4-2025-02-SPACE-21: ISOS Pilot Mission Detailed Design – Servicing component (= fournir des services à des satellites dans l'espace)
- HORIZON-CL4-2025-02-SPACE-22: ISOS Pilot Mission Detailed Design – HOST component (= plateforme au depart de laquelle ces services sont lancés/rendus)
- HORIZON-CL4-2025-02-SPACE-23: ISOS Pilot Mission Detailed Design – Logistics component (= transport d'éléments entre la plateforme et les satellites)
- HORIZON-CL4-2025-02-SPACE-24: ISOS Pilot Mission Detailed Design – satAPPs component (= éléments d'upgrade des satellites, ce avec quoi on les enrichit/améliore)
- HORIZON-CL4-2025-02-SPACE-ISOS-CSA: ISOS Pilot Mission Coordination and Support Action

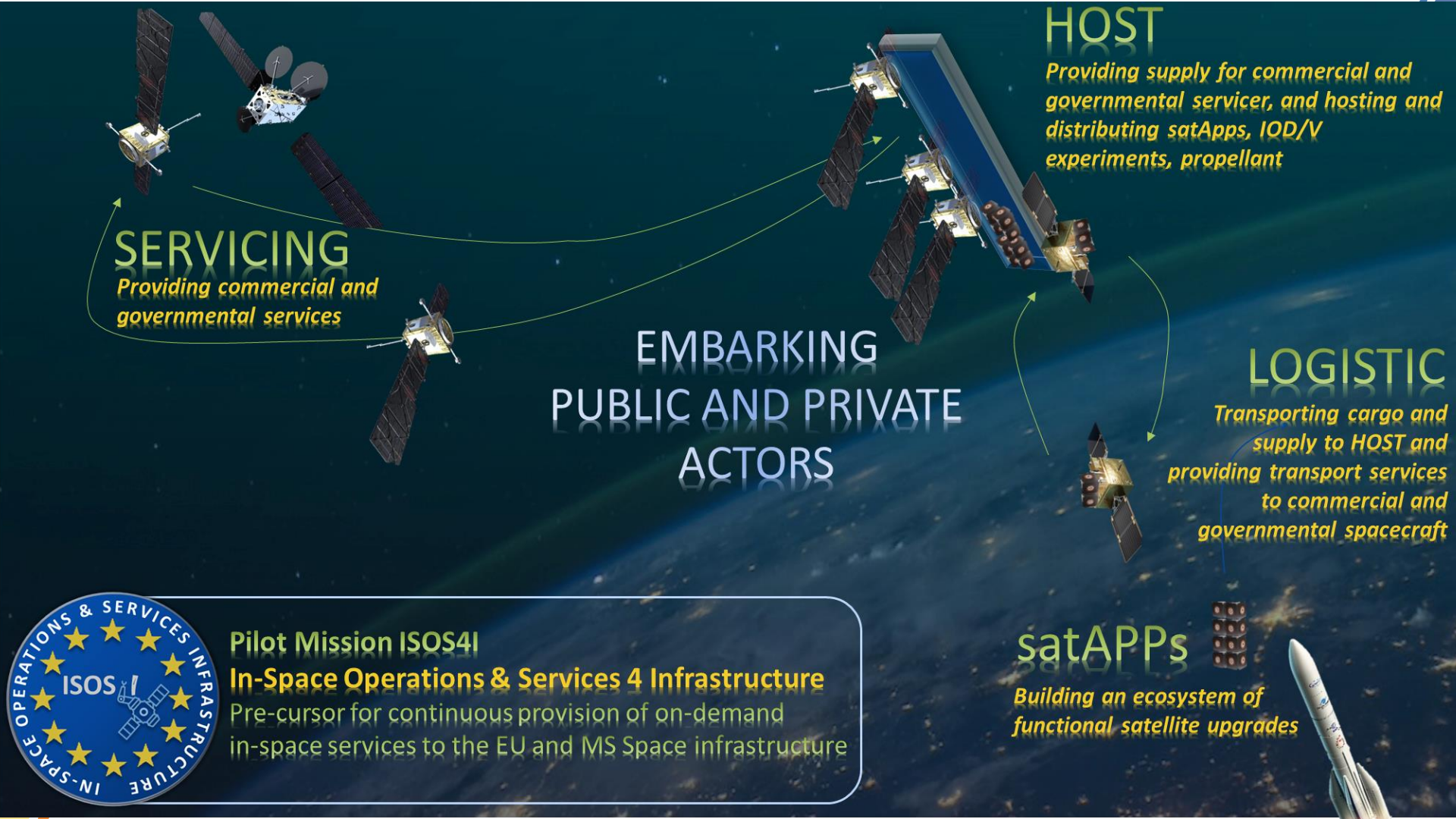
A key strategic capacity: Act in Space

In-Space Operations and Services

Servicing
Assembly
Manufacturing
Logistics
Debris Removal

Ability to inspect, Rendezvous & Docking, repair, reconfigure, build, assemble and disassemble, recycle, relocate, remove and transport operational, non-operational and defect objects in space with autonomous systems, including platforms or larger structures for operations and services.

Image source: Thales Alenia Space


HOST
Providing supply for commercial and governmental servicer, and hosting and distributing satApps, IOD/V experiments, propellant
SERVICING
Providing commercial and governmental services
EMBARKING PUBLIC AND PRIVATE ACTORS
LOGISTIC
Transporting cargo and supply to HOST and providing transport services to commercial and governmental spacecraft
satAPPs
Building an ecosystem of functional satellite upgrades
IN-SPACE OPERATIONS & SERVICES INFRASTRUCTURE
ISOS I
Pilot Mission ISOS4I
In-Space Operations & Services 4 Infrastructure
Pre-cursor for continuous provision of on-demand in-space services to the EU and MS Space infrastructure

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

Scope:

- R&I to complete detailed mission and system design (including relevant key technology maturation) for the servicing component as part of the ISOS pilot mission. More specifically, projects should finalise the detailed design for this component building on current or previous developments, demonstrating the achievement of the required TRL for all relevant technologies;
- R&I on related service capabilities and applications including operational concepts for servicing individual or fleets of satellites based on the functionality of the pilot mission system design. More specifically, possible use case for servicing a real EU asset is expected to be developed up to delivery of a concept of operations (CONOPS).

=> Detailed design of the servicing component of the ISOS pilot mission, focusing on robotic capabilities. Operational concepts for servicing individual or fleet satellites.

