



European Gravity