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EUROPEAN SPACE AGENCY

INVESTOR FORUM 2026

17-18 September – Paris

Supported by:

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INVESTOR FORUM 2026

Welcome and Opening Remarks

Géraldine Naja

Director of Space Transportation,

Director of Commercialisation and Industry Partnership (acting),

European Space Agency (ESA)

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INVESTOR FORUM 2026

Keynote

Josef Aschbacher
Director General,
European Space Agency (ESA)

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INVESTOR FORUM 2026

Keynote

Robert de Groot

Vice-President,

European Investment Bank (EIB)

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Keynote

Christoph Kautz

Director of Space Policy,

Directorate-General for Defence Industry and Space (DG DEFIS)

European Commission

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Market Insights

Christine Klein
Director of Controlling,
Finance & Operational Procurement,
ESA

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Europe’s position in space

Securing public investment, attracting private capital and competing on the upstream markets

Christine Klein, ESA Director of Controlling, Finance and Operational Procurement

18 September 2026, Investor Forum, ESA HQ

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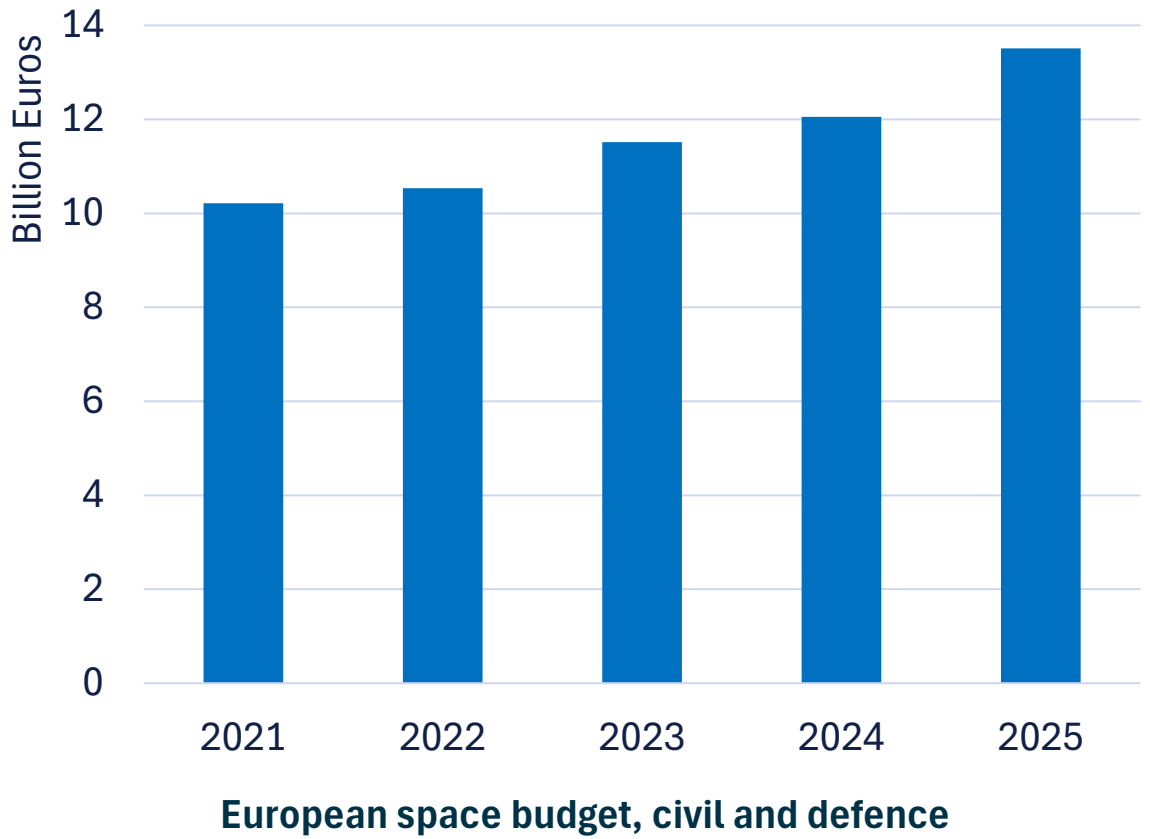
A Look Back at 2025

- European **public investment** in space posted a **double-digit growth rate** for the first time in the past 5 years
- **Private investment** attracted by European space companies reached its **second-highest annual total on record**
- European primes reached a **remarkable 65% market share** on their accessible upstream market segments

Europe’s position in space

Securing public investment

- **€13.5 billion** of European space budget in 2025 (civil and defence)
- A **12% growth** compared with 2024, primarily driven by increased national defence budgets, largely led by Germany



European space budget, civil and defence

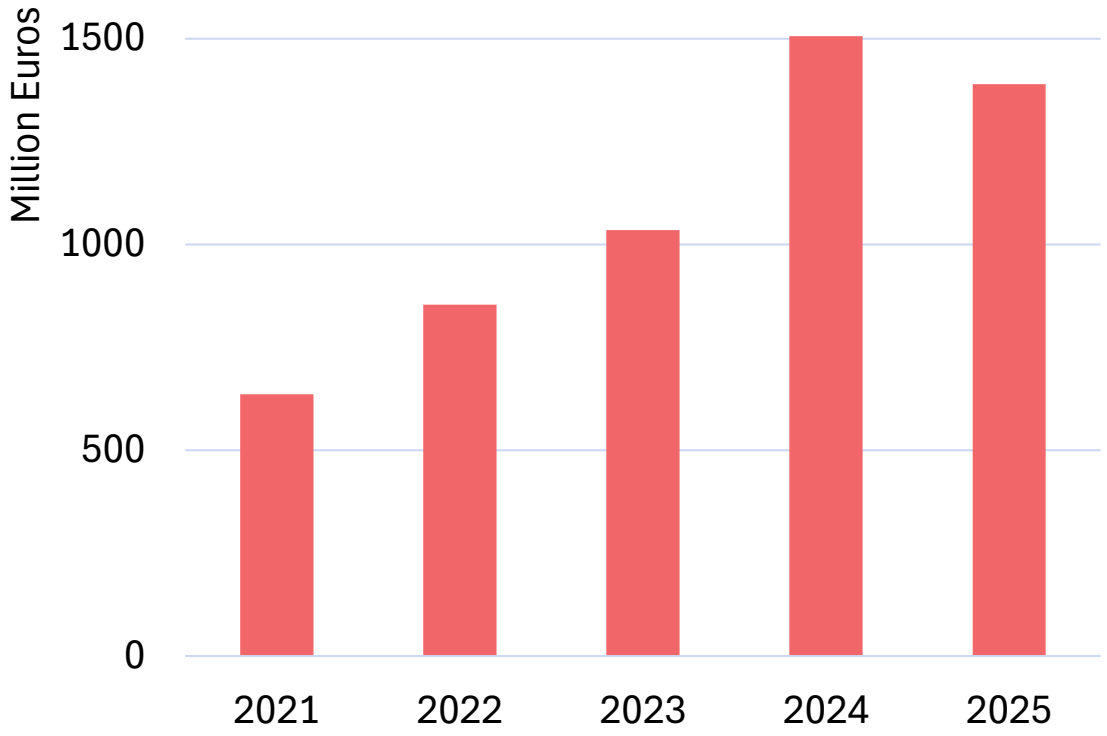
Sources: The European space budget consists of national space programmes (civil and defence) from EU-27 countries, Norway, Switzerland and the United Kingdom collected by Eurospace, as well as ESA (including Third Party activities), Eumetsat and the EU Space Programme budget (including the share of Horizon Europe dedicated to space activities).

Europe’s position in space

Attracting private capital

- **€1.4 billion** raised by European space ventures in 2025
- A slight drop of 8% compared with 2024, still **posting the second-highest annual total on record**

The total raised by European space ventures in 2025 has already been **surpassed in the first half of 2026** (€1.6 billion) with major investment rounds notably for ICEYE, The Exploration Company, Open Cosmos and Isar Aerospace.



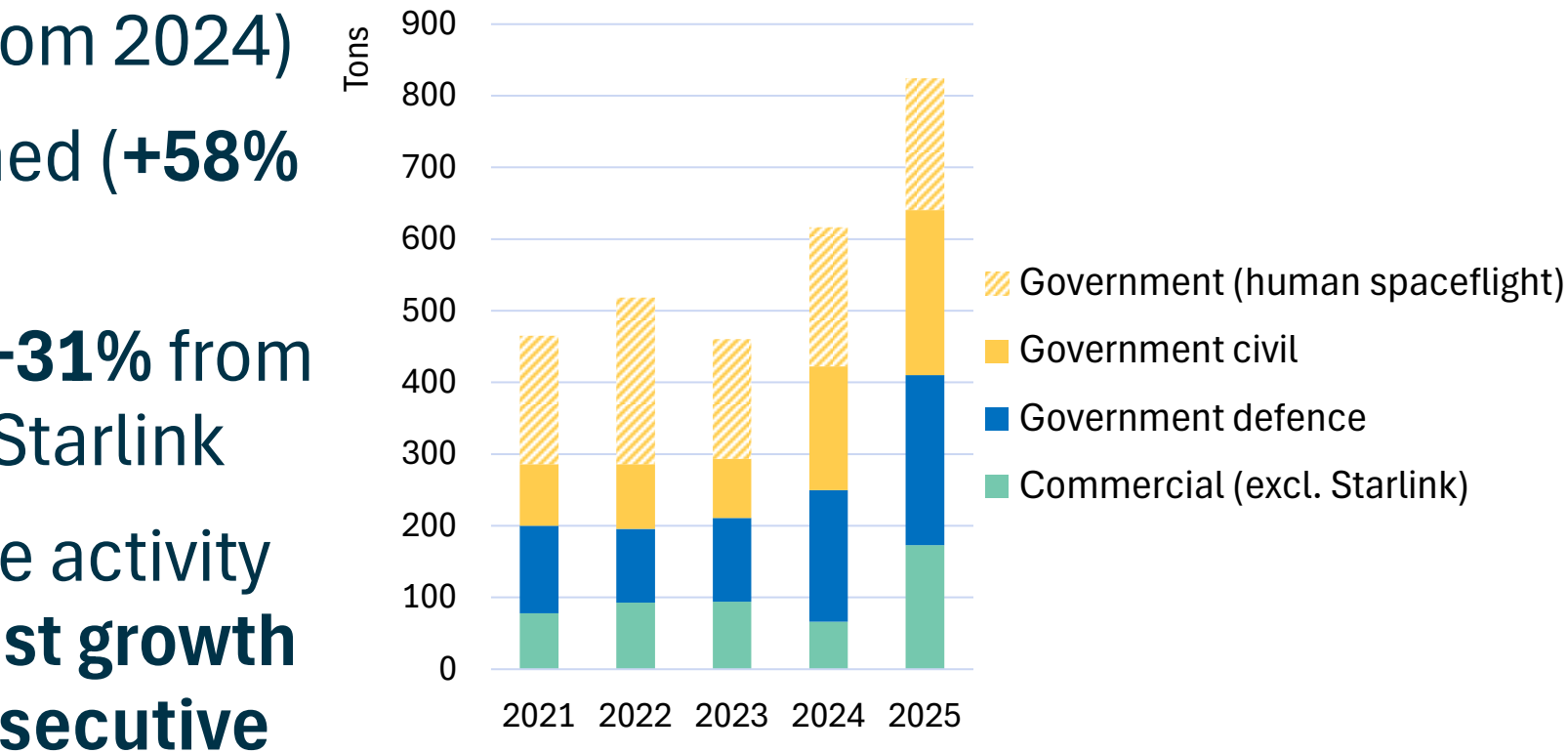
Private investment in European space ventures

Note: The figures only include companies which: i) Raised VC or were founded specifically as an innovation subsidiary; ii) Were founded after 2000; iii) Did not exit (acquired or public offering).
Source: ESPI.

