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FILIERA

Difesa e Space Economy: opportunità per le imprese



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SOCIETÀ BENEFIT

28 settembre 2026

Connettere spazio e non spazio

Alcuni strumenti di supporto e finanziamento per accelerare i progetti

Stefano Carosio - Executive Director
Valeria Ferrando - Open Innovation Manager
Antonio Altana - Project Manager

Esperienza STAM nello spazio

Downstream

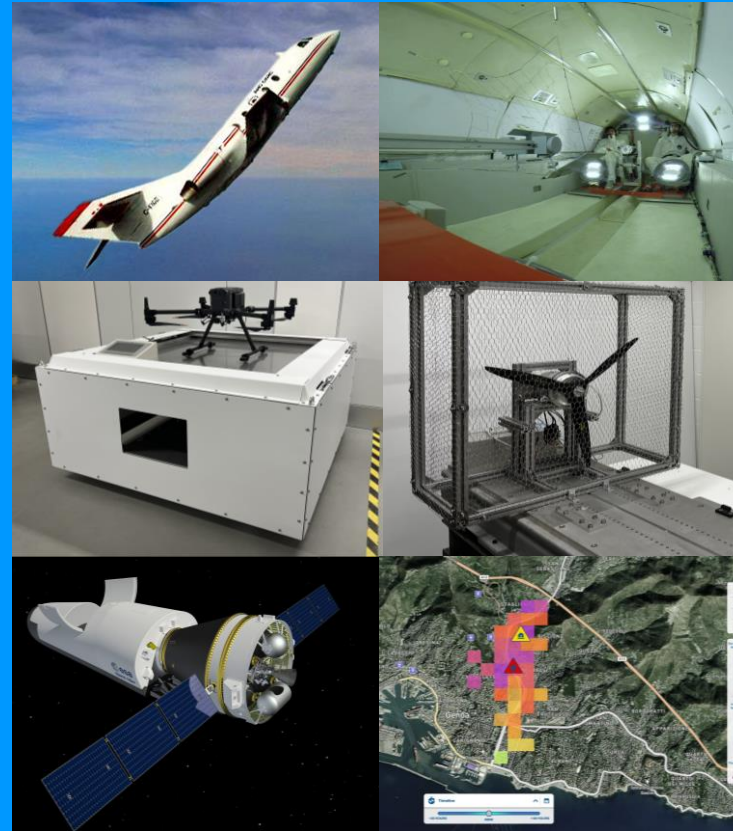
- Servizi Copernicus basati su AI
- Manutenzione di asset basata su GNSS
- Analisi di telerilevamento satellitare

Upstream

- Sistemi di automazione spaziale
- In-orbit servicing e rimozione attiva dei detriti
- Addestramento degli operatori basato su XR

Cross Cutting

- Sfruttamento commerciale di Space Rider
- ESA Technology Broker per l'Italia
- ESA InCubed Ambassador
- ESA BSGN Industry Accelerator
- Africa Business Innovation Lab



CONNECTING SPACE TECHNOLOGIES WITH TERRESTRIAL INNOVATION

From technology transfer to industrial impact

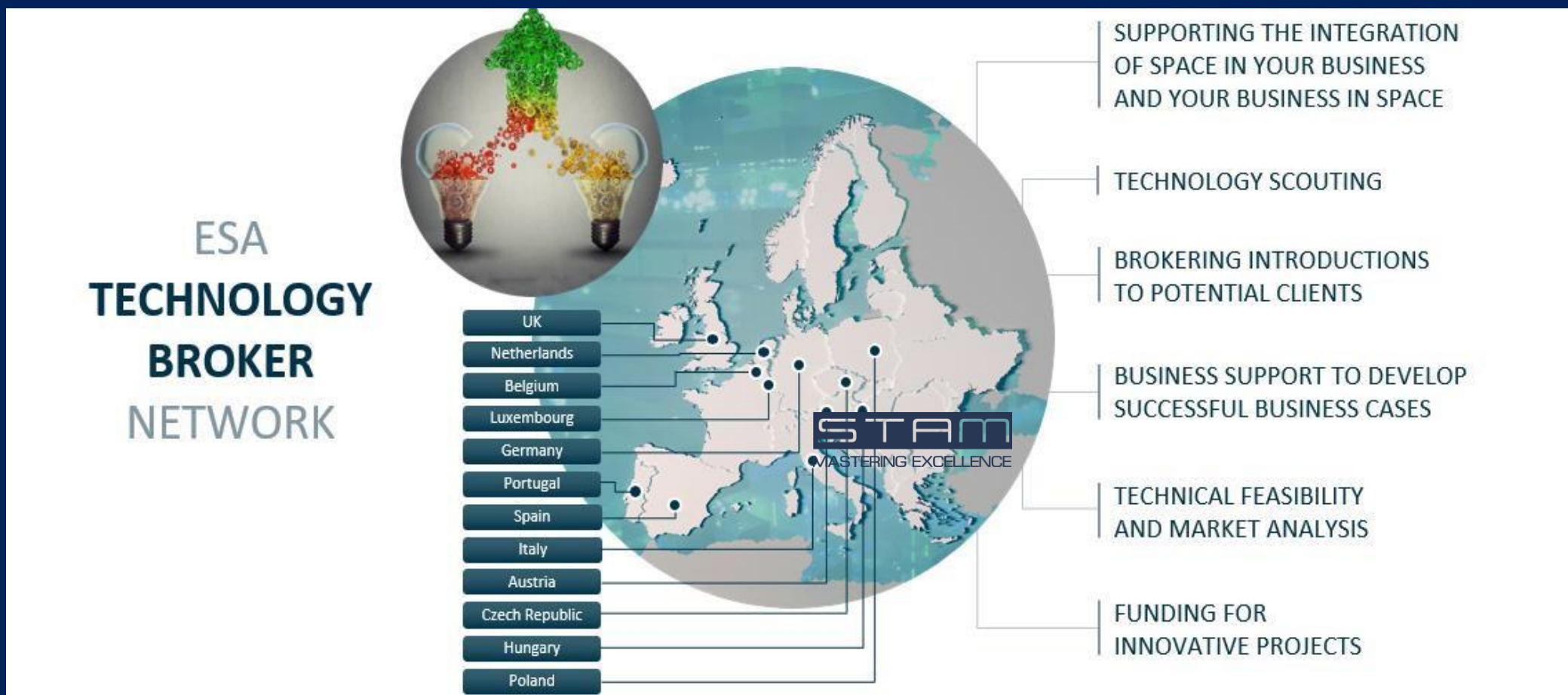


TECHNOLOGY
BROKER

Italy

ESA Technology Broker Italy

Stam è l'**ESA Technology Broker** in Italia ed è responsabile della gestione del programma **ESA Spark Funding** in collaborazione con l'**Agenzia Spaziale Italiana**.



