

ESA EOP Commercialisation and New Space



ESA EOP as an ENABLER

Fully funded by ESA

FutureEO

- Block 4: Enabling downstream applications
- Block 3: Enabling commercialisation with GS & data management
 - Block 1 : Commercialisation with upstream technology

ESA EOP as a **PARTNER**

Co-funded (industry-lead)

InCubed (Earth Watch)

ESA EOP as a **CUSTOMER**

Funded by ESA and/or with a third-party partner

Commercialisation through
EO Data Buy
for science (TPM)
& for operations (CCM)

"Traditional" EOP R&D
procurement agency role

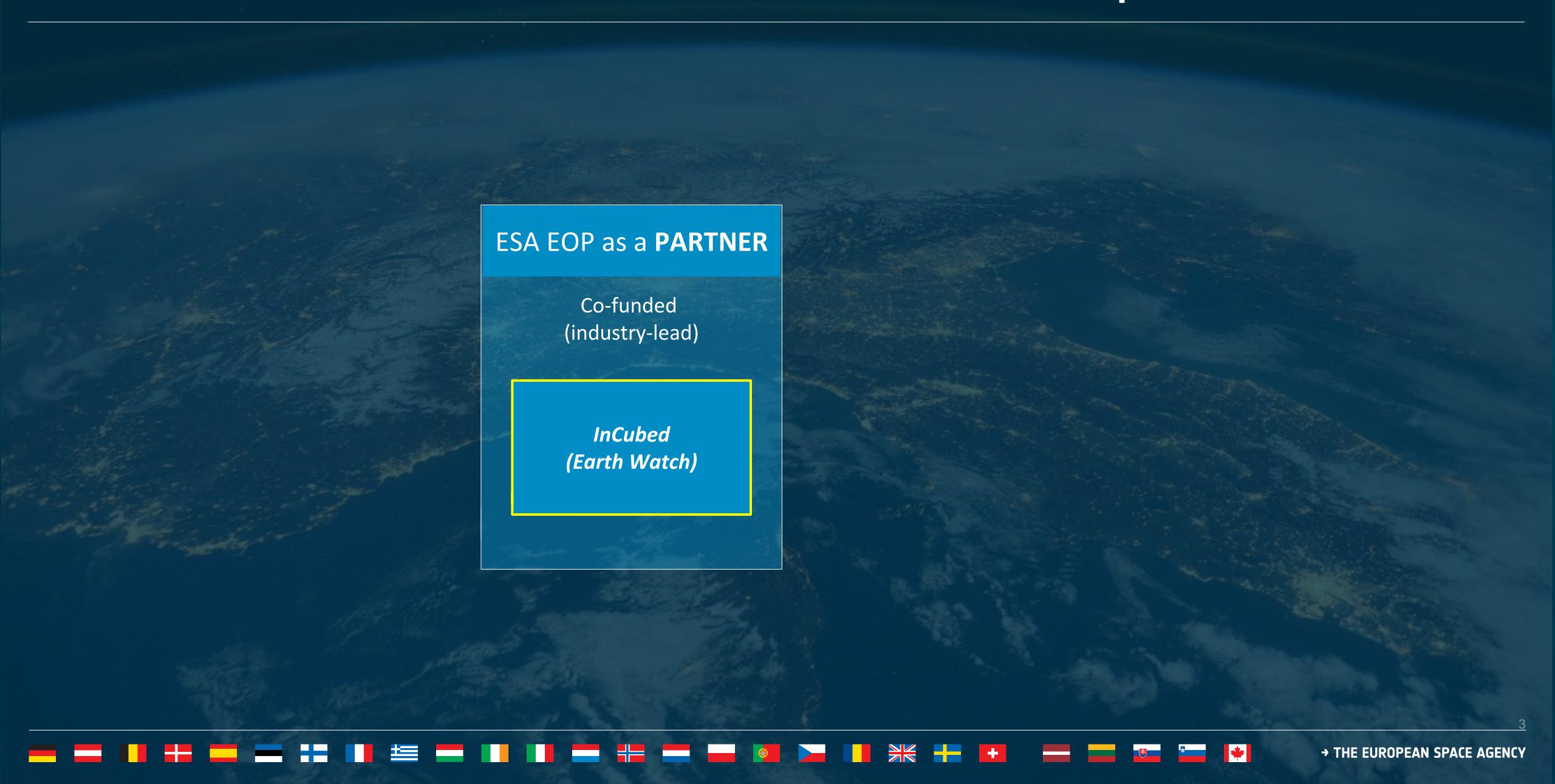
Fully funded by ESA
"New Space approach"

