

From Research to Applications, from Data to Information, from Core to Downstream Services: ICUBE-SERTIT a Copernicus Relay for the French Grand Est Region

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(Submission #369)

Abstract Playing the role of interface between research and applications in the field of Earth Observation technics for more than 30 years, SERTIT (SErvice Regional de Traitement d'Image et de Télédétection), the ICUBE remote sensing technological platform of the University of Strasbourg, is specialized in geo-information production from satellite data and has a long lead experience in the environmental, land planning, natural disaster and risk management domains at regional, national and international level. Core and downstream service provider within Copernicus, the European Earth Observation and Monitoring program, SERTIT has been labeled 'Copernicus Relay' for the French Grand Est Region, contributing also to the promotion and to the user uptake of Copernicus data and services at regional level.

Pioneer and precursor in Rapid Mapping, SERTIT is presently involved in the Copernicus Emergency Management Core Service (EMS). Operational 24/7 and regularly activated in the case of a catastrophic event (flood, fire, earthquake, ... , or man-made crisis), the service delivers in a rush mode to Authorized Users such as Civil Protection, NGOs or ERCC (the Emergency Response Coordination Centre of the European Commission), geo-information derived from EO satellite images and open geo-spatial data sources; dedicated to the response phase management, these products are mapping the extend and impact of the event, but can also include up-to-date reference maps especially in the case of outside Europe operations. Moreover, in a non-rush mode, within the EMS Risk and Recovery activities, pre or post event multi-source data analysis can also be performed to contribute to risk information with, in the case of flood, the delivery of products related the maximum flood extend, simulated water heights, and impacted population.

In the French Grand Est Region, a set of Copernicus downstream services are progressively being put in place at a regional and local scale. Based on the exploitation of Sentinel 1-2 (radar and optical satellite) data, complemented by contributing missions observations and local data, these services will allow the provision of specific and adapted geo-information, as well as objective indicators, to support regional territory monitoring, urban planning and risk management activities, performed by public authorities or to cover local information needs of the private sector.

Examples related to recent catastrophic events in Europe and products generated over the Grand Est Region will illustrate the potential benefits of the whole Copernicus value-chain for multi-thematic and multi-scale applications playing a key role in the protection of our environment.

Categories

Topic: [2.8] Innovation and technologies for spatial data collection, processing and integration in spatial data infrastructures (for example; Galileo/EGNOS, Copernicus data and services, sensor web, Internet of Things, Big Data analytics)

Additional Fields

Comments: Special thanks to *SERTIT's Rapid Mapping team for its contribution: Jerome Maxant, Mathilde Caspard, Mathias Studer, Stephanie Battiston, Bernard Allenbach, Fahd Benatia, Arnaud Durand, Robin Faivre, Henri Giraud, Sadri Haouet, Claire Huber, Myldred Montabond and Herve Yesou
Keywords: Copernicus Data, Core and Downstream Services, Copernicus Relays