# Let's Space!

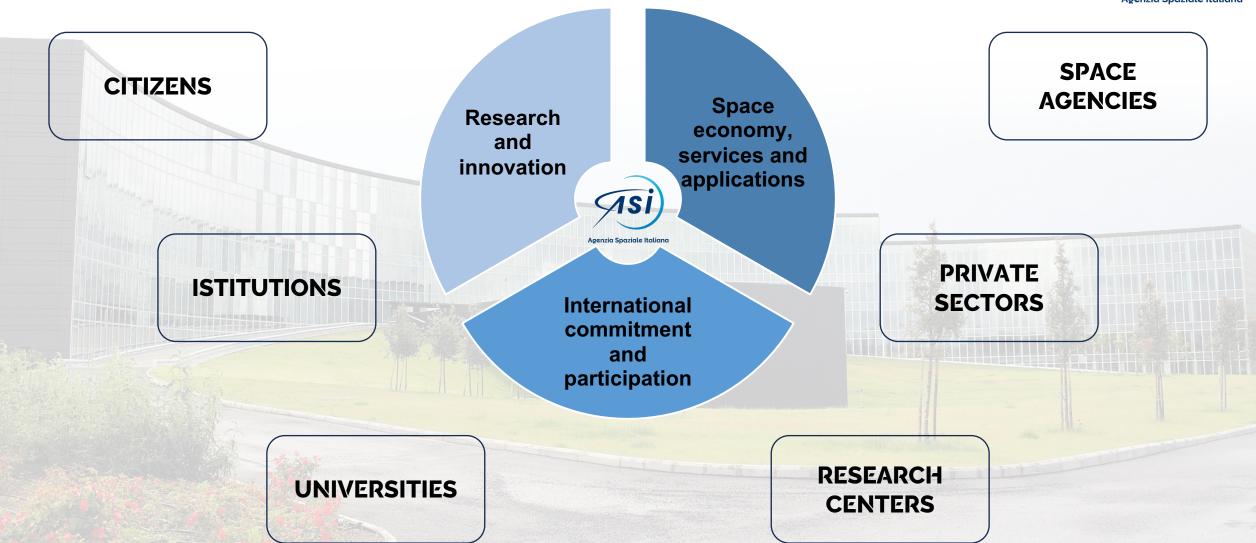


## Research project proposals to progress on the path of Space knowledge



# The Italian Space Agency





# **Italian Space Activities**





# **ASI** space centers



### **ASI headquarters (Rome, IT)**



R&D and research planning/execution with ASI reserachers/technologists



### **International Space Station**

ISS facility exploitation through ASI/NASA MoU



The Sardinia Deep Space Antenna (SDSA) is the new ASI's scientific unit located in San Basilio, Cagliari.



The main ASI operation center, located in Matera



The "Luigi Broglio" space center in Malindi, Kenya.



The ASI center for the management and analysis of scientific data

+ access to variegated R&D and research national/international facilities via agreements and MoU with research institutes

# ASI research activities (a non-comprehensive snapshot) Agenzia Spaziale Italiana

### ASI national industrial and research stakeholders





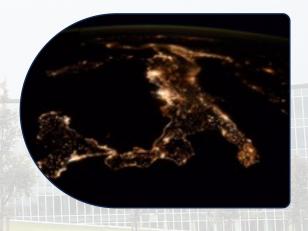
### International collaboration frameworks

- ASI sponsor and supports the participation to EU activities in space and aerospace
- Third largest contributor to ESA programs
- Research collaborations with international space agencies (NASA, JAXA, CSA, ...)

### Access to the whole space supply chain

+ 200 Space companies, 12 Technology clusters
 Products, Services, Applications and Technologies transferr

New Space economy programs





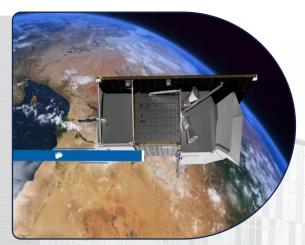
### Research and R&D collaborations with research centers and Universities

- Research agreements with Universities and research centers (e.g., INAF, CNR, INFN, ...)
- Strong net for close collaborations with academy and research groups
- Frontier laboratories, equipments and investigations

# ASI MSCA Hosting Offers (1/2)

### Earth observation from Space





Application of Hyperspectral PRISMA data: from CO<sub>2</sub> and CH<sub>4</sub> retrieval to the future perspective in Hazard Assessment

Dr. Paola Manzari / Dr. Maria Pedone

Integration of multi-sensor data from satellite, airborne and ground-based sensors for point-wise gas emission sources in natural and urban environments

Dr. Mario Siciliani de Cumis / Dr. Deodato Tapete

### Space program planning



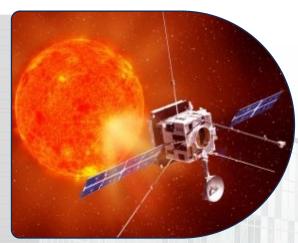
Cost analysis for complex space systems and space missions

Dr. Claudia Facchinetti / Dr. Raffaella Feltrin

# ASI MSCA Hosting Offers (2/2)

### Solar System, Space Weather and Exoplanet Climatology





The dynamics of small-scale magnetic fields in the solar atmosphere over a solar cycle

Dr. Marco Stangalini

Machine Learning for Automation in Data Selection onboard Space Missions

Dr. Denise Perrone

**Exo-climatology by means of ExoplAn3T-ARTECS interconnection**Dr. Angelo Zinzi

### **Fundamental Physics and Cosmology**



Spectroscopy studies at millimeter wavelengths: constraining the evolution of the Universe with CMB spectral distortions

Dr. Gianluca Polenta / Dr. Gemma Luzzi

Research programs to advance in the frontiers of astroparticle physics in space

Dr. Valerio Vagelli / Dr. Matteo Mergè

# Let's Space!



### Research project proposals to progress on the path of Space knowledge

ASI offers the opportunity for hosting MSCA postdoctoral european fellowships on a wide spectrum of frontier research to advance in the field of Universe, Space and Earth sciences.

- Close collaborations with ASI expert supervisors to enhance the quality of the research programs and of knowledge transfer
  - Access to ground/space research infrastructures to extend the program objectives and impacts
    - Training on strategic fields for improved international career perspectives

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