This topic is supported by an applicable **Guidance Document,** providing more details for the mission preparation (available online)

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

European Commission

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

Scope:

- R&I to complete ISOS Pilot mission detailed mission and system design (including relevant key technology maturation) for the platform component (HOST), demonstrating the achievement of the required TRL for all relevant technologies.
- R&I on key enabling technologies relevant for design of a scalable, modular, flexible platform component, equipped with robotic manipulation, satAPPs compatibility and refuelling capability (for the HOST and the hosted servicer and logistic spacecraft), that can be extended and reconfigured to meet different demands (e.g., governmental and commercial, IOD/V and additional servicer hosting slots, robotic/manufacturing testbeds, warehouse and logistic node, etc.).
- R&I on related HOST functions and applications including related operational concepts considering the use of distributed computing, multi-agent and network architectures and supported by simulations, enhancing the overall pilot mission system functionality.

=> **Detailed design of the platform component of the ISOS pilot mission, able to host multiple servicer spacecraft, IOD/V experiments and exchangeable functional satellite modules (satAPPs), including robotic manipulation and refuelling capabilities. Operational concepts with distributed computing, multi-agent and network architectures.**

This topic is supported by an applicable **Guidance Document,** providing more details for the mission preparation (available online)

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

European Commission

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

Scope:

- R&I to complete ISOS Pilot mission detailed mission and system design (including relevant key technology maturation) for the logistics component, demonstrating the achievement of the required TRL for all relevant technologies.
- R&I on key enabling technologies relevant for design of a logistics component that can transport cargo (i.e., satAPPs and propellant) taken from an upper stage to the HOST component.
- R&I on solutions for docking and propellant management and transfer with the HOST. Building on existing European designs is encouraged.

=> Detailed design of the logistics component of the ISOS pilot mission, able to transport cargo and fuel taken from an upper stage to the platform/HOST component.

This topic is supported by an applicable **Guidance Document,** providing more details for the mission preparation (available online)

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

European Commission

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

Scope:

- R&I to complete the ISOS Pilot mission detailed mission and system design (including relevant key technology maturation) for the satAPPs component. All relevant technologies shall reach the necessary TRL.
- R&I on technologies relevant for innovative satAPPs at TRL 6 that will be used in the context of the ISOS pilot mission to demonstrate upgrade of components' functionalities and/or payload exchange and IOD/V experiments.
- R&I on satAPP modules specifically for hosting IOD/V experiments.

=> Detailed design of the satAPP (= functional satellite modules) component of the ISOS pilot mission, allowing the creating of composable and exchangeable functional modules for satellite upgrades, payload exchange and enhanced IOD/V

This topic is supported by an applicable **Guidance Document,** providing more details for the mission preparation (available online)

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

European Commission

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

Scope:

- Overall coordination of the ISOS pilot mission preparation up to detailed design and elaboration of a mission deployment plan and detailed system architecture that is modular and scalable, in close cooperation with all mission components and in continuous coordination and under the supervision of the PMAG;
- Ensure interoperability and compatibility between mission components (for instance interfaces among components and exchange of requirements and performance indicators);
- Perform mission minimum cost estimate and cost impact assessment for new plug-ins (mission components, service demonstrations, technologies, etc.) to the mission and system in coordination with the PMAG;
- …

=> Coordination of the development of the ISOS pilot mission and support to its evolution.

This topic is supported by an applicable **Guidance Document,** providing more details for the mission preparation (available online)

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

European Commission

The Digital EU Space Ecosystem

What is the Ecosystem?

The platform is a **web-based interactive platform** to foster collaboration and drive innovation across EU Space through active user engagement

Objectives

- **Foster community**: Bring together the EU Space community in a unified and interactive space
- **Enhance collaboration**: Promote cooperation among EU-based actors working on a range of initiatives
- **Disseminate information**: Provide a platform for sharing information about EU-funded Space research, development, and innovation projects
- **Simplify** event management, product & service promotion, and technology mapping

Join now!

https://digital-space-ecosystem.eu/

Call – HORIZON-CL4-2025-SPACE

3) Using Space on Earth, Telecommunications & Earth Observation

- 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

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

Scope:

- R&I on **End-to-End SatCom Mission capabilities**, strengthening efficient **connectivity** using various technologies and ensure **compatibility and interoperability with 5G & 6G**, and **satellites as network nodes** in a distributed system, **flexible and modular testbed prototype** with representative building blocks for complex SatCom typologies, improve **SatCom performances** using innovative technologies.
- R&I on breakthrough harmonization enabling **interoperability among multiple EO missions, breakthrough digitalized technology** steps, such as AI algorithms, **high performance cloud-based architectures**, **active and adaptive optics and/or higher power electronics**, mature **digital techniques and technologies to support novel operational approaches**, mature miniaturised instruments design.
- R&I on lower maturity **building blocks and processes common to EO and SatCom systems**.

=> Enabling digital technologies for both EO and Satcom <u>at mid-TRL.</u>

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

European Commission

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

Scope:

- Same as topic -31 but at higher TRL levels.

=> Enabling digital technologies for both EO and Satcom at high-TRL.

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

Call – HORIZON-CL4-2025-SPACE

4) Using Space on Earth – Copernicus 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-46: Innovative Earth observation services in support of maritime litter detection and ship source pollution policies
- HORIZON-CL4-2025-02-SPACE-45: Supporting the AI/ML digital transition of Copernicus Services

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

Scope:

- **Improve the ability of Copernicus' and other models to assimilate new and other satellite observations that are sensitive to surface parameters and fluxes.**
- **Exploit innovative methods (including AI/ML) for data rescue for in situ and remote sensing observations**, in particular regarding past and changing observing methods and environmental factors, and on error analysis, quality control and bias adjustment of the historical observation record.
- **Improve the use of Sentinel and other data in all Copernicus reanalyses and their use across different services**.
- **Explore innovative methods (e.g. AI/ML) to accelerate the production and updates of reanalyses, to capture reanalyses uncertainties efficiently, and to reduce overall computing energy/carbon footprint**.

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

Scope:

- **Advancing soil-vegetation-atmosphere surface/interface and evapo-transpiration parameterizations, numerical models and data assimilation techniques**.
- **Further development of surface (sub-)models that can account accurately and dynamically for the sources and sinks of key trace gases and aerosols.**
- **Improvement of methodologies to estimate deposition fluxes and associated uncertainties**.
- **Develop data assimilation approaches to deliver highly resolved deposition products**, based on in-situ deposition networks and Earth Observation.
- **Development of accurate pollen source models for additional species among the most allergenic ones in Europe**.
- **Investigation of modelling of pollen at the global scale**.
- **Development of further use of satellite observations for improving calculation of dry deposition fluxes and emissions**.

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

Scope:

- **Better understand and characterise the impact of wildfires on the carbon cycle and on anthropogenic emissions** through land use change.
- **Investigate the current state of fire modelling and specifically how the interaction between droughts, fires and vegetation can be accounted for in a global monitoring system**, such as the CO2MVS.
- **Investigate how a better understanding of the impact of fires on vegetation can improve the estimates of fire emissions of chemical species and aerosols, and subsequently air quality products in CAMS and the fire risk forecasting in CEMS**.

