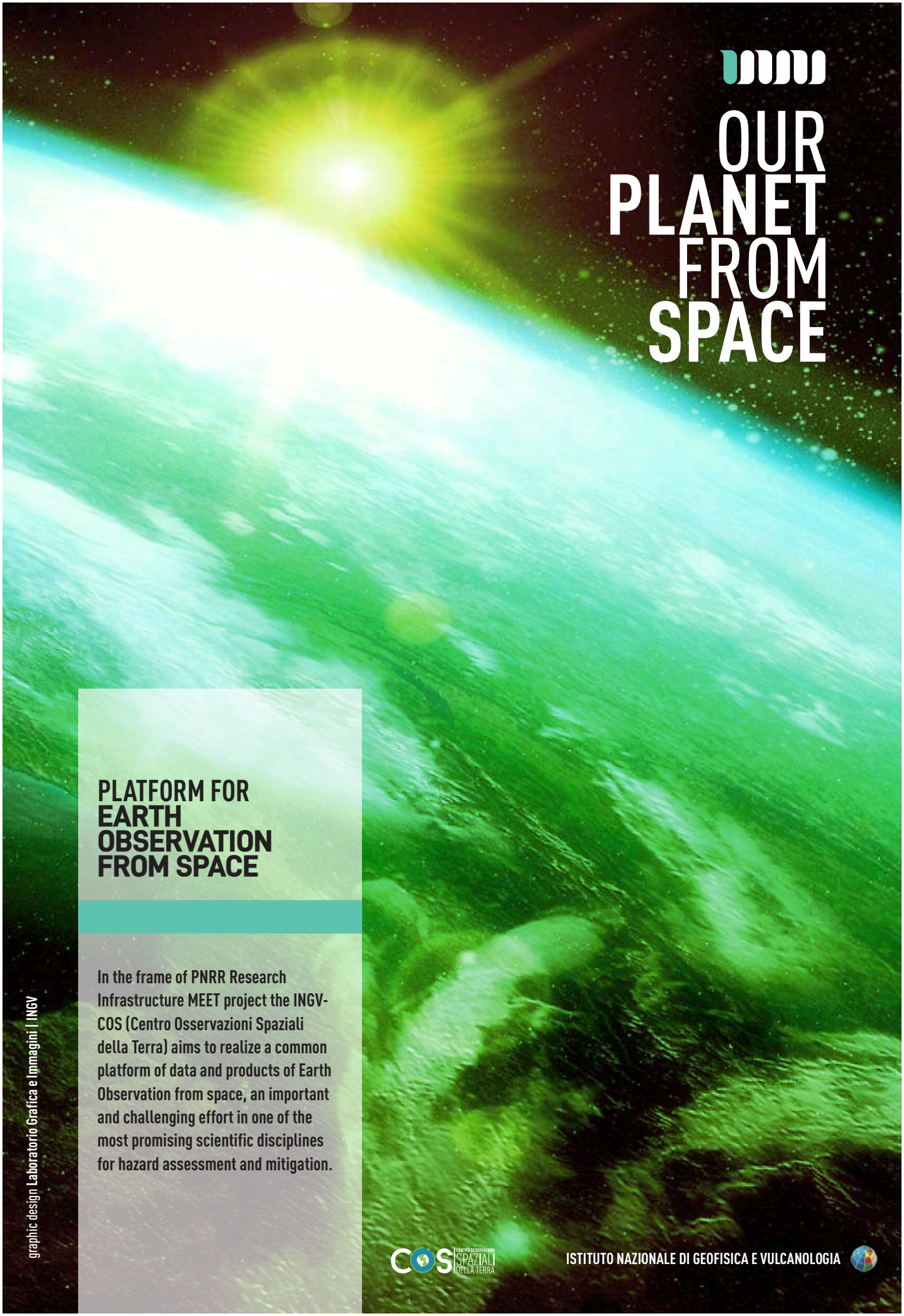


OUR PLANET FROM SPACE

PLATFORM FOR EARTH OBSERVATION FROM SPACE

In the frame of PNRR Research Infrastructure MEET project the INGV-COS (Centro Osservazioni Spaziali della Terra) aims to realize a common platform of data and products of Earth Observation from space, an important and challenging effort in one of the most promising scientific disciplines for hazard assessment and mitigation.

