

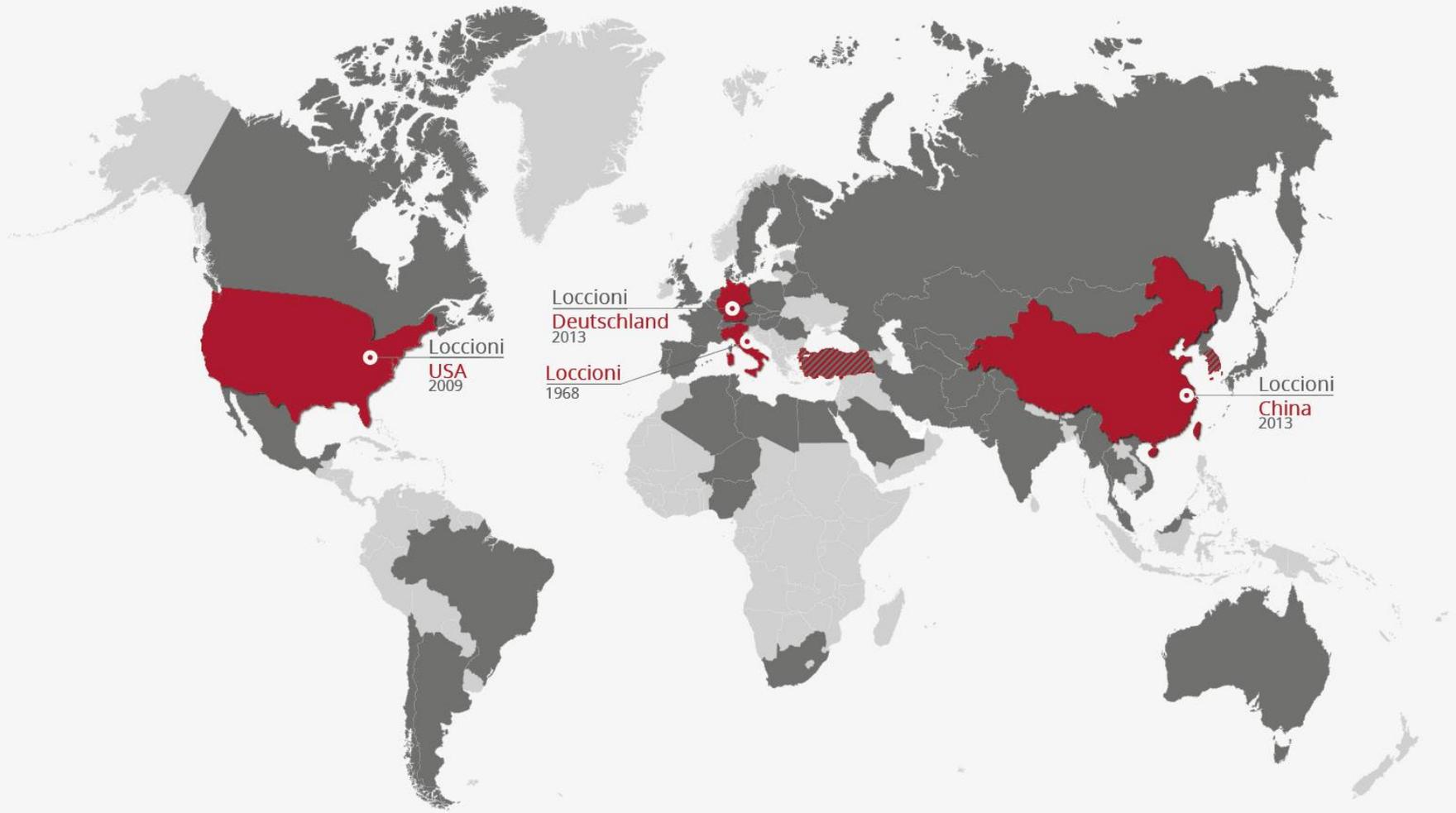


From data to value



From Data to Value

With the best in the world
to learn everyday, to exchange value
to collect the highest challenges



