

New Space Economy: le nuove frontiere di accesso allo Spazio

Damiano Accurso / NPC SPACEMIND



Con il patrocinio di:



N.P.C. New Production Concept S.r.l.

N.P.C. New Production Concept S.r.l. is an Italian company based in Imola (BO), founded in 2002 by its president, Nabore Benini, CURTI Spa and ECOR Spa.

NPC is a leader in the integration and assembly of electro-mechanical products.

N.P.C. can count on 75 employees and reported a 2024 Turnover of €32,5 million.

The production process has always been characterized from the beginning by a strong focus on the quality management system, which today has led to the certification **ISO 9001:2015** and **ISO 14100**.



SPACEMIND



Since 2013 through the **SPACEMIND** business unit, the company has been engaged in research and development activities aimed at the commercialization of integrated solutions in the **Space sector** for civil and defense applications.

- **End-to-end mission management:** covering everything from defining requirements to conducting on-orbit operations, all tailored to our clients' needs.
- **Fully equipped nanosatellite platforms** up to 16U, customized for specific payloads.
- **Advanced separation systems** for CubeSats
- A wide range of **nanosatellite hardware**, with subsystems honed through various mission experiences.

Facilities



IMOLA

7000 sqm plant area:

- 650 sqm design area
- 5350 sqm assembly and testing
- 800 sqm warehouse area
- 200 sqm **quality control area** (45 sqm in controlled temperature and humidity conditions)



FAENZA

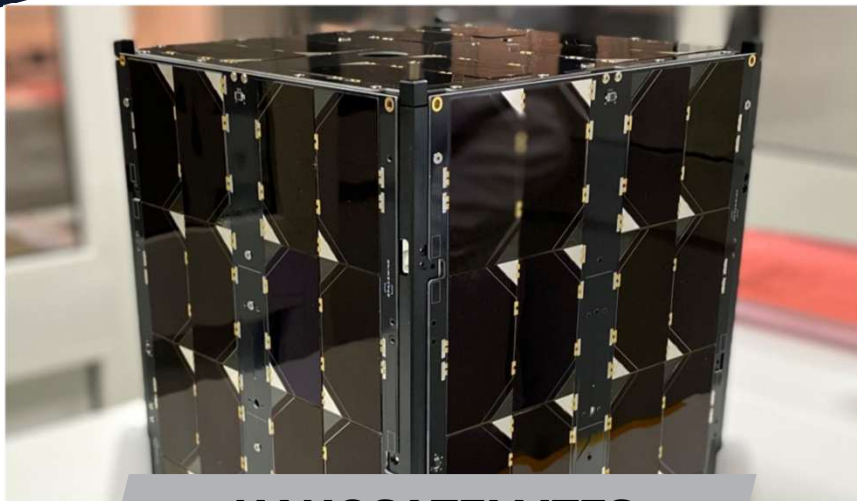
More than **1000 sqm** dedicated to **SPACE activities**

- 500 sqm design and development area
- **100 sqm assembly and testing ISO 8 clean room**
- 200 sqm laboratories
- 200 sqm warehouse area



MASSA LOMBARDA

The Massa Lombarda facility has been added to NPC facilities to carry out activities related to the integration of large MGSE and complex mechanisms. A total area of **1500 sqm** has been made available for this activity.



