

#T-TeC - Telespazio Technology Contest 2023



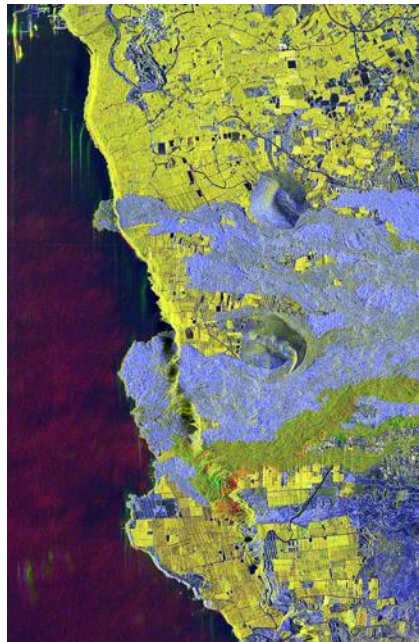
Pioneers in a constantly evolving market

Even today we still think like a start-up, transforming the space sector's momentous changes into opportunities.

GLOBAL SERVICE PROVIDER & LARGE MISSION INTEGRATOR



Geoinformation



Satellite Communications



Space Operations



Digital Ground Segment



Pioneers in a constantly evolving market

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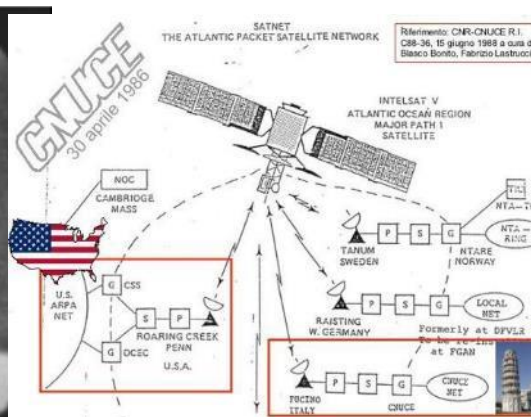
GLOBAL SERVICE PROVIDER & LARGE MISSION INTEGRATOR