Loccioni
USA
2009

Loccioni
Deutschland
2013

Loccioni
1968

Loccioni
China
2013



Established

1968 by Enrico e Graziella Loccioni

Ownership

Loccioni Family

Business

80 Millions Euro

Installations in over 45 countries

Places

Maiolati Spontini–Angeli di Rosora, Italy

Washington, USA

Stuttgart, Deutschland

Shanghai, China

People

400 collaborators

45% university graduated

34 average age

1 out of 9 dedicated to research

5% of personnel cost invested in training

Innovation

5% of sales turnover

1 innovation Lab

20 families of patents

Community

9000 visitors per year

Smart sustainable community

Measure
Automate
Analyse



Measure

Noise and vibration measures

2D and 3D optical measures

NDT measures

Laser based measures

Spettroscopic measures

Thermal-Fluid Dynamic measures

Mechanical measures

Electrical measures

Hydraulic measures

Automate

Advanced Robotics

Handling and conveyor solutions

Product tracking systems

Robotics for sterile applications

Software Platforms

Human Machine Interface

Human Robot Interaction

Analyse

Smart sensors & Data processing

Machine learning

Predictive analytics tools

Energy Data Management





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Verification & Testing of Space Systems

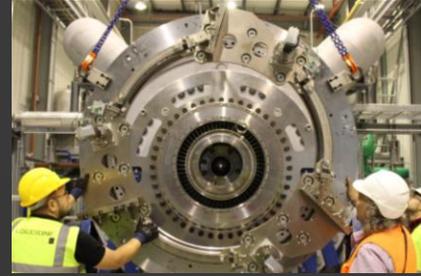




Components testing



Avionics testing



Systems testing



Data Acquisition Systems



Inspection and Health Monitoring



Automation solutions



Areas of interest

Space Systems Testing and Verification Features:

Impact on schedule: about 30% of project's cost and 70% of schedule time

Critical functions redundancy for mission success

Hard to fix anomalies in operation (one shot)

Hardware subject to extreme environments

Increasing Complexity of functional architecture (electronics and software)

Remote control and full autonomy in operation (unexpected risk management)

Technological challenges (e.g. specific instruments, materials, solutions)

Contamination and cleanliness requirements and constraints

Loccioni contribution to the future missions for the space weather

Standardization of AIT and GSE (linked to platform families and cost reduction)

Automation of AIT and EGSE (linked to high rates series production)

Testing combination and Data fusion (multisensoring technology)