Tech transfer: un esempio

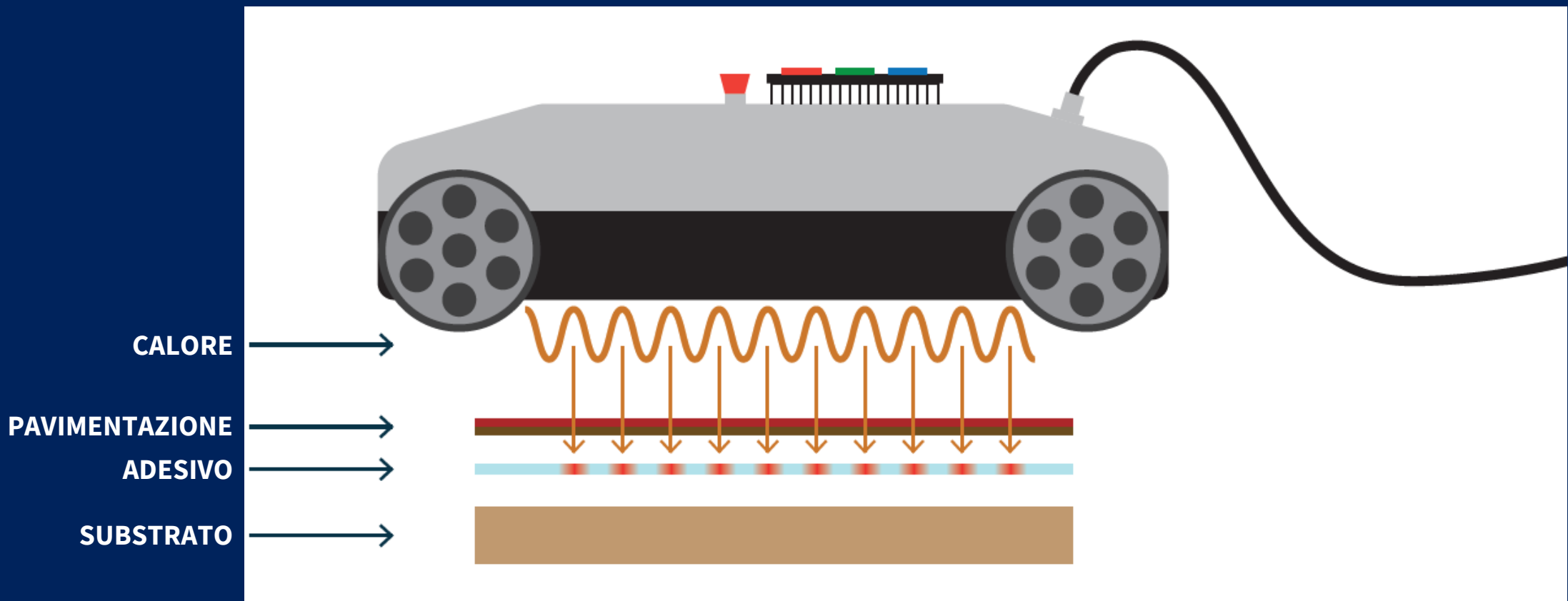
PISTE DI ATLETICA CIRCOLARI

- Infrastrutture sportive: piste di atletica amovibili a fine vita
- Edilizia: pavimentazioni rimovibili
- Industria dei trasporti (treni e navi)



Tech transfer: un esempio

Come funziona: un sistema di riscaldamento induttivo controllato attiva le reazioni dell'adesivo, consentendo la rimozione della pavimentazione senza danneggiare il sottofondo. Questo permette di riutilizzare, riciclare o recuperare i materiali, favorendo una soluzione circolare e a basso impatto in termini di rifiuti.



Tech transfer: un esempio

LE AZIENDE COINVOLTE

- **Gruppo Mondo** (technology receiver)
- **Inovalab** (technology donor)
- **STAM** (ESA Technology Broker Italy)



MONDO Sport & Flooring



ARTIGO Commercial Flooring



MONDO Toys and Balls

ESA Spark Funding: esempio

Progetto: SpaceAAL Chuck: grasping objects in space with a spin-in electro-adhesive technology

Necessità spaziale: I sistemi meccanici ed elettromagnetici attualmente usati nello spazio sono ingombranti, lenti e privi di versatilità. Le applicazioni target includono il Servizio in Orbita (IOS), la Rimozione Attiva dei Detriti (ADR) e la Produzione in Orbita (IOM).

Tecnologia non-spaziale: Dispositivi di presa robotici basati su Electro Active Adhesive Layer (EAAL), una tecnologia a film sottile che diventa adesiva su comando tramite forze elettrostatiche con un'elevata densità di forza, ultrarapida e altamente efficiente dal punto di vista energetico, con capacità di rilevamento AI integrata per prossimità, contatto e forza scambiata con l'oggetto target.



Source: Adaptronics Srl

ESA Spark Funding: la Open Call

Prossima cut-off date: ~~22 settembre 2026~~ **EXTENDED DEADLINE 29 settembre 2026**

Istruzioni e template su: <https://www.esa-technology-broker.it/spark-funding>

NEWS!

The ESA Spark Funding deadline has been extended to 29th September 2026!

ESA supports companies in Italy willing to use space technology in their processes or willing to enter the space market through the ESA Spark Funding program.

STAM, ESA, and ASI welcome applications addressing:

- **Spin-off:** transfer of space technology/assets into non-space domains/services
- **Spin-in:** transfer of a non-space technology/assets into space domains/services

The scope of activity of the ESA Spark Funding Open Call covers:

Phase 1

Technical Breadboarding & Business Case

Financial contribution: €75.000

Co-funding: min. 20% for SMEs, min. 50% for large companies.

Duration: up to 12 months.

Objectives: Definition of a minimal viable product/service and technical breadboard to validate critical functions and value proposition, as well as the refinement of an applicable business case.

Phase 2

Demonstration Project with Customer/User

Financial contribution: €150.000

Co-funding: min. 20% for SMEs, min. 50% for large companies.

Duration: up to 12 months.

Objectives: For spin-off projects: definition of an elaborate prototype/service and demonstration of the major capabilities in a relevant environment. For spin-in projects: a clear advance in complexity, system integration, testing envelope must be evident compared to an existing prior technical breadboard.



ACCELERATING EARTH OBSERVATION INNOVATION

From EO technologies to commercial businesses



INCUBED
AMBASSADOR

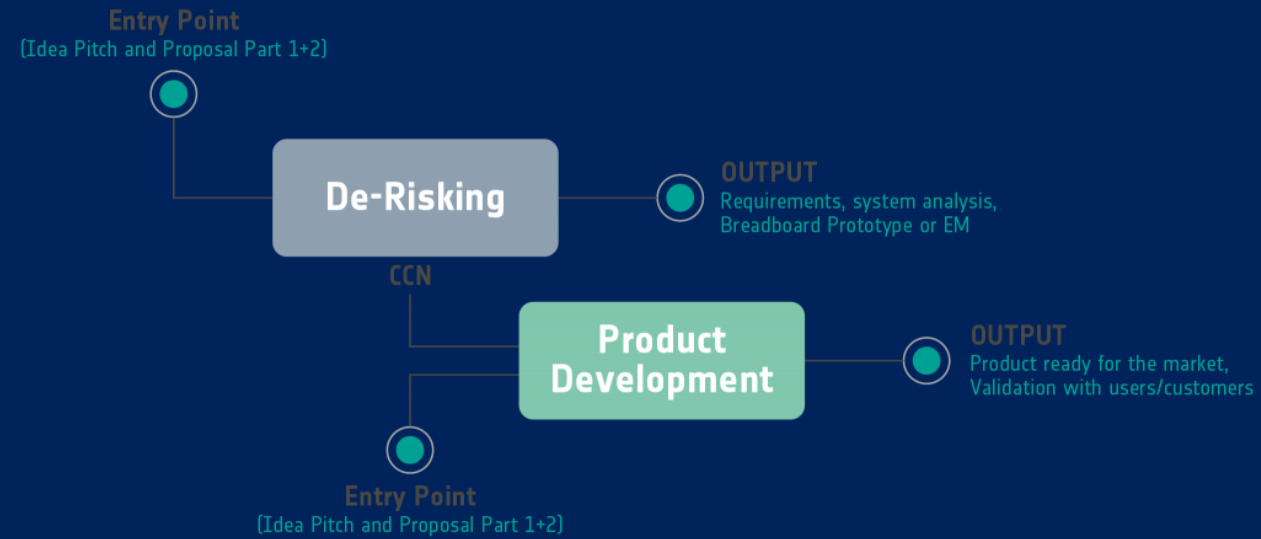
Italy

InCubed and the ESA Φ -lab

InCubed is an ESA programme managed by the Φ -lab INVEST Office.