1961



1969



1986



2008



2010



2015



2018



2020



2021

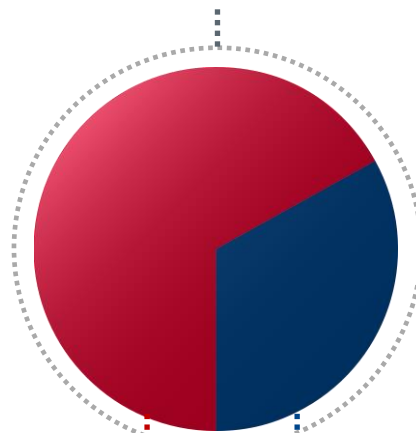


2023

Shareholders



100%



67%

33%



THALES



~650M €

2022 REVENUES



+3K

EMPLOYEES



+60

YEARS OF EXPERIENCE



15

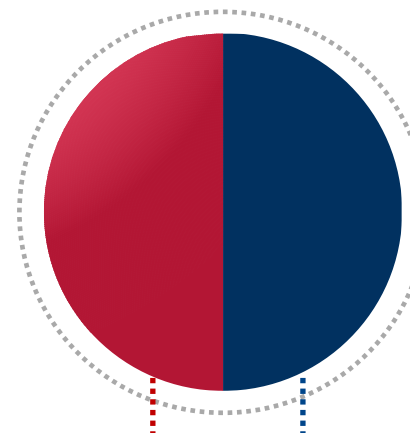
COUNTRIES OF PRESENCE



13

COMPANIES WORLDWIDE

Space Alliance



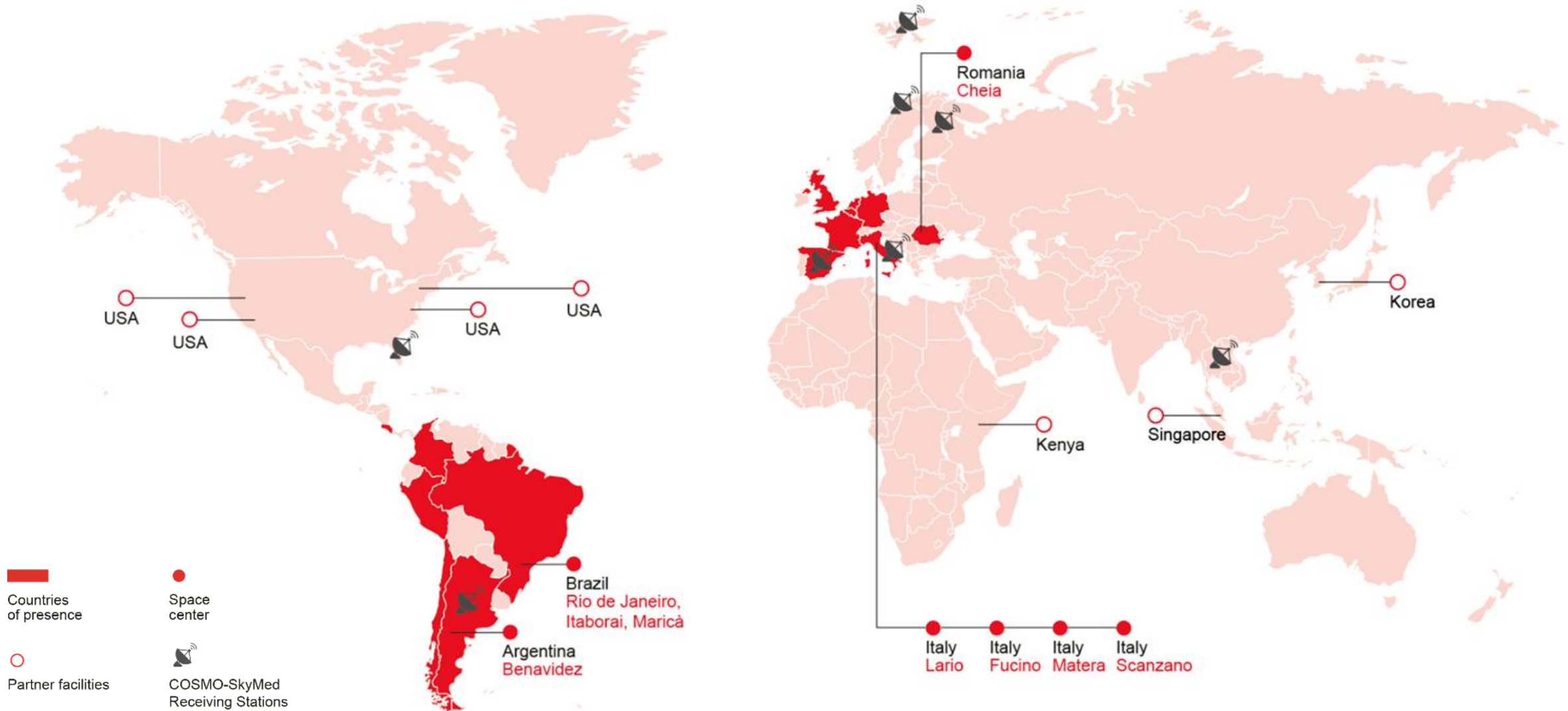
33%



67%

THALES

A worldwide footprint



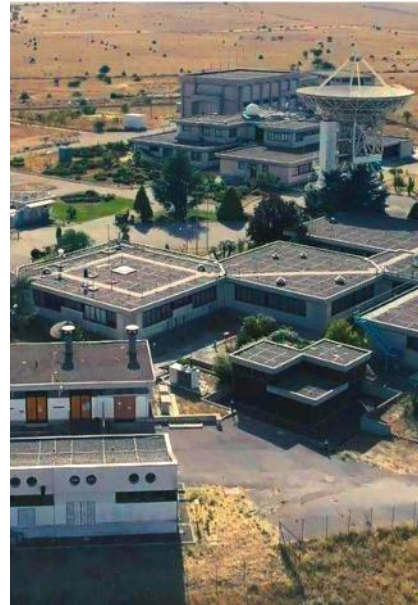
Space Centres & Teleports

The world's leading satellite services operators relying on a worldwide network of space centres