Focus on the upstream market

Upstream activity in 2025

- >320 launches (**+25%** from 2024)
- >4,500 satellites launched (**+58%** from 2024)
- >2,700 tons launched (**+31%** from 2024) of which 70% for Starlink
- Excluding Starlink, space activity in 2025 posted its **highest growth rate for the second consecutive year**

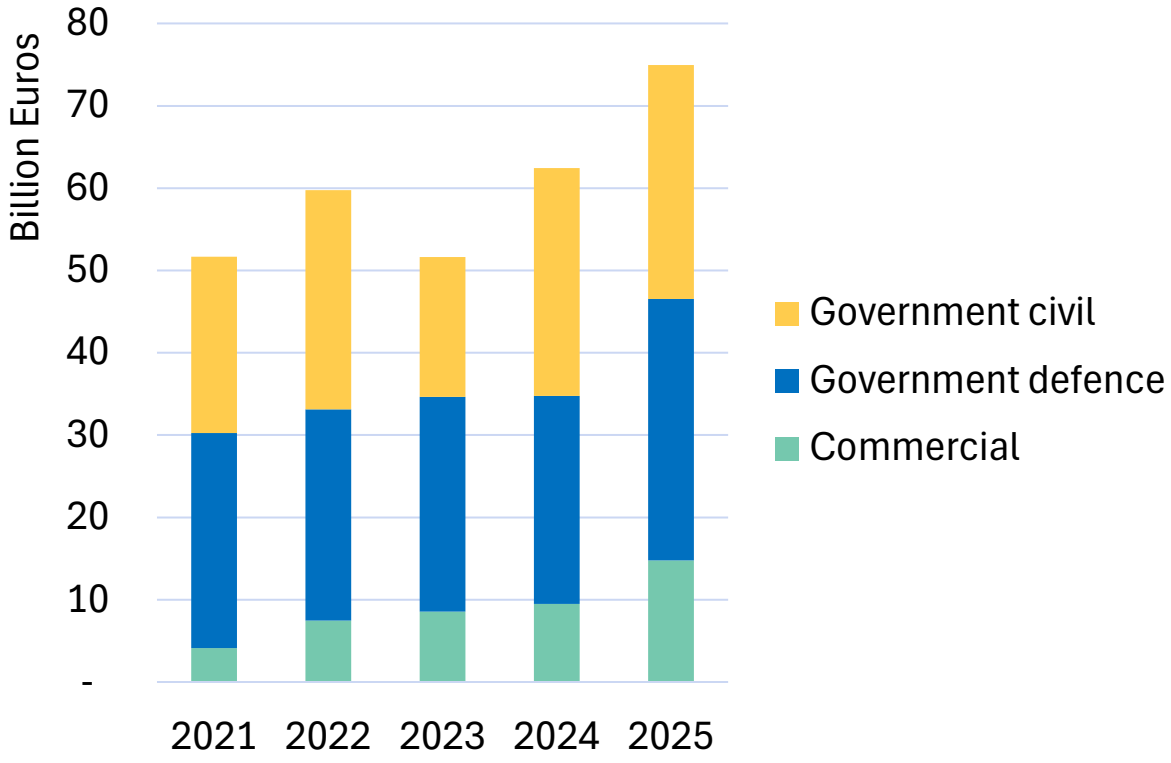


Mass launched worldwide (civil and defence), *excluding Starlink*

Focus on the upstream market

Upstream market value in 2025

- €75 billion of global upstream market value (**+20%** from 2024)
- A **double-digit growth rate** for the second consecutive year
- The upstream market in value remains **largely driven by institutional demand**
- Yet, **commercial** upstream value **grew by 56%** in 2025



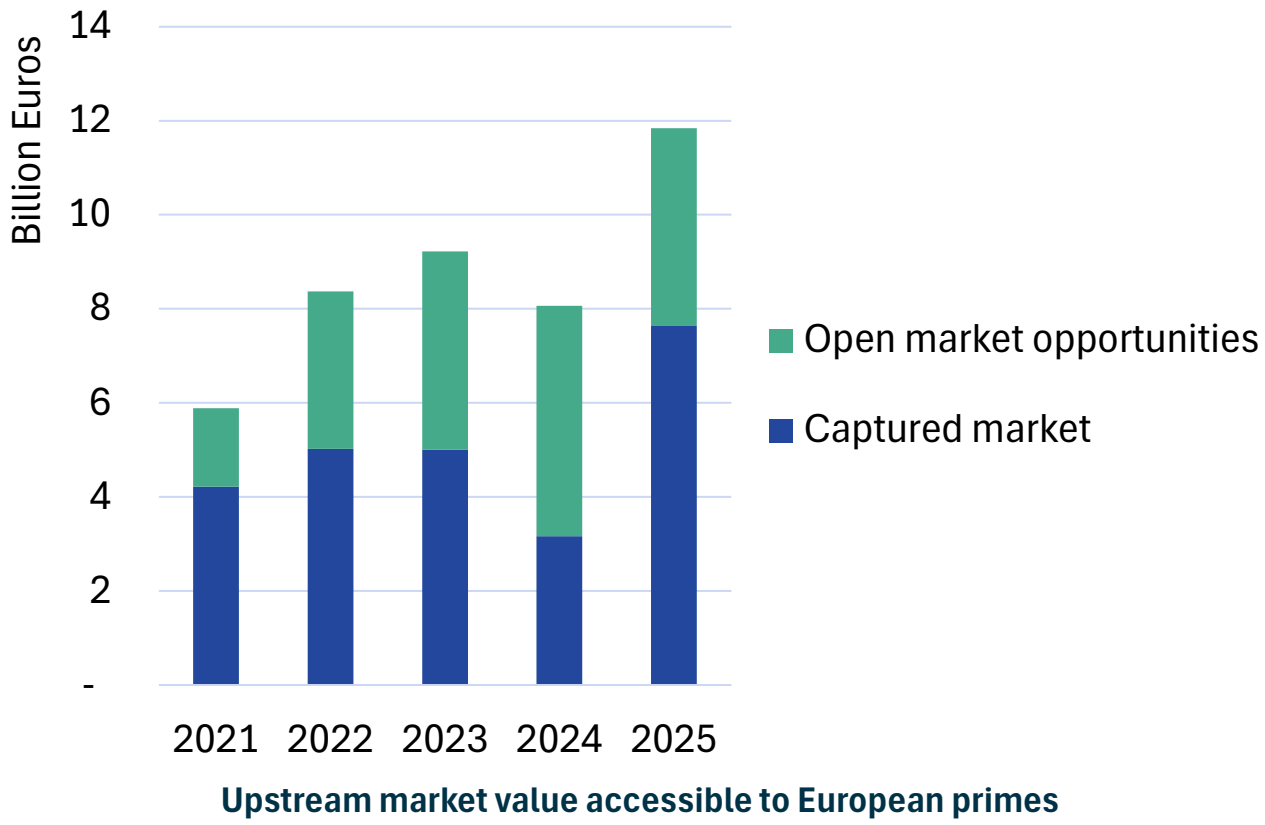
Global upstream value, by customer type

Note: Upstream includes launch services and satellite manufacturing market value. The value of the complete spacecraft as well as the value of its launch are allocated to the launch year.

Focus on the upstream market

Europe’s competitiveness on the upstream in 2025

- European primes benefit from a government demand 5 times lower than in China, and 4 times lower than in the US, resulting in the **urge to constantly remain competitive**.
- In 2025, **Europe’s market share** on its accessible market reached **65%** (33% in 2024).



Upstream market value accessible to European primes

Note: Upstream includes launch services and satellite manufacturing market value. The value of the complete spacecraft as well as the value of its launch are allocated to the launch year.

Market Insights

ESA's Report on the Space Economy

- ESA closely and **continuously monitors** the development of the space markets.
- Published annually, ESA's Report on the Space Economy provides an **annual update** on the **status and trends** of the space economy, globally and **specifically Europe's position**.

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THANK YOU!

SPACE ECONOMY

ESA Space Economy Portal

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INVESTOR FORUM 2026

Market Insights

Rodrigo da Costa
Executive Director,
EU Agency for the Space Programme (EUSPA)

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#EUSpace

Linking space to user needs

EU Space Market Insights: the Downstream Overview

Rodrigo da Costa, Executive Director, EUSPA

EUSPA
European Union Agency for the Space Programme

#EUSpace

EUSPA provides strategic analysis of the space market

GALILEO EGNOS | Copernicus | SSA | GOVSATCOM | IRIS²

- EO and GNSS **downstream market analysis** across 16 market segments (e.g. Agriculture, Aviation and Drones, Rail, Road, etc.)
- Deep-dive into Secure SATCOM and Space Situational Awareness
- Analysis of both demand and supply side
- Forecasting analysis covering 10 years and **key market drivers**

Macroeconomic forces shaping space markets

Geopolitical instability

Energy insecurity and inflationary pressures create uncertainties and need for enhanced risk assessment.

GNSS, EO and Secure SATCOM become enablers for resilience, real-time situational awareness and risk management.

Deglobalisation

Strategic autonomy and trade tensions are **disrupting global supply chains.**

Market fragmentation limits the innovation and access to key technologies.

A cascading effects may **impact downstream industries** with increased costs for receivers, sensors, and ground equipment.

Even more need for a European strong market and made in Europe downstream products.

Climate change

Affects economic activity, infrastructure and public safety, with **risks related to food security**, **water availability,** health and **critical infrastructure.**

EO systems play a central role in monitoring environment and climate change, while GNSS supports disaster response, infrastructure resilience and environmental management.

Emerging technologies impacting space market

Artificial Intelligence

AI already plays a central role **in exploiting EO and GNSS data** with advanced data processing, pattern recognition and predictive analytics.

In agricultural, environmental and infrastructure monitoring, as well as disaster management, **AI enables faster** processing cycles and accurate insights for **routine operations and crisis response.**

LEO revolution: connectivity, observation and secure space services

GNSS. LEO-PNT is expected to provide higher capacity, lower latency, enhanced resilience in multi-orbit architectures

EO. Integration of AI and cloud-based processing for near real-time high-revisit

SATCOM. Secure applications and cost-effective broadband connectivity

SSA. LEO-SSA support long-term orbital sustainability, debris-mitigation strategies, future space traffic management

European and global EO market insights

EO demand

EO data and services market expected to grow from €3.5bn in 2024 up to almost **€8 bn in 2034**

Market pushed by a fast growth in defence/dual use and by the need for operational efficiency in segments like **agriculture**, **energy** and raw materials, climate and **infrastructure**

Annual market growth

EO services revenues are growing faster than data revenues (average annual rate 9.3% vs 6%)

Accessibility of EO-based services for civilian users has improved thanks to dual use spillovers and **LEO constellations, innovative business models and AI-driven technology**

Role of European industries

Europe and USA account for 83% of the global EO market supply

Europe dominates the EO analysis and decision-support market (>60%), leveraging **specialised SMEs to deliver tailored solutions** across key sectors

European and global GNSS market insights

GNSS global demand

Device and added-value services market to grow from €300bn in 2024 to more than **€580bn by 2034**

Consumer solutions and road and automotive dominate the market (jointly 90%). **Smartphone applications** dominate consumer markets, driven **by location-based services in mobility, finance, tourism, gaming and social media**

Expected annual market growth rate

Land border surveillance and enforcement and UXO risk assessment and clearance forecasted an average of 28%

Drone services 14%

Health-related applications 9%

Role of European industries

Europe has 22% market share, second after USA

European companies cover 20% of the global GNSS components and receivers market, with strong position in **finance, space, maritime, and emergency management**

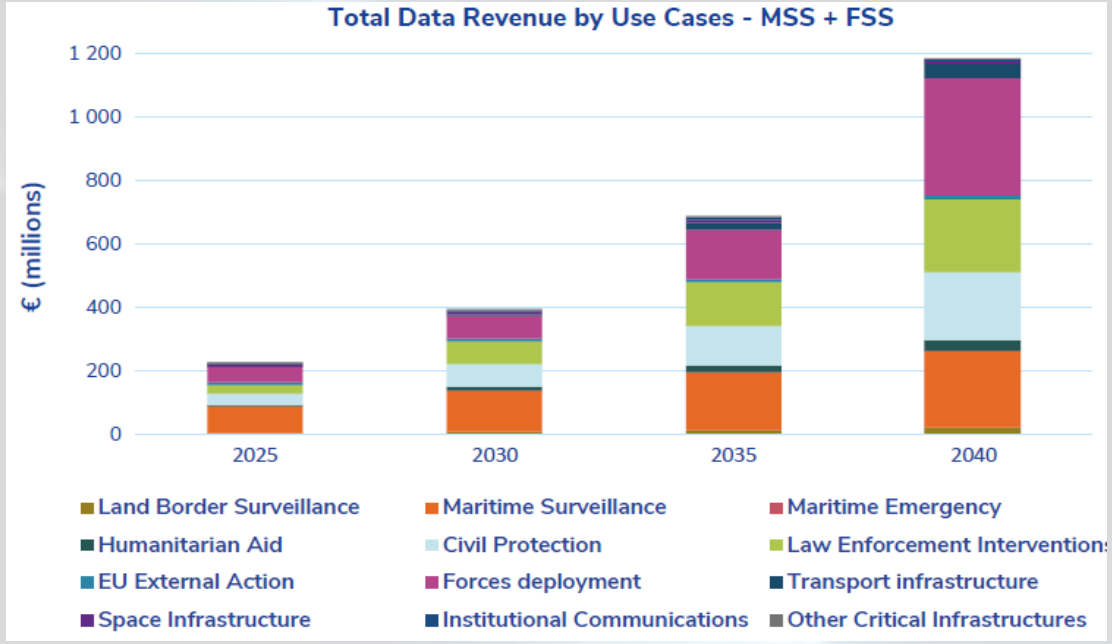
Europe accounts for 25% of the system integrators' global market share, slight decline by **competition in road and automotive**

Regional growth

GNSS device shipments by region is driven primarily by the **continued expansion of the Asia-Pacific market**

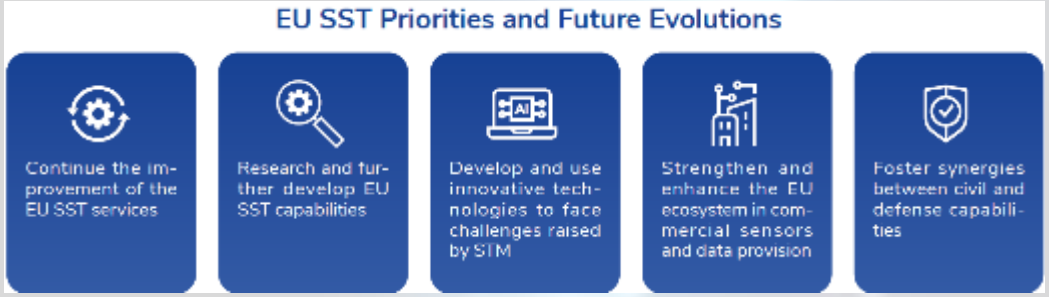
Secure satellite connectivity

- Secure Satcom data service revenues for European users set for 6x growth to nearly €1.2bn by 2040
- Maritime surveillance is the leading market in 2025
- Law enforcement, civil protections and forces deployment will grow and be leading by 2040
- Growth is driven by regulatory push for **security and resilience**