- It is a Public Private Partnership co-funding programme (“Inusting in Industrial Innovation”) that supports the development of innovative, commercially viable EO products and services based on Earth observation imagery and datasets.
- The programme covers the full EO value chain: from building satellites to ground applications and new EO business models.
- **Project size 100k€ to >25M€**
- **Funding rate up to 80%**

InCubed Process

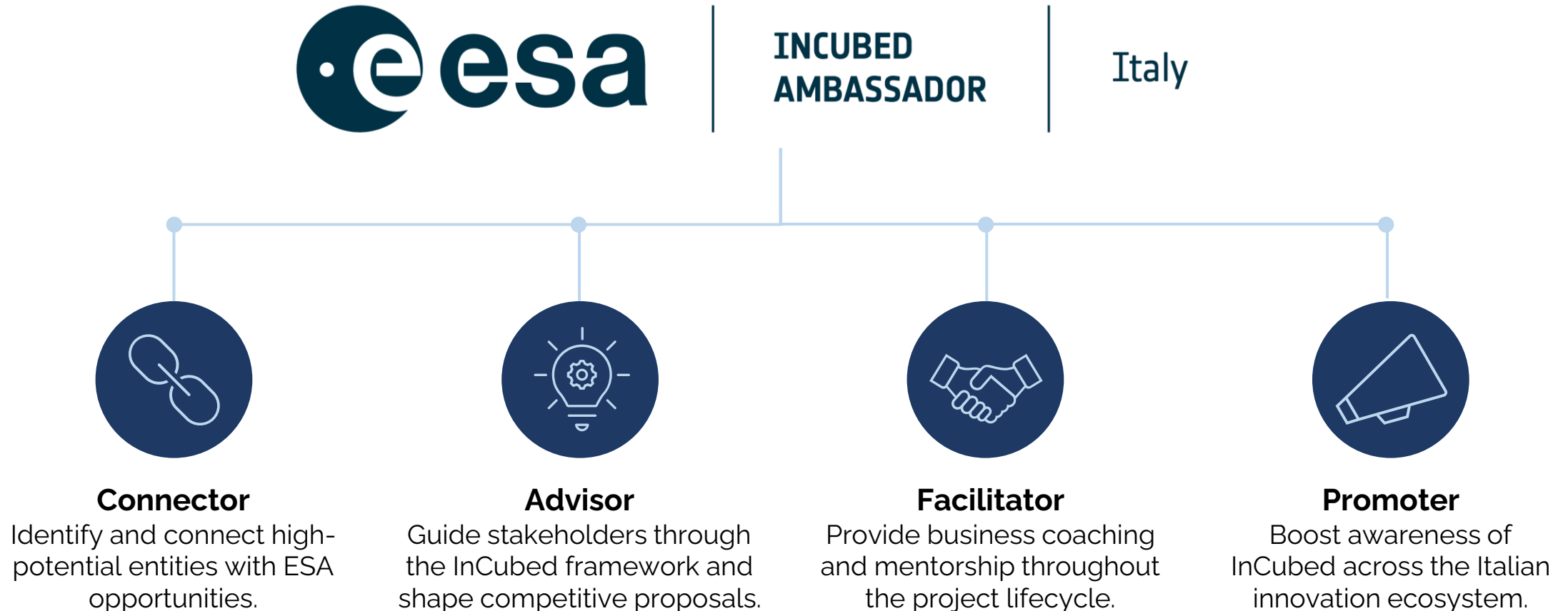


Cycle	TRL	Funding Level up to % (of total allowable cost)		Funding level for Universities, Public Sector Entities or Research Institutes with no commercial Interest
		Non-SME	SME	
De-risking	Up to 4-6	Up to 75% ⁽¹⁾	Up to 80%	Up to 100% of maximum 30% of the cycle costs
Product development	Up to 7 (8 for IOV)	Up to 75% ⁽¹⁾	Up to 80%	Up to 100% of maximum 30% of the cycle costs

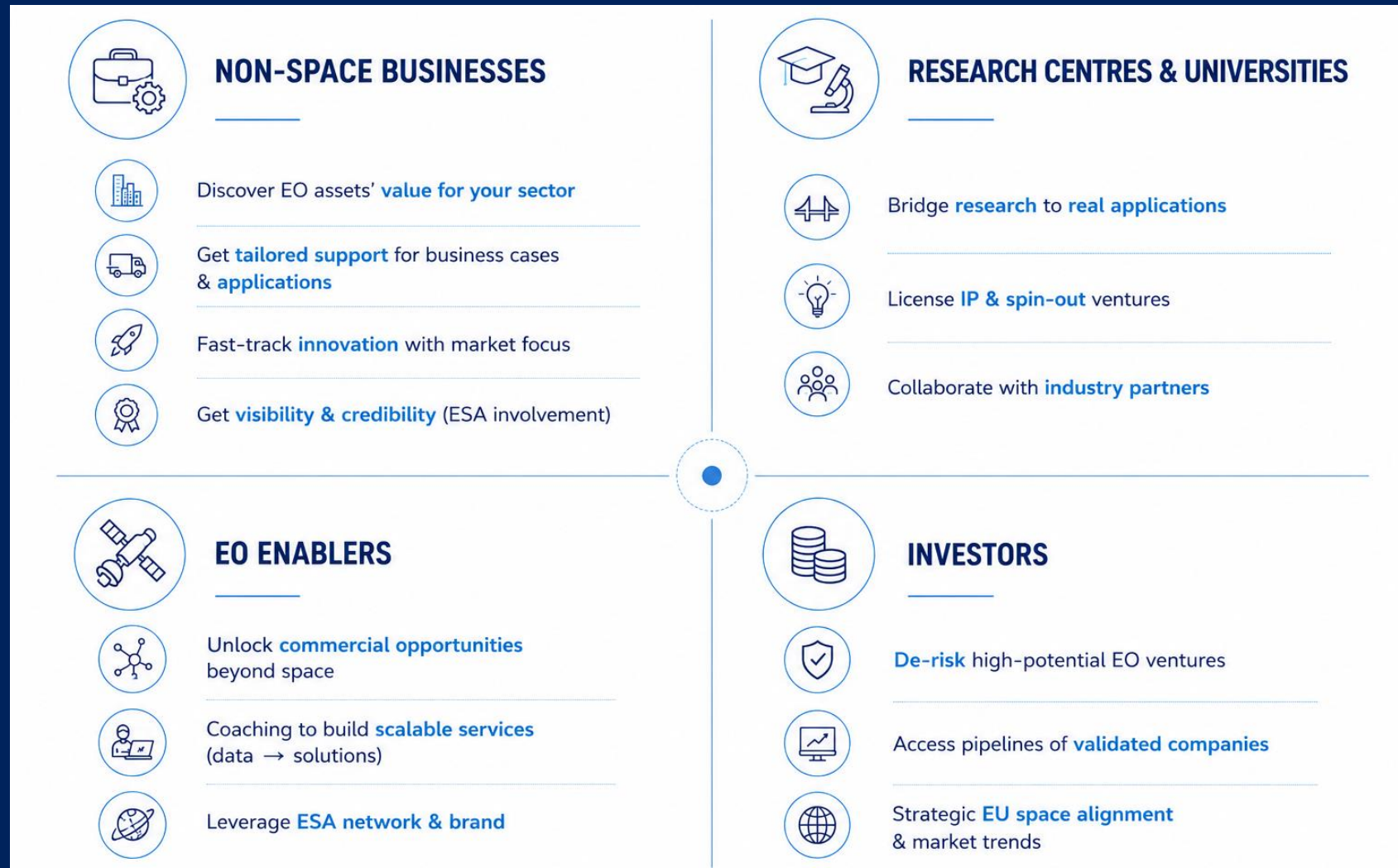
⁽¹⁾ Depending on the technological or market risks as assessed by the Agency.