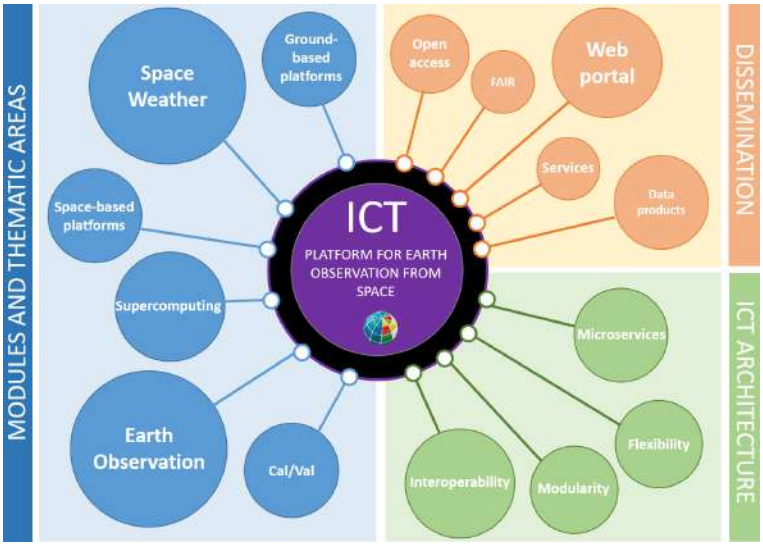
graphic design Laboratorio Grafica e Immagini | INGV

COS CENTRO OSSERVAZIONI SPAZIALI DELLA TERRA

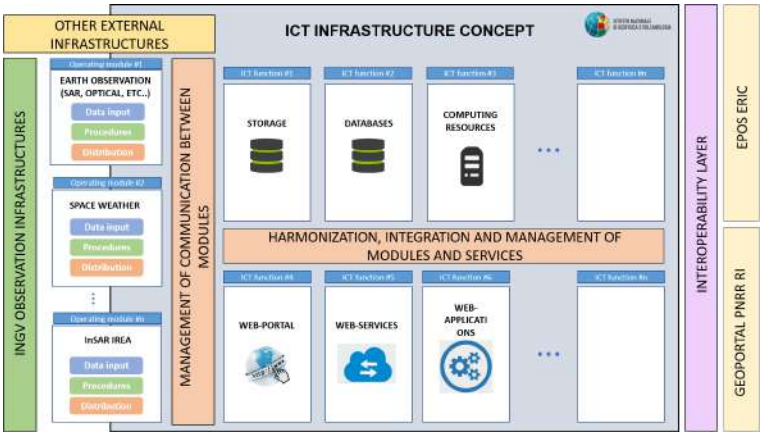
ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA

In the framework of the PNRR-MEET initiative (meet.ingv.it), the platform manages different space based data generating a suite of services suitable for society at large and enabling the access to a wide range of specific high-level products. Such transversal platform will be fed by different ICT modules by the thematic areas covered by the COS.

The modules are based on procedures developed by INGV and CNR-IREA. These procedures allow us to estimate a number of parameters regarding space geodesy and SAR products, surface thermal properties, SO2 and ash emissions and to characterize the space weather derived products.



Logical scheme of the "Platform for Earth Observation from Space".



ICT infrastructure concept of the platform.

The analysis of space geodesy and SAR products will be based on InSAR COS-INGV, Damage Mapping, 3D displacement mapping from geodesy and geodetic data modeling; it will also benefit from the EPOSAR service, deployed by CNR-IREA within EPOS Research Infrastructure (www.epos-eu.org).
For the analysis of multi-spectral satellite images, the available modules allow to extract geophysical parameters concerning the entire cycle of volcanic risk.
The Space Weather and LAIC (Lithosphere-Atmosphere-Ionosphere coupling) products complete the suite of the available services.
All these activities are supported by calibration and validation procedures. These procedures are based on independent measurement suitable to improve the accuracy of the generated products and the reliability of the foreseen service.

All the space-related INGV flyers are here!

MEET
MONITORING EARTH'S EVOLUTION AND TECTONICS

Finanziato dall'Unione europea NextGenerationEU
Ministero dell'Università e della Ricerca
Italiadomani

COS Centro Osservazioni Spaziali della Terra