(image by ESA: https://www.esa.int/ESA_Multimedia/Images/2015/01/PICASSO_CubeSat2

The EO Worldwide Market Status and Forecast – Upstream

3rd ESA EO Commercialisation Forum – May 12th 2026

Hans Bracquené - SME4SPACE Chairman

SME4SPACE

SME4SPACE, representing Europe’s SMEs by

- Defending SMEs with the European Space Agency (ESA), the European Commission and its related agencies
- Emphasising the potential of the space SMEs in the supply chain and beyond
- Supporting Europe’s industrial policy
- Fostering cooperation within our extended network of members, large companies, research centres and academia
- Organising seminars and information sessions
- Participating in European and international collaborative projects

The state of Earth Observation

Based on Novaspace's outlook

Growth:

From 2.098 EO satellites launched in 2014-2023 to ~ 5.770 launched in 2025-2034.

Driven by:

- Shifting from CubeSat miniaturisation to heavier SmallSat platforms
- Heavier payloads enabling very-very-high resolution MSI
- Multi-sensor satellites
- Easier, more cost-effective access to space

"Value vs. volume mismatch":

- Commercial satellites ~66% of launches in the past decade, but only ~6% of manufacturing market value
- Civil government and defense satellites were minority by unit count, but contributed to vast majority of market value

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Defense as a gamechanger

Expected to account for ~54% of total market value in 2025 – 2034

By client type (next decade):

- **Commercial unit** share drops from ~66% to ~45%, but absolute satellites increase from ~1,316 to ~2,427. Value rises due to heavier platforms and refined sensors
- **Defense** expands dramatically from 347 satellites (last decade) to ~2,245 satellites (next decade), with ~86% in constellations
- **Civil governments** grow in absolute value and programs, but face budget uncertainty in some regions - notably U.S. civil Earth science

5 Major Trends

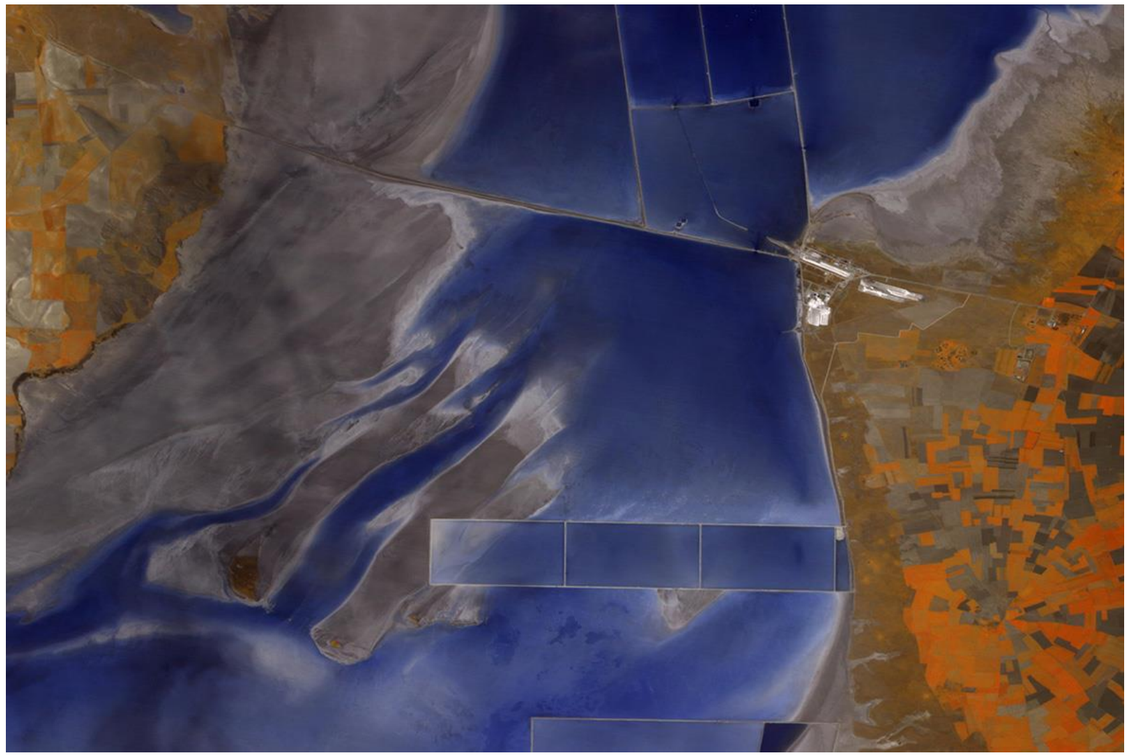
1. Constellation-driven, next to “single flagship” missions