The role of the ESA InCubed Ambassador

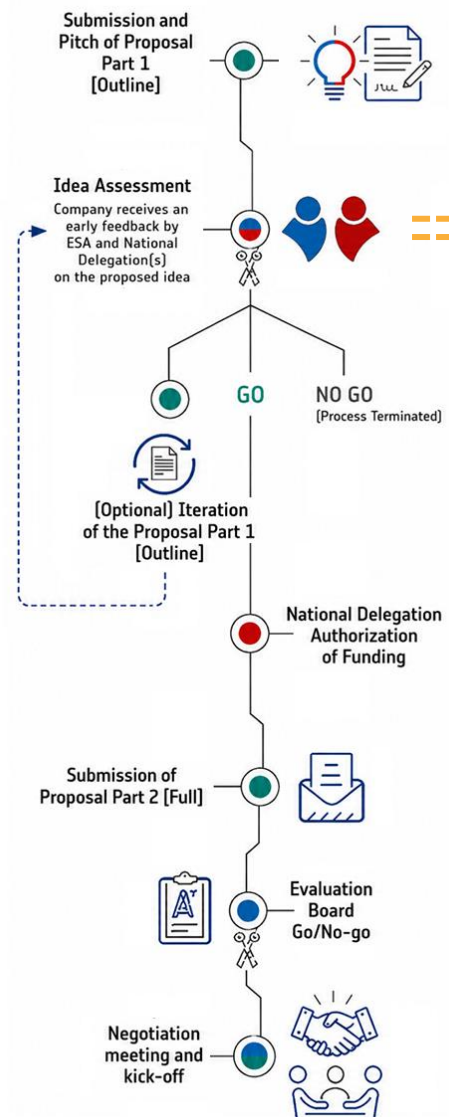
We help companies access, navigate, and succeed in the programme in close collaboration with ESA and liaising with ASI.



Connecting Stakeholders to Opportunity



Our business support along the journey



Engagement and early-stage support services

- Assess the eligibility and alignment of your concept with InCubed programme
- Guide you through the application and funding process, including potential redirections to other ESA initiatives
- Provide tailored resources and relevant technical documentation
- Evaluate your business needs and innovation readiness
- Identify key Earth Observation (EO) enablers to support and accelerate your solution

Business coaching and refinement of business ideas

- Connect with experienced coaches with proven business development expertise to help bridge critical gaps
- Develop high-potential business cases tailored to ESA InCubed priorities
- Get support in building high-impact, market-ready EO-driven projects

Some project examples for inspiration (1/8)

AIX - Artificial Intelligence for Smart EO Data Distribution

Application: Platform for on-orbit processing and secure distribution of Earth Observation data, leveraging artificial intelligence and distributed computing capabilities onboard satellites. The system enables applications to run directly in space, allowing data to be processed, filtered and transmitted to users with minimal latency.

Partners: Planetek Italia, D-Orbit, AIKO.

Target Stakeholders: Satellite operators, telecom and data service providers, AI developers, cloud platforms and organisations requiring fast and secure access to satellite-derived information.

Relevance:

- Demonstrates the evolution of satellites into programmable digital infrastructure supporting data and telecom services.
- Enables real-time processing and trusted distribution of space data directly from orbit.
- Supports new applications based on secure data flows between space assets and terrestrial digital platforms.



Some project examples for inspiration (2/8)

DEEP PROPERTY

Application: Automated extraction of detailed building features using proprietary AI applied to geospatial datasets (satellite, street-level imagery, etc.). Delivered as a cloud-based SaaS via API.

Partners: Ticinum Aerospace.

Target Stakeholders: Insurance, reinsurance, and risk modelling companies; also relevant to real estate, energy, and ESG rating sectors.

Relevance:

Provides high-quality, per-building risk data which improves underwriting, pricing, and risk models compared to aggregated datasets.

Reduces uncertainty in risk estimation, enabling more competitive insurance policies and resilience to climate-change-driven losses.



Some project examples for inspiration (3/8)

Sustainable EO-based Optimization for AI-driven dynamic Routing in maritime transport

Application: Digital platform integrating satellite data, vessel telemetry and weather intelligence to support secure maritime communication, route optimisation and emissions monitoring for global shipping fleets.

Partners: AlongRoute Data IKE

Target Stakeholders: Shipping companies, fleet operators, insurers, port authorities and logistics platforms requiring reliable satellite-enabled information services.

Relevance:

Demonstrates how satellite connectivity and EO data can enable secure operational services for global logistics.

Supports trusted monitoring and reporting systems for environmental compliance and fleet operations.

Shows how space infrastructure contributes to resilient digital services for critical transport networks.



Some project examples for inspiration (4/8)

TYCHOBOb – SmallSats, Big Impact: Making On-board Processing Available for Everyone

Application: Compact FPGA/ARM-based edge computer for small Earth Observation satellites, enabling high-rate sensor data processing and AI/ML applications directly in orbit. It reduces the amount of raw data to be downlinked and allows events to be detected and processed with minimal latency.

Partners: Tycho Space Technologies, S&T Norway, NTNU.

Target Stakeholders: EO satellite operators and mission owners, smallsat and payload developers, research institutes and universities, AI/algorithm developers requiring high-performance on-board processing.

Relevance:

- Shows how embedded computing, FPGA and AI technologies can become commercial hardware for EO satellites.
- Enables satellites to process sensor data and run AI applications directly in orbit, reducing latency and ground-processing requirements.
- Lowers the entry barrier to space hardware through remote access, hardware leasing and a developer-oriented integration environment.

TYCHOBOb – A SIMPLE ENTRY TO EDGE COMPUTING

- ⚡ Simple and Fast Setup
- ⚙️ Flight Proven Software
- 📈 Scalable Solution



TYCHO SPACE

Some project examples for inspiration (5/8)

SARTO - High-Efficiency X-band Amplifiers for SAR and EO Downlink

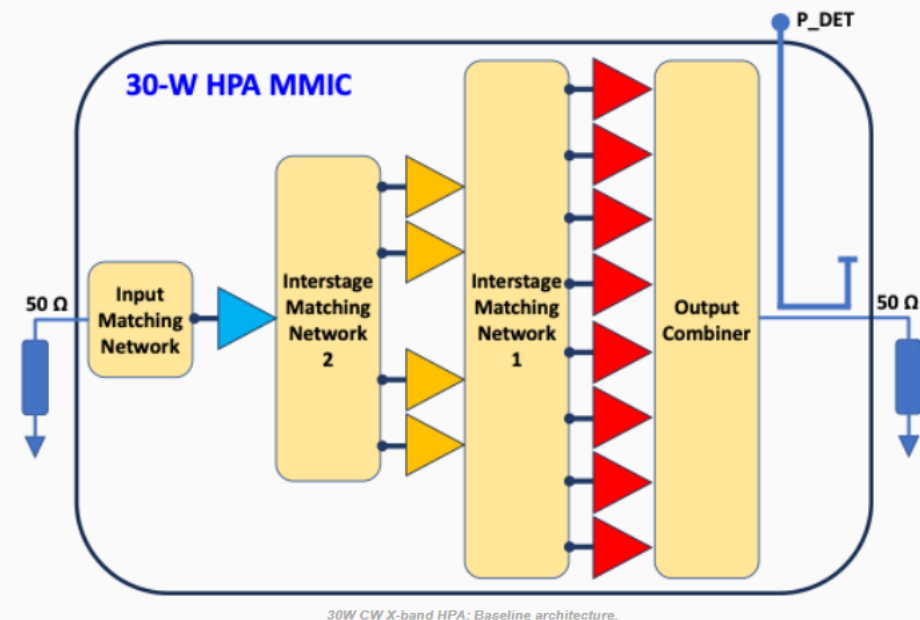
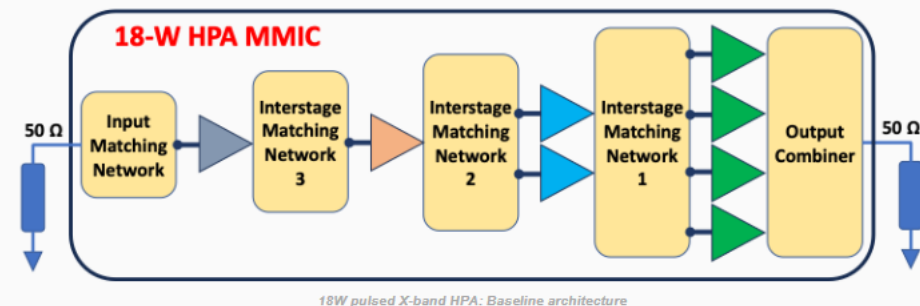
Application: Development of advanced X-band GaN/SiC high-power amplifier MMICs for SAR antenna transmit/receive modules and satellite data downlink. The solution targets higher integration and efficiency, with potential power savings of up to 40% for SAR antennas.