Scouts (FutureEO Block 2)

Arctic Weather Satellite (Earth Watch)

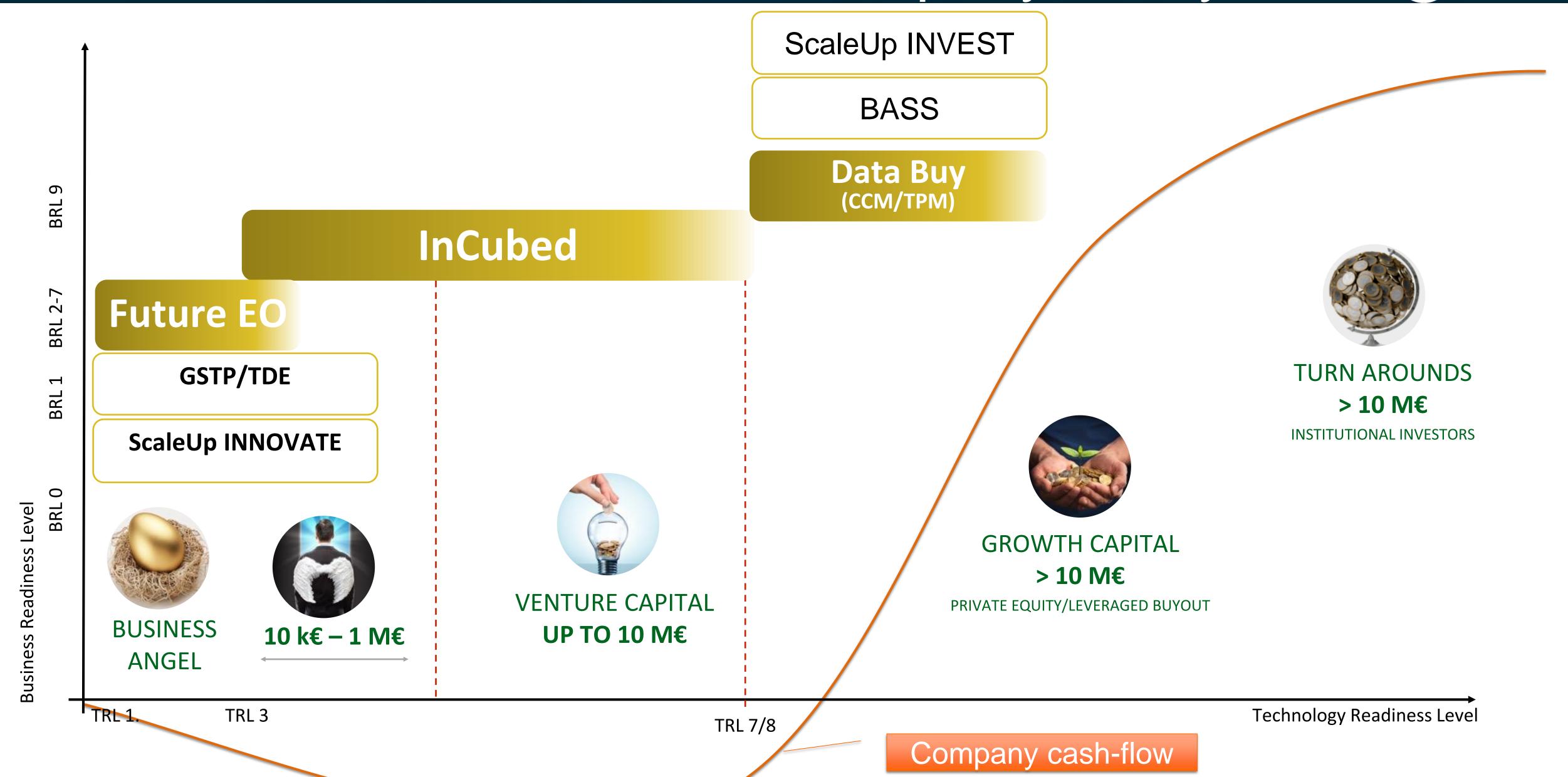
ESA EOP Commercialisation and New Space