SSA market drivers

- Evolution of SSA/SST is driven by an increasing congested space environment
- Boosted by data integration and processing, advances in sensor technologies, and improvements in detection, characterisation, modelling and automation
- Space traffic coordination is becoming essential for commercial, defence and resilience of space assets and related services



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Linking space to user needs

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Market Insights

Carla Filotico

Senior Partner and Managing Director,

Novaspace

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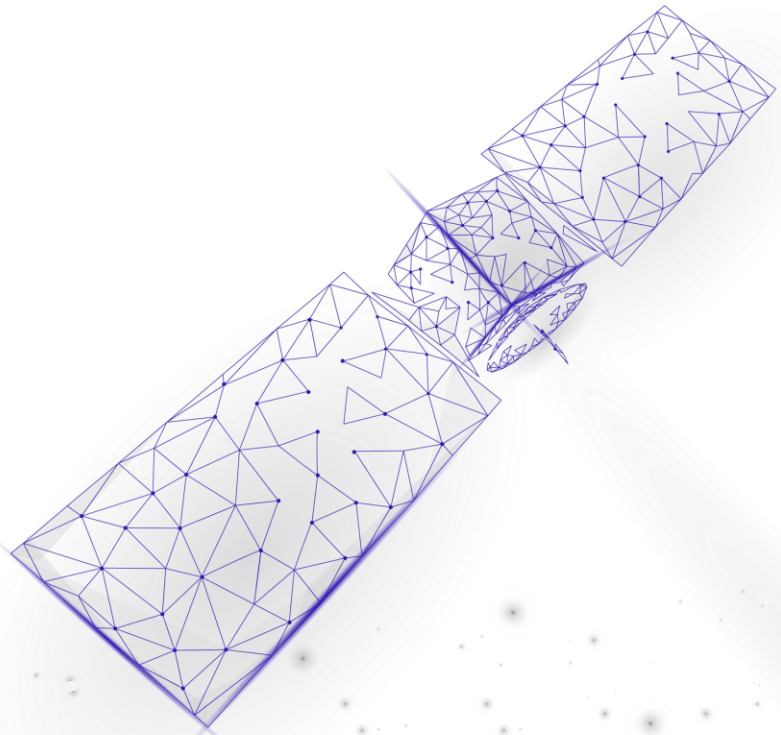
NOVASPACE

A Defining Moment For the Space Sector

Carla Filotico – Senior Partner & MD, Novaspace

Paris | September 18, 2026

You Thought You Knew What Space is About?



AI-powered

Interconnected

Maneuverable

New application domains

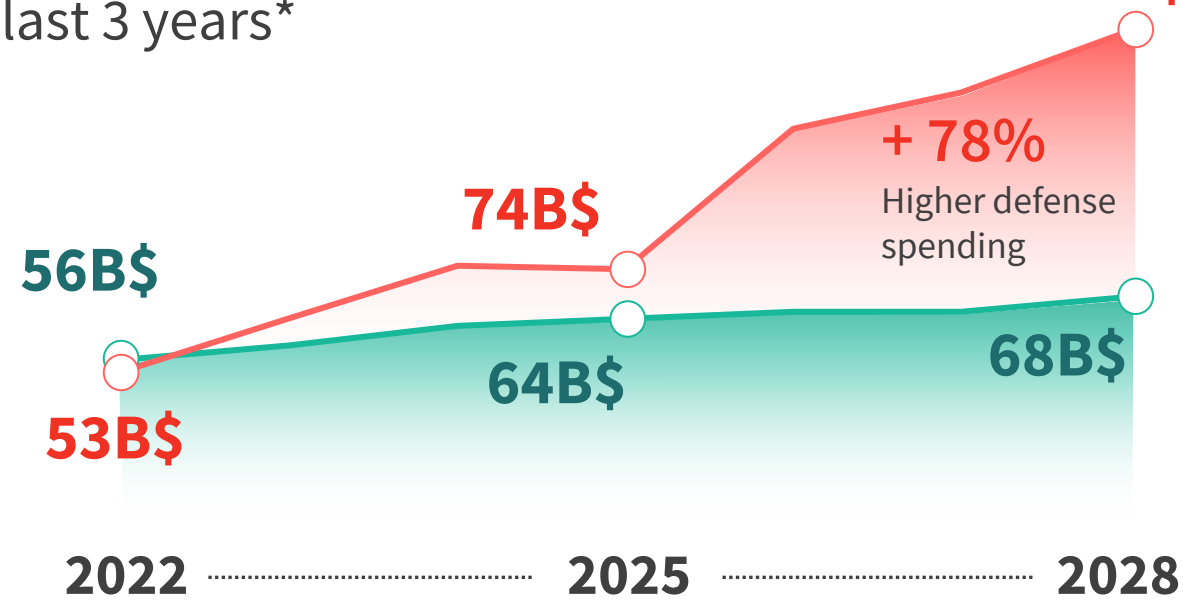
Governments | Investment Aligning with Ambitious Capability Building

94
Countries and international organizations have invested in space in 2025

28
Increased their budget by
50%
in the last 3 years*

12
doubled
their budget in the last 3 years*

189B$
Total gov. space budget globally



*selection of countries investing > USD 2 million in 2022 and > USD 10 million in 2025

Source: Novaspace Market Intelligence

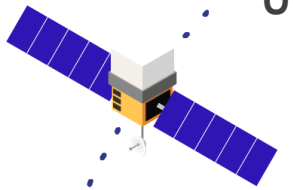
And Fuels the Expansion of the Global Space Economy

$626B 2025

Global Space Economy

Heading to

$866B 2030



$62B
Uncontracted costs

$236B
Space Market

$329B
Enabled Solutions

BUILD *(SPACE INFRASTRUCTURE)*

LAUNCH

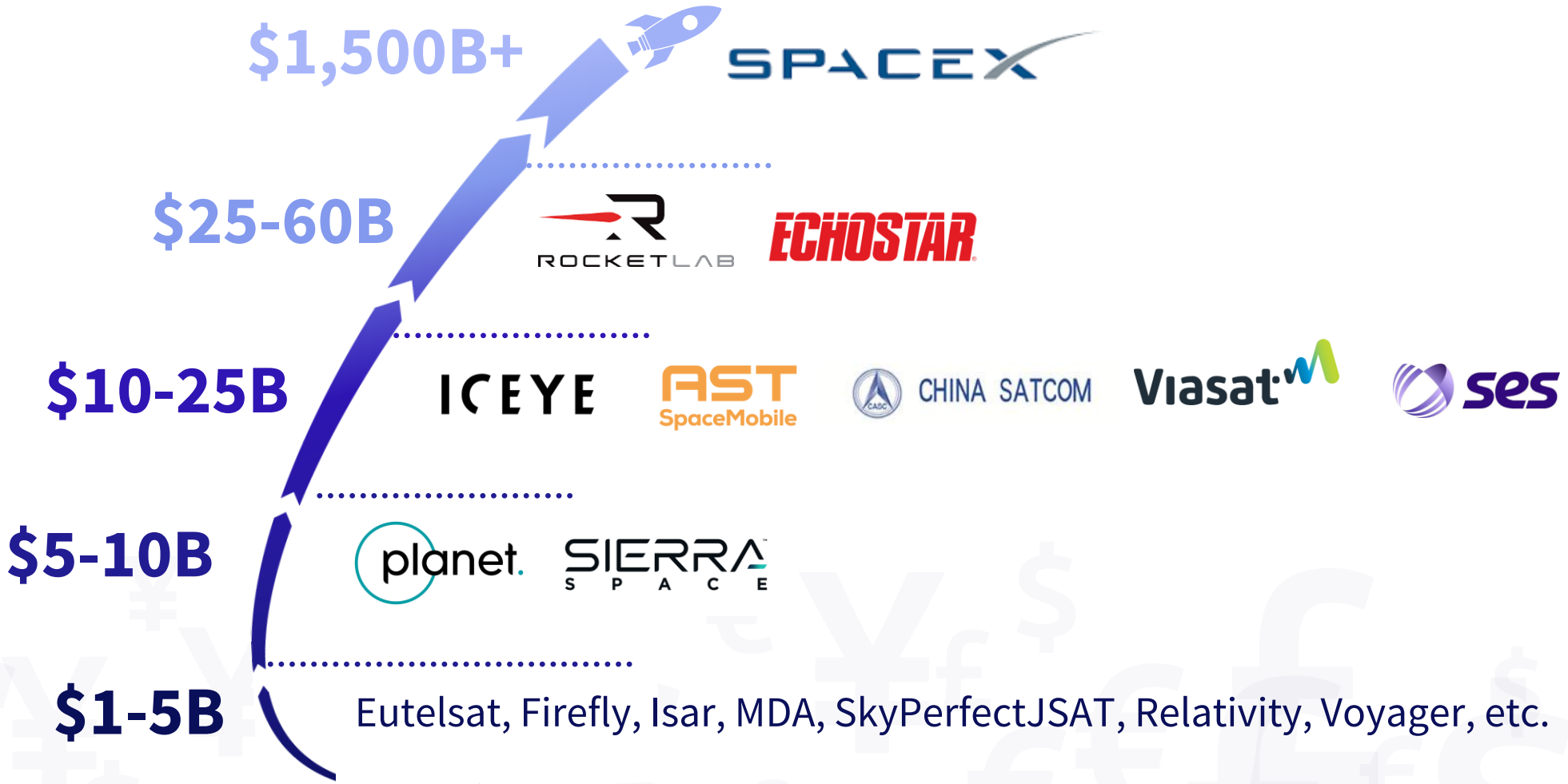
PROVIDE *(GROUND SEGMENT)*

OPERATE

DELIVER SERVICES

Valuations | Shaking the Space Ecosystem - Focus on Space "Pure Players"

(Sample list, high level estimates based on recent public releases & company listings on 3 Sept. 2026)



Notes: High level estimates based on public information for the purpose of this presentation.
This does represent an official opinion or valuation developed by Novaspace.

Transactions | Sample of Recent M&As Reshaping the Industry

Completed

- Iridium — Aireon
- Rocket Lab — Mynaric
- Intuitive Machines — Lanteris
- Voyager — Astrobotic
- York Space Systems — ALL.SPACE

In process

- Iridium
- Amazon — Globalstar
- Leonardo
  - Airbus D&S
  - Telespazio
  - Thales Alenia Space
- MDA Space
  - Blue Canyon
  - CLS
- Gilat — Comtech S&S

The Focus

- Integrate vertically
- Access strategic resources & markets
- Scale

Accessing Space | Abundance or Scarcity?

So far 2026 as broken every launch records

205
launches
globally in 2026

100
launchers under
development

$3.4B
raised by
commercial LSPs

Yet, access to space is gathered by few players

90%
of satellites were
launched by
5 launchers

40
operational
launchers

66%
of launches
self-performed
by SpaceX

Constellations | Now a Sovereign as Much as Commercial Play

Private constellations

Ambitious programs in all the application domains

Sovereign constellations rising

Sample of recent announcements

United States - Golden Dome & PWSA

PWSA Tracking layer contracts for 72 sats - PWSA Accelerated Missile Defense T3 contracts for 36 sats – Space Based Interceptor OTA agreements

Canada

ESCP-P LEO component with 69 comsats added to TelesatLEO program; MEO component planned

Germany

Spock1 – SAR constellation under procurement
Milsatcom constellation planned

Japan

Tri-Sat SAR and optical constellation through a PFI

EU – Iris2

Secure satcom PPP/Concession with the SpaceRISE consortium. 300 LEO + 18 MEO sats now on order.

India

SBS-III program with 52 surveillance satellites

Sweden

~10 SAR and Optical satellites under procurement

Information & Intelligence | The Rise of Full Stack ISR Providers to Fuel Defense Needs

Geopolitical context boosting demand

~10 EO operators with now **$100M+** revenue

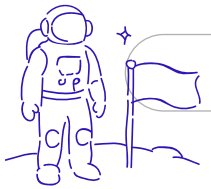
Addressing sovereignty requirement

Hybrid offerings with **infrastructure** as a key revenue driver

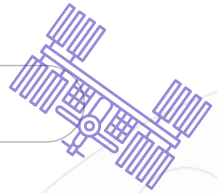
Innovation & Scale

New Sensors rising
Real time as new horizon
AI at every step

Beyond | Space Development on Multiple Fronts



Space exploration



+850 missions

in the next decade, up from 300 in previous ten years

~25%
are **commercial** missions

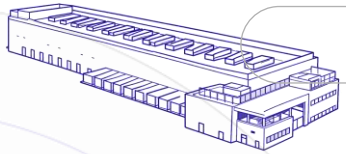
~40%
are destined for the **Moon**

€24.6B

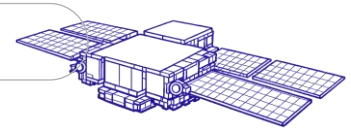
Global **government spending** in space exploration in **2025;** projected to reach **€28Bn by 2034**

Fastest growing budget line:

Mars
+11%/year



Space Datacenters



Break **technology** hurdles
Build a robust supply chain

Define **architectures**
Refine primary **use cases** and **SLAs**

Build the **economics** for the ramp up period

Total cost of a **1 GW data center** for 5 years

Today	**Mid future**	**Distant future**
~$17B	**~$50B**	**~$20B**
Terrestrial data center	Space data center	

Source: Novaspace Market Intelligence

Beyond | Resilience Is Becoming a Strategic Imperative

EXTREME EVENTS ↑
Frequency, severity and exposure

VALUE OF SPACE ↑
From monitoring to anticipation, response and recovery

INTEGRATION GAP REMAINS
Capabilities exist. The ecosystem is still fragmented.