Partners: MEC – Microwave Electronics for Communications, TASI.

Target Stakeholders: SAR payload and antenna manufacturers, EO satellite manufacturers and integrators, RF subsystem suppliers, and airborne or ground-based AESA radar integrators.

Relevance:

- Shows how embedded computing, FPGA and AI technologies can become commercial hardware for EO satellites.
- Enables satellites to process sensor data and run AI applications directly in orbit, reducing latency and ground-processing requirements.
- Lowers the entry barrier to space hardware through remote access, hardware leasing and a developer-oriented integration environment.



Some project examples for inspiration (3/8)

HAPSEYE – High Altitude Pseudo-Satellite Platform for Earth Observation

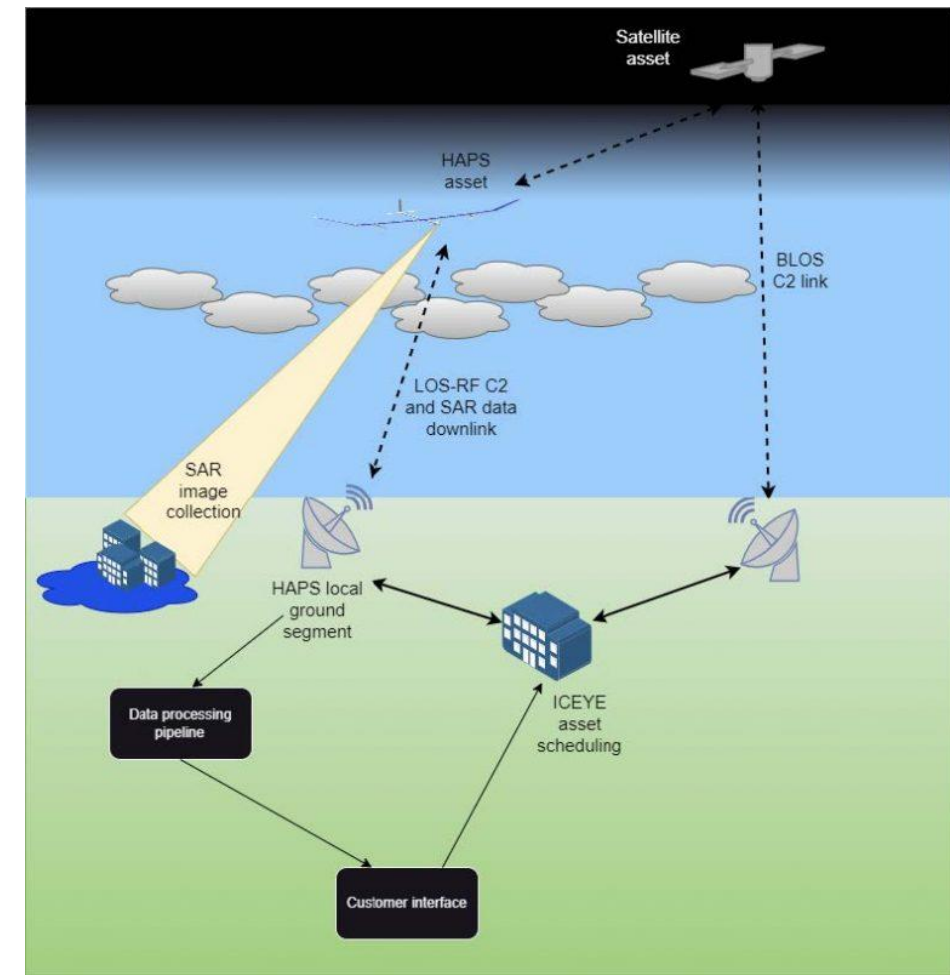
Application: Compact FPGA/ARM-based edge computer for small Earth Observation satellites, enabling high-rate sensor data processing and AI/ML applications directly in orbit. It reduces the amount of raw data to be downlinked and allows events to be detected and processed with minimal latency.

Partners: ICEYE

Target Stakeholders: Government and emergency-management organisations, disaster-response operators, insurers and reinsurers, infrastructure operators and security/defence users requiring persistent all-weather monitoring.

Relevance:

- Combines aeronautical platform engineering with a space-derived SAR payload, creating a new type of EO infrastructure.
- Creates opportunities for suppliers of structures, propulsion, solar power, autonomous flight, avionics and payload integration.
- Demonstrates how alternative platforms can complement satellite constellations where persistence and rapid response are commercially valuable.



IFM NANO R³ and MICRO R³ Thrusters Qualification

Application: Development and qualification of high-reliability versions of ENPULSION's compact FEEP electric propulsion systems for small and medium satellites, including EO spacecraft and constellations. The activity upgrades existing commercial products for higher radiation tolerance and demanding space environments.

Partners: ENPULSION, FOTEC. 

Target Stakeholders: Small and medium satellite manufacturers, constellation operators, EO mission developers and platform integrators requiring compact, reliable and easily integrated electric propulsion.

Relevance:

- Shows how InCubed can support qualification and industrialisation of a physical subsystem, not only the development of new sensors or data services.
- Builds on an existing commercial propulsion technology and adapts it to more demanding satellite markets.
- Relevant to companies with capabilities in propulsion, precision manufacturing, electronics, thermal design, materials and qualification/testing.



Figure 1: IFM Nano Thruster COTS+, source: ENPULSION



Figure 2: IFM Micro Thruster; source: ENPULSION

MANTIS – Mission and Agile Nanosatellite for Terrestrial Imagery Services

Application End-to-end EO mission based on an agile 12U nanosatellite hosting a compact high-resolution VIS/NIR optical payload, reconfigurable on-board processing and ground-based machine-learning analytics, designed around commercial requirements from the energy and natural-resources sectors.