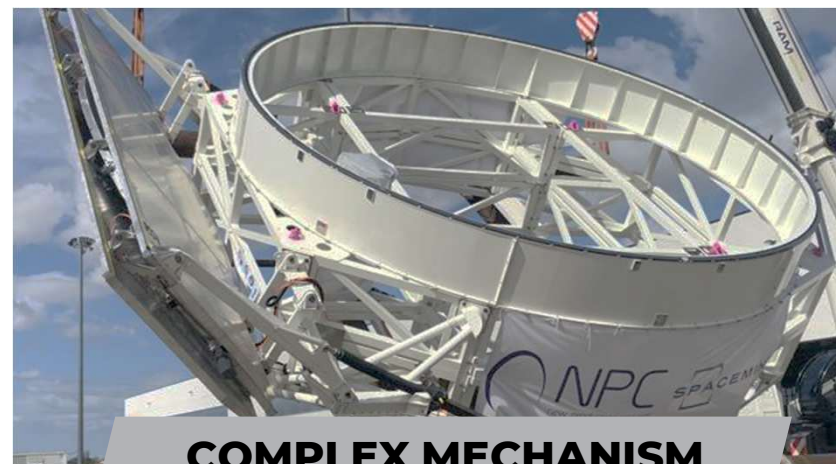
NANOSATELLITES



SEPARATION SYSTEM



TRACKING SYSTEM



COMPLEX MECHANISM

The New Space Economy: A Revolution in Space Access

The commercialization of space exploration has accelerated dramatically since the early 2000s. Private investment is transforming the traditional space industry.

A new era has begun where innovation and entrepreneurship reach beyond our atmosphere.

Focus on:

- Launch services
- Small satellites (CubeSats, nanosats)
- Space data and downstream applications
- Public-private partnerships



What Is the New Space Economy?



The space industry has shifted from government-led programs to private-driven initiatives.

Private funding and start-ups have created unprecedented growth.

Commercial applications now extend far beyond traditional space roles.

Origins: From "Old Space" to "NewSpace"

1 "Old Space" Era

Government agencies and defense contractors dominated.
Projects spanned decades with massive budgets.

2 Transition Period

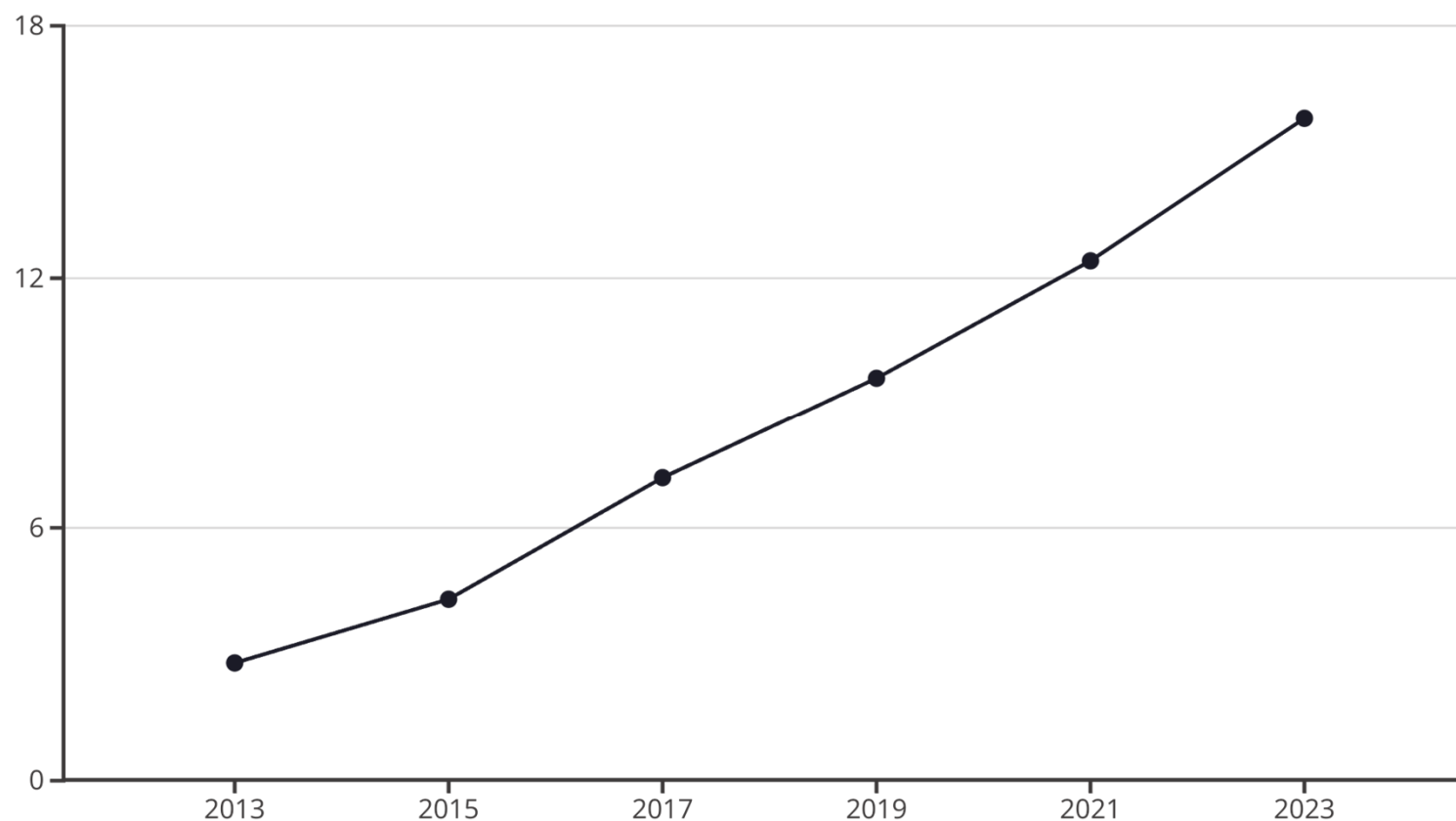
Digital economy billionaires began investing in space ventures. New business models emerged.