The opportunity is expanding. The stakes are rising.

GOVERNMENT IS SETTING THE PACE

SCALE IS REDEFINING LEADERSHIP

THE ECOSYSTEM IS RECONFIGURING

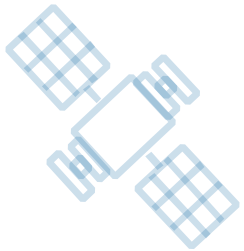
NEW MARKETS ARE OPENING

Why Europe? Why Now?

A **mature industrial b**ase, vibrant **emerging start-ups/ scale-ups** ecosystem
New cycle of sovereign demand, defence spending and commercialisation. Yet **access to capital remains limited**

20% Global space market share

Strong primes + ‘000 SMEs



Several structural forces are converging:

- **Sovereignty** to the centre of European policy
- Institutional **programmes increasingly designed to catalyse commercial markets**
- Technologies and business models shifting from bespoke hardware **towards constellations, recurring services and integrated digital infrastructure**

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Thank you

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Serialisation and New Technologies

Dietmar Pilz
Director of Technology, Engineering and Quality,
Head of ESTEC,
ESA

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General Space Industry Factors

- Global and European Market are expanding
- Disruption, Industrialisation and Risk Taking
- Defense demand driving the market
- Space Race (Dual-Use, Security, AI, Exploration..)
- Importance of Space Assets for Geopolitics
- Systems of Systems and Interoperability

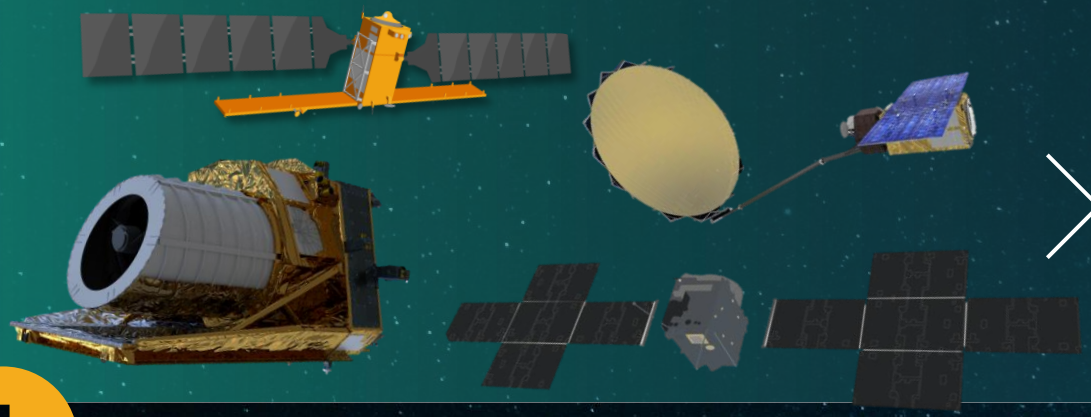
ESA R&D is supporting the growth through Successful Ministerial 2025

ESA Technology 5 Bn€

Space Industry: Additional market with new opportunities

The space market is expanding beyond “haute couture” into also the space “prêt à porter”

Science with Cutting Edge Requirements



Bespoke Prototypes that cannot fail

- Manufacturing
- Conservatism
- Large Verification effort
- Large Entry Barriers

Defense, Navigation, Telecom, Space Data Centers

Huge # of Launches LEO Constellations

- Serialisation
- Iterative approach
- Products
- Risk possible
- New Players

From “Haute Couture” to “prêt-à-porter”

- One mission
- One satellite
- One customer
- Bespoke engineering
- Small volumes
- Large Spaccraft

- Product families
- Constellations
- Recurring demand
- Reusable designs
- Industrialisation
- CubeSat & Small Sats

New technology capabilities are required

Driving European industrial scale-up

Needs for Scaling-up & Constellations

- Manufacturing readiness
- Resilient Supply chain
- Qualification at volume
- Standardisation & Interoperability
- Low-cost COTS
- Fast delivery

Industrialisation

Automation
Digital engineering
Model-based design
AI supported development
Manufacturing Readiness

Interoperability

Promote interoperable equipment
Interface Standardisation
Support industrialisation developments
Systems of System Design

Huge Chance for Growth and New Players

ESA Technology Focus

Artificial Intelligence

AI for mission design
AI for mission operations
AI for operational efficiency
AI for autonomous systems

Quantum Technologies

Quantum Sensors
Quantum Communication
Quantum positioning, navigation and timing
Quantum Computing

Cybersecurity

Advancing space system capabilities.
On-board security protection
RF and optical link protection
Quantum-resistant crypto units

Dual-Use

Resilient space infrastructures
Space domain awareness
Rapid response & operational support
Earth observation & surveillance

+ Innovative propulsion, electronics, materials, robotics, additive manufacturing, thermal ...

Summary

- Space is growing in all market segments (Exploration, observation, infrastructure, comms/ navigation)

- Most prominent is the added LEO constellation market and respective launcher demand

- New paradigm of serialisation is offering great opportunities also for new and out of segment players

Thank you !

Dietmar Pilz
Director of Technology, Engineering and Quality
Head of ESTEC
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Serialisation and New Technologies

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Airbus Defence and Space

Raycho Raychev
CEO,
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Catherine Bender
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Massimo Comparini
Managing Director Space Division,
Leonardo

Dr. Jörg Goschin
CEO,
KfW Capital

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moderated by **Gianluigi Baldesi**
Head of Ventures and Financing Office, ESA

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In-Orbit Servicing

Holger Krag
Head of Space Safety Programme,
ESA

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European Union Agency for the Space Programme

ISAM – Strategy, Opportunities and Markets

Holger Krag – Space Safety Programme Manager

18/09/2026

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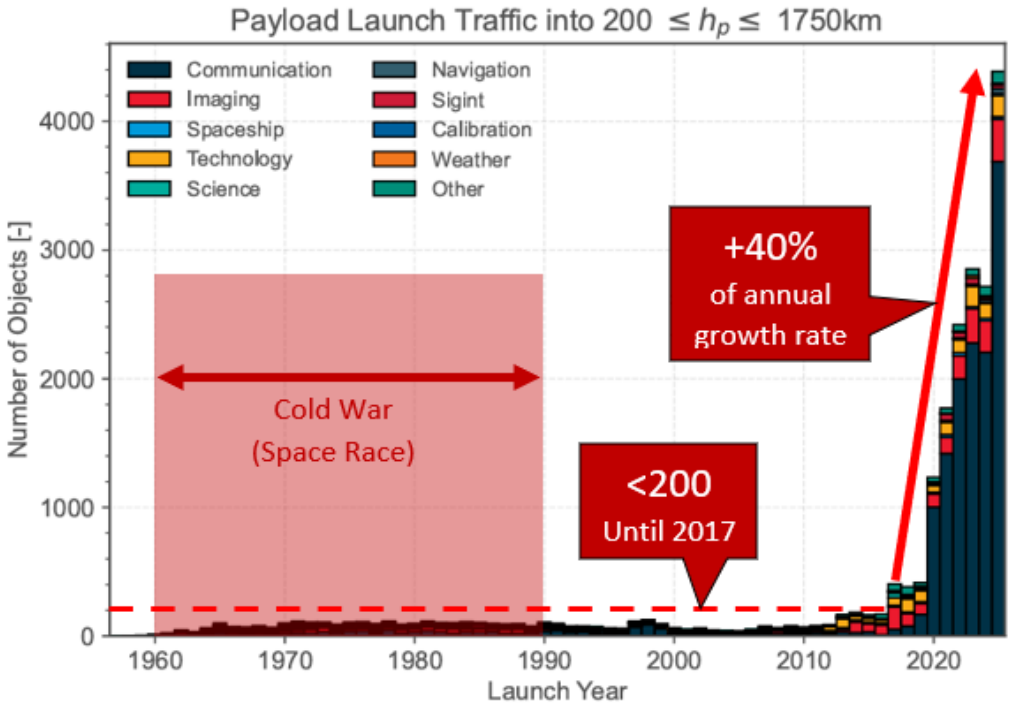
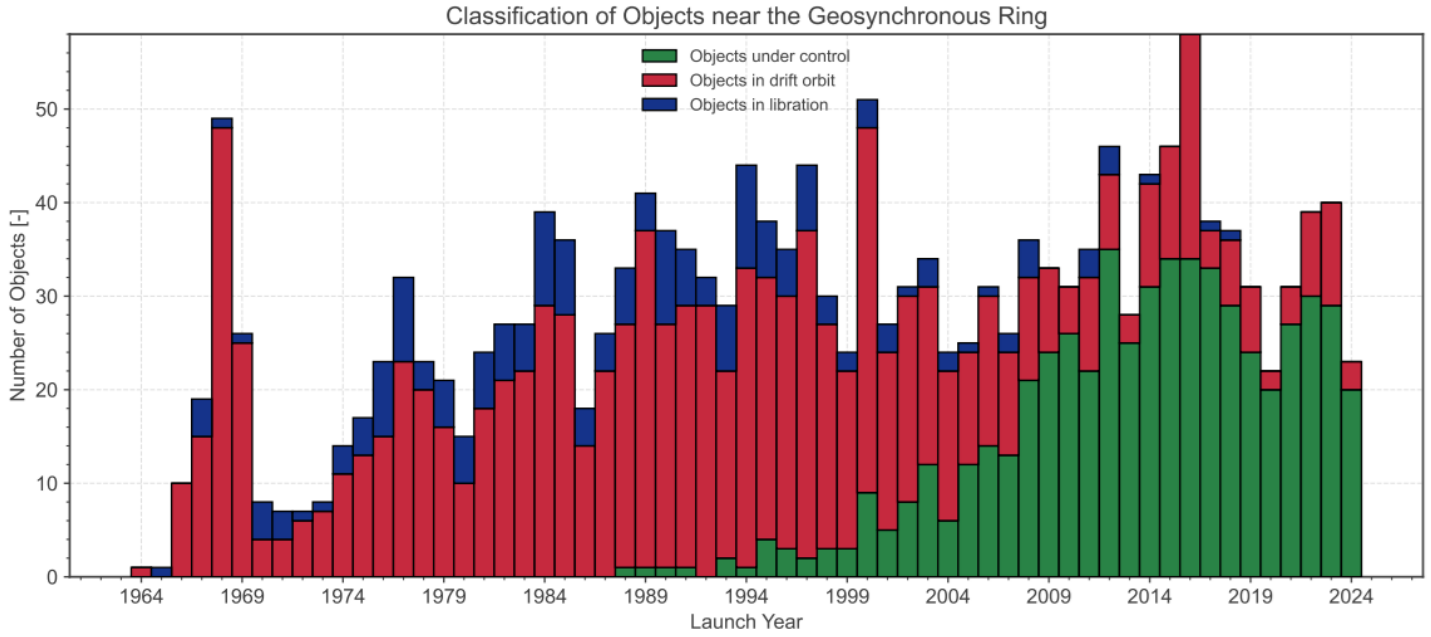
The case for ISAM



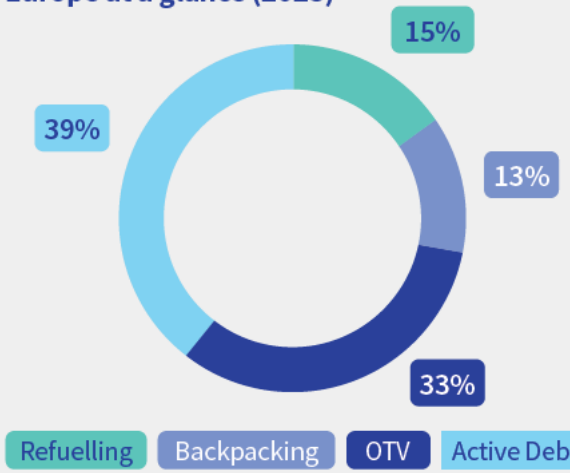
ESA Space environment Report 2026



Future technologies and markets

In-Orbit Servicing market in Europe

Europe at a glance (2025)



€379M
Cumulative market value (2026 - 2035)

€120M+
R&D institutional grants (2020 - Aug 2026)

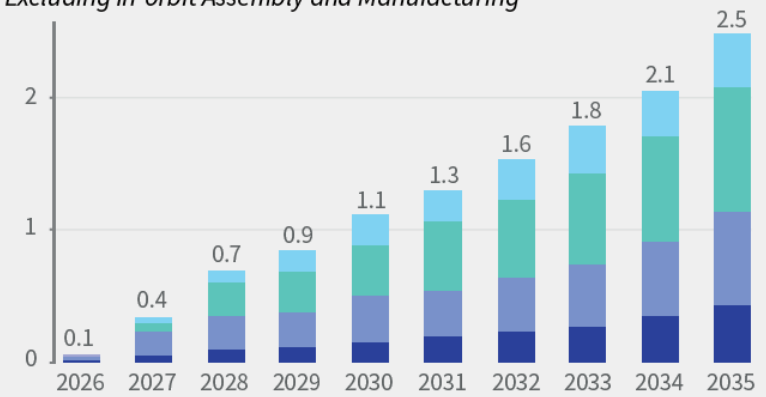
Source: Novaspace

In-Space Operations & Services: the serviceable and interoperable orbital infrastructure of tomorrow, NOVASPACE

€2.5B

In-orbit services are projected to generate ~€2.5B in cumulative revenues over the next decade globally.