- Constellations become the norm
- Upstream implication:
  - Platform standardisation, shared buses, modular payload bays
  - Recurring production lines instead of one-off builds

Europe moving into operational constellations

Examples

- IRIDE – Italy
- Atlantic Constellation – Spain & Portugal
- Hellenic Fire System – Greece
- Canary Island Constellation - Spain



5 Major Trends

2. Resolution, revisit and VLEO

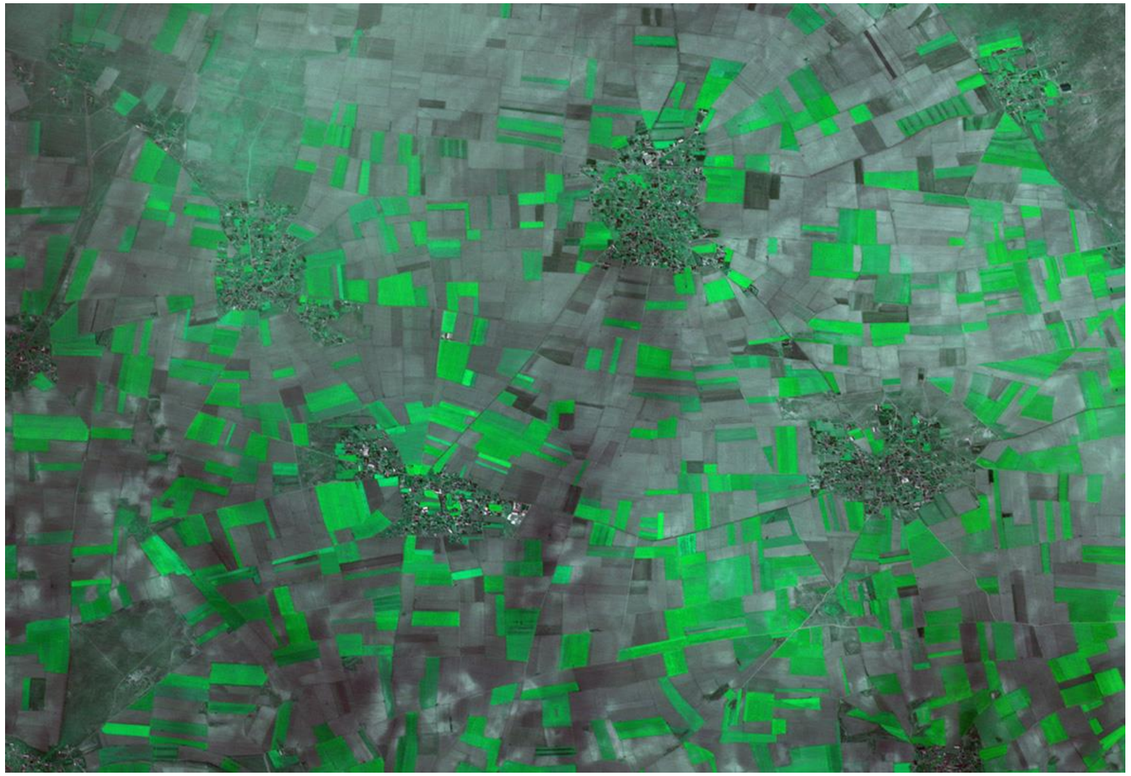
- Commercial systems push optical resolutions
- VLEO emerges as growth area to further improve resolution at the cost of drag and lifetime
- Upstream:
  - More drag compensation, propulsion, and materials work
  - Shorter lifetimes -> higher replacement cadence -> recurring manufacturing
  - Design trade-offs between resolution, lifetime, and cost

Europe is well positioned to take a leading role

3. Manufacturing and launch: volume

- Move to industrialised production
- Strong role for specialised primes + agile integrators
- Launch: mix of mega-constellation rideshare & dedicated small launchers

