



United Nations/United Arab Emirates High Level Forum
“Space as a driver for socio-economic sustainable development”

20 November 2016 - Dubai, United Arab Emirates

**ASI contribution to the UN 2030 Agenda:
Italian Technologies and Initiatives**

Italian Space Agency (ASI)
Prof. Roberto Battiston, President

PLANET

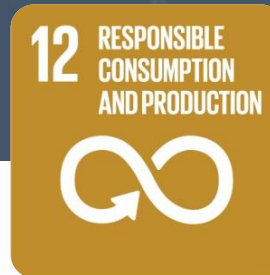
Protect our planet's natural resources and climate for



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

With its space **technologies** and space-related **initiatives**, ASI contributes to several of the UN 2030 sustainable development goals





ASI EARTH OBSERVATION RADAR TECHNOLOGY AND SATELLITES

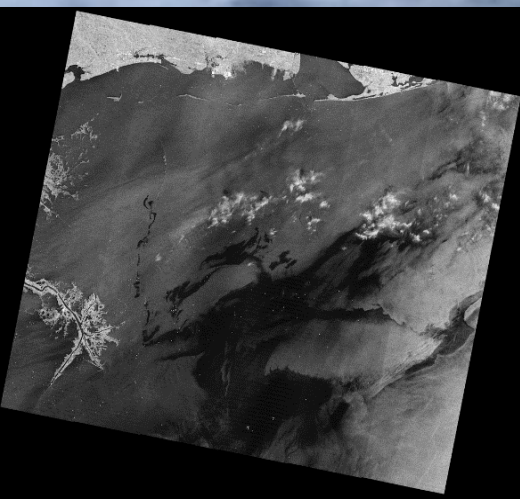
- COSMO-SkyMed (X-Band)
- SIASGE (Joint mission with Argentina L-Band satellites)
- SENTINELS for European COPERNICUS (C-Band)



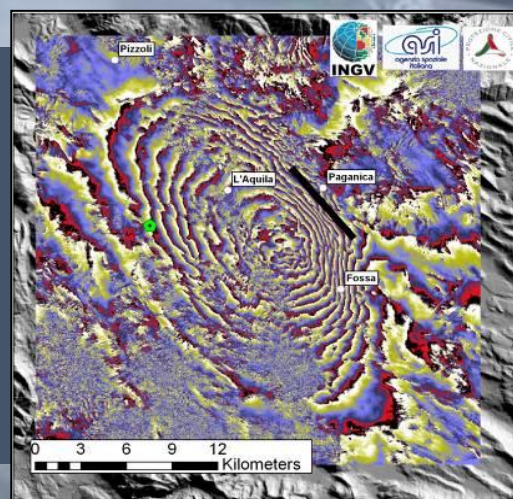
- PRISMA Hyperspectral Italian mission
- SHALOM (Joint Hyperspectral mission with Israel)
- GeoRadar (Geostationary SAR mission with Russia)



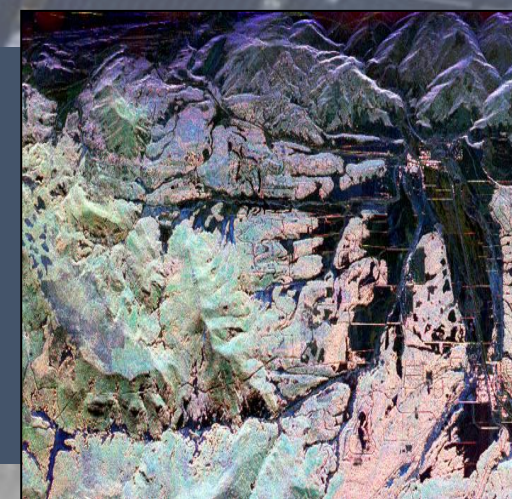
ITALIAN COSMO-SKYMED PERFORMANCES



Up to 4 images per day on the same spot thanks to the 4 satellites constellation



Day/night visibility through clouds



High revisit time

Leveraging on their polar orbit, COSMO-SkyMed radar satellites are able to acquire images of both north and south poles

ITALIAN SAR TECHNOLOGY APPLICATIONS



RISK MONITORING AND MANAGEMENT OF EMERGENCIES

OCEAN AND ICE MONITORING

- OIL SPILL
- EARTHQUAKES
- LANDSLIDES
- VOLCANOES
- SEISMIC RISK

MONITORING AND MANAGEMENT OF COASTAL LINES AND INLAND WATERS

MONITORING AND MANAGEMENT OF FORESTRY AND AGRICULTURAL RESOURCES

TECHNICAL CARTOGRAPHY – URBAN PLANNING

SCIENTIFIC APPLICATIONS

SECURITY APPLICATIONS



TELECOMMUNICATION AND NAVIGATION SYSTEMS FOR THE SPACE ECONOMY

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



- **Mirror GALILEO and COPERNICUS**
- **Space infrastructures for citizens (SIGMa/URBIS system, aerial platforms, UAV, METEOSAT and METOP payloads)**
- **National PRS (PRESAGO Pilote Project)**
- **Space Surveillance and Tracking**
- **BIG DATA**

3 GOOD HEALTH
AND WELL-BEING



4 QUALITY
EDUCATION



EXPLORATION, ROBOTICS AND BIOMEDICAL TECHNOLOGY FOR SPACE ECONOMY

- Italian participation to ISS: more than 50% of the **pressurized modules** of the ISS has been built in Italy (MPLMs/PMM, Cupola, Nodes 2.3, Columbus/ATV)
- **Astronauts, Life Science experiments and Biotechnology** on board (HPS, ALTEA, ELITE-S2, Diapason, ISSpresso, Portable 3D printer, Drain Brain, PERSEO, In Situ, ARTE, ARAMIS, LIDAL)
- **Payloads for Exploration of the Universe**: Cassini/Huygens, Rosetta/Philae, DAWN, JUNO, CHEOPS, Bepi Colombo, PLATO, JUICE,.
- **MARS exploration**: MRO, MarsExpress, EXOMARS, Deep Space Communications
- **Space Weather and Near Earth Objects (NEO)**

4 QUALITY
EDUCATION



OPEN UNIVERSE INITIATIVE **Space science as the basis of Space Technology**

Italian initiative adopted by the **UNCOPUOS** session in June 2016, Vienna

- **ASI contribution to UNISPACE+50**
- **To expand availability of and accessibility to open source space science data through international cooperation among Member States and international space-related entities**
- **To foster and spread the culture of space science and astronomy across different countries**
- **Students and scholars among the targets of the initiative**



- Organised by ASI, under the IAF framework, and in collaboration with the IAA in preparation of UNISPACE+50
- To promote a greater participation of **Universities and Academy** in peaceful space programs and activities
- To foster space knowledge dissemination and space capacity building curricula and research activities at local and regional levels
- In Trento, participation of **42 governmental delegations**
- Adoption for consensus of the **Trento Space Statement**
- Next edition 2017 to be organised at regional level (Kenya's candidature TBC)



Thank you

Italian Space Agency
www.asi.it