ESA contributions in the EO company life-cycle

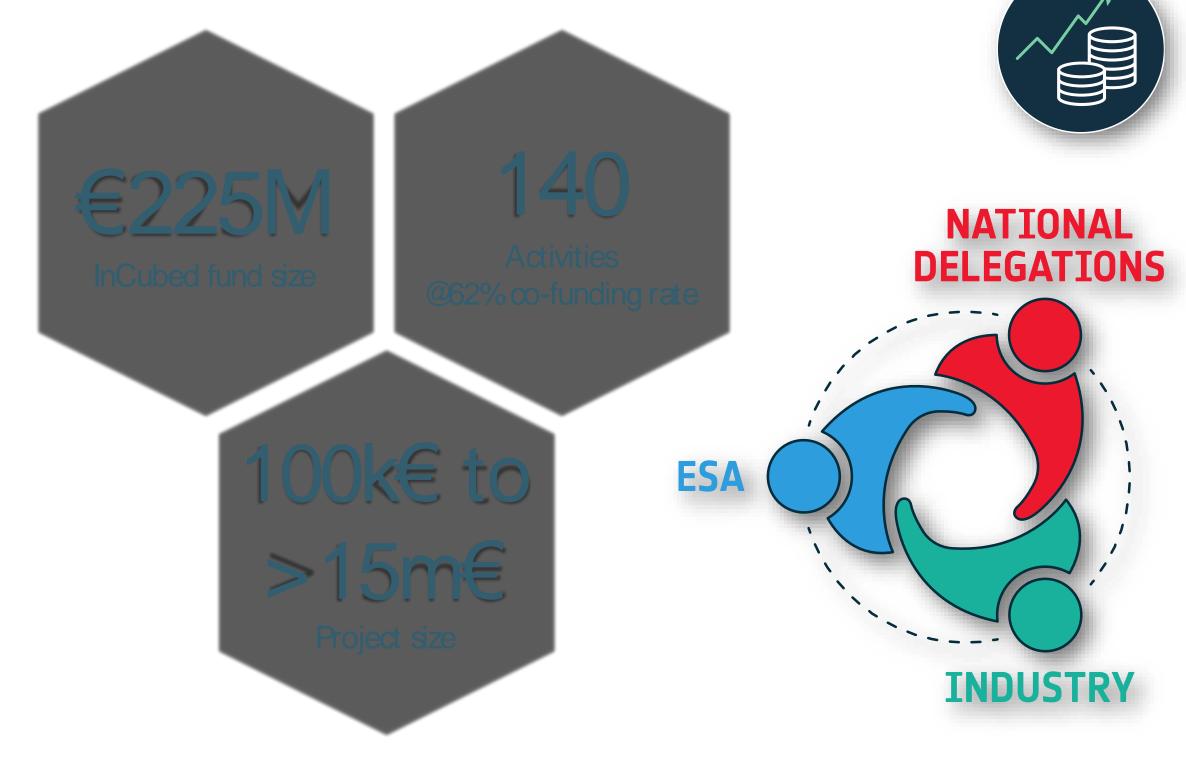




Ф-lab run Investing in Industrial Innovation (InCubed)