Data handling

Robotic/Cobotic smart cells

Vision systems

Loccioni Collaboration on Ionospheric Tomography research project

Space Weather – Effects on Earth

Professor Douglas Currie
RadioHydroPhysics, LLC

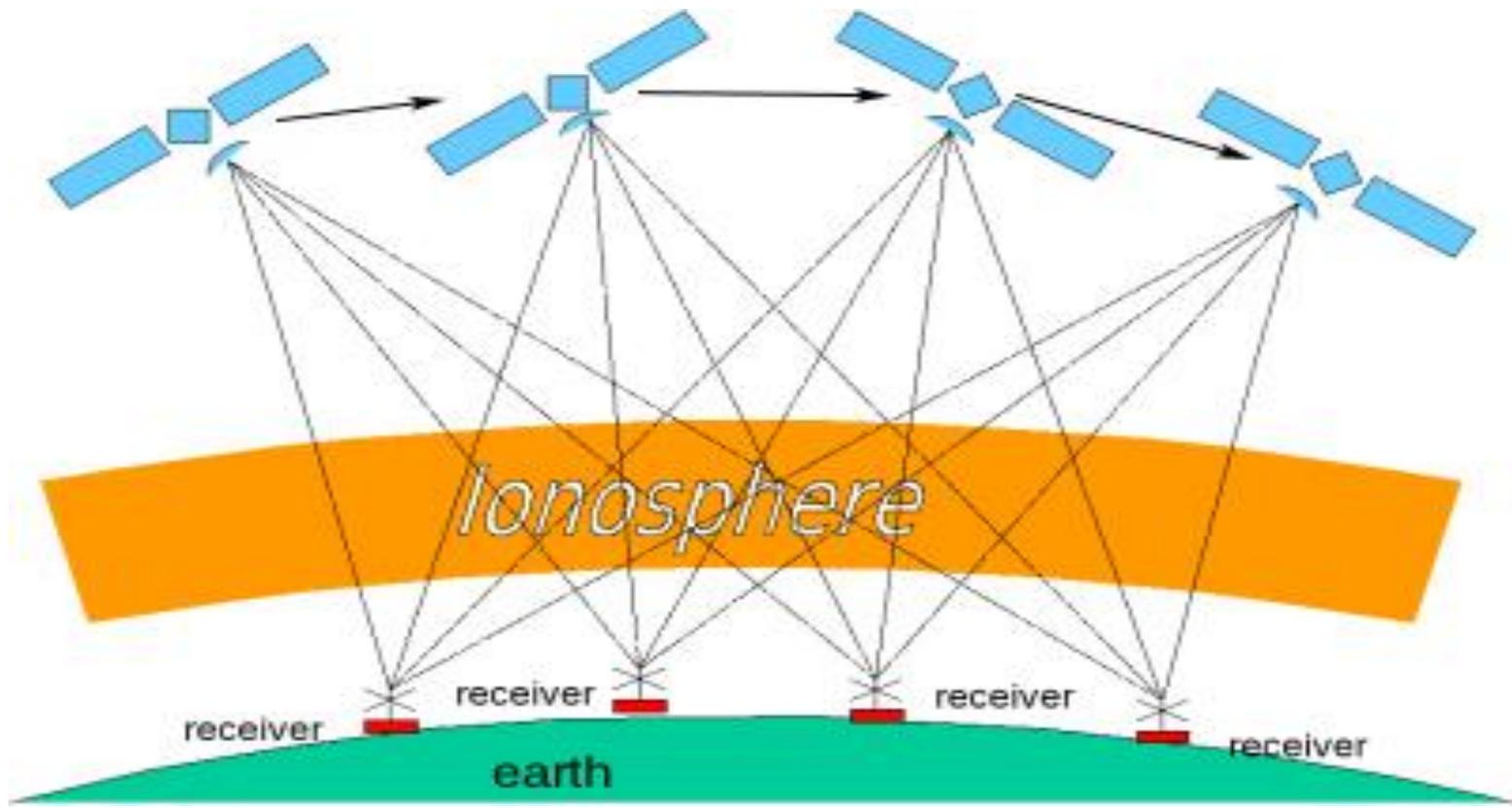
Proprietary to RHP, 3400 Jennings Chapel Rd, Woodbine, Md.

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OVERALL OBJECTIVES

- Ionospheric Tomography
 - Program of Very High Spatial Resolution
 - Illustration of Improved Spatial Resolution
- Impact on Local Space Weather Effects
 - Local Effects vs. Prediction
 - Understanding Impact on Services
 - Communications
 - Power Distribution Grid
 - Grid

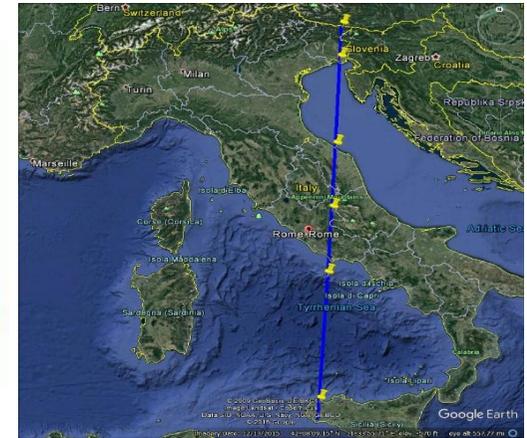
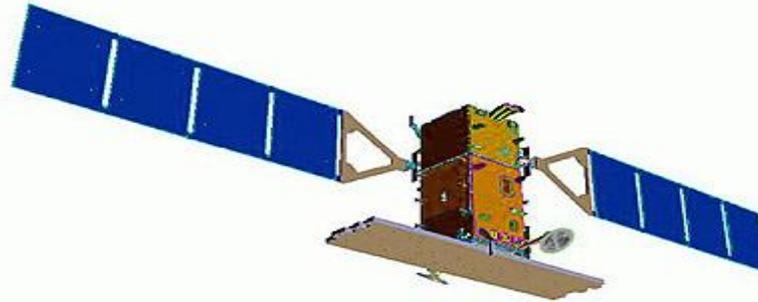


Tomography Requires Beacons

- 150 MHz and 400 MHz (VHF and UHF)
- ~1000 km Altitude

Current Polar Beacons are Old and Dying

- New Beacon Could be Mounted on Phase 2 COSMO-SkyMed





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Thank you for your attention!