FUCINO (IT)



MATERA (IT)



LARIO (IT)



SCANZANO (IT)



CHEIA (ROM)



RIO DE JANEIRO (BRA)



ITABORAI (BRA)



MARICÀ (BRA)



BENAVIDEZ (ARG)



Fucino Space Center



TELECOMMUNICATION

SATELLITE CONTROL

SPACE MISSION MANAGEMENT

HOSTING SERVICES



ACTIVE SINCE

1963



TOTAL SURFACE

370.000 m2



BUILDINGS

24.500 m2



PEOPLE

268



ANTENNAS

170



CONTROL ROOMS

42
(5 h24 manned)



EQUIPMENT ROOMS

63

Our Business



Geo-information Downstream Services

We have a key role in helping to build an understanding of global change and the sustainability.

DATA OPERATOR

Management of Earth Observation
Receiving Ground Segment



DATA ACCESS HUB

Multi-source earth observation
data distributions



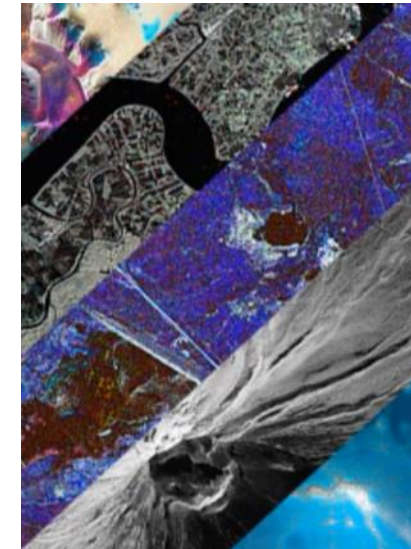
CONTENT DEVELOPER

Data Analysis and Integration &
Geography Layers Production



SERVICES AND PLATFORM PROVIDER

Geoinformation Digital Services
& AI EO solutions based on
multi sensors & Big Data



CONSULTANT

Projects Fed by International
Funding Institutions





Satellite Communications

SATCOM 2.0: a multi-satellite smart platform based on AI & Machine Learning to provide hybrid communication services and maximize the user experience.

MARITIME



ENERGY



CORPORATE



BROADCASTING



GOVERNMENT & DEFENCE





Space Systems & Operations

We provide end-to-end space mission and infrastructure solutions for the most important systems, including Galileo, COSMO-SkyMed, PRISMA, OPTSAT-3000, SICRAL, Athena-Fidus.

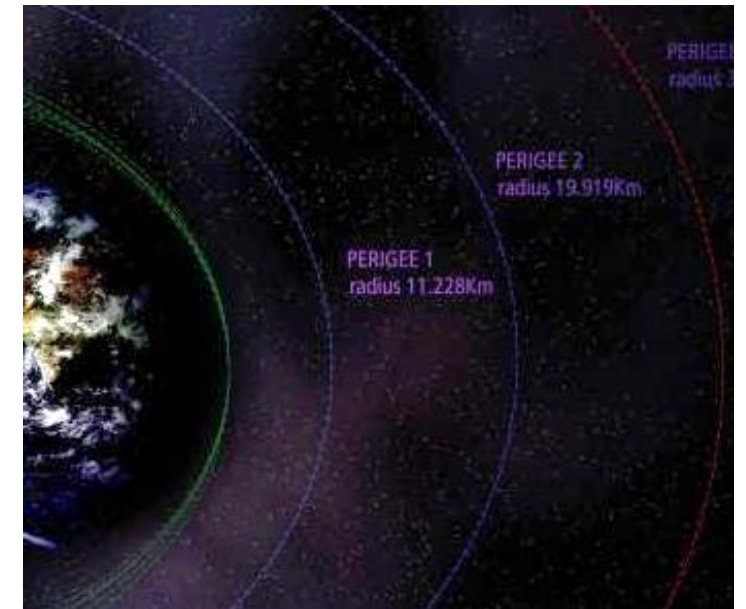
SATELLITE OPERATIONS



LEOP (Launch and Early Orbit Phase)



MAINTENANCE OPERATIONS & INTEGRATED LOGISTIC



Pioneers of the future



LEOP OPERATIONS ACCOMPLISHMENT - HAND OVER TO SIGNAL SSC
SSC Telespazio/Palinas LEOP operations accomplished
SSC Telespazio/Palinas ready for hand over





Exploration

We are part of ongoing scientific advances in Space that have immediate effects on our everyday lives.