Cumulative market value of in-orbit services (2026-2035 (€B))
Excluding In-orbit Assembly and Manufacturing



MARKET VERTICALS[1] (2026-2035)

Refuelling[1]	38%
Backpacking[2]	28%
Orbital Transfer Vehicles[3]	17%
Active Debris Removal	17%

1. The market segmentation is capability-based. Lifetime extension is an application enabled by both refuellingand backpacking.
2. Backpackingrefers topersistent docked servicing, typically including takeover of AOCS functions to support continued satellite ops. and life extension.
3. OTV refers to major orbital manoeuvresfor transportation or logistics, typically while the client is non-operational.

Source: Novaspace In-Orbit Services Markets report 2026

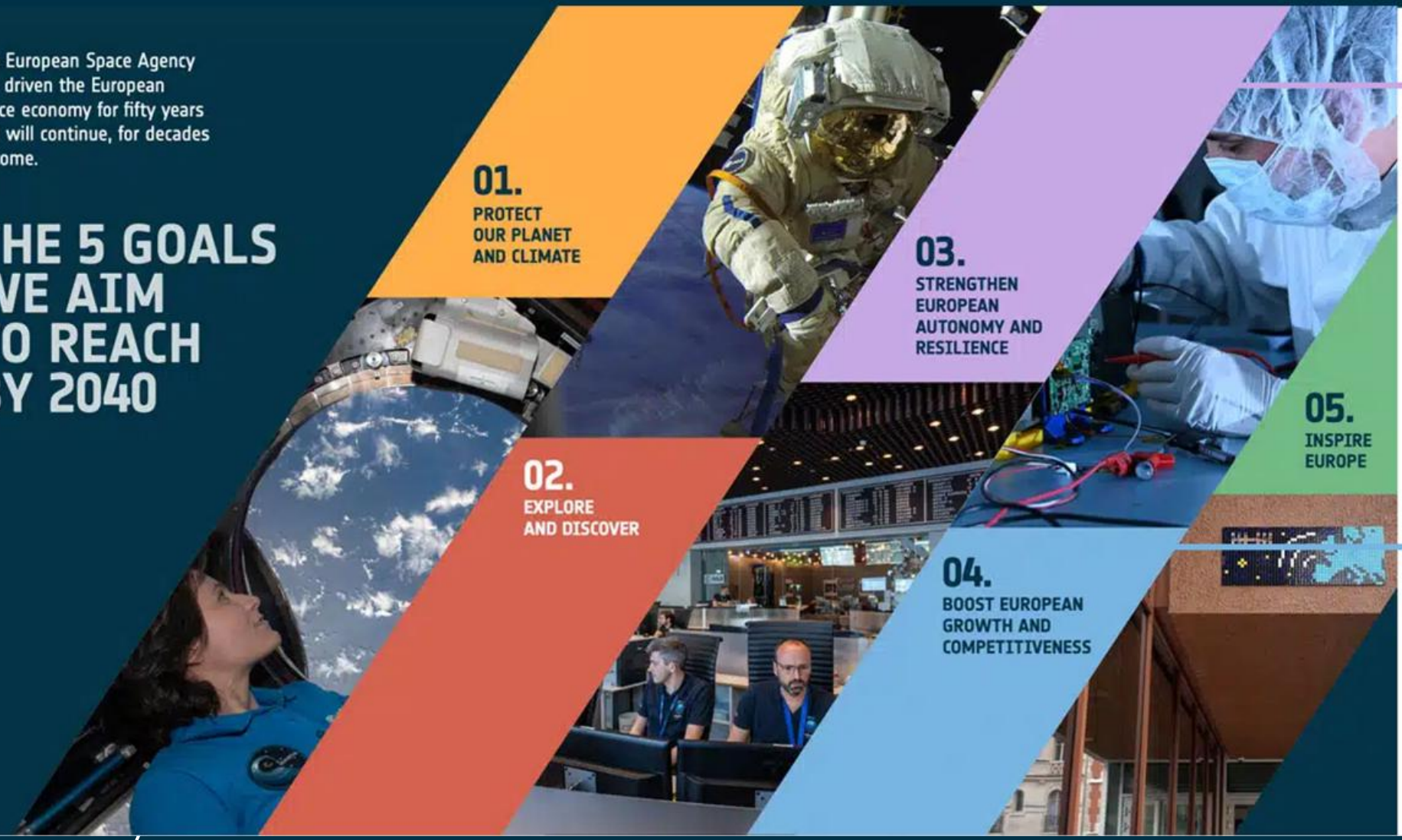
~68% **Government defence and civil** demand share of the cumulative market value over 2026-2035

In-Space Operations & Services: the serviceable and interoperable orbital infrastructure of tomorrow, NOVASPACE

ESA Strategy for the sector

The European Space Agency has driven the European space economy for fifty years and will continue, for decades to come.

THE 5 GOALS WE AIM TO REACH BY 2040



3.1 Secure autonomous and competitive access to and mobility in space through new transportation systems, solutions and services

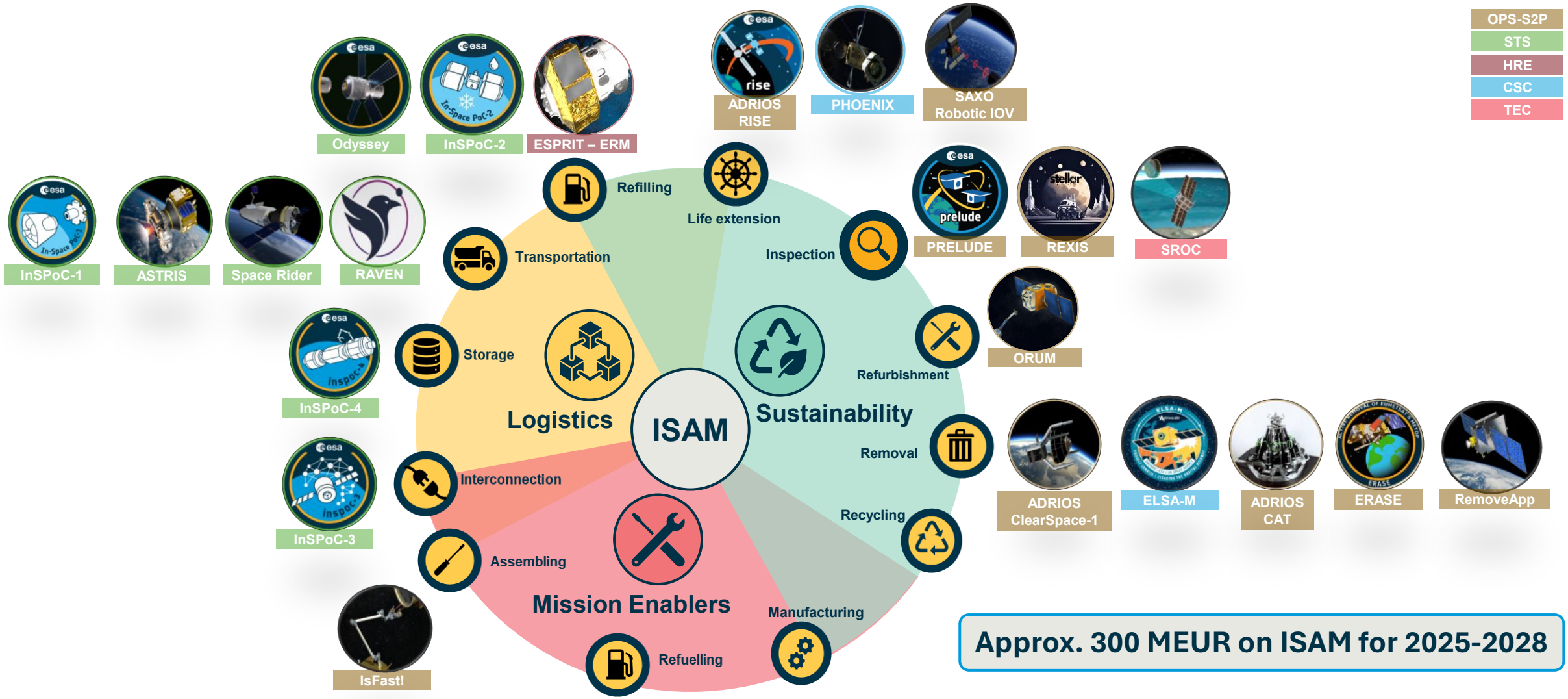
→ Stimulate commercial in-orbit services in low Earth orbit (LEO)

4.3 Position Europe as a commercial hub in the booming global space economy, able to attract significant private investment.

→ Work With Member States and the EU to attract private investments by expanding and supporting:

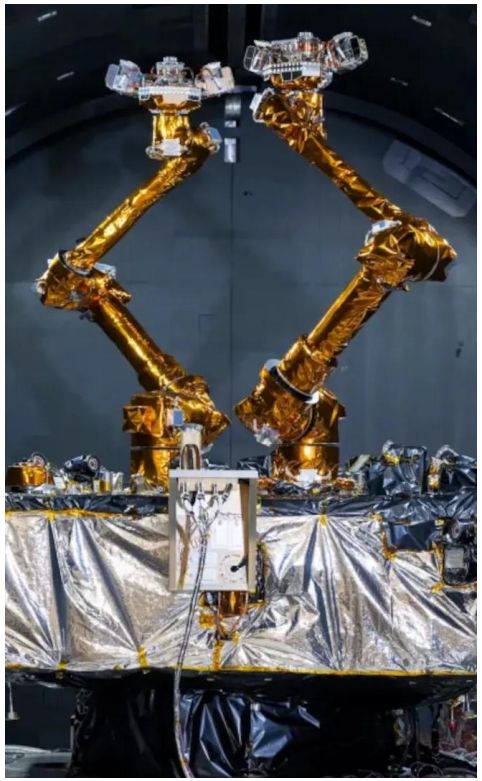
- Public-private partnerships
- Venture funds and incentive Programmes

ESA ISAM main missions



Approx. 300 MEUR on ISAM for 2025-2028

ISAM Advancements in the World



The DARPA Robotic Servicing of Geosynchronous Satellites (RSGS) payload, awaiting integration into Northop Grumman's MRV.

USA

- Northrop Grumman MRV + 3 Mission Extension Pods launched 21 July 2026: reusable robotic servicing and life extension in GEO.
- Starfish Space: $54.5M Space Force Otter award + $52.5M SDA deorbit-as-a-service contract.
- Astroscale US / Orbit Fab preparing hydrazine refuelling demonstrations using RAFTI and GRIP interfaces.

China

- Shijian-21 and Shijian-25 performed close GEO operations and apparent docking in 2025 for a refuelling / life-extension experiment.
- Open sources support advanced RPO and docking; the actual fluid transfer remains unconfirmed in official technical reporting.

Japan

- ADRAS-J completed close inspection of a non-cooperative upper stage; ADRAS-J2 moves from inspection to capture and removal.
- JAXA contract ≈ ¥13.2B; FY2027 launch target to capture and deorbit an ~3-ton H-IIA upper stage.

India

- OrbitAID is developing the SIDRP docking/refuelling interface and tanker-satellite architecture for inspection, mobility and life extension.
- A two-spacecraft end-to-end docking, propellant-transfer and orbit-raising demonstration is being prepared for 2027.