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

Scope:

- **Coupled data assimilation to control in a more consistent way the ocean state variables across ocean components** or forcings and to get more benefits from observations;
- **Development of multi-scale methods capable of assimilating high-resolution and high-frequency observations** as well as of constraining larger scales.
- **Use of Artificial Intelligence techniques in data assimilation schemes.**
- **Use of new types of observations or higher-resolution of existing data** streams.
- **Development of software infrastructure that can accommodate different assimilation methods** and facilitate the sharing of algorithms and optimization of computer codes on high-performance computers.
- …

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-46: Innovative Earth observation services in support of maritime litter detection and ship source pollution policies

Scope:

- **Development and demonstration of space sensors**, including the assessment of their operational boundaries and associated technical confidence levels, for specific use cases: estimation of oil spill volume and thickness, detection of oil spills in sea ice conditions; detection and identification of chemical products on the sea surface; detection and identification of sewage on the sea surface, etc.
- **Design and improvement of use artificial intelligence methods for the identification of spills, sewage and garbage on the sea surface and their characteristics** to achieve a higher level of timeliness, automation and confidence (e.g. avoid false alerts).

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

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

Scope:

- **AI-supported retrieval algorithms** on both passive and active sensing for existing and upcoming Copernicus missions.
- **Multi-source multi-target AI models for automatic segmentation**.
- **Data fusion techniques** towards added-value products.
- **Data compression and mining methods** to navigate big data efficiently, as the amount of data is becoming a limiting factor.
- **Chatbots that can guide the user across a wide range of information sources** within and across Copernicus services.
- …

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

Call – HORIZON-CL4-2025-SPACE

5) Boosting Space through non-dependence of the EU for key critical space technologies

- 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

**Electric, Electronic & Electromechanical*

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

Scope:

For those RISC-V microprocessors on 7nm:

- Implement development projects aiming at maturing those components with the final goal of lowering the dependency from outside EU.
- Establish a long-term sustainable supply chain for supporting EU strategic autonomy in the space sector. T-The supply chain shall preferably be built fully based in EU and when this can only be achieved partially, services procured from outside EU shall nevertheless ensure that the overall supply chain will remain trustable and not affected by non-EU export control.

This Topic is supported by an applicable Technical Guidance Document providing more details and expectations at technology level (available online)

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

European Commission

HORIZON-CL4-2025-02-SPACE-72: Space Critical Equipment and Related Technologies for EU non-dependence – Chip Scale Atomic Clocks and Solar Cells

Scope

For Chip Scale Atomic Clocks [Target final TRL 6] and for Solar Cells [Target final TRL 5-6]

- Implement development projects aiming at maturing those components with the final goal of lowering the dependency from outside EU.
- Establish a long-term sustainable supply chain for supporting EU strategic autonomy in the space sector. T-The supply chain shall preferably be built fully based in EU and when this can only be achieved partially, services procured from outside EU shall nevertheless ensure that the overall supply chain will remain trustable and not affected by non-EU export control.

This Topic is supported by an applicable Technical Guidance Document providing more details and expectations at technology level (available online)

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

European Commission

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

Scope

For those connectors :

- Implement development projects aiming at maturing those components with the final goal of lowering the dependency from outside EU.
- Establish a long-term sustainable supply chain for supporting EU strategic autonomy in the space sector. T-The supply chain shall preferably be built fully based in EU and when this can only be achieved partially, services procured from outside EU shall nevertheless ensure that the overall supply chain will remain trustable and not affected by non-EU export control.

This Topic is supported by an applicable Technical Guidance Document providing more details and expectations at technology level (available online)

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

European Commission

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

Scope:

For Advanced packages – Organic substrate for very high, fine pitch [Target final TRL 6-7] and for MRAM Memories [Target final TRL 7] :

- Implement development projects aiming at maturing those components with the final goal of lowering the dependency from outside EU.
- Establish a long-term sustainable supply chain for supporting EU strategic autonomy in the space sector. T-The supply chain shall preferably be built fully based in EU and when this can only be achieved partially, services procured from outside EU shall nevertheless ensure that the overall supply chain will remain trustable and not affected by non-EU export control.

This Topic is supported by an applicable Technical Guidance Document providing more details and expectations at technology level (available online)

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

European Commission

Call – HORIZON-CL4-2025-SPACE

6) 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:

- 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

Scope:

- Identify Earth science fields relying on space gravity data exploitation and of mutual EU-Japan interest.
- In those fields, propose innovative algorithmic solutions highlighting the benefits of quantum space gravimetry and discussing the expected QSG mission performance.

Horizon Europe will fund EU scientists only. Japan scientists will fund their own activities, expected to be at the same level as the EU contribution.

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 – HORIZON-EUSPA-2026-SPACE

7) Services & Data coming from satellites

- HORIZON-EUSPA-2026-SPACE-02-51: Space Data Economy (4 domaines spécifiques)
- HORIZON-EUSPA-2026-SPACE-02-52: Innovative space-based applications enhancing capabilities for a resilient Europe (sécurité, gestion de crises)

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

Scope:

- Projects should focus on one of the following selected priority areas:
    - Energy (renewable energy, energy efficiency, energy infrastructure)
    - Climate adaptation and Environmental footprint reduction
    - Green financing and insurance
    - Liveable cities of the future
- Development of innovative solutions using space data and services, tailored to the specific needs of downstream industries and addressing inherent sectorial demand fragmentation issues.
- Explore how those solutions can support the relevant existing sectorial regulations.
- Present a business plan.

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

Scope:

- **Development of EGNSS-based spoofing-proof downstream solutions to support the digital transformation of security practitioners in security-critical operations** (e.g. Law Enforcement Agencies, Custom Authorities, Border and Coast Guards, etc) in various applications, including: environmental crimes management, prevention of smuggling and trafficking, counter-terrorism, border and maritime surveillance, migration management, fugitive search, public safety and fundamental rights, illegal poaching, customs operations and Electronic Freight Transport Information, dangerous goods transportation, usage of robots and/or automated Galileo-enabled platforms for surveillance, etc.;
- **Development of EGNSS-based downstream solutions to support the resiliency and functioning of critical EU infrastructures** (e.g. digital infrastructure, drinking water supply and distribution, water waste management, healthcare, e-government, etc.);
- **Development of EGNSS-based downstream solutions to support crisis management operations**: drone-supported operations, improved and safer asset management systems, AR/VR for first responders, novel EGNSS smartphone-sized or wearable technologies, UneXploded Ordnance (UXO) risk assessment and clearance for humanitarian operations, etc.