- Enable a **Lunar Economy** studying how to support communication and navigation services with **ESA Moonlight**.
- Develop concepts for future missions that will involve in orbit and space logistics activities with **ESA Space Rider**.
- Support experiments in micro-gravity on **International Space Station**.





Navigation services

Provision of innovative navigation services and future technologies for Positioning, Navigation and Timing based on Galileo and EGNOS.

- Services for **Aviation, UAS/RPAS, Maritime and Rail**
- Applications for **Intelligent Transport Systems** and autonomous driving.
- **Galileo's High Accuracy** and **PRS services**.
- **GNSS Performance and Availability**.
- **GNSS Laboratory facility As A Service**

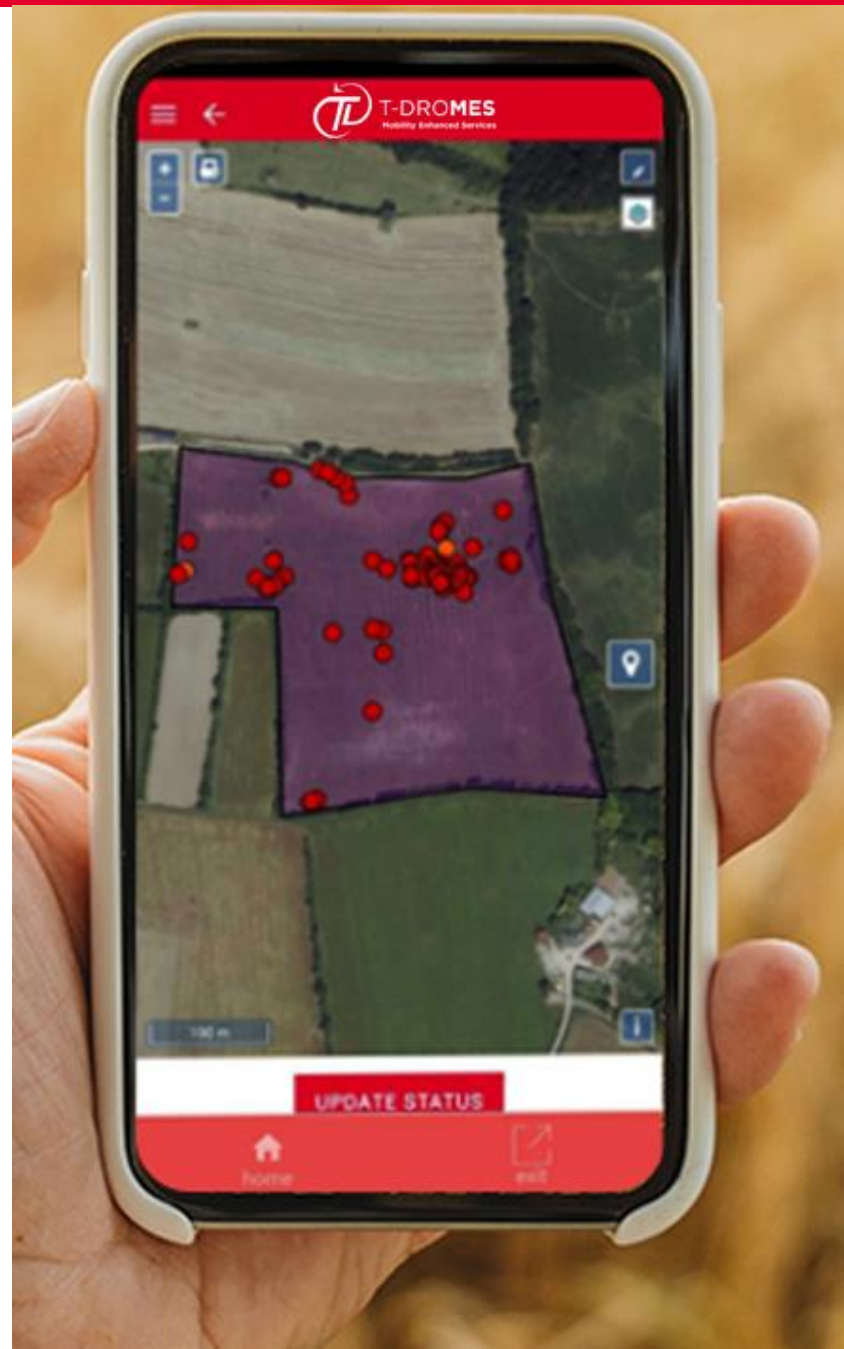




Drone services

New innovative business solutions for remotely piloted aircraft and supported the design of the new U-Space platform.

- **Drone-as-a-service with T-DROMES**
- **d-flight**, Italian U-Space Service Provider: **geo-awareness and connectivity services**
