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## ASI's survey to contribute to the achievement of the SDGs



# Objectives of the survey



## Activity and scope

Survey of all ASI activities and programs indicated within the latest ASI Triannual plan of activities 2018-2020, to highlight their possible contribution to the SDGs

## Objective

Assess current ASI contribution to the UN Agenda 2030, evaluate expected impact of new activities and programs and, possibly, **improve ASI contribution** to sustainable development challenges

## Recipients

ASI Management and employees

# Preliminary results



Many ASI activities and programs, covering almost all space sectors, from EO to navigation, telecommunications, robotic and human exploration and even launchers, contribute to one or more SDGs and their specific targets, some directly, others indirectly and some others have the potential to contribute in the future

## ASI EO programs for the SDGs

2

ZERO  
HUNGER



3

GOOD HEALTH  
AND WELL-BEING



6

CLEAN WATER  
AND SANITATION



9

INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



11

SUSTAINABLE CITIES  
AND COMMUNITIES



12

RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



13

CLIMATE  
ACTION



14

LIFE  
BELOW WATER



15

LIFE  
ON LAND



16

PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



# COSMO-SkyMed for the SDGs



- Provision of COSMO-SkyMed data to countries affected by major disasters
- COSMO-SkyMed data for the EU Copernicus program
- COSMO-SkyMed data for CEOS and for its Recovery Observatory project
- COSMO-SkyMed data for national and European institutions fighting against illegal activities and the organized crime



CSK data provided to national and international scientific institutions through public “**Open Calls**”  
(*goal 9, target 5*)

9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



## Examples of on-going projects

11 SUSTAINABLE CITIES  
AND COMMUNITIES



- Provision of COSMO-SkyMed data to the Addis Ababa University, IGSSA (Ethiopia) to investigate dyke propagation along rift axis of divergent plates  
(*goal 11, targets 5 and b*)

13 CLIMATE  
ACTION



- Provision of COSMO-SkyMed data to the Indian Institute of Technology of Delhi (India) for the estimation of snow and glacier melt runoff in Beas River Basin  
(*goal 13, target b*)

14 LIFE  
BELOW WATER



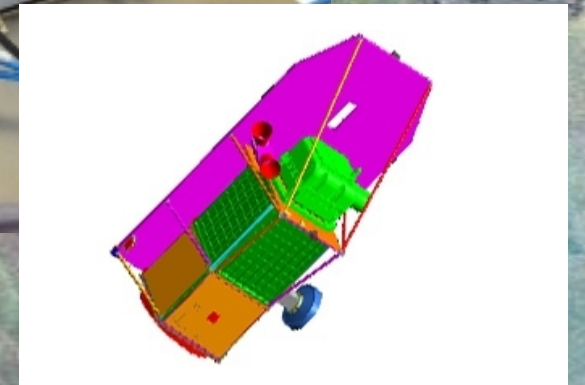
- Provision of COSMO-SkyMed data to Naples University for marine debris monitoring  
(*goal 14, target 1*)



## Hyperspectral technology

ASI mission for EO equipped with innovative electro-optical instrumentation capable of identify the chemical and physical characteristics of the Earth surface