Personalised technical and commercial guidance



Zero-equity and zero-IPR



ESA stamp of credibility



Privileged access to commercial services enabling your development



Access to ESA EO facilities and Φ-lab community 5





































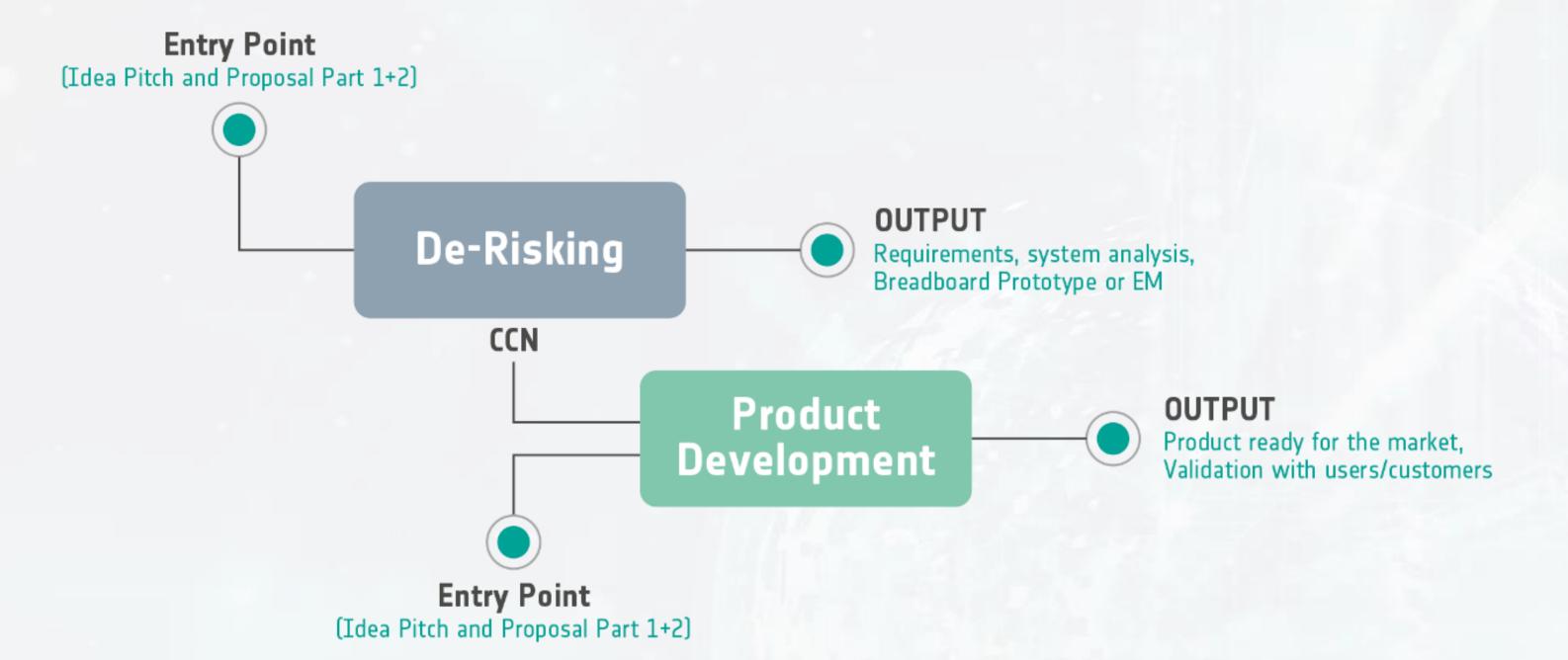






InCubed process





Cycle	TRL	ASRL	Funding Level up to % (of total allowable cost)		Funding level for Universities or Research Institutes
			Large Companies	SME	with no commercial Interest in the Product
De-risking	Up to 4-6 (1)	Up to 3	Up to 75%	Up to 80%	Up to 100% of maximum 30% of the cycle costs
Product development	Up to 7 (8 for IOV)	4 Up to 8	Up to 50%	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





InCubed Activity segments



InCubed activities can be dedicated to:

Space Segment

Activities related to any on-board product/service



Platform



Payload



Ground Networks & Data
Distributions



Ground Stations & Mission Management

Ground Segment

= •

Activities related to the ground segment of an Earth observation satellite system

Data Segment

Activities related to management, processing and the use of the Earth observation data



Data Processing & Visualisation



Data Analytics, Insights & Applications

ESA as a Partner – InCubed – What ESA offers



- Risk sharing
 - Equity and IPR free co-funding



- Personalised technical and commercial guidance
 - ESA technical and business development expertise



- Strong connection with private investors
 - In coordination with the ESA Directorate of Commercialisation Industry and Competitiveness (D/CIC)