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 procured by the EC or granted to the EU SST Partnership

1. 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.**
2. 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.**
3. 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.**
4. 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.
5. 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.

Other actions delegated to ESA, the European Space Agency

1. 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.

2. 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.

3. 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.

2) EIC

EIC (WP2025 Accelerator Challenge)

- **Innovative in-space servicing, operations, space-based robotics and technologies for resilient EU space infrastructure (€50 million)**

The start-ups and SMEs to be supported under this initiative must deliver solutions that address one of the following areas:

- In-Orbit Servicing & Maintenance - Proximity Ops, Rendezvous, capturing, in-space robotic manipulations, maintenance, in-space assembly and operations
- In-space transportation & in-space refueling/recharging, Orbital Transfer Vehicles (OTV), etc.
- Space-based resilience – space-based cybersecurity for satcom, navigation, Earth Observation and In Orbit servicing missions

WP 2025 Publication 29 October 2024
Cut-off date(s): 12 March 2025; 1 October 2025

European Commission

3) EDF

EDF (Space)

- **EDF-2025-DA-SI-SPACE-3OS: On-orbit operations and services (€49 million)**
  - Focus on the development of a concept of operations (CONOPS) for on-orbit operations and services for all types of orbits, with a feasibility analysis that can provide defence capability planners with the information they need to develop future capabilities
- **EDF-2025-DA-SPACE-SBISR: Space-based ISR constellation (€66 million)**
  - Contribution to the development of an affordable constellation of small satellites, including its ground segments able to handle various types of innovative sensor payloads for intelligence, surveillance and reconnaissance (ISR) applications.

WP 2025 Publication 30 January
EDF Info Days 2-3 April
Ddl in Oct 2025

European Commission

4) EP

EP Action (Pilot Projects & Preparation Actions)

- **Innovative Deployable Antennas (PPPA-2025-DEPLAN) (€1.45 million)**
  - Contribute to higher sustainability of space infrastructure by reinforcing the feasibility and potential of novel techniques linked to the in-orbit recycling of space assets
  - The identification of novel techniques for ground manufacturing of deployable antennas and the re-use parts/materials from end-of-life assets and antennas for further manufacturing/assembly in-orbit
  - Contribute to the elaboration of possible future use-cases for planned initiatives such as the In-Space Operations and Services (ISOS) Pilot Mission under the “Acting in Space” activities in Horizon Europe
  - Reduce the dependencies from non-EU countries for the critical space technologies relevant to reflectors and deployable antennas, accelerate time to market and increase EU sovereignty.

Call: 4 Feb 2025 – 27 May 2025

For more information visit

Click or Scan

Thank you for your attention!
Isabelle.Maes@ec.europa.eu

European Commission

#EUSpaceResearch

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ET DE L'INNOVATION

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Présentation Jean-Pierre DIRIS

IRIS²

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Présentation Luc HERRERO

COMAT

Horizon Europe

MODULAR PULSED PROPULSION SYSTEM (MP2S)

A disruptive Electric Propulsion solution for In-Orbit Services

Proposal for Call HORIZON-CL4-2023-SPACE-01-12
Area 1 : Future Space Ecosystem and Enabling Technologies

23/04/2025

Confidentiel – C1 diffusion interne uniquement

Innovative Spacecraft Solutions.

Summary.

Innovative Spacecraft Solutions.

Introduction

Innovative Spacecraft Solutions.

Introduction

European Consortium

Participant	Short name	Type	Country
COMAT : Coordinator	COMAT	SME	FR
ENDUROSAT	ENDUROSAT	SME	BUL
PLASMASOLVE SRO	PS	SME	CZ
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	CNRS	RTO	FR
UNIVERSITÉ TOULOUSE III - PAUL SABATIER – Affiliated partner of CNRS	UTU	RTO	FR
UNIVERSITY OF STUTTGART	IRS	RTO	DE

Comat Overview

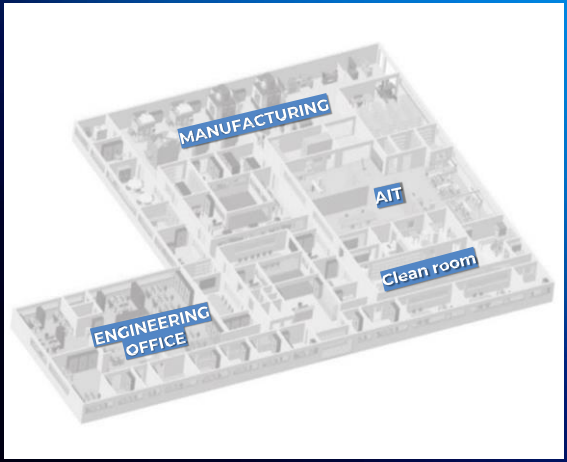
Innovative Spacecraft Solutions.

Toulouse
HQ

105
Employees

13 M €
Turnover 2023

All-in-one facility.



1800 m²
FACILITY

1000 m²
MANUFACTURING &CONTROL

500 m²
AIT AREA, INCLUDING ISO 5 &7ROOMS

On going : Saturne factory.

+ 1500 m²
NEW BUILDING

700 m²
PRODUCTION LINES

800 m²
CO-WORKING SPACE


comat
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INNOVATION &
INDUSTRIALIZATION
for new market challenges.
comat
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Innovative
Spacecraft
Solutions.

Field of focus.

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WE PROVIDE
SPACE EQUIPMENT

Microgravity
Safety / Incubator

Mechanism & Deployable
Pointing system /Reaction Wheels /Booms /Antennas

Propulsion & Fluids
Electric thruster /Fluidics

applications






Innovative Spacecraft Solutions.

Full in-house.

Innovate.

- Market analysis,
- Technologies development,
- Product concept,
- Breadboard.

Develop.

- Designing,
- Sizing,
- Engineering,
- Model design,
- Manufacturing and test Qualification.

Industrialise.

- Design to manufacturing,
- Design tocost,
- Production plan,
- Serial production definition,
- Production line conception.

MAIT.

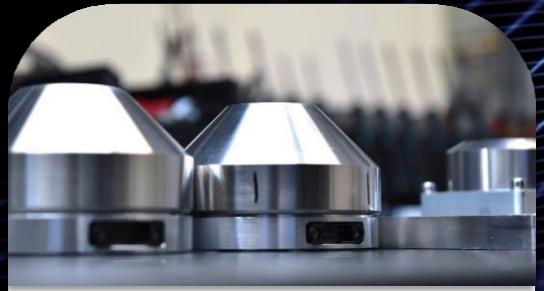
- **M**anufacturing,
- **A**ssembly,
- **I**ntegration,
- **T**est,
- Delivery.

