



**ASI contribution
to climate change and disaster risk reduction
Implementation of the
sustainable development goals (Agenda 2030)**

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1st International Space Forum (ISF)
at Ministerial Level
Trento (Italy), 24 October 2016
*“Space Science and Academy
for global challenges”*

Climate Change

was one of the three topics
selected to drive the
discussion

ASI contribution to
UNISPACE+50 and the **2030
Agenda for Sustainable
Development**,
in collaboration with IAF and IAA



ASI initiatives and contributions

ASI programs

- COSMO-SkyMed
- PRISMA

ASI Pilot projects on environmental monitoring

- ✓MORFEO (landslides)
- ✓OPERA and PROSA (floods)
- ✓PRIMI (sea hydrocarbon pollution)
- ✓QUITSAT (air quality)
- ✓SIGRI (fires)
- ✓SIGRIS (earthquakes, monitoring and management)
- ✓SISMA (earthquakes, early warning)
- ✓SRV (volcanos)



ASI initiatives and contributions

International cooperation

CEOS (Committee on Earth Observation Satellites)

GEO (Group on Earth Observation)

WMO (World Meteorological Organisation)

European cooperation

Copernicus (EU)

ESA programmes



COSMO-SkyMed constellation



**ASI membership in the
Polar Space Task Group
(PSTG)**

Italian constellation of 4 SAR satellites

- ✓ independent of weather and day–night conditions
- ✓ regular monitoring of areas at risk during the early warning phase, damage assessment and support to logistics during the crisis and monitoring during the recovery operations in the post crisis phase
- ✓ able to provide information on the ice coverage, the size and shape of ice floes

**ASI support to countries
affected by disasters**

COSMO-SkyMed - Applications

RISK MONITORING AND MANAGEMENT OF EMERGENCIES

OCEAN AND ICE MONITORING

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



Case study – Hurricane Harvey



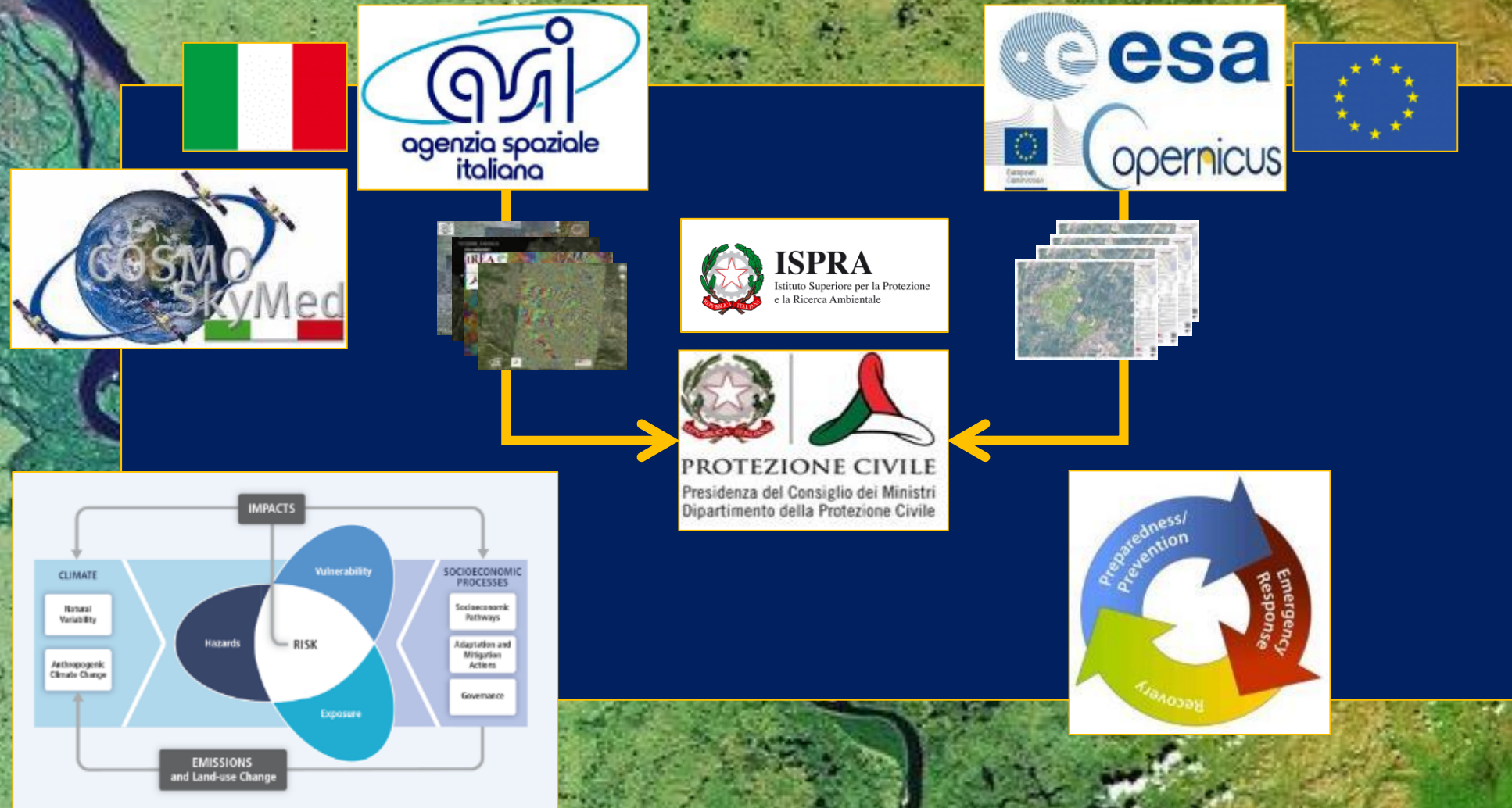
COSMO-SkyMed 1st satellite system to provide useful data for the identification of the areas affected by **hurricane Harvey** (2017)