Supported InCubed Upstream Companies







































constellr





















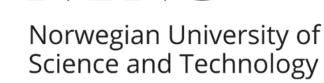


















beyond gravity



















Supported InCubed Downstream Companies



























ERMESS







terranets bw































SUPERVISION

AIRCENTRE

























*



spatial services







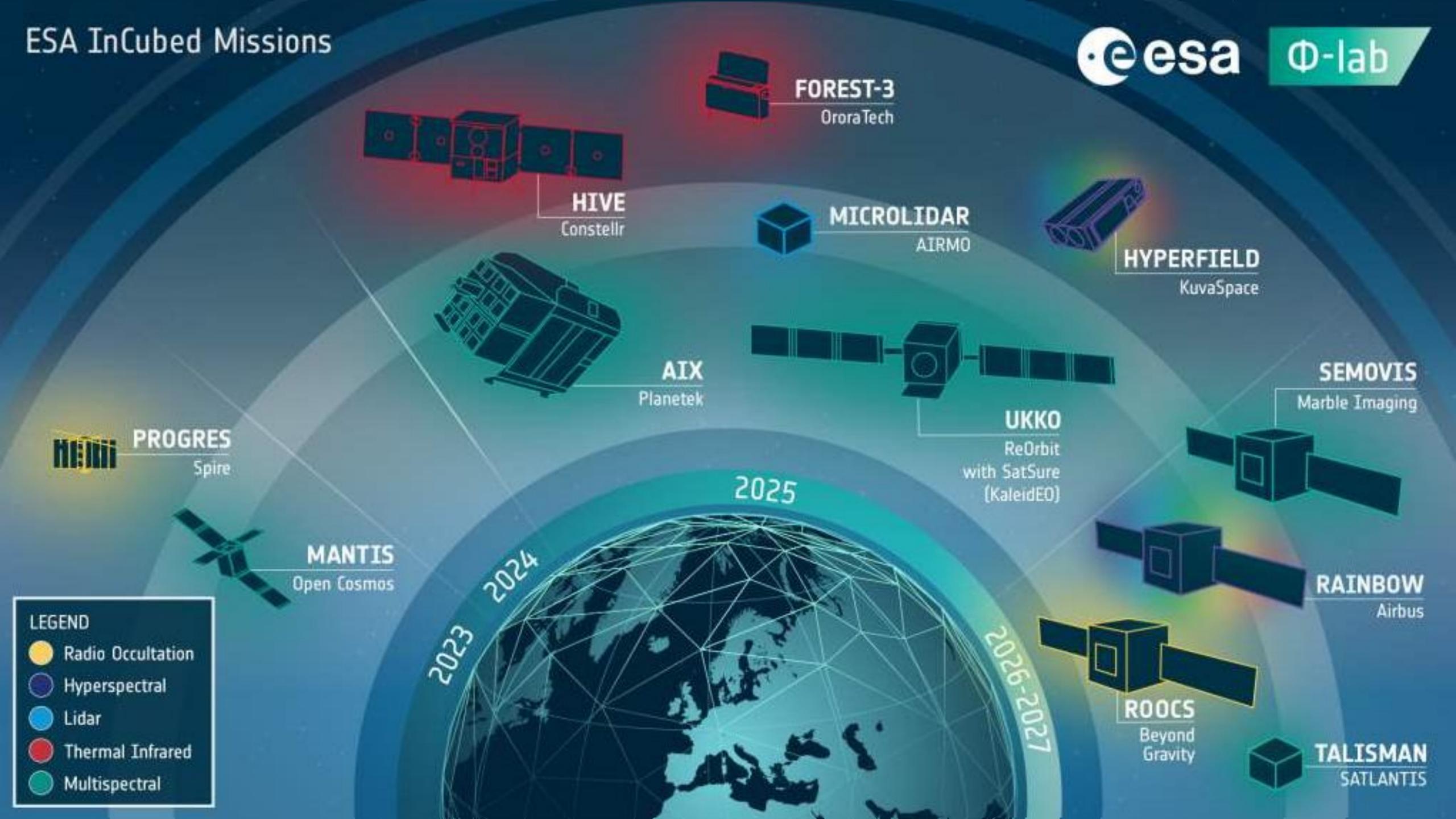












InCubed impacts to the EO commercial industry InCubed, ScaleUp, and CCM synergetic pipeline





- Five InCubed companies have been awarded with a CCM contract providing quality data for operational public needs within the Copernicus framework
- Two others (ConstellIR and ReOrbit) have qualified also for ScaleUp Invest step1 for scaling up their service
- The success of these InCubed companies is a testament to the value of what small emerging European companies are doing with the support of the different teams at ESA

Relevant activities





accelerated applications...













Integration of Object Based

Signal Generators for Change

Detection in EO data...

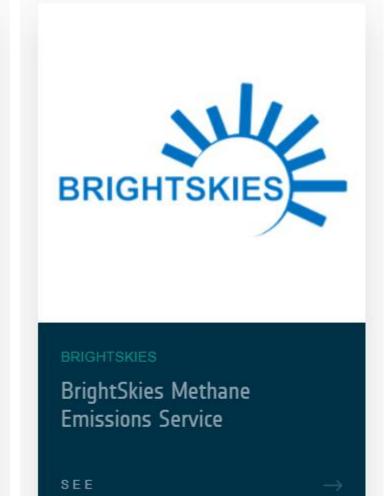


EOSMART

EOSmart: Smarter Mapping and Monitoring of Water Quality

SEE

O



Many more at: https://incubed.esa.int/activity-portfolio



Highly reusable AI-based cloud screening for general EO missions...