Launch in 2018

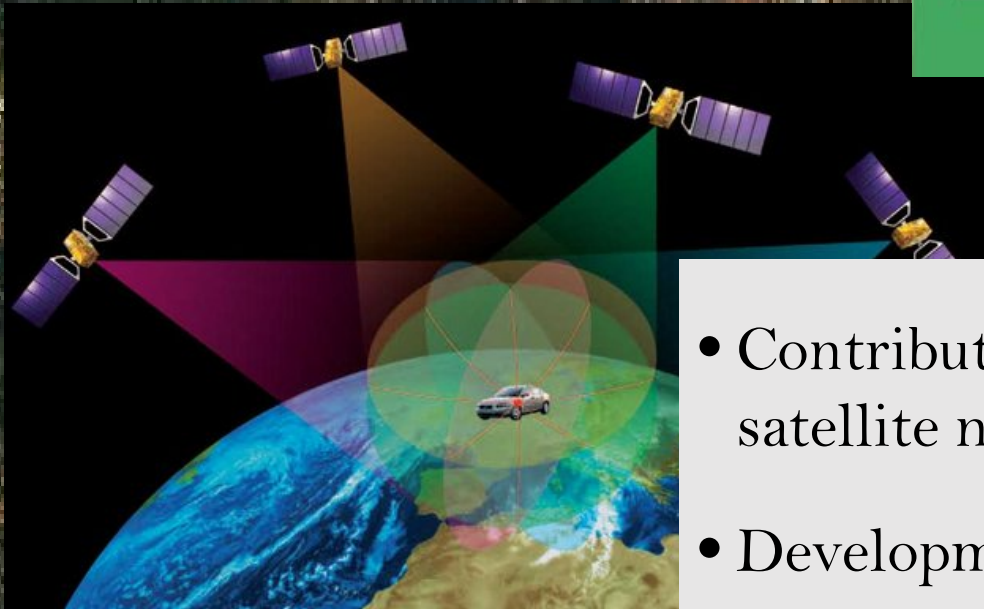


# ASI's navigation and telecommunications programs for the SDGs

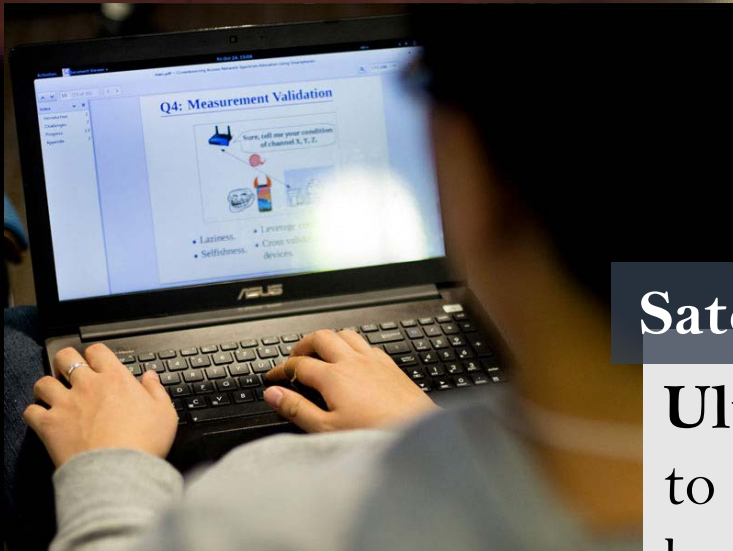




# Satellite navigation



- Contribution to the EU **Galileo** program for satellite navigation
- Development of **satellite navigations prototypes, applications and services** for the maritime, railway and road transport domains



## Satellite telecommunications

**Ultra-Broadband Italian Satellite (SIGMA/URBIS)** to end the digital divide in Italy by providing ultra-broadband connection on the entire national territory

# Robotic and human space exploration for the SDGs

6 CLEAN WATER  
AND SANITATION



7 AFFORDABLE AND  
CLEAN ENERGY



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES  
AND COMMUNITIES



12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



## Italian contribution

- **Ma\_MISS** (Mars Multispectral Imager for Subsurface Studies) within the ExoMars 2020 rover drill, to select subsoil samples
- **MicroMED** instrument within the Mars 2020 mission Dust payload, to study Mars dust and associated electromagnetic fields

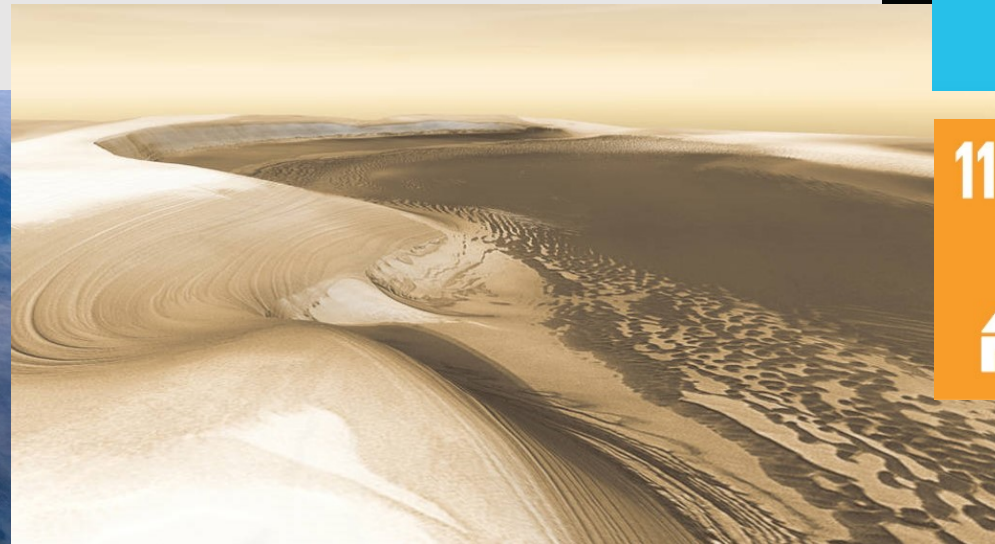
9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE





## Human space exploration

Italian Bio-regenerative Systems (IBIS) working group, for the study and development of closed bio-regenerative systems, which includes technologies for atmosphere revitalization, food production, water recycling, and organic waste recycling



## ASI for capacity-building



- **ASI and Italy**
  - ASI scholarships for Italian students and researchers
  - Training programs
  - Italian Master course in space institutions and policy
- **ASI and Argentina**
  - Support to the establishment and development of the Gulich Institute
  - Scholarships for the MAIE Master Degree
  - Provision of ASI experts
- **ASI and Kenya**
  - Annual scholarships for students and professionals
  - Support to the joint International Post-Graduate Course in Space Mission Design and Management
  - Support to joint Italian-Kenyan research projects
- **ASI and Mexico**
  - Joint research projects



# Open Universe initiative



- **Open Universe prototype portal** established at the ASI Space Science Data Centre (SSDC)
- Integration of several sources of space science data







## Goal of the ISF initiative

Promote a greater involvement of Universities and Academia in space activities to foster space knowledge dissemination and capacity building and find better solutions to global challenges



## Mission

Prepare African students and trainee to become Africa's space leaders and foster regional and international cooperation

- Addressed to all African countries
- Open to collaborations with international partners
- First space workshop by the end of 2018

4 QUALITY  
EDUCATION



5 GENDER  
EQUALITY



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



10 REDUCED  
INEQUALITIES



THANK YOU  
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