3 "NewSpace" Era

Entrepreneurial companies drive rapid innovation. Private capital fuels ambitious ventures beyond government priorities.

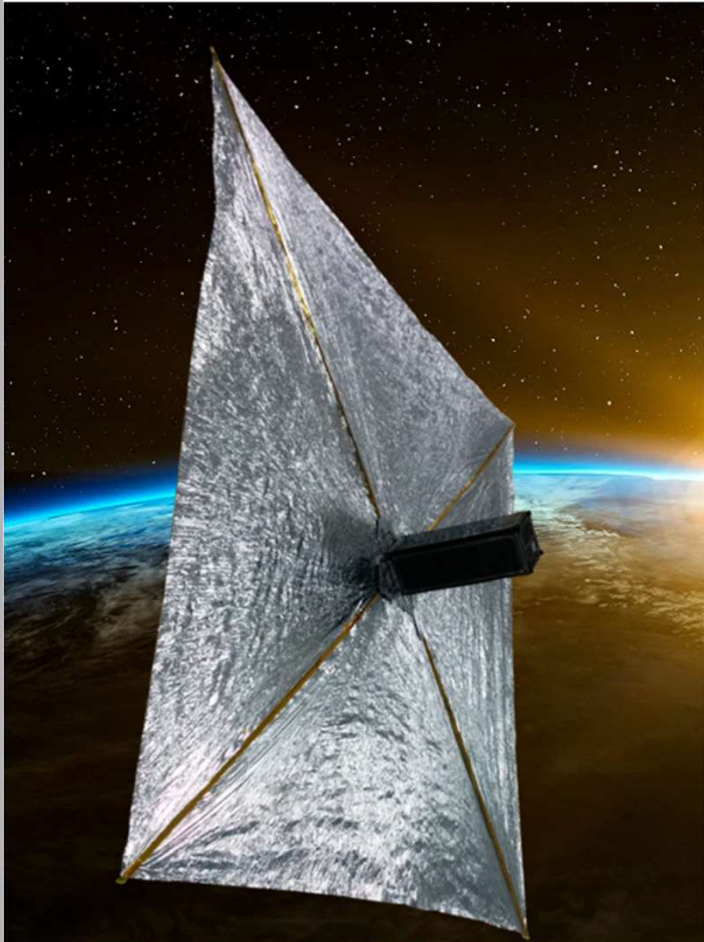


Global Growth and Investment Trends



Space investments have surged dramatically over the past decade. The sector is projected to expand significantly through 2030.