FEMA



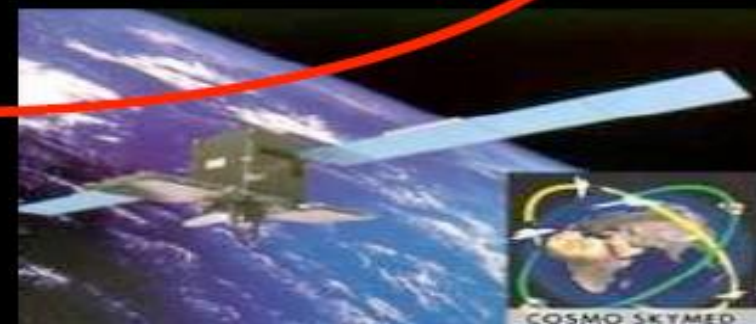
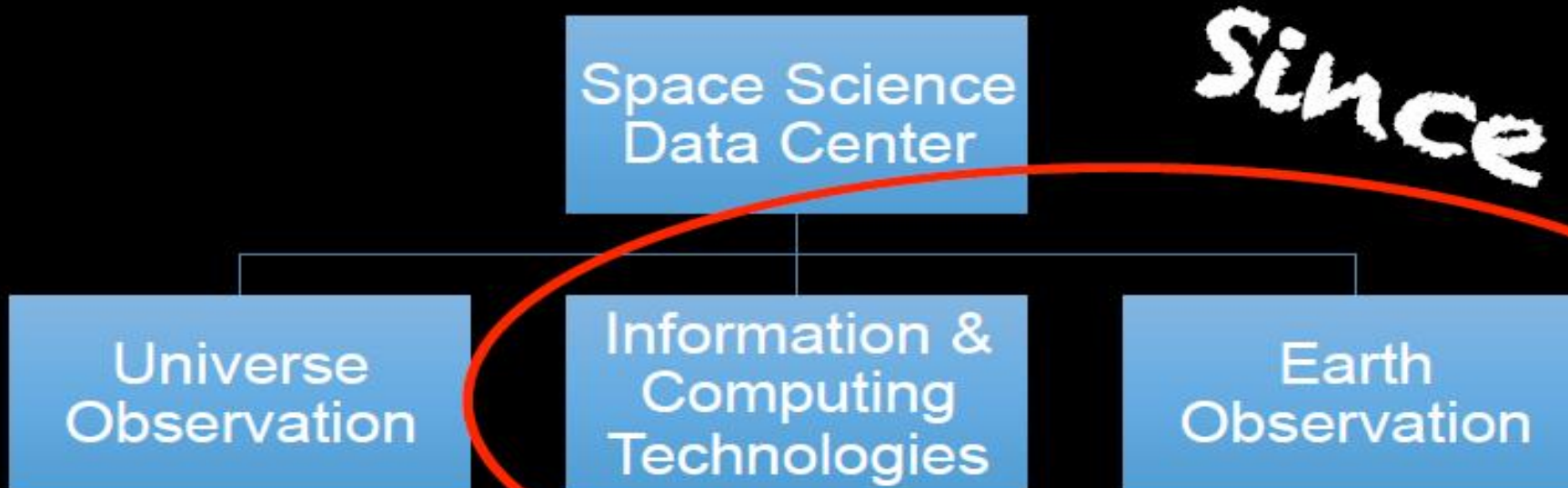
Synergic use of national and EU data and services