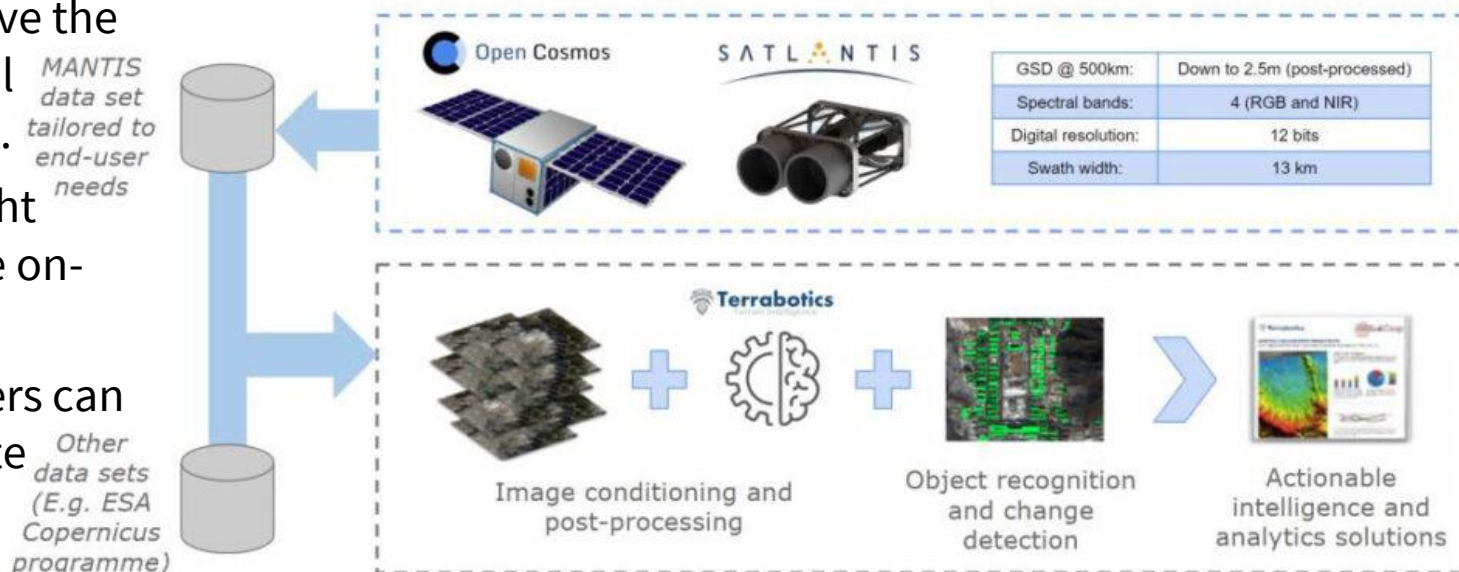
Partners: Open Cosmos, Terrabotics, IngeniArs, Satlantis.



Target Stakeholders: Energy, mining and natural-resource companies, infrastructure operators and organisations requiring flexible tasking, frequent revisit and high-resolution imagery over remote locations.

Relevance:

- Demonstrates how a commercial need can drive the joint development of satellite platform, optical payload, electronics and processing hardware.
- Combines compact optomechanics, lightweight structures, COTS detectors and reconfigurable on-board processing in a small satellite.
- Shows that relatively small specialised suppliers can contribute different technologies to a complete commercial EO mission.



ESA InCubed value chain



ESA InCubed Ambassador



INCUBED
AMBASSADOR

Italy



TRANSFORM

We help transform EO ideas into innovative products and services.



PREPARE

We support the development of high-impact business cases and competitive proposals.



BUSINESS COACHING

We connect you with experienced coaches and provide one-to-one support to accelerate your business growth.



CONNECT

We connect you with partners, CSPs and the European EO ecosystem.



PROJECT SIZE

From **€100k**
up to **>€25M**



FUNDING RATE

Up to **80%**



COVERS THE FULL EO VALUE CHAIN

From satellites to
applications and
business models.



SUPPORTED BY ESA & Φ-LAB

Public Private
Partnership programme.

ACCELERATE AGRIFOOD INNOVATION WITH MICROGRAVITY

Bridging terrestrial market needs with space capabilities



BSGN Agrifood Industry Accelerator- Overview

STAM and SCM manage the **ESA Business in Space Growth Network (BSGN) Agrifood Industry Accelerator (2026-2028)**

BSGN Industry Accelerator **supports industry-driven projects by co-funding in flight implementation**

GOALS:

- Bridge terrestrial market needs with space capabilities
- Stimulate commercially-oriented innovation pathways
- Facilitate the creation of new partnerships and co-investment opportunities

HOW WE DO THAT:

- Ecosystem aggregation
- Open call to select projects to be accelerated
- Up to 3 projects passing decision gate will be co-funded by ESA (**50% funding**) | **available ESA budget 800k€**
- One-to-one acceleration support
- Technical mentoring and business coaching
- Matchmaking with Commercial Service Providers (CSPs)
- Support in accessing both ESA and non-ESA funding opportunities



Where Could Microgravity Create Value?

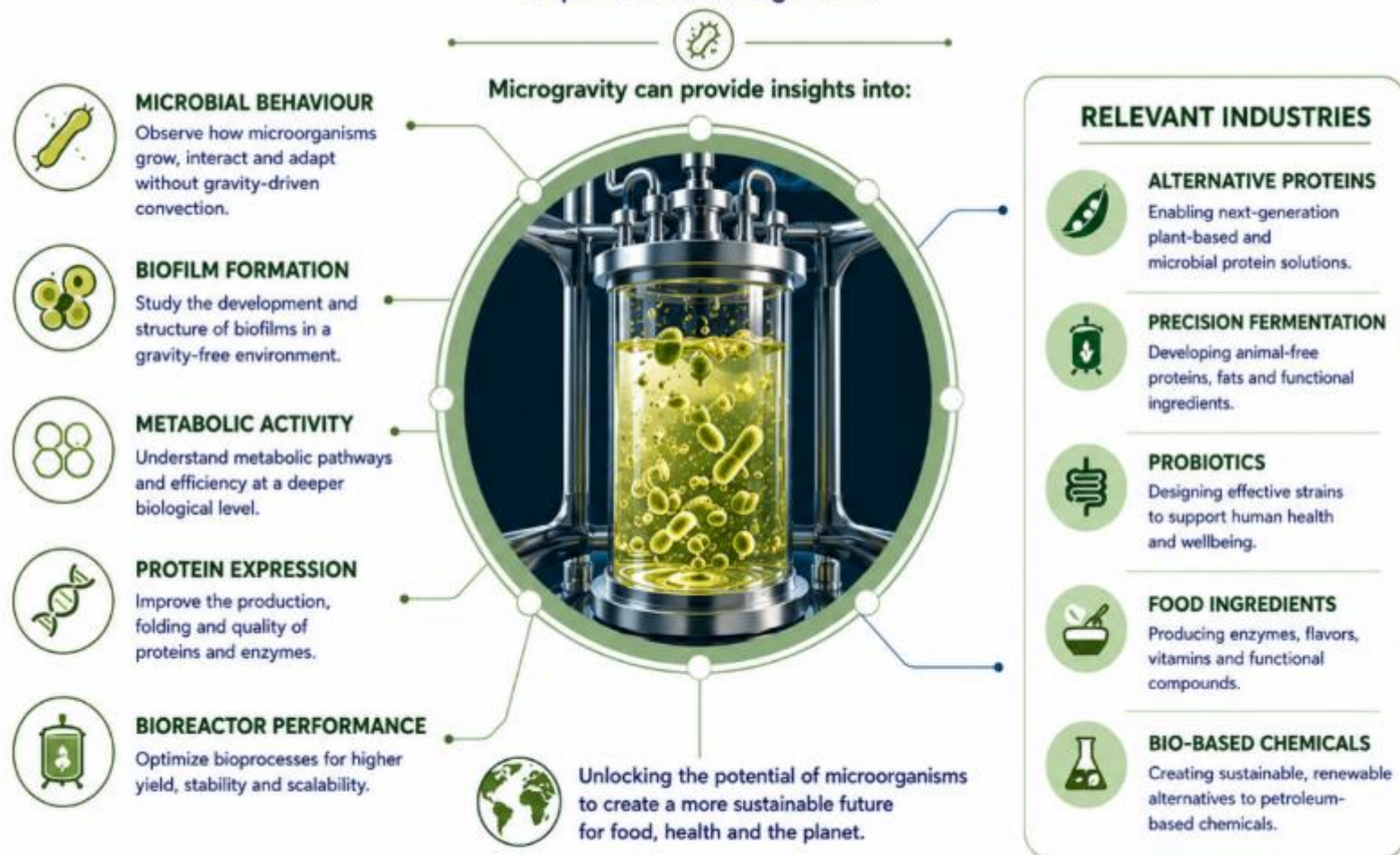
Microgravity enables the study of biological processes in ways that are difficult or impossible on Earth

- Eliminates gravity driven convection and sedimentation
- Reveals fundamental biological mechanisms
- Generates insights that drive innovation and commercial value on Earth



Use case: Fermentation & Biomanufacturing

Many of the fastest-growing food innovation sectors depend on microorganisms.