SmallSats Industry Overview



- Definition: Smallsats are satellites with a mass less than 500 kg, including minisats, microsats, nanosats, and cubesats.
- Cost Efficiency:
 - ✓ Lower production and launch costs compared to traditional satellites
- Miniaturization of Technology:
 - ✓ Advanced capabilities in smaller formats (sensors, cameras, comms)
- Applications:
 - ✓ Earth Observation (agriculture, climate, disaster response)
 - ✓ Communication (IoT, rural broadband)
 - ✓ Scientific Research and Education
 - ✓ National Security and Defense

Smallsats: Democratizing Space Access

\$7.4B

Market Value

Current smallsat market size (2023)

15%

Annual Growth

Expected market expansion rate

\$1M

Launch Cost

Minimum cost per smallsat launch

Smallsats have radically reduced the cost barrier to space. Companies like Rocket Lab and SpaceX have revolutionized deployment options.



How Smallsats Changed Industry Dynamics

Constellation Architecture

Networks of hundreds or thousands of interconnected satellites provide global coverage.



Rapid Prototyping

Development cycles shortened from decades to months. Iterative improvement replaces perfect-first-time approach.

New Services

Real-time Earth observation, IoT connectivity, and direct-to-device communication now possible.

Global Key Players and Disruptors



SpaceX

Pioneered reusable rockets.
Developing Starlink satellite internet constellation with thousands of satellites.



Virgin Galactic

Pioneering air-launched space vehicles. Targeting suborbital scientific research and tourism.



Rocket Lab

Specializes in dedicated smallsat launches. Electron rocket provides tailored orbital delivery for small payloads.



Arianespace

Fornitore di servizi di lancio leader in Europa. Opera con i lanciatori Ariane e Vega per satelliti di varie dimensioni.



Blue Origin

Focused on suborbital flights and space tourism.
Developing New Glenn rocket for orbital capabilities.



ISRO

L'agenzia spaziale nazionale indiana, nota per i suoi lanci a basso costo, in particolare con il Polar Satellite Launch Vehicle (PSLV).

European Microlaunchers: The New Space Pioneers



Rocket Factory Augsburg

German startup developing RFA One, a three-stage small launcher. Targets 1,300kg payload capacity to low Earth orbit.



PLD Space

Spanish company with Miura launchers. Successfully tested Europe's first recoverable launch vehicle in 2023.



Orbex

UK-based developer of Prime rocket. Uses renewable bio-propane fuel, reducing carbon emissions by 90%.

