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Rapid generation of value added products for seismic crisis management, using ground and satellite data

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The increased availability of Earth Observation optical and SAR data occurred in the last few years, has stimulated new applications in many different fields. The foreseen launch of new space platforms as the Sentinel satellites, providing good monitoring frequencies and free worldwide access to data is expected to increase the number of scientific and commercial activities exploiting EO data.
In the sector of natural hazards the EO data have already demonstrated to be indispensable for the generation of information products for the prevention, and emergency management phases.
In particular, the Italian Space Agency has promoted and funded, together with INGV, the development of dedicated infrastructures for the generation of advanced information products supporting different phases of the seismic and volcanic risk management cycles. These products were based mainly on SAR data from the COSMO-SkyMed 4-satellite constellation, and on optical data from commercial and scientific platforms, integrated with data from ground monitoring networks.
During the last few years, such infrastructures have been tested under operational conditions and the products distributed to the Italian Civil Protection authority for validation and assessment.
Here, with reference to the earthquake emergency management, we will present the infrastructure, the rapid mapping information products and some examples of activities during the latest seismic crises.