- **End-to-end satellite connectivity services**





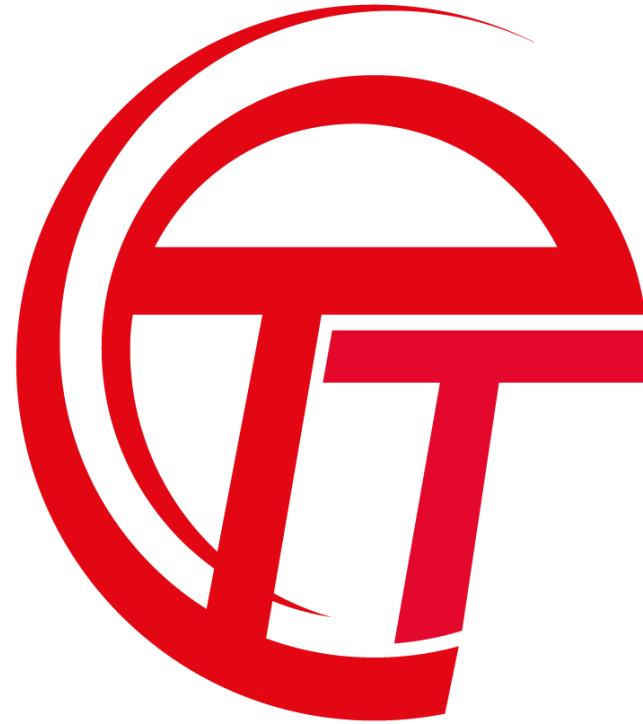
Space Domain Awareness and Traffic Management

Space is a new operational domain and a focal point of geopolitical interests and competition.

- **Space Traffic Management**
- **Space Weather**
- **SST - Intelligence & tracking**
- **In Orbit Services**

NORTHSTAR
EARTH & SPACE





#T-TeC

Telespazio Technology Contest

What is the #T-TeC – Telespazio Technology Contest

- **#T-TeC - Telespazio Technology Contest** is the Telespazio and Leonardo's *Open Innovation* initiative aimed at promoting development and technological innovation within the space sector among the young generations, enhancing the value of their ideas and insights and imagining together with them the technologies that will mark the future.
- Working in partnership with space agencies, research centres and universities, the #T-TeC offers students and researchers the chance to showcase their skills and see their ideas and insights realised through cash prizes and support to future start-ups incubation/acceleration.