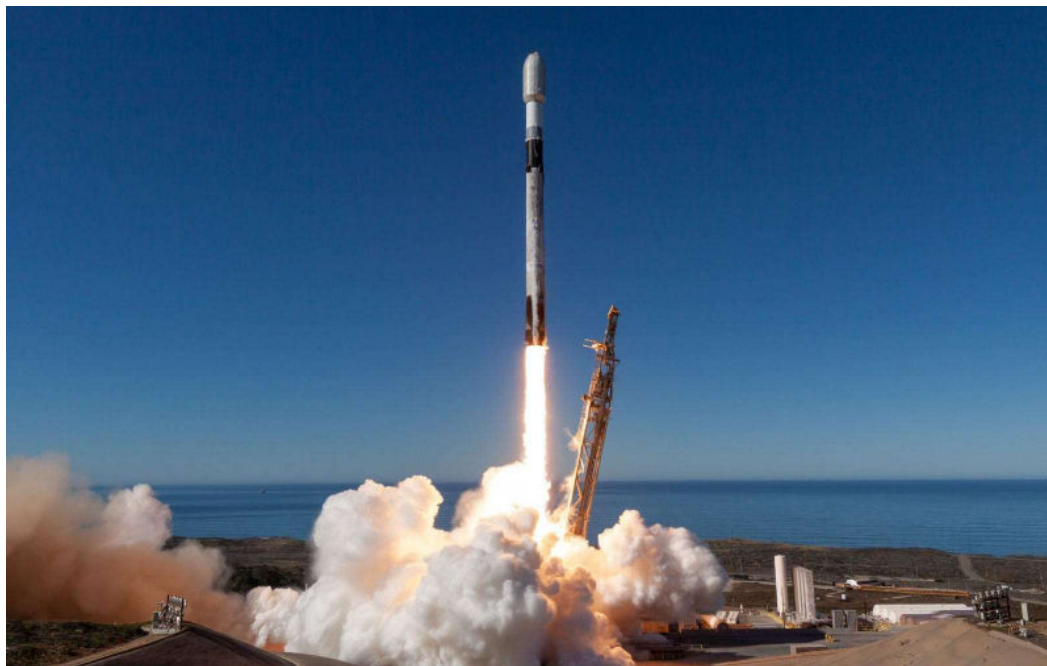


Isar Aerospace

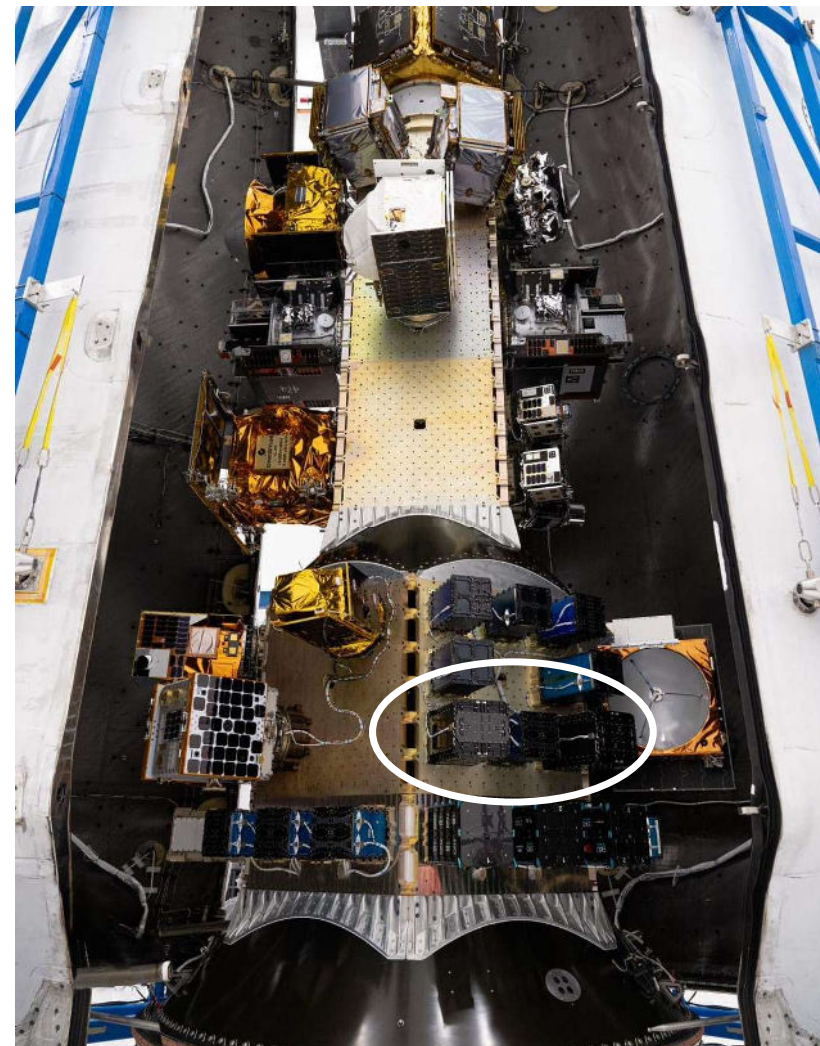
Munich-based startup creating Spectrum. Raised over €150M to become Europe's most well-funded launch company.