CGI SATSIGHT (EO AUTOMOP)...

Earth Observation Automated Monitoring Open Platform

SEE



ORORATECH'S GLOBAL WILD...

OroraTech's Global Wildfire
Warning

SEE →



FLOODSENS
FloodSENS: Smart Sensing of Floods

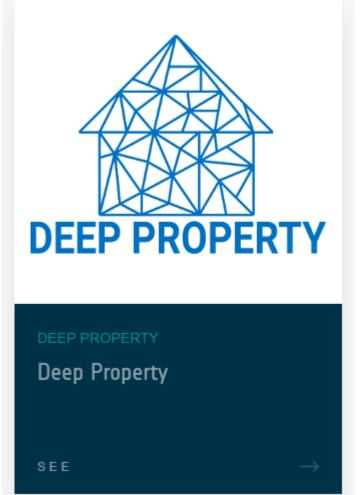


Eoliann API for Banking
Climate Change Physical Risk:
global forecast of natural



BODIS

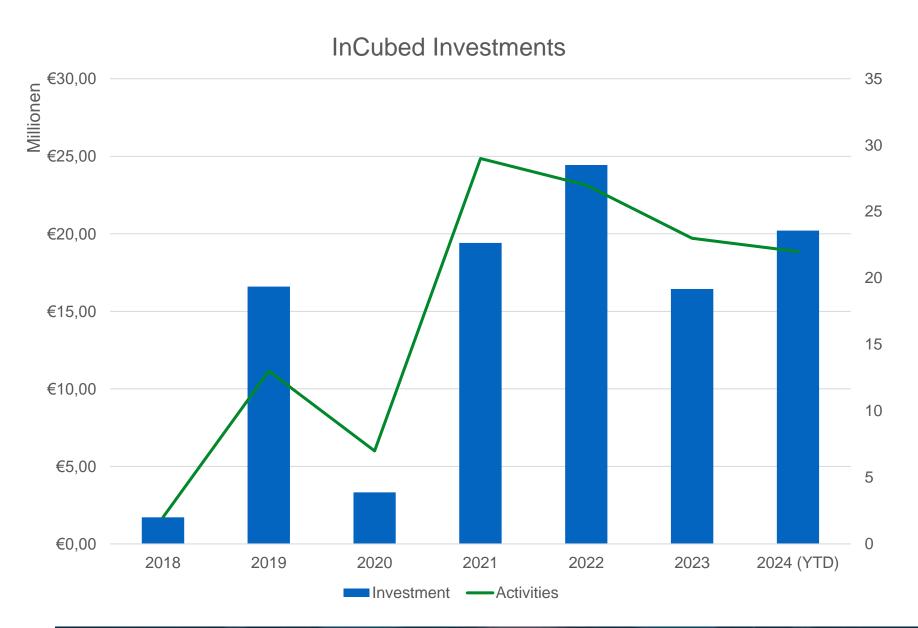
SEE

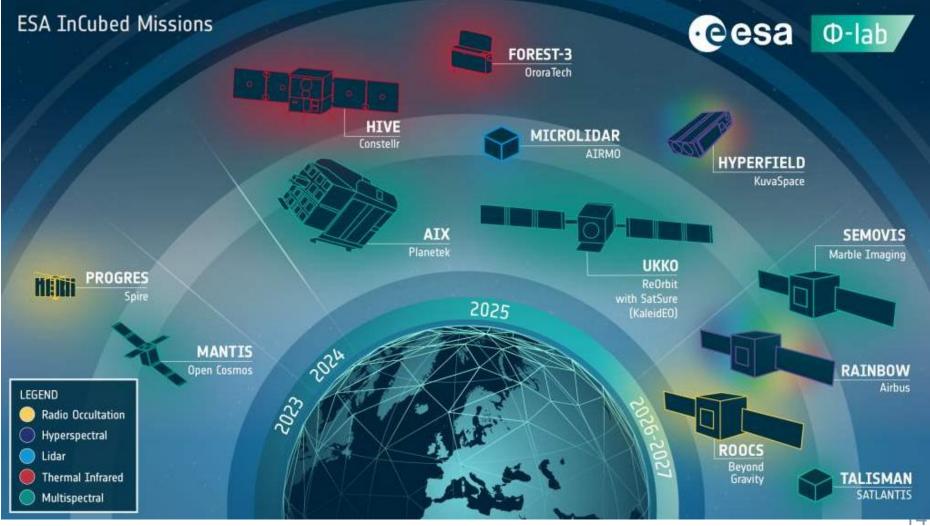


InCubed achievements



- •12 Satellites/Constellations supported
- •Recognized as a **fast and effective tool** to support commercial actors
- •Fully aligned with **national space strategies** (successful national calls, e.g., UK, ES)
- •InCubed has triggered significant **VC investments** in New Space Start-ups
- •Company sales and evaluations continue to grow, driven by the program's outcomes and credibility with stakeholders