ASTROBIOME®

Astrobiome is developing microbiome-based solutions to improve human health, longevity and sustainable food systems. Through participation in the Accelerator, Astrobiome explored how microgravity can be used as a unique R&D environment to better ***understand microbial behaviour*** and unlock new opportunities for product development.

The project successfully progressed from concept development to an ISS mission in 2025

Use case: Circular Food Systems

The same technologies being developed for long-duration space missions have direct terrestrial relevance.



Dual-Market Opportunity



Earth Applications

Sustainable solutions for food security, climate resilience and resource efficiency.



Space Exploration

Reliable, regenerative systems for long-duration missions.

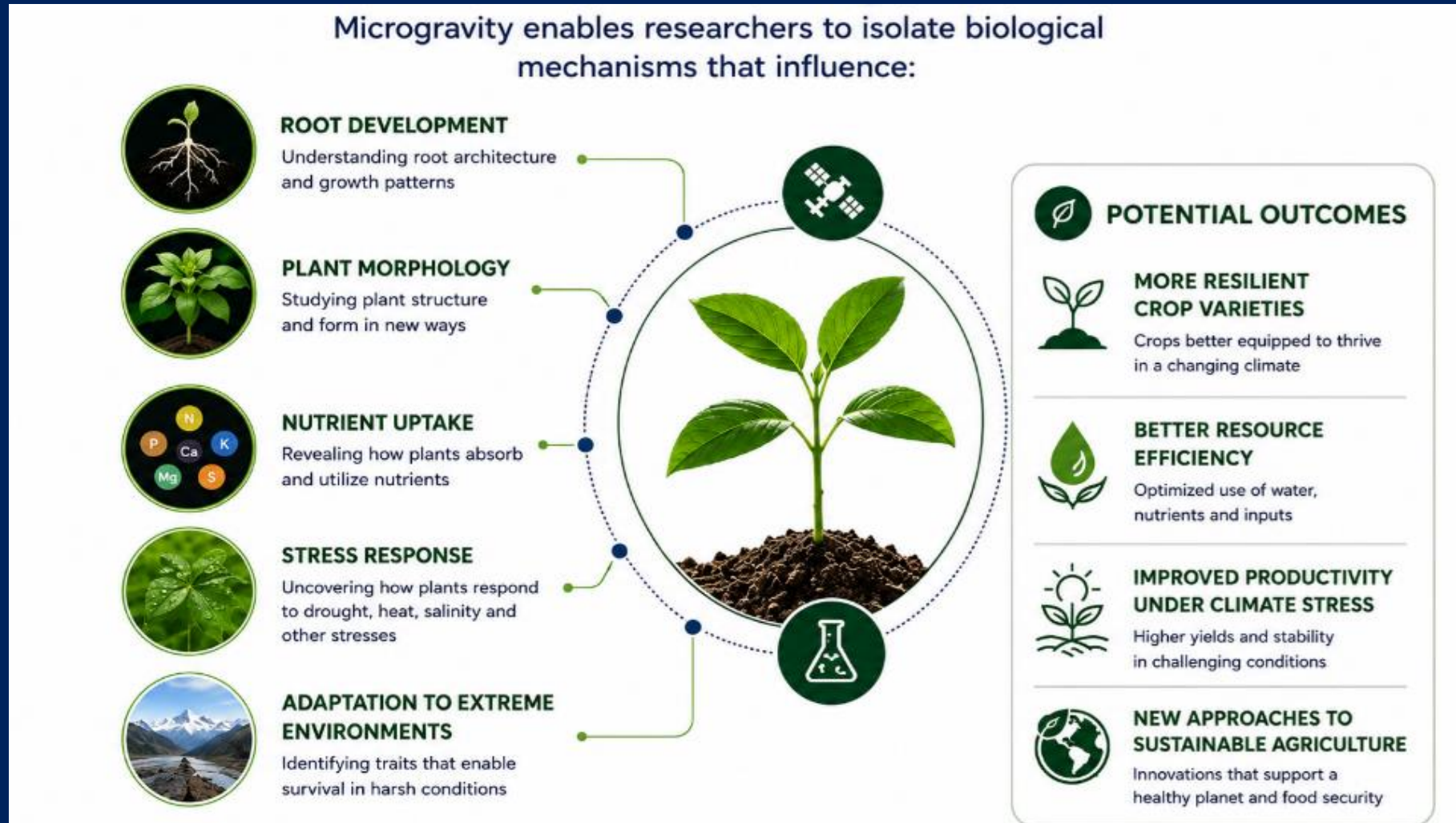
This is particularly powerful because innovations can create value in **two markets** simultaneously.



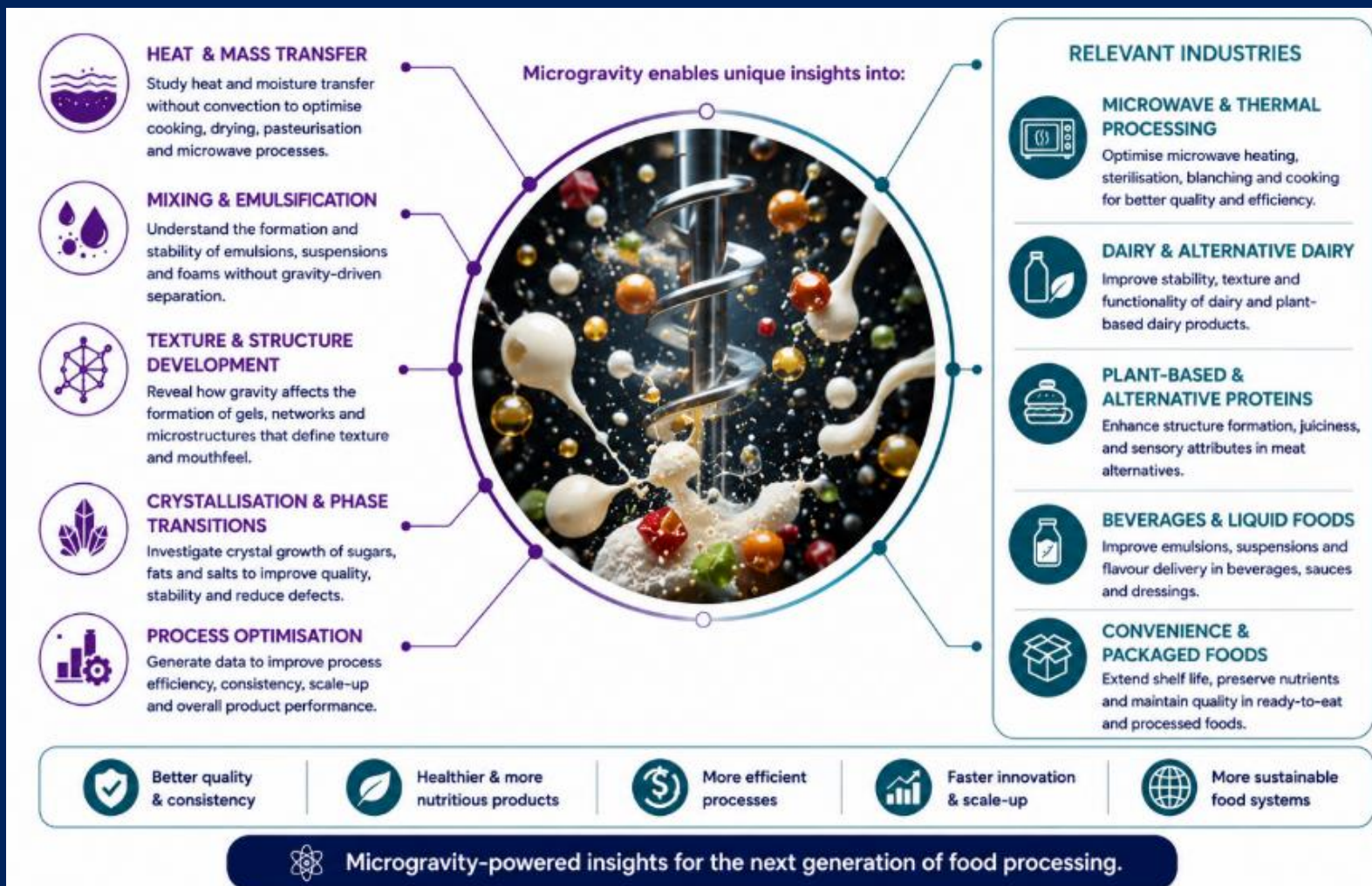
Sophie's Bionutrients is pioneering the production of sustainable microalgae-based protein ingredients for the food industry.