MARKET DIRECTION

01 Life extension
GEO is the first repeatable market

02 Refuelling
Ports + depots become infrastructure

03 Disposal
Government buys outcomes, not only demos

04 Autonomy
RPO software is a core differentiator

From demos to services

55

ESA Programmes and opportunities for private investment

ESA-EU architecture vision on ISAM

Servicing
Providing Commercial and governmental services

Hosting
Providing supply for docked commercial and governmental servicer and logistic spacecraft, hosting and distributing peripherals, IOD/V experiments, propellant

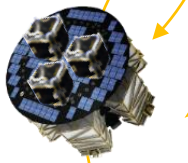
- IOD/V
- In-orbit infrastructure

InSPoC-4 ODYSSEY

- Active Debris Removal and Life Extension
- Refurbishment & Upgrade

ORUM CAT-IOD ELSA-M RISE ERASE PRELUDE

Logistics
Transporting cargo and supplies, disposal of old cargo, providing transport services to spacecraft

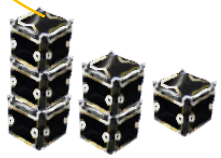


- Transportation
- InSPoC

InSPoC-1 InSPoC-2 InSPoC-3

- Refurbishment & Upgrade
- Modular platforms

Expanding
Building an ecosystem of functional satellite upgrades (plug'n'play peripherals)



Joint declaration between ESA and EC

To advance development of sovereign ISOS for the benefits of the European space ecosystem including the EU flagships, and to align as much as possible efforts across Europe

10 June at ILA Berlin

European Commission and the European Space Agency (ESA) signed the declaration "sealing their long-standing in-space cooperation"

10 September at Space Summit

ISOS Celebration at the International Space Summit

EUROPEAN SPACE AGENCY

THANK YOU!

holger.krag@esa.int

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INVESTOR FORUM 2026
In-Orbit Servicing

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CEO and Founder,
D-Orbit

Nick Shave
UK Managing Director,
Astroscale

Zuzana Mazanova
Head of Unit - Space Single Market, DG DEFIS,
European Commission

Adam Niewiński
Co-Founder and Managing Partner,
OTB Ventures

Jean-Luc Maria
CEO,
Exotrail

Supported by

European Commission

EUSPA
European Union Agency for the Space Programme

moderated by **Quentin Verspieren**
Head of Space Safety Programme Coordination Office, ESA

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INVESTOR FORUM 2026

Leveraging Public Demand to Unlock Commercial EO Markets

Simonetta Cheli
Director of Earth Observation Programmes,
ESA

Supported by

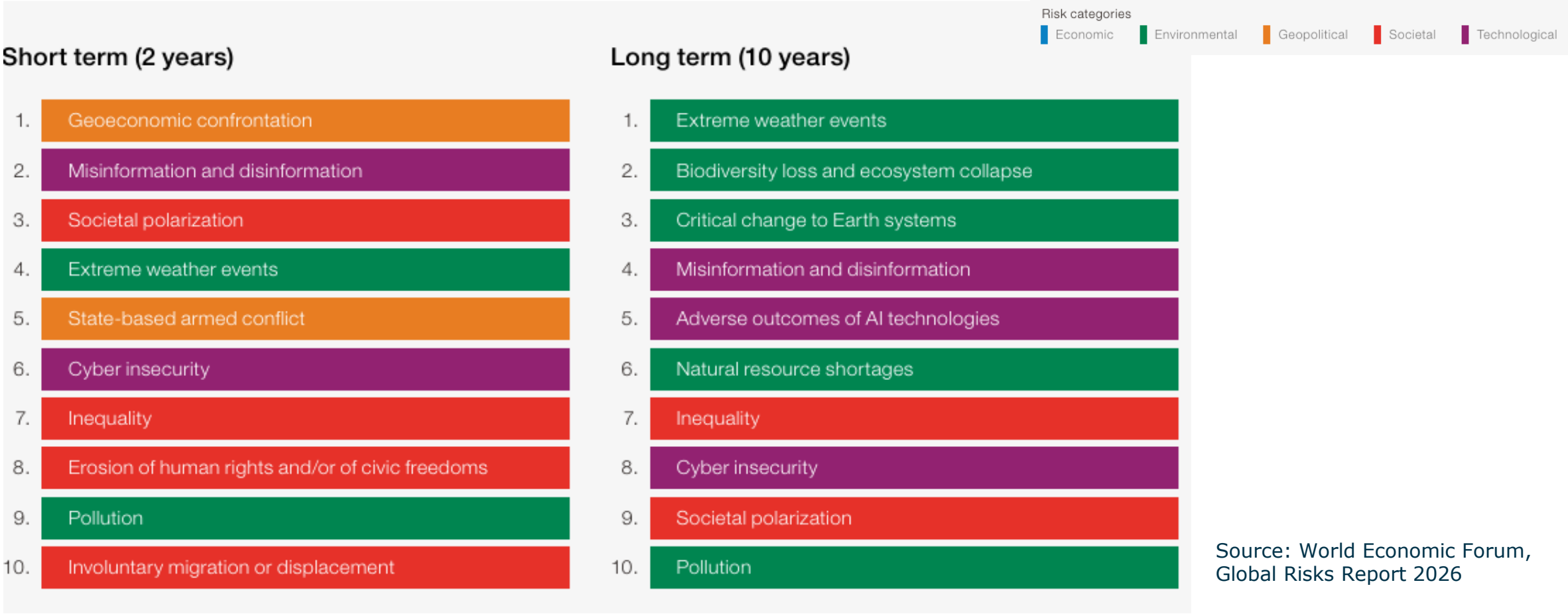
European Commission

EUSPA European Union Agency for the Space Programme

Earth Observation Addressing Identified Global Risks

Global risks ranked by severity, short term (2 years) and long term (10 years)

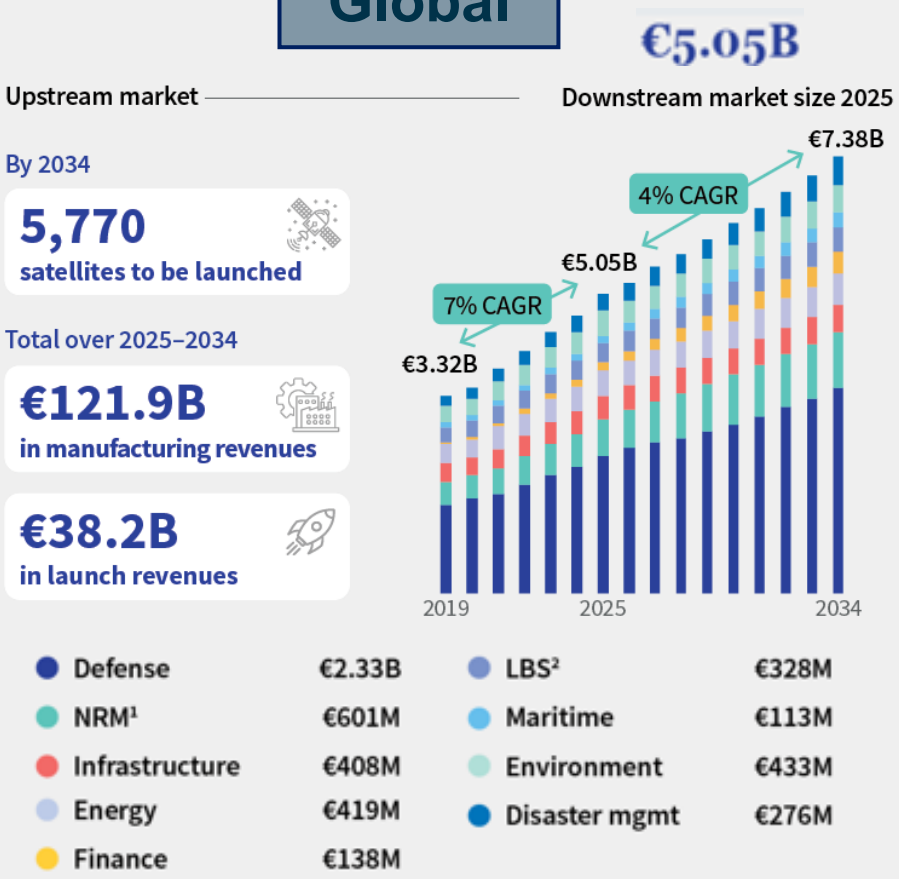
"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."



Source: World Economic Forum, Global Risks Report 2026

Earth Observation in the Wider Space Economy

Global



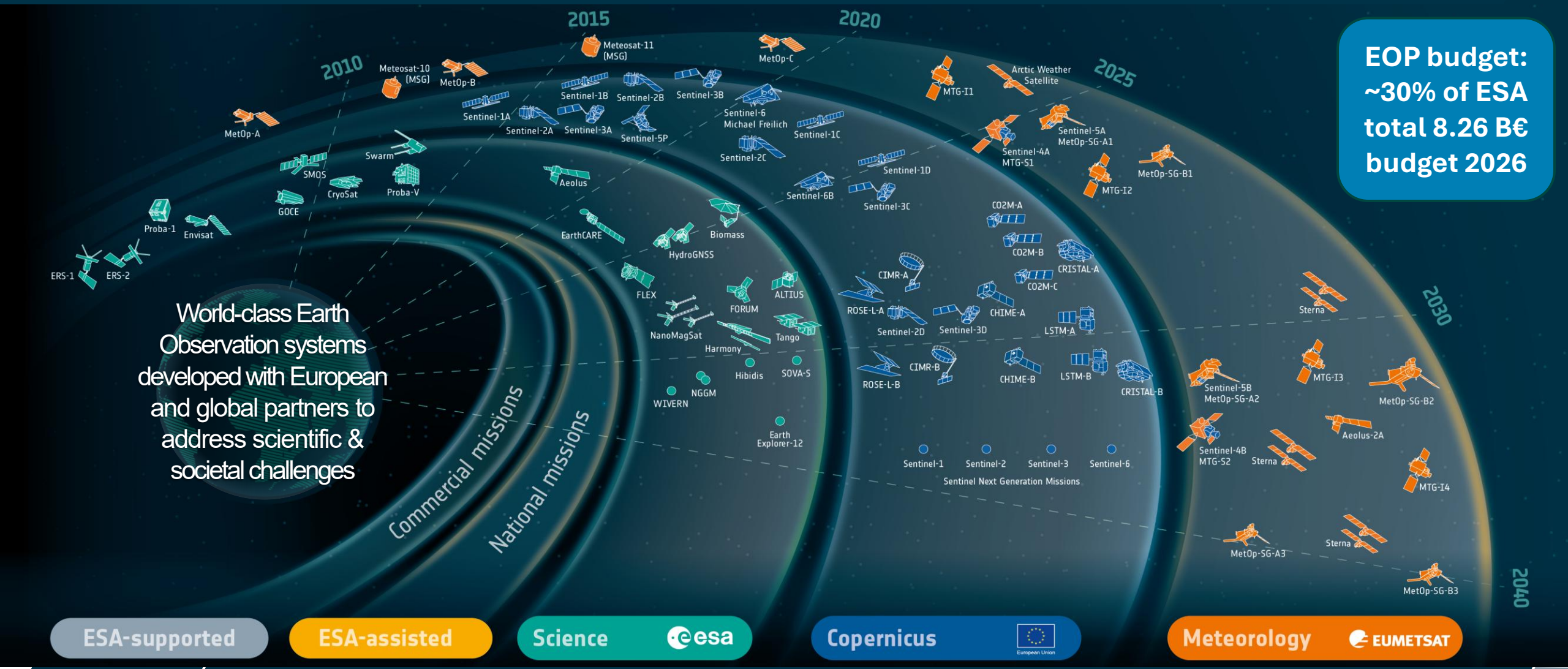
Sources: Novaspace | ESPI | Eurospace | EARSC | EUSPA

Europe

- **800 satellites** to be built and launched over 2025-2034
- **€1.7B+ private investments** in the European EO companies over 2019-2025
- **~€22B for satellite manufacturing** to be built and launched over 2025-2034
- **€2.2B in EO satellite system sales in 2025** with EO driving sales growth since 2022
- **Growth of the Export business** for EO systems representing about **63%** of the commercial sales in this segment in 2025
- **Over 800 downstream companies** and more than **16 000 employees**
- **€2.7B revenue** in the **downstream** market in 2024
- **European EO data providers** account for **more than 1/3** of the global data processing market

ESA's EO Missions

Satellites**: Heritage **09** / Operational **23** / Developing **40** / Preparing **34** / Total **106



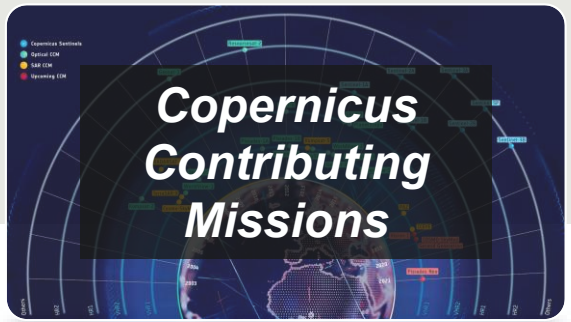
EOP budget: ~30% of ESA total 8.26 B€ budget 2026

ESA EO Boosting European EO Competitiveness

as Enabler/Partner

in³ esa Φ-lab

as Anchor Customer

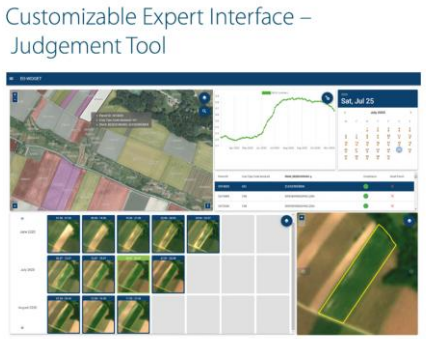


FutureEO boosting industry capacities for R&D

InCubed Successes

EO-WIDGET

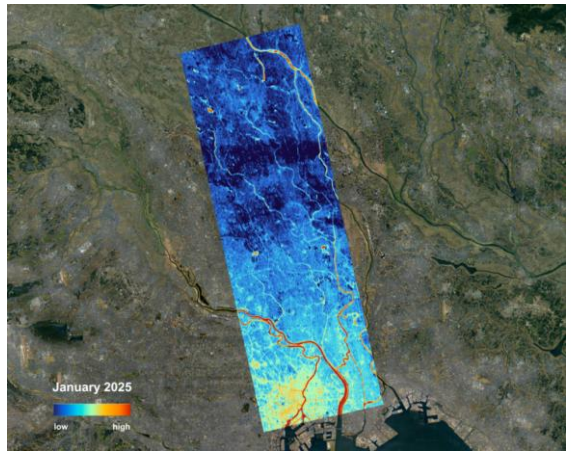
- Cloud-based Area Monitoring Service powered by Copernicus Sentinel data
- Ready-to-use APIs and interactive monitoring dashboards
- Automated compliance checks and quality assessment tools
- Easily integrated into existing government systems (IACS/AMS)



HIVE

Launched in January 2025 Hive was developed by ConsteLLR as prime contractor, with support from ESA. Hive's data can be used in several contexts, including in agriculture to monitor crop health, in infrastructure to identify vulnerabilities in transport networks during extreme weather, as well as by urban planners to identify heat islands and develop sustainable cities

HIVE SkyBee 1 (Copyright ConstellR)



First-light imagery taken by SkyBee 1 showing the city of Tokyo at night. (Image credit: constellr)