Innovative Spacecraft Solutions.

Our offer

PRODUCTS.

Ready to flight



Space products resulting from our **own strategies and developments.**

HOME-made

CUSTOM.

Equipment

Customer-tailored equipment & sub-system development.

Build **to SPEC**

Industrial PARTNER.

Manufacturing – Assembly - Integration - Test

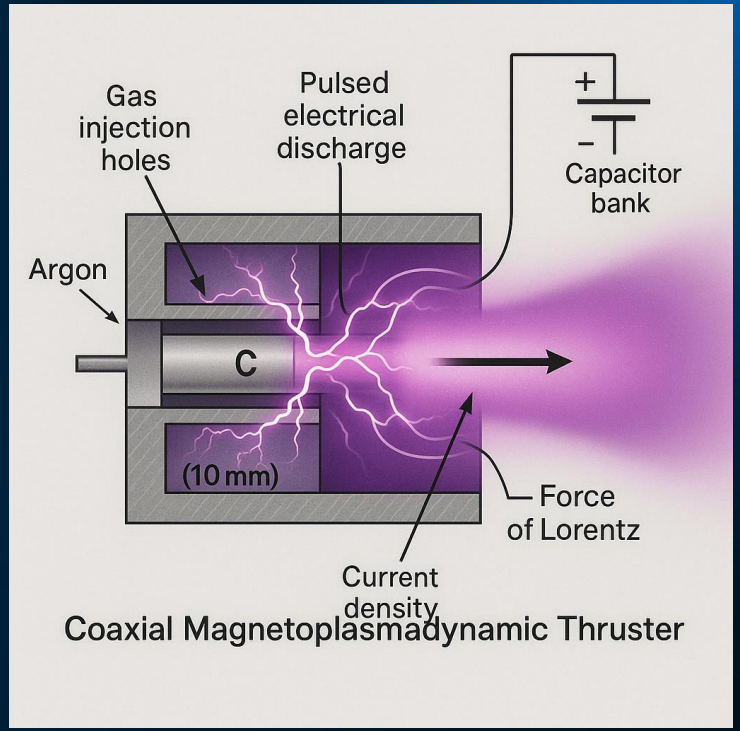
Design to cost, **Industrialization,** Serial production.

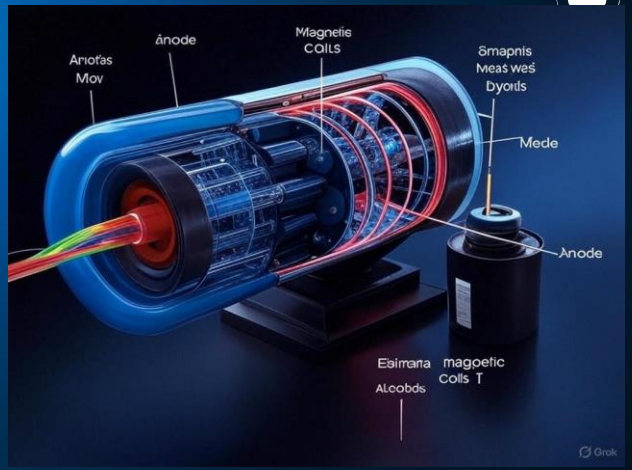
Build **to PRINT**

Innovative Spacecraft Solutions.

Technology

Technology





Project MP2S

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Solutions.

Project MP2S

The MP2S Project will mature and develop to TRL5 the Pulsed MPD Arc Discharge Chamber as a building block for a modular electrical propulsion

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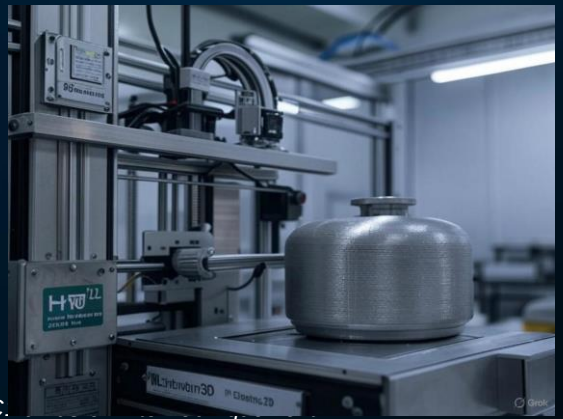

Project MP2S

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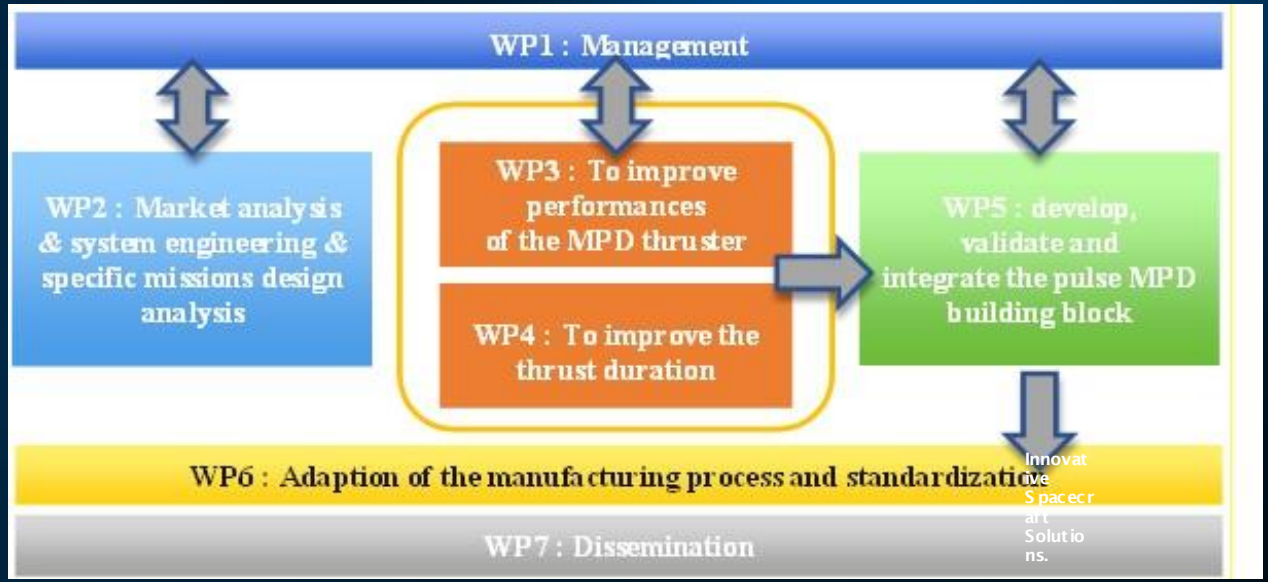
Project areas	TRL/SRL Start	End	Comment / Description
Methods of thruster life duration optimization	2	5	The synergistic theoretical and experimental work will result in **novel electrode design**. The new electrode will ensure that the lifetime of the pulsed MPD thruster is sufficient for the entire duration of the mission considered.
Pulsed MPD building block	2	5	Pulsed MPD for small satellites with **integrated fluid management system designed as** plug & thrust to facilitate integration.
Fluid management system	2	5	The new design of fluid management system will be composed of blow down tanks and an on/off valve (calibrated amount of propellant) to ensure thruster feeding. This innovation can significantly reduce the overall cost of the propulsion module.
Manufacturing method for low-cost building blocks	2	5	COMAT will employ its technology for the development of COTS based products in order to decrease production costs.
3D printing for space applications	2	4	MP2S will deliver 3D printing tanks thanks to COMAT's and ENDUROSAT's know-how and technologies