Our Latest Mission

On January 14th 2025 , two of our SMPOD16 Caspian successfully completed their debut aboard the Falcon 9 SpaceTransporter-12 mission, releasing four satellites after two hours from the launch!



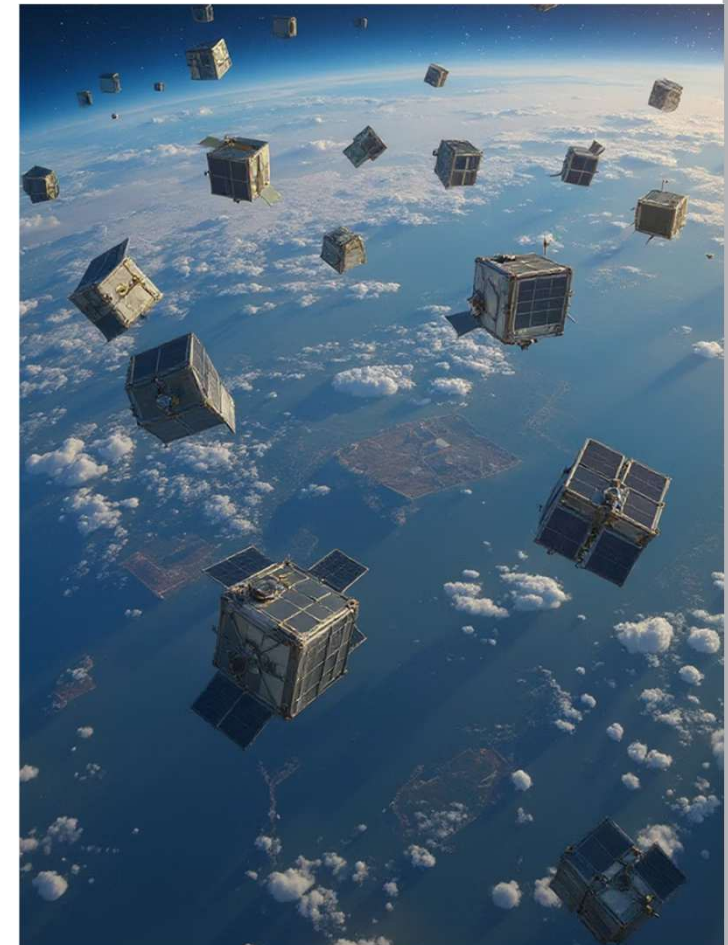
«L'economia dell'Emilia – Romagna guarda in alto»
DAMA, 6 giugno 2025



Opportunities for Non-Space SME

- The New Space Economy is expanding rapidly, driven by private investments and commercialization.
- Space is no longer exclusive to aerospace companies: cross-sector collaboration is key.
- Emilia-Romagna, with its strong industrial base, can play a strategic role.

Key Insight: Diversified sectors such as automotive, materials, agri-food, ICT, and robotics can find business potential in the space supply chain.



Strategic Sectors in Emilia-Romagna with Space Potential



Advanced Manufacturing & Mechatronics

Precision mechanics, additive manufacturing, and automation for satellite components and launch systems.

ICT & Data Analytics

Software, AI, cybersecurity, and big data for Earth observation and space communication services.

Agri-Food & Bioeconomy

Testing sustainable food systems for long missions; applying satellite data to precision agriculture.

Cross-sector innovation enables entry into the growing space supply chain.

The Future: Broader Participation and New Frontiers



Deep Space Economy

Lunar, Mars, and asteroid resource utilization

Expanded Earth Orbit Economy

Manufacturing, tourism, and research stations

Accessible Low Earth Orbit

Routine access for diverse organizations
and applications


Barriers to space market entry continue to fall. Public-private partnerships are accelerating innovation across sectors. The space economy is poised for exponential growth with increasingly diverse participation.



**WHERE
YOUR
MISSION
COMES
TO LIFE**



OUR CONTACTS

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Grazie per l'attenzione!