Through the Accelerator, Sophie's Bionutrients **leveraged microgravity aboard the ISS to investigate how gravity influences the growth, nutritional composition and protein production of microalgae**. The resulting in-space experiment is helping demonstrate how microgravity can become a valuable tool for developing the next generation of food ingredients and resilient food systems for both Earth and future exploration missions.

Use case: More Resilient Agriculture



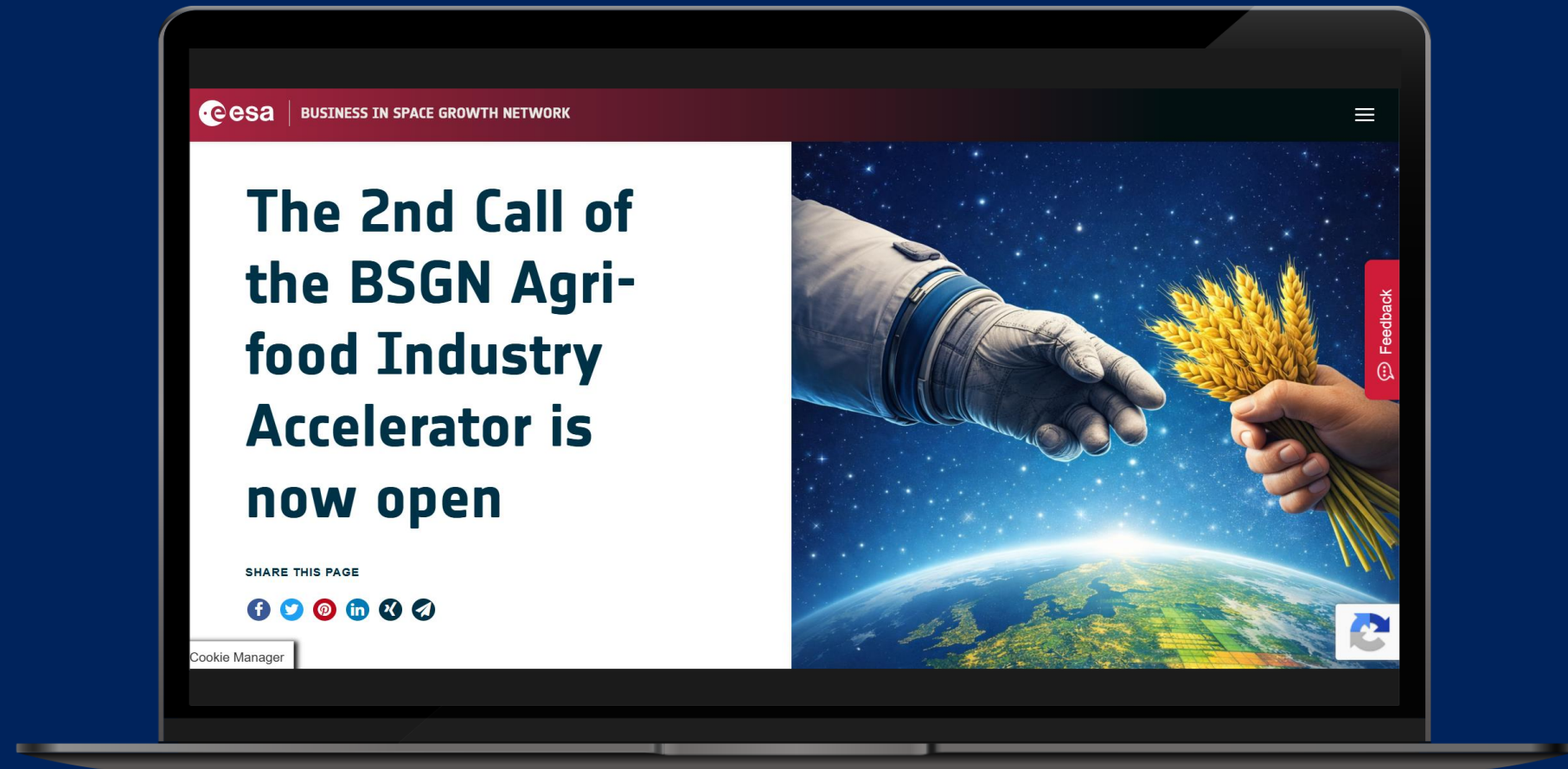
Use case: Next generation of food processes



BSGN Agri-food Industry Accelerator: la call

Scadenza della call: **15 gennaio 2027**

Istruzioni e template su: <https://bsgn.esa.int/2026/09/02/2nd-call-agri-food-industry-accelerator/>



Information webinar



1st October 2026 | 4 PM CEST

ESA BSGN Agri-food Industry Accelerator Information Webinar



SCAN TO JOIN THE WEBINAR



- Websites
 - [BSGN AgriFood accelerator](#)
 - [Agrifood & Microgravity](#)
 - [STAM srl](#)
- LinkedIn
 - [STAM srl](#)
 - [ESA BSGN | Business in Space Growth Network](#)
- Contacts
 - v.ferrando@stamtech.com
 - bsgn.agrifood@stamtech.com

Space Rider: strategia commerciale

CLIENTE: ESA

ANNO: 2022 – in corso

ATTIVITÀ:

- Analisi di mercato nei settori Pharma e Biotech
- Strategia e modello di business per l'accesso alle strutture per la microgravità di Space Rider
- Coinvolgimento di clienti e stakeholder per generare un deal flow sostenibile di esperimenti replicabili

**A breve verrà pubblicata una “Open Call” da ESA sulla
piattaforma
OSIP raccogliere progettualità ed esperimenti
ad elevato impatto**

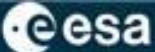


Useful links

[ESA - ESA programmes and activities of interest to SMEs](#)



→ THE EUROPEAN SPACE AGENCY



AGENCY

ESA programmes and activities of interest to SMEs

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