Project MP2S



Timing

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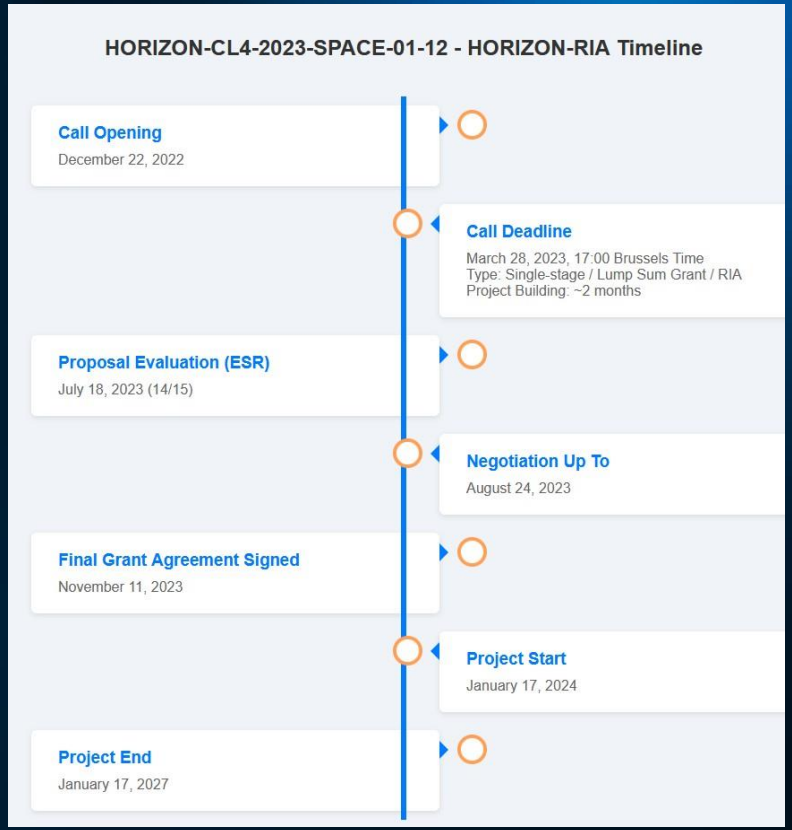
Timeline



Innovative Spacecraft Solutions.

Conclusion

Innovative Spacecraft Solutions.

Conclusion

What do you need?

- A disruptive innovation for a service or product
- A good knowledge of the market
- To select the best call
- Ambition for technology
- Consulting experts for Horizon Europe projects
- BPI support to build the project

Why do it ?

- To develop innovative technology over the long term thanks to call visibility
- To be in touch with European experts
- To work in a multicultural environment

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comat

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comat.space

Présentation Fabienne DAVERAN

PCN Espace

Le Point de Contact National (PCN) Cluster 4 - Espace

Isabelle DE SUTTER

Hélène BONFILS

Fabienne DAVERAN

Changement d'attribution depuis sept 24

Jusqu'au 31/05/25 :

Nous contacter par mail :
pcn-espace@recherche.gouv.fr

Recevoir les infos mail du PCN Espace :
https://www.horizon-europe.gouv.fr/inscription-liste-espace

Consulter notre page web :
https://www.horizon-europe.gouv.fr/espace-cluster4

Changement : à compter du 1er juin 2025, le PCN Espace sera représenté par Bpifrance jusqu'à la fin d'Horizon Europe : pcn-espace@bpifrance.fr

Pour les adhérents Aerospace Valley : Support de la Cellule Europe

europe@aerospace-valley.com

Info Day et Brokerage Event

Horizon Europe info days

Événements d'information en ligne organisés par Cluster et dédiés aux appels 2025: webstream

Cluster 4: 13 & 14 mai – Destination 5 Space : le 13 mai de 14h à 17h30

Brokerage events

Événements de networking pour trouver des partenaires (pitchs, rencontres bilatérales…).
Organisés pendant les périodes d'ouvertures des appels, par les programmes de financements et les réseaux de PCN

Space Brokerage Event, organisé par COSMOS4HE le 19 Mai 2025

www.horizon-europe.gouv.fr : l'information centralisée

Site français du programme européen pour la recherche et l'innovation

- ✓ Le programme (structure, objectifs)
- ✓ Les appels à propositions et info. associées
- ✓ Evènements, webinaires (live + enregistrés)
- ✓ Témoignages et conseils des bénéficiaires des subventions
- ✓ Les programmes de soutien nationaux et régionaux
- ✓ FAQ et conseils
- ✓ Fiches sur des questions transversales et juridiques et financières
- ✓ Suivi des statistiques
- ✓ scanR France et Dashboard européen

Devenez expert-évaluateur pour HORIZON EUROPE

Pourquoi

- ✓ Comprendre **l'évaluation** des projets, les attendus
- ✓ Être en **contact direct avec les responsables** des Directions thématiques de la CE
- ✓ Bénéficier d'un **environnement de travail international** - réseautage
- ✓ Bénéficier d'**un état de l'art** à l'instant T dans votre domaine

Comment

- **Inscription une seule fois** pour 7 ans ⇢ ***Mise à jour*** *régulière de votre profil*
- La CE interroge la base de données à travers des **mots clés** pour solliciter les experts et constituer ses panels d'évaluation

Liens

- Guide pour devenir expert
- S'enregistrer comme expert

Dispositifs d'accompagnement de Bpifrance pour les entreprises

Diagnostic Partenariat Technologique International: Accompagnement des PME et entreprises < 2000 salariés souhaitant participer à un projet collaboratif international de R&D+I (EUREKA, Eurostars, Horizon Europe, Digital Europe…).

Prise en charge de 50% d'une prestation de conseil pour une prestation max. de 25 000 €

Diagnostic Europe: Accompagnement des PME souhaitant participer à un programme européen de R&D+I individuel (EIC Transition, EIC Accelerator…).