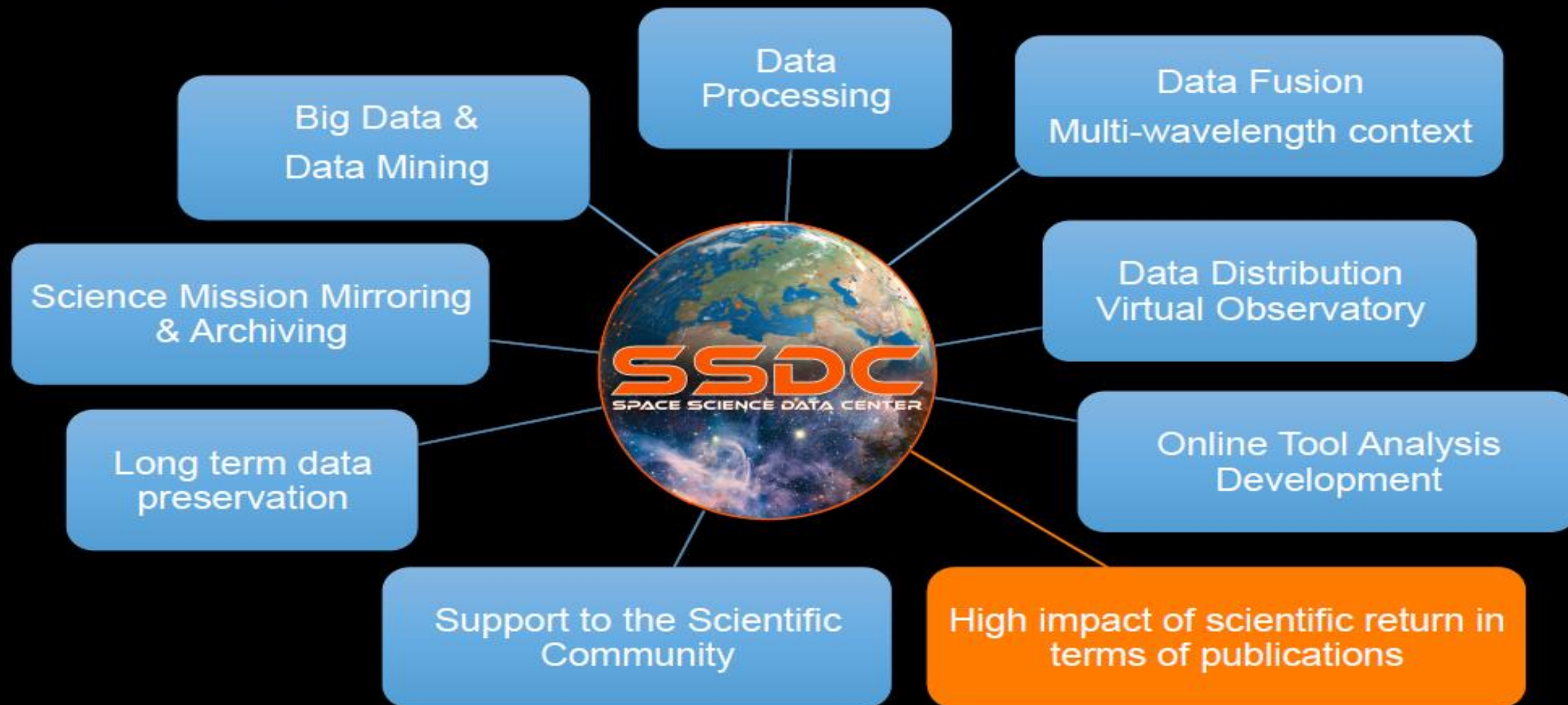
ASI Space Science Data Centre (SSDC)



ASI - Italian Space Agency



SSDC Experience





Thank you

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