Europe's Achilles' heel



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5 Major trends

4. CubeSats→ SmallSats → Medium Platforms

- Rebalancing towards larger platforms as payload complexity and power needs grow
- Keep “lessons learned”: low cost, fast cycles, constellation logic, rideshare economics
- Size is growing again due to multi-sensor payloads, onboard processing, sovereignty needs, VLEO propulsion & lifecycle cost

Europe’s current sweet spot: SmallSats

5. Demand drivers shaping upstream specs

Downstream pull shapes platform design:

- Security & defence remain largest paying customers
- Climate, ESG, and regulation drive demand for high-revisit, multi-sensor constellations
- AI/ML and cloud: data fusion platforms push requirements for on-board processing, high-rate downlink, and standardised data formats

Upstream this translates to:

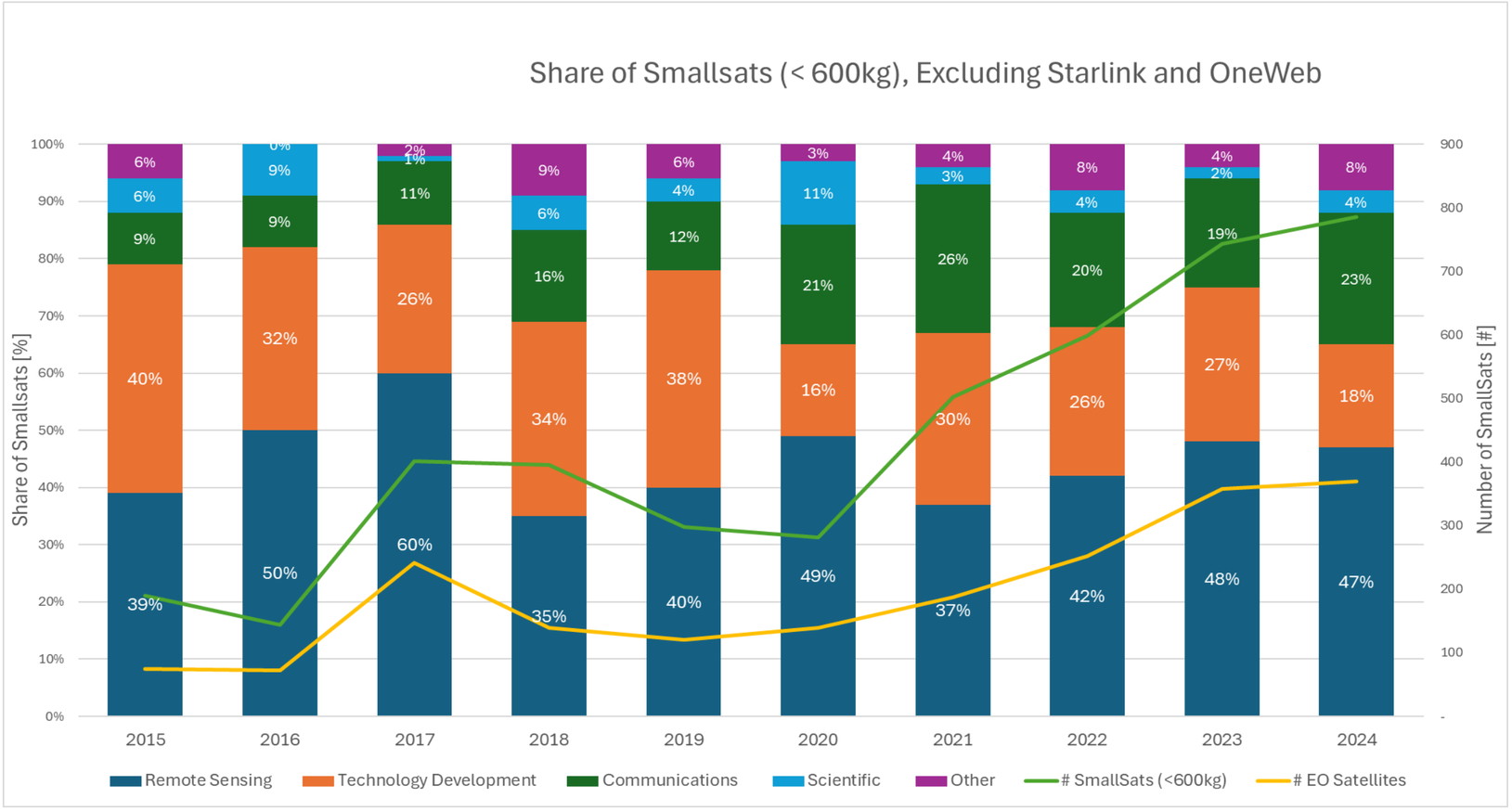
- More on-board computing and edge AI
- High-throughput RF
- Stronger emphasis on platform power, thermal, and data handling