Prise en charge de 50% d'une prestation de conseil pour une prestation max. de 20 000 €

Dispositif MRSEI de l'ANR pour les organismes de recherche

MRSEI pour les organismes de recherche français coordinateurs de projets collaboratifs
36 K€ pour 24 mois. Couvre les frais de montage de proposition (frais de réunions, dépenses de personnel, prestations externes, …)
Soumission en continu avec deux sessions de sélection par an - 2ème session 2025 : 15/09/2025 à 13:00

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Présentation Brenda DUPIAS

EEN

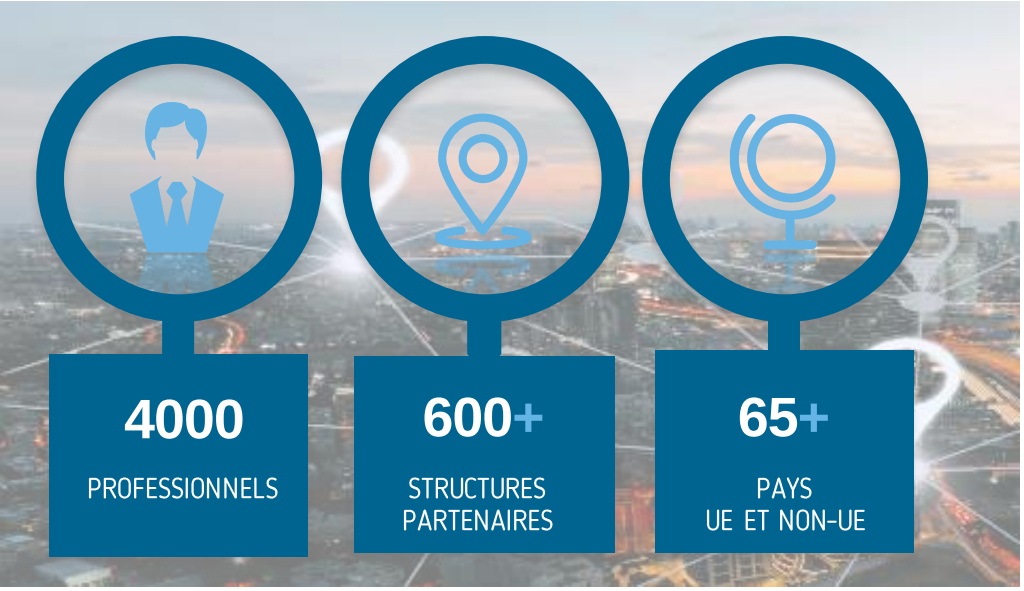
Enterprise Europe Network

Le Réseau de la Commission Européenne pour le développement et la résilience des entreprises

Infoday Espace 28/04/2025

Enterprise Europe Network, c'est :

- ➔ le **plus grand réseau** co-financé par la Commission européenne
- ➔ dédié au **soutien des PME** dans **leurs projets d'innovation, d'internationalisation, et de transitions.**



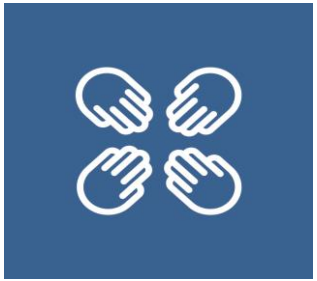
Basé en Occitanie et Nouvelle-Aquitaine

… et connecté au monde

Nos services aux entreprises

REGLEMENTATION EUROPEENNE

- Information – Conseil
- Feedback
- Propriété intellectuelle



PARTENARIATS TRANSNATIONAUX

- Recherche de partenaires commerciaux, technos, R&D
- Conventions d'affaires B2B sur des salons internationaux

INNOVATION TRANSITIONS

- Structurer sa démarche d'innovation
- Intégrer le numérique dans l'entreprise
- Adopter des pratiques durables

FINANCEMENT RECHERCHE & INNOVATION

- Accéder aux financements européens
- Rejoindre un consortium

CCI OCCITANIE
PYRÉNÉES-MÉDITERRANÉE

Financements européens

Nous vous accompagnons à toutes les étapes

En amont de l'appel

VEILLE PERSONNALISÉE
DES OPPORTUNITÉS

esa

CASSINI #EUSpace

horizon europe
Le programme européen pour la recherche et l'innovation

EUROPEAN UNION
EUROPEAN DEFENCE FUND

European Innovation Council

MODALITÉS
DE CANDIDATURE

Formalités sur le Portail de soumission des candidatures

Spécificités de l'appel…

CCI OCCITANIE
PYRÉNÉES-MÉDITERRANÉE

Identifier des partenaires

Infodays

DÉVELOPPEMENT DE **RÉSEAU**

Rencontres B2B

Profils recherche de partenaires

Groupes Sectoriels

RECHERCHE DE **PARTENAIRES**

Evènements de réseautage

Rencontre de partenaires potentiels:
Accompagnement sur des rendez-vous B2B

Conventions d'affaires :

Identification des conventions d'affaires en fonction des besoins de l'entreprise
Inscription sur la plateforme en ligne et optimisation de la visibilité
Planification des RDV, accompagnement logistique sur place

CCI OCCITANIE
PYRÉNÉES-MÉDITERRANÉE

Thématique : Applications et technologies pour l'aéronautique et le spatial

- RDVs **virtuels** à l'échelle européenne
- Participation d'**entreprises, laboratoires et universités**
- **Renforcez votre réseau** en vue des opportunités Horizon Europe, EUSPA et Fonds de Défense Européen
- **Gain de temps et d'efficacité** dans l'identification de partenaires stratégiques

Space Tech Expo
Brême, Allemagne
18 - 20 novembre 2025

- Le plus grand salon dédié aux technologies spatiales, en Europe
- En 2024: **1600 participants et 3500 RDVs, plus de 60 pays**

Partenariats transnationaux

Base de données de profils qualifiés : près de 1300 profils régulièrement mis à jour et renouvelés

Business
Distributeurs, sous-traitants, fournisseurs...