Copernicus Contributing Missions Fostering Commercial Growth

The impact of ESA's Copernicus Contributing Missions and Third Party Missions Programmes on Earth observation commercial data suppliers

Boosted revenue, with a 81% (same year) to 125% (following year) rise in revenue* for companies participating in the programmes
**inclusive of ESA contract revenue*

Accelerated employment in companies, with a 15–17% increase in employment

Acceleration of constellation development

Strengthened credibility and trust of customers and investors

Boosted brand reputation

Retention of companies in Europe and attractiveness of the programmes - 67% of European Earth observation emerging data suppliers participating in the Copernicus Contributing Missions Programme would have reduced European involvement without it

Substantial benefits from widened network and technical support

CCM Companies as of 2026

ESA InCubed Participation (upcoming, current or past)	Emerging providers	Established providers	
	Category-1	Category-2 (EU)	Category-3 (non-EU)
Multispectral - ≤1m	GEOSAT, marble imaging	GEOSAT, AIRBUS	Vantor through EUSI, planet.
Multispectral - ≤4m	ENDUROSAT, aerospacelab, PROMÉTHÉE	GEOSAT, AIRBUS	Vantor through EUSI, planet.
SAR		hisdeSAT, AIRBUS, ICEYE, e-geos	MDA, S
Atmospheric Composition	RESOLUT Sensing, SATLANTIS		GHGSAT
Thermal IR	constellr, ORORA TECHNOLOGIES, AISTECH, SatVu		
Hyperspectral	KUVA SPACE, ORUS		
Radio Frequency	unseenlabs, aerospacelab		

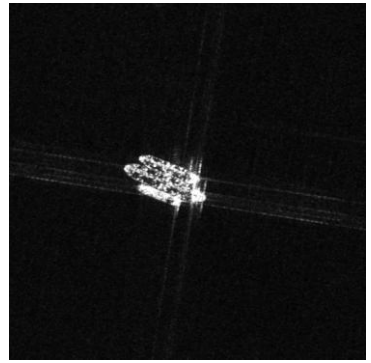
New Opportunities: Security & Defence Market through ERS-EO

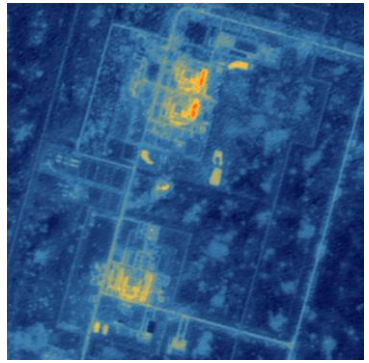
Objectives

Enhanced situational awareness of EU & MS:

- Early detection of crisis,
- Intelligence, Surveillance, Reconnaissance,
- Geospatial support

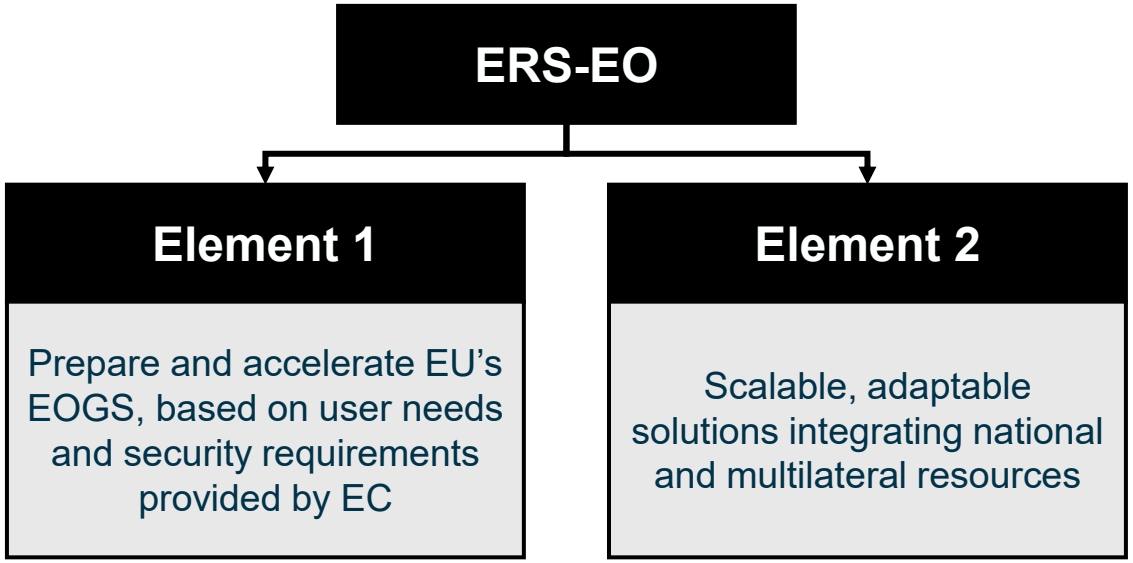
Contribute to preparedness, support decision-making and action for security and defence





Features

- **EO sensors:** VHR optical & radar, possibly advanced sensors
- **Fast revisit capability**: large EO constellations
- **Guaranteed, secure** and **fast** access to data: Global, Reactive, Reliable, Connected
- **Security posture** meeting both civil and military needs



New opportunities: Addressing Outstanding Environmental Needs through the Stepping Stones Initiative

The aim is to prepare and define missions to:

- Fill key gaps in the EO mission ecosystem
- Enable services that support environmental policies and respond to the growing demand for operational environmental intelligence
- Bridge the gap between R&D and commercial exploitation of EO capabilities

Market potential

Emergence of new potential EO markets and services in areas such as methane monitoring, urban heat management, biodiversity reporting, coastal resilience, water resources management, carbon accounting, and more, in line with Europe's needs

New opportunities leveraging collaborations with key partners

European Commission
DG CLIMA

ESA-DG CLIMA Joint Initiative on **Space for Climate Action**:

→ Supporting **implementation of EU climate policies**

→ **Accelerating uptake** of space-based climate solutions

→ Stimulating **business innovation** for the **green transition**

Examples of **addressable markets**: carbon removal and carbon farming (CRCF) certifications and verification services, (CBAM) compliance, ETS-related services, climate-risk analytics, digital twins services, adaptation services

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

Almost 6b USD worth of World Bank financing directly informed through ESA EOP activities

→ ESA **de-risks** new EO applications

→ European companies build on R&D and develop **pre-operational services**

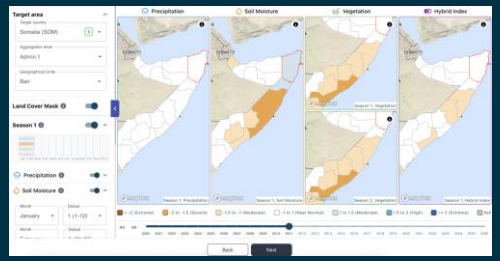
→ The World Bank **validates, scales and operationally deploys** the solutions through development programmes

→ Directly addressing country demand, successful pilots become transfer **templates for adoption** by multiple countries

Examples of **addressable markets**: transportation infrastructure, energy, water management, flood risk management, agricultural monitoring, adaptation services, disaster risk financing, green bonds ...

Earthpulse enabling Drought Risk Financing in the Horn of Africa

European industry, supported by ESA and the World Bank, delivered the drought-risk platform underpinning climate-risk financing and insurance schemes across the Horn of Africa



From Satellite Data to Earth Intelligence Value

- **Agriculture** → precision farming, yield prediction
- **Energy** → optimised siting of wind & solar
- **Climate policy** → tracking emissions and progress toward targets
- **Urban development** → Smart cities, energy optimisation, and infrastructure planning
- **Security & resilience** → real-time situational awareness

New Technology: Quantum, AI, Digital Twins

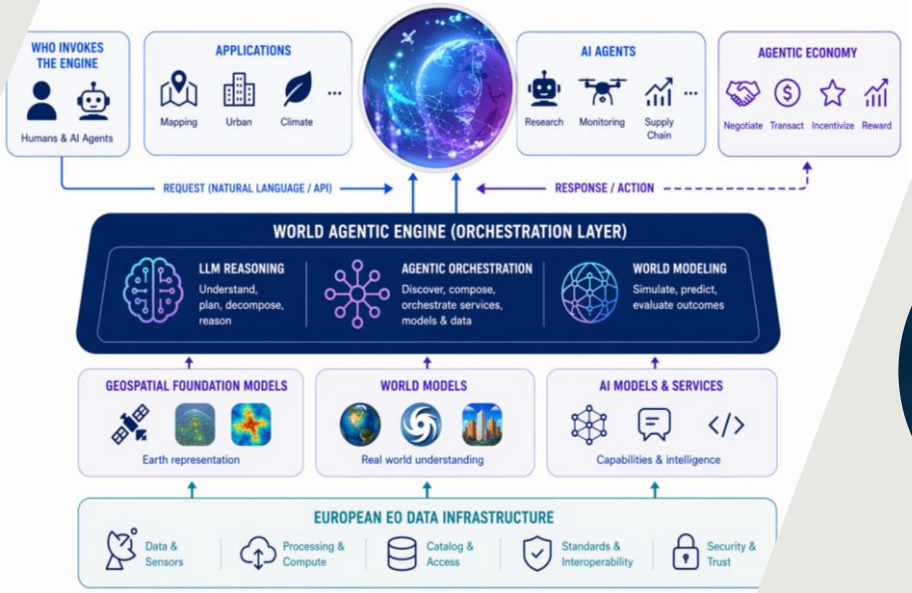
Quantum Computing for EO

Use cases on:

- SAR Raw data processing,
- Multiple View Geometry,
- DTE simulations,
- Mission Planning, and more

Potential faster solutions, better accuracy, less memory and less energy

World Agentic Engine



Democratising and orchestrating advanced EO services via Agentic AI and enabling an EO transactional economy of model and embeddings

Digital Twins

Enabling large-scale data exploitation
Offering advanced modelling & simulation capabilities

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INVESTOR FORUM 2026

Leveraging Public Demand to Unlock Commercial EO Markets

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VP missions ESA/EU,
ICEYE

Michel de Lempdes
Managing Partner VC,
Omnes Capital

Emmanuel Pajot
Secretary General,
European Association of Remote Sensing Companies (EARSC)

Javier Espurz
Head of Corporate Bank Spain,
Head of Global Coverage Spain,
Deutsche Bank

Christoph Kautz
Director of Space Policy,
DG DEFIS
European Commission

Dario Loffredo
CFO,
Argotec

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EUSPA
European Union Agency for the Space Programme

moderated by **Michele Castorina**
Head of Φ-lab Invest Office, ESA

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INVESTOR FORUM 2026

Telecommunication and Navigation for Security Applications

Laurent Jaffart
Director Resilience, Navigation and Connectivity,
ESA

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European Union Agency for the Space Programme

A CHANGING GEOPOLITICAL PICTURE

54% **Defence share of global government space budgets**

Defence overtook civil space spending in 2022 and has led every year since

(NOVASPACE, 2026)

$8.7B **European Defence, Security, Resilience startups secured in VC**

This accounts a 55% year-over-year increase, freedom of operations & mobility, to awareness and decision making, and the security of critical tech.(Dealroom, Nato, 2026)

38% **European air traffic exposed to GNSS interference**

Share of en-route traffic flying through regions with regular jamming; 122,000+ flights affected in the first 4 months (2025)

(Eurocontrol, 2025)

140 **Chinese Launches Planned for 2026**

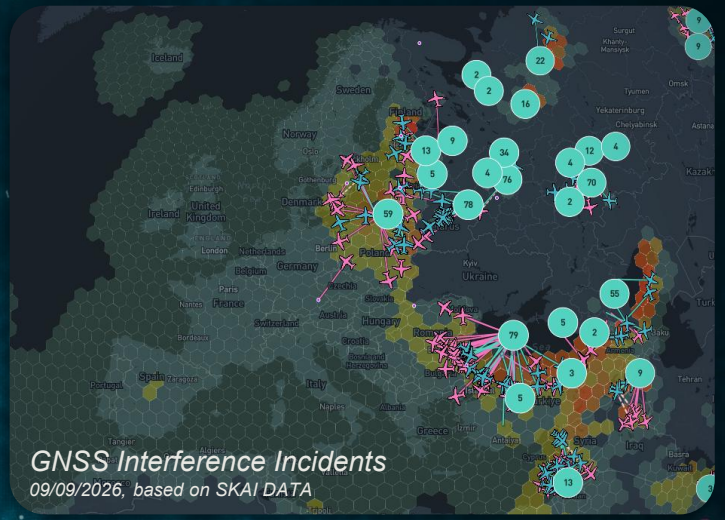
This accounts a 52% year-over-year increase, boosting its total on-orbit payloads to 1,506

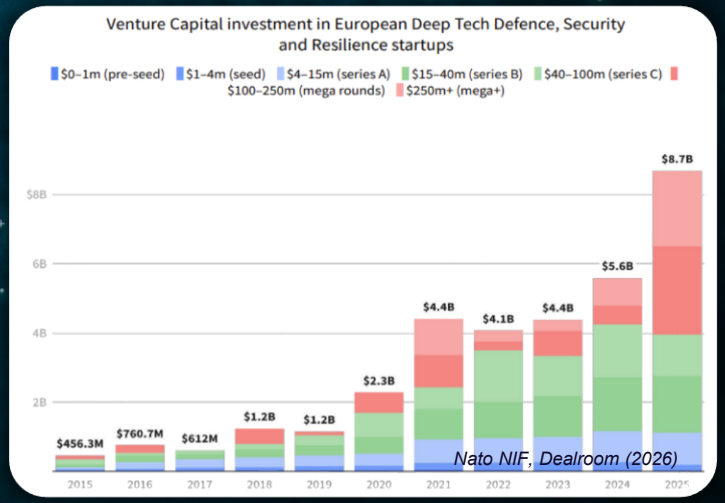
(Spaceforce, 2026)

$9.8B **Allocated by U.S. Space Force for SATCOM in 2027**

SATCOM strategy emphasizes shifting toward resilient architectures, incl. expanding PLEO-SATCOM networks for tactical communications

(DoW, 2026)





THE RNC DIRECTORATE

- Brings together **strong navigation and secure connectivity domains**, with further resilience responsibilities.
- Mandated to accelerate developments and **strengthen ESA-EU cooperation**.
- Manages and **coordinates the European Resilience from Space (ERS) system-of-systems**, leading to proposals for evolutions of existing ESA programmes.
- Prepares **ESA's resilience portfolio** with focus on defence of space (in-orbit resilience).
- **Contributes to the seamless management** of **resilience, defence and security** related programmes.