CUSTOMERS WANT SOLUTIONS NOT DATA

Importance of SMEs (and Midcaps)

SmallSats as a proxy

EO capability growth increasingly delivered via SmallSat architectures rather than small number of large monolithic missions



"Smallsats 2015-2024, by Application, Excluding Starlink and OneWeb" (BRYCE)

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Conclusion

- EO is undergoing **strong market growth**, with satellite launches expected to rise ~175% over the next decade
- Based on **industrialised, constellation-based infrastructure**
- Growth will be driven by **defense**
- **Platforms are getting larger and more capable** (multi-sensor, higher resolution, onboard AI)
- The industry is moving to **scaled production and faster refresh cycles**
- **Downstream needs (security, climate, AI)** are now directly shaping upstream design

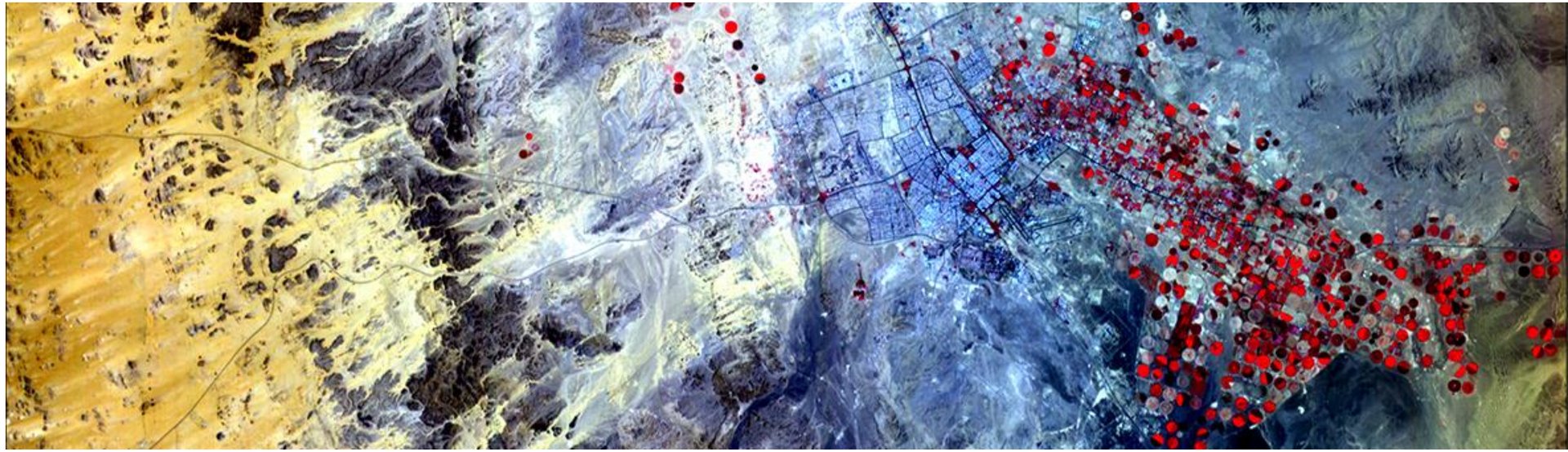
CUSTOMERS NEED ANSWERS NOT DATA

- **SMEs and midcaps are critical** to deliver agility, innovation, and specialised capabilities

Policy measures to support Europe's players

- Support development of (end-to-end) products and services adressing the market needs
  - Smarter en more performant sensors; AI; critical EEE components
- Inside but also outside the flagship missions
  - Fund sovereign medium-class platforms, long term procurement, TRL 4 -> 7 payload support, launch autonomy
- Support industrialisation: provide non-dilutive funding for the scale-ups
  - SME4SPACE proposal for pre-financing of Non-Recurring Costs
- Support downstream use

A more positive message: on these markets Europe can become globally competitive



Thank you!