Technologie
Transfert de techno

R&D
Appels à projets collaboratifs

Edition d'un profil de recherche anonymisé

Moteur de recherche par mots-clés

Outil de veille

Mise en relation directe avec l'émetteur

Suivi des négociations jusqu'à l'accord de partenariat

Optimiser sa proposition

CONSEILS
POUR REDIGER

- Work Packages
- Budget
- Accord de consortium…

RELECTURE
DE PROPOSITIONS

- Cohérence de la proposition
- Conseils d'amélioration…

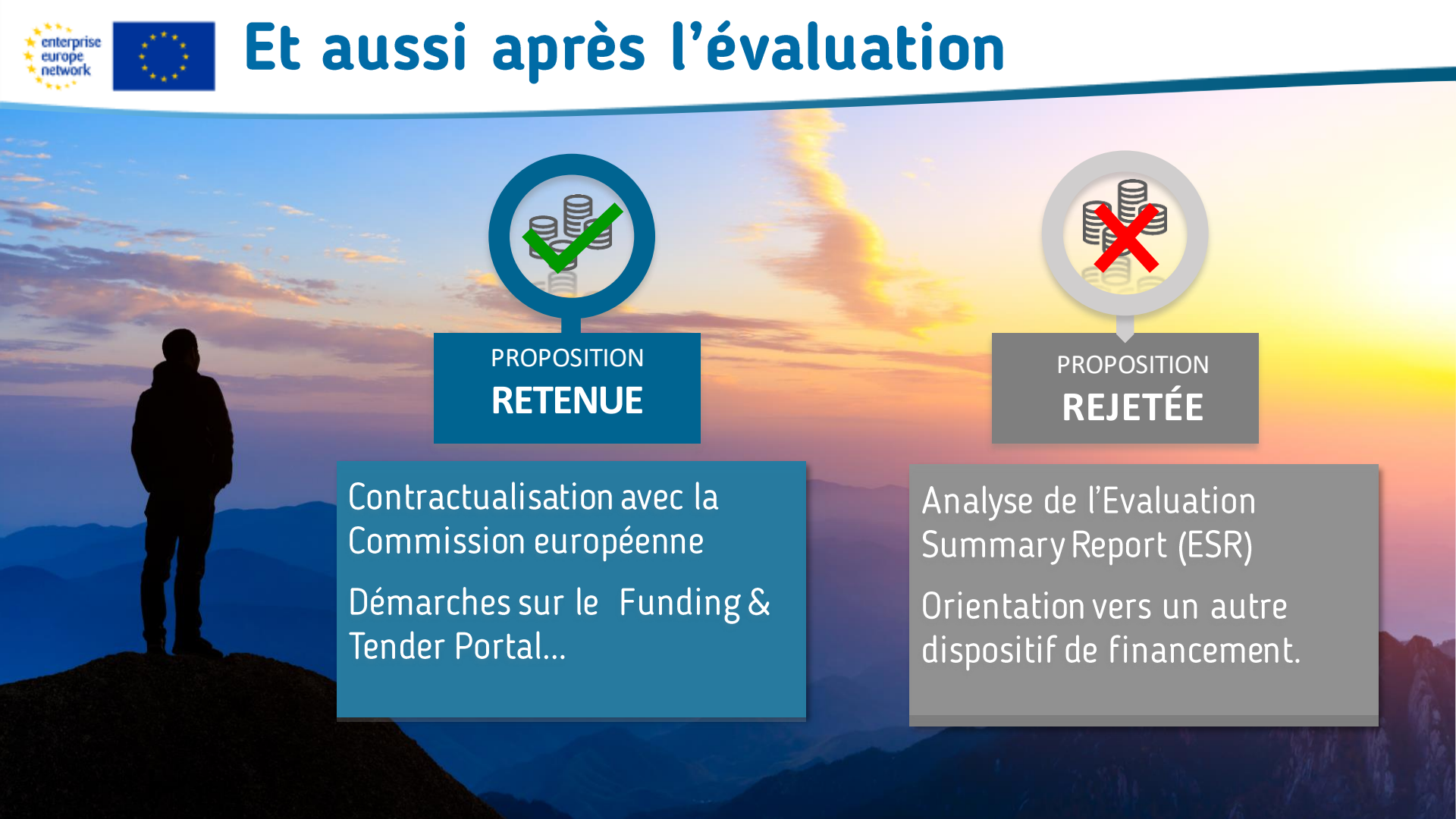
Service EIC Accelerator

RELECTURE
DE PROPOSITIONS

ENTRAINEMENT
AU PITCH

En partenariat avec les PCN EIC ACCELERATOR

Et aussi après l'évaluation



PROPOSITION
RETENUE

Contractualisation avec la Commission européenne

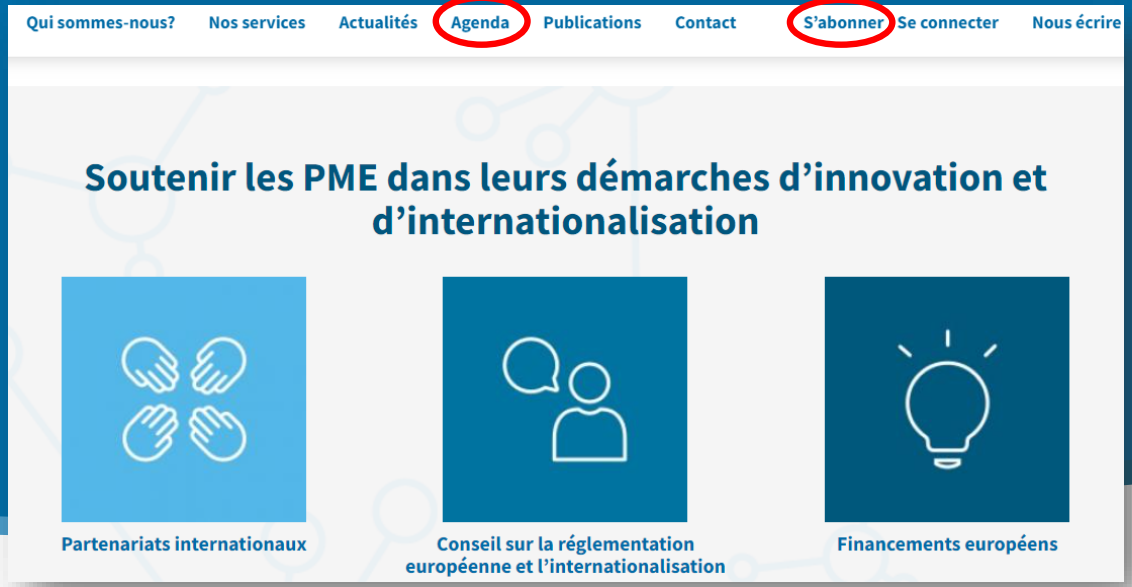
Démarches sur le Funding & Tender Portal...

PROPOSITION
REJETÉE

Analyse de l'Evaluation Summary Report (ESR)

Orientation vers un autre dispositif de financement.

Restez informés !



Notre site internet : https://www.entreprise-europe-sud-ouest.fr/

Et sur les réseaux : @Enterprise Europe Network Sud-Ouest

#EENCanHelp

Contact

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brenda.dupias@occitanie.cci.fr
Tél : 06 62 19 51 50

enterprise europe network

een.ec.europa.eu