#T-TeC History: 2019 - 2022



+ 270

Participants



+ 80

Projects received



42

Universities involved



15

Countries of origin



4

Editions since 2019

2019



2020



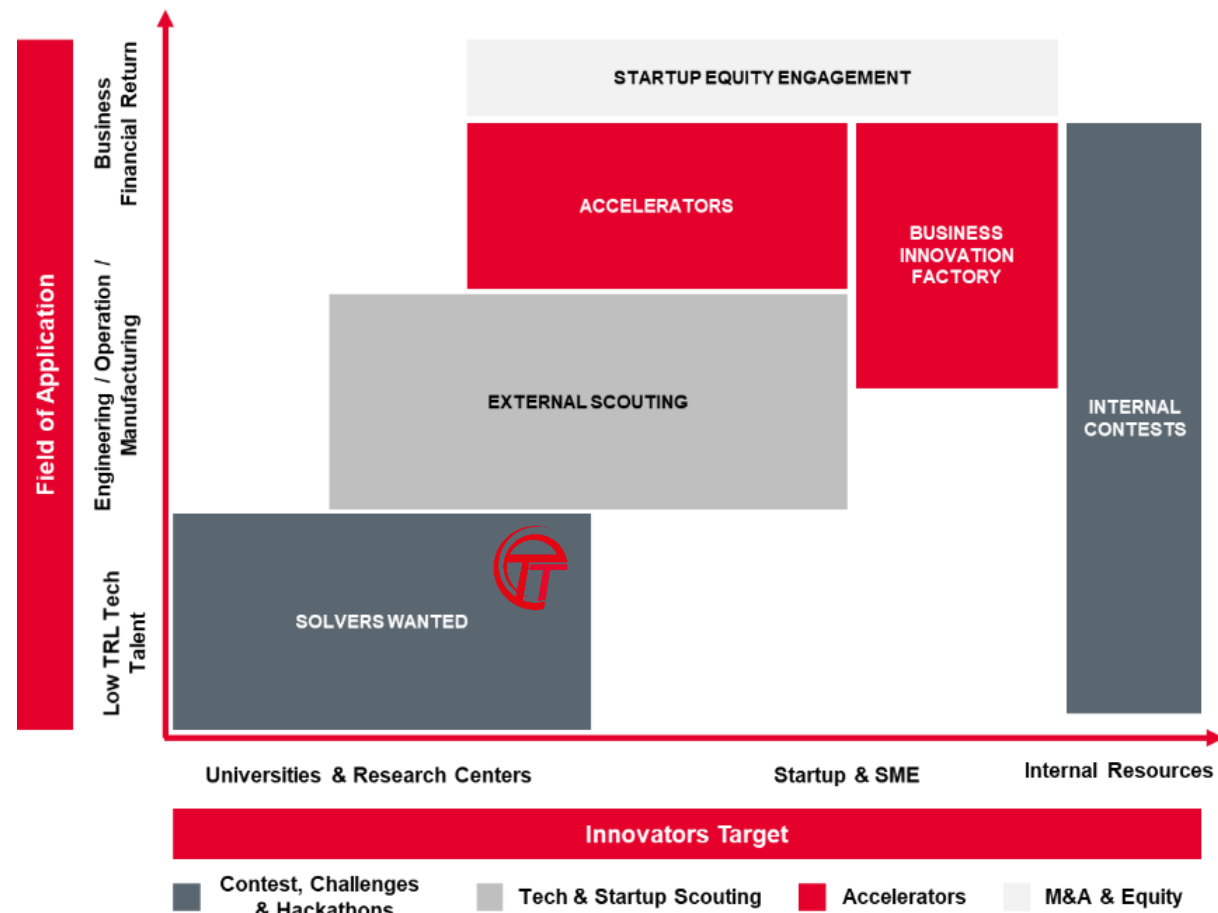
**From
2021**



Leonardo Open Innovation Ecosystem and the #T-TeC

Open Innovation process consists of collaborative initiatives with **Universities, Research Centres, Start-ups and Innovative SMEs** in order to look for the best solution based on the requirement/need expressed by the Leonardo Group

- ❑ Strengthen **innovation capabilities** through the **integration of external knowledge**
- ❑ **Identify “Innovation Needs”**, on the basis of the technological and product strategy
- ❑ Initiatives include **education, training, and involvement** of colleagues
- ❑ Aims **specific partner for proper target**
- ❑ Keeping a vision inherent to **de-risking**
- ❑ **Mentorship** towards the start-ups



#T-TeC 2022 Facts and Figures

- 20 proposals evaluated
 - 11 *Space Exploration*
 - 5 *GeoInformation Applications and Platforms*
 - 3 *In Orbit Servicing*
 - 1 *Space Domain Awareness*
- 69 participants (students, PhD's, researchers) belonging to 21 Universities from 12 Countries
- 6 proposals presented by more than 1 University/Department out of which 4 from Universities belonging to different Countries
- 19 Evaluators from 10 Companies (Leonardo and Telespazio Group), 2 Space Agencies (ESA, ASI) and an Incubator (I3P from Politecnico di Torino)



#T-TeC 2022 Patronage



Agenzia Spaziale Italiana



SPACE GENERATION
ADVISORY COUNCIL



#T-TeC 2022 Awards – Business Opportunities

- On top of money prizes for 1st - 2nd - 3rd proposals, to foster the possibility to establish collaboration for future businesses, Telespazio and Leonardo offered to #T-TeC 2022 winners the following opportunities:



Pre-Incubation

**BUSINESS INNOVATION FACTORY
BY LEONARDO**

Startup Acceleration Program

Acceleration

+ one **PoC** funded by Leonardo (***Test-It Award***)

#T-TeC 2022 Winners



**BUSINESS INNOVATION FACTORY
BY LEONARDO**
Startup Acceleration Program

+



+





TELESPAZIO TECHNOLOGY CONTEST
2023



#T-TeC 2023 Timing



**Contest start
date**

3rd October '23



**Delivery
deadline**

10th December '23



**Evaluation
Period**

December '23



**The award
ceremony**

23rd/24th January '24

#T-TeC 2023 Topics



SPACE EXPLORATION AND EXTRA-
TERRESTRIAL EXPLOITATION



SPACE DOMAIN AWARENESS FOR THE
PROTECTION OF SPACE AND GROUND
INFRASTRUCTURES



SECURE AND RESILIENT COMMUNICATIONS
WITH FUTURE TECHNOLOGIES



IN ORBIT SERVICING TOWARDS A
CIRCULAR ECONOMY IN SPACE



GEOINFORMATION APPLICATIONS,
PLATFORMS AND DIGITAL TWINS FOR A
SUSTAINABLE EARTH



POSITIONING, NAVIGATION AND TIMING
INFRASTRUCTURES AND SOLUTIONS FOR
EARTH AND OTHER CELESTIAL BODIES

#T-TeC 2023 Categories

- **Idea**

- *the proposals are at a preliminary stage, with a Technology Readiness Level lower than 4*



- **Prototype**

- *the proposals are more mature, with a Technology Readiness Level equal to 4 or above*



#T-TeC 2023 Evaluation Criteria (Idea – Prototype)

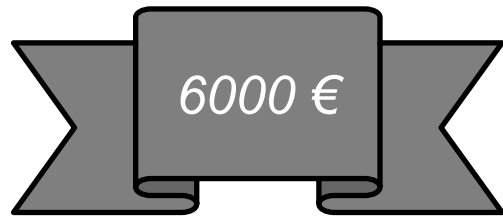
- Originality and Innovation: 25% – 20%
- Sustainability - make solutions more efficient, convenient, and compliant with environmental, economic and social needs: 20% – 20%
- ***Potential contribution to the Company mid-term business: 20% – 25%***
- Technical and scientific contribution: 20% – 15%
- Architectural, system and economic feasibility: 15% – 20%

#T-TeC 2023 Awards – Prizes – Category Idea



+ Special Mentions

#T-TeC 2023 Awards – Prizes – Category Prototype



2°



1°



3°

+ Special Mentions

#T-TeC 2023 Awards – Business Opportunities

- To foster the possibility to establish collaboration for future businesses, Telespazio and Leonardo will offer to #T-TeC 2023 participants the following opportunities, which will be given to two proposals with highest business readiness in terms of **Potential contribution to the Company mid-term business**:



Under one condition: **become a start-up!**

+ one **PoC** funded by Leonardo (**Test-It Award**)

#T-TeC 2023 Patronage



Agenzia Spaziale Italiana



**AGENCIA
ESPACIAL
ESPAÑOLA**



SPACE GENERATION
ADVISORY COUNCIL





Info: proposals.ttec@telespazio.com

An aerial photograph of a satellite ground station, showing a complex network of roads, tracks, and several large parabolic satellite dishes. The entire image is overlaid with a semi-transparent red filter. In the center, the words "Thank You" are written in a large, white, sans-serif font. Various identification tags with alphanumeric codes like "Y 42", "Y 15", "Y 18", and "Y 16" are visible near the dishes and buildings.

Thank You