RNC - The Portfolio

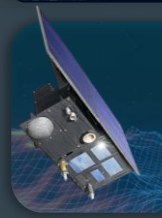
~ €2.6B subscribed at CM25 (2025 e.c.) | ESA-RNC procurement activities already underway and initial commitments being place

NAVIGATION

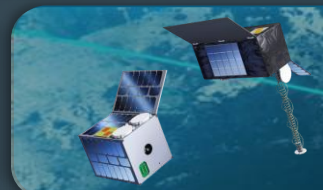
Galileo
Europe's Global Navigation Satellite System

EGNOS
Augmenting GNSS for safer Skies

Galileo & EGNOS R&D
Shaping the next generation



Genesis
Strengthen Geodetic Research



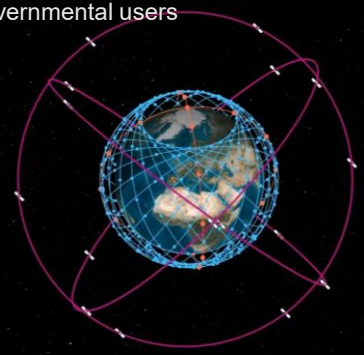
Celeste
Adding a new PNT layer for resilience

NAVISP
Driving PNT Innovation

Fut. PNT Dem.
Preparing PNT for the Future

Moonlight
Offering lunar navigation & telecom services

IRIS2
Connecting governmental users



ARTES
Connecting what need to be connected

Future Prep.

Industrial. Comp.

Space Systems for Safety & Security

Optical & Quantum

CONNECTIVITY

RESILIENCE

Opportunities for New & Established Players

Institutional demand is shifting to resilient sovereign capabilities delivered at speed

New System Concepts
- LEO Satcom +PNT constellations
- Multi-orbit satellite systems
- Multi-domain satellites
- Use of terrestrial frequency bands

New Technology
- Micro-GEO platforms
- Software-defined satellites
- Large phased array antennas
- Low-cost consumer terminals

Supply Chain Innovation
- Volume production of satellites
- Chipsets for Satcom
- Demands for interoperability

Market Consolidation
- Mergers and acquisitions
- Verticalisation
- Operator Partnerships

Established Players

New Entrants & Scale ups

Speed ***demonstrators and constellation delivered in under 3 years***

New Service models
Data, Capacity, As-a-Service to governments

From contracts to serial production
needs growth capital, not grants

Capacity ramp-up
production lines, secure facilities, staff

From Today's RNC to Tomorrow's Capabilities

Autonomy

Trust & Cooperation

Continuity

Collective Security

Emerging capabilities & Areas of innovation

- Optical & Quantum
- Integrated PNT + Connectivity
- In-Orbit Resilience & Autonomy
- New Resilience Activities
- ?

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INVESTOR FORUM 2026

Telecommunication and Navigation for Security Applications

Dinesh Rempling
Director of the Capability Transformation Division, Frontex

Sophie Sursock
Founding Partner, Move Capital

Anas Hanan
Deputy Head of Unit Space Economy, DG DEFIS, European Commission

Abhishek Dhacholia
Head of Telecoms, UBS

Jean-Francois Morizur
CEO and Co-Founder, Cailabs

Rafel Jorda Siquier
CEO and Founder, Open Cosmos

Supported by

European Commission

EUSPA
European Union Agency for the Space Programme

moderated by Cecilia Blacker Sy
Head of RNC Strategy and Coordination, ESA

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INVESTOR FORUM 2026

Space Exploration and the Future of Project Financing

Daniel Neuenschwander
Director of Human and Robotic Exploration,
ESA

Supported by

European Commission

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European Union Agency for the Space Programme

We explore… across 3 destinations

EXPLORE 2040
THE EUROPEAN EXPLORATION STRATEGY

The next exploration order is being built now

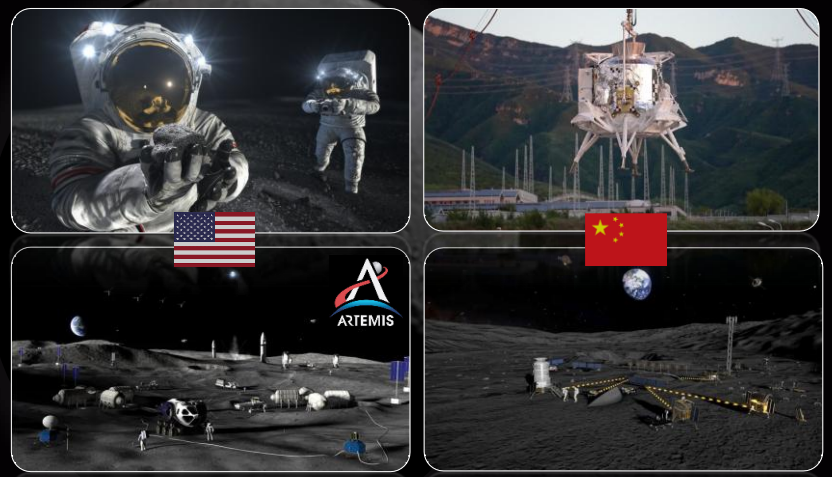
Early capability owners will determine access, rules and value chains

Global public investments in space exploration

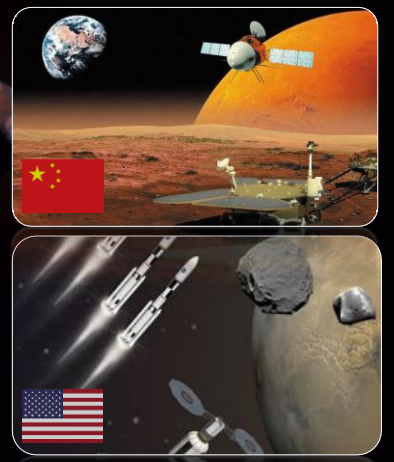
NOVASPACE

+50%
PAST DECADE

New post-ISS destinations



Robotic infrastructure and sustained human presence



Preparing for the long-term horizon

Europe’s exploration ambitions

A modular ambition

LEO outpost

2030s

Crew vehicle & cislunar outpost

2040s

Mars transit & outpost

>2040s

2035/40

Moon sample return

Moon robotic outpost

2035s

Mars sample return

2040s

2028-2035

Building on a firm Baseline

LEO autonomous cargo & crew

Repeatable robotic lunar access

National contributions

High-value lunar partnership

Mars continuity

From technologies to capabilities to scalable markets

Supporting industry to gain market share and seize commercial opportunities

Deloitte.

€150-300B
Low Earth orbit economy by 2035

- Infrastructure
- Services
- On-orbit research & development
- On-orbit manufacturing
- Media, advertising & entertainment

ESA exploration capabilities

€95-126B pwc
Lunar surface cumulative revenues by 2050

- Communication
- Mobility
- Energy
- Water
- Habitation

LEO Cargo Return Service (LCRS)

40% co-funding mandatory

Phase 1: contract signature May 2024

€25M ESA contract

→ $270M Capital raised

10X private capital leverage

Phase 2: contract signature September 2026

€310M ESA contract for demo mission to ISS

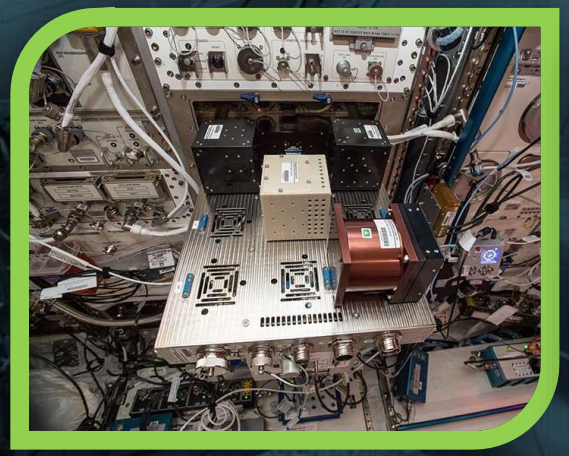
€450M ESA contract for 2 optional service missions subject to later confirmation after successful demo

→ $450M additional series C private capital secured by the The Exploration Company in Sept ‘26

Commercial partnerships developing exploitation infrastructure

Bartolomeo external platform

Focus on institutional users, business case did not close



IceCubes platform

Industry driven with focus on commercial users

KUBIK platform

Lunar Pathfinder data relay

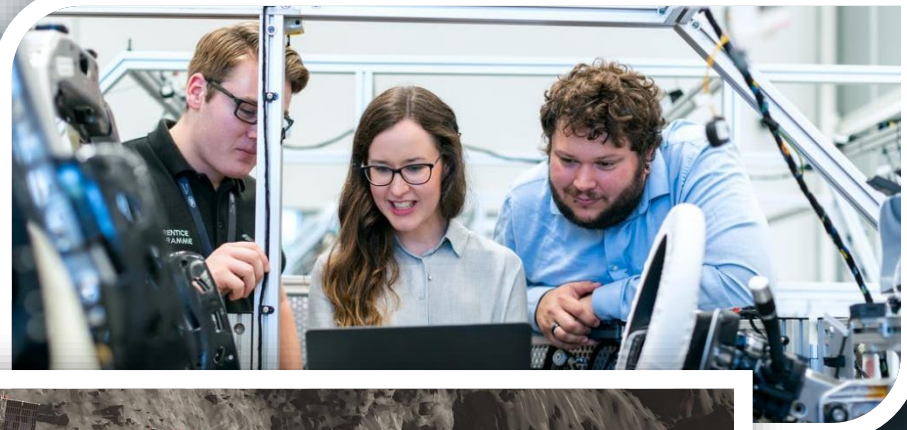
Focus on institutional users, business case may close (tbc)

Business in Space Growth Network – Industry Accelerators

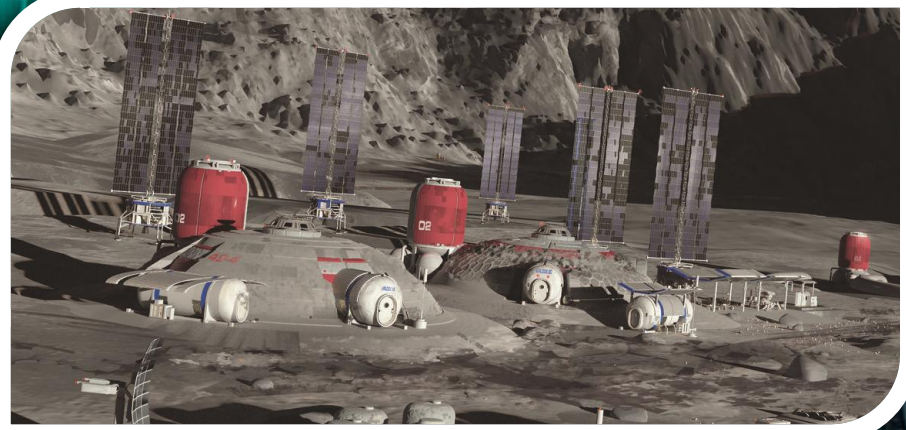
Non-space markets have highest scaling potential, conditional to breakthrough applications

Agriculture & food

Advanced materials and in-space manufacturing



Health and life sciences



Lunar resources

Key take-aways

From standalone missions to investable activities

ESA is building the key capabilities unleashing a long-term exploration economy

Towards risk sharing

Key opportunities in space and non-space potential

In Europe for Europe

Towards a European crew transportation capability?

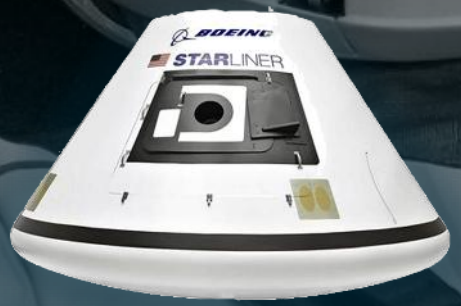
Thank you for flying with “US”

seats for esa astronauts_

3 results:

CREW DRAGON
SpaceX

7 seats



STARLINER
Boeing

7 seats

ORION moonship
Lockheed Martin

4 seats

EUROPEAN SPACE AGENCY

THANK YOU!

Europe’s exploration vision

EUROPEAN SPACE AGENCY

INVESTOR FORUM 2026

Space Exploration and the Future of Project Financing

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Supported by

European Commission

EUSPA European Union Agency for the Space Programme

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Closing Remarks

THANK YOU!

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