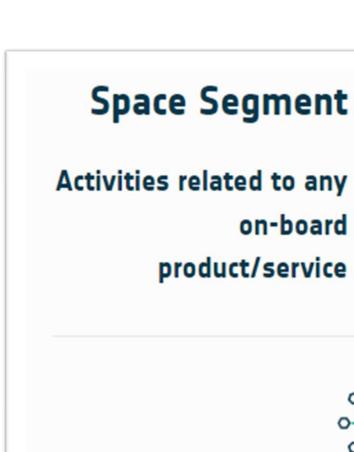


The future InCubed programme











Platform

Ground
Stations &
Mission
Management



Payload



Activities related to the ground segment of an Earth observation satellite system

Data Segment

Ground

Networks &

Data

Distributions

Activities related to management, processing and the use of the Earth observation data



Data
Processing &
Visualisation



Data Analytics, Insights & Applications

"Developments" Declaration and Implementing Rules esa

Activities are proposed directly by the Economic Operators to ESA. Priority is on the business case

The final outcome of the activity shall be a product hardware, software, techniques, technology, system, or subsystem or service, in the form of a **minimum viable product (MVP)** and ready for, or demonstrably closer to, commercialization (revenue generation)

LoA is required. Discussion are ongoing on how to streamline the process (CIC interaction)

Development activities will follow two cycles:

- 1. De-risking Phase
- 2. Product Development Phase

Economic Operators may apply for either or both cycles depending on idea maturity (market and technical). Each cycle offers different levels of co-funding, corresponding to the TRL of the involved cycle. All activities are <u>co-funded</u>.

De-Risking

- Funding up to 80%
- TRL up to 4-6 depending on technical and market risk

Product Development

- Funding up to 80%
- TRL up to 8

CCN to move from one cycle to the next

Partnerships Goals



Objective: Facilitate innovative **large-scale commercial projects** across various areas including EO constellations, satellites, platforms, payloads, ground segments, and value-added services.

Partnerships topics:

- 1. Ideas from economic operators
- ESA Initiate Needs identified by ESA or third parties -> ESA to identify needs

Typical Motivations:

- Procurement Cost/Time Savings (e.g., SpaceX/COTS, Boeing Starliner)
- . Capability Development (e.g., LEO Cargo Return Service)
- Market Development (e.g., SpaceX/COTS, Commercial Crew Program)

Ideation via community consultation and call for ideas

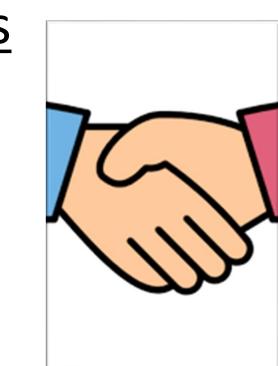
- 1) Cognitive Cloud Computing in Space (3CS)
- 2) Science/Climate Related Missions
- 3) More to come → Survey in preparation (Industry and Partners)

Over 26 European industrial players have been contacted to date

"Partnerships" Declaration and Implementing Rules Gesa

- A. Industry Initiated: Industrial Proposal Based on Industry Identified Business Opportunities
- B. **ESA Initiated**: ESA or Third-Party Identified Demands

All partnerships must present a viable business case to ensure their commercial effectiveness.



0-A-B1 B2-C-D-E1

Preparatory

- Up to 100% with possibilities of parallel studies for high innovation
- Up to 80% in other cases

Industry Initiated

- Direct Negotiation Funding up to 80%
- TRL up to 7/8 depending on technical risk

ESA Initiated

- Open Competition- Funding up to 80%
- TRL up to 7/8 depending on technical risk

Service Component

Operation service/capability within pre-defined SLA KPIs

Linked to an ESA initiated project

Gates to move from one phase to the next and within each phase

Trilateral meeting day: InCubed-Industry-Delegation esa

SpaceTech Slovenian Austrian 2025

B2B Meetings (and during breaks)

20th June: dedicated to Trilateral meetings:

