PICOSATS®

SPACE TECHNOLOGIES SOLUTIONS

AT THE AVANT-GARDE IN TELECOMMUNICATION SYSTEMS FOR SMALL SATELLITES

VISION & MISSION

Founded in 2014, PICOSATS, a **spin-off of the University of Trieste**, Is one of the most innovative space startups in Italy.
PICOSATS operates in the space tele-communication field.

First company providing a full set of **miniaturized telecommunication systems** with superior performance, including transceivers and antennas, and innovative, proprietary technologies.

Enabling broadband satellite infrastructure to **connect the unconnected**
and contributing to a sustainable and ethic Earth and Space.

ABOUT US

2014 OCT

FOUNDATION

PICOSATS is founded, as spin-off of University of Trieste.

2017 MAR

ESA CONTRACT FOR RADIOSAT

With the support of the European Space Agency (ESA), R&D work began on RADIOSAT.

EC SME Instrument Phase 1 - BRICSAT

2020 APR

RADIOSAT & BEAMSAT PATENT SUBMISSION

Patent applications. Positive research report in response to claims. Application extended to European level.

2020 NOV

RADIOSAT PROTOTYPE

Conclusion of the RADIOSAT project with the realisation of a prototype tested in the relevant environment – TRL 7. New ESA contracts.

EIC Accelerator – Seal of Excellence (x2)

2020 DEC

«PMI INNOVATIVA»

PICOSATS becomes «PMI innovativa».

2021 FEB

QUALIFICATION MODEL

Start of test & qualification campaign toward a qualification model (QM).

2021 OCT

& COMMERCIAL CONTRACT

Signature of first commercial contract. Flight model (FM) preparation for GEO applications.

2022 JUN

FIRST INVESTMENT ROUND

First investment round for 1.000.000 Euro

2022 NOV-DEC

FLIGHT MODEL READY, ESA 5G

Two Flight Models fully qualified and ready to be delivered to the customer. ESA contract for 5G prototype

2023 MAY

FLIGHT MODELS INTEGRATION, ESA – SES ISL

Ready for IOD, delivery of 1° commercial product. ESA contract for ISL with SES mPOWER system

2023 JUL

SECOND INVESTMENT ROUND

Second investment round for 2.130.000 Euro

PROBLEM & SOLUTION

PROBLEM

- **Poor performing** technologies ✕
- **Lack of flexibility** ✕
- **Spectrum overcrowded** ✕
- **Expensive** communication infrastructure ✕

SOLUTION - RADIOSAT

Ka-band telecommunication system for small satellites, capable of both transmitting and receiving **data** from space to Earth and vice versa, for telecommunication and Earth Observation purposes.
(Patent applications 04/2020)

- **5 times** more users served per orbit compared to the X band ✓
- **Lower costs** due to smaller antennas on the ground and the use of commercial components ✓
- **Modularity & customization** ✓
- **More affordable** overall communication system ✓

THE TECHNOLOGY

RADIOSAT

Ka-band and Ku-band miniaturized transceiver.
R&D started in 2017, funded by ESA
TRL6 in Nov. 2020, TRL8 in Dec. 2022, ready for IOD

TECHNICAL DETAILS

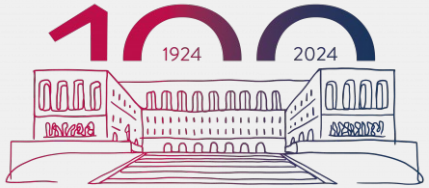
- Size: 1U (10 x 10 x 10 cm volume)
- Mass: 1 kg

BEAMSAT

2U (10 x 10 x 20 cm) horn antenna developed internally.
TRL 6 in March 2021, TRL8 in Oct. 2022, ready for IOD

PRESENT AND FUTURE APPLICATIONS

- Low Earth Orbit space missions
- Fixed-Satellite Service telecommunications
- 5G, Inter-Satellite-Links
- Satcom on the move
- Drones



UNIVERSITÀ DEGLI STUDI DI TRIESTE

ENJOY OUR SPACE

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