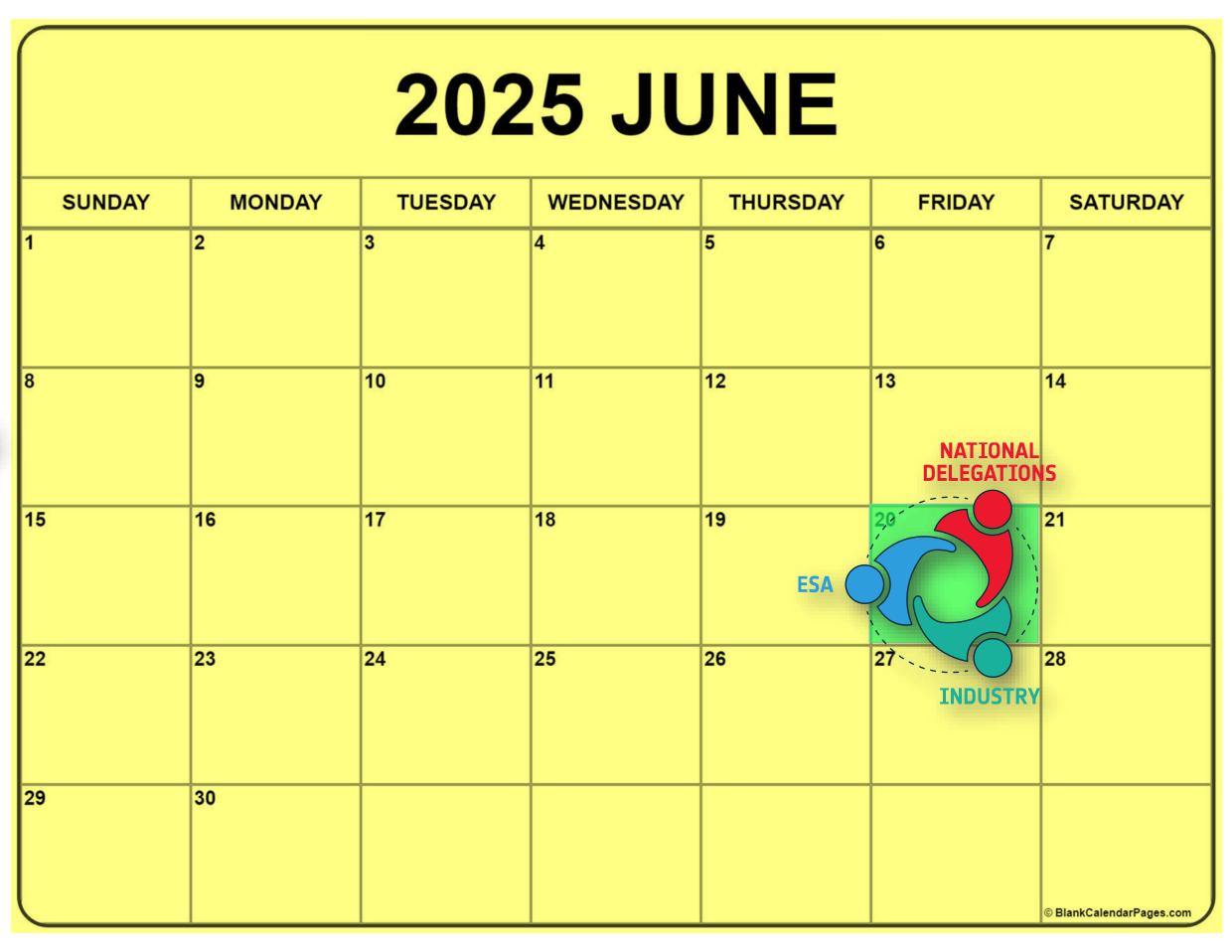
Discuss ideas

Ask questions

InCubed process guidance

Get your slot emailing at: incubed@esa.int





Next event: Living Planet Symposium 2025



With sessions organised by the Φ-lab Invest Office:

- 24-26 June, Vienna
- E.03.01 Commercial Earth Observation Missions: Embracing New Paradigms and Innovative Models
- E05-02 Opportunities in the EO Market: Focus on GHG Monitoring
- Policy-makers-Stakeholders-Industry
- Registration still open!!





Thank you for your attention JoseManuel.DelgadoBlasco@ext.esa.int incubed@esa.int



To know more, visit our website:

https://philab.esa.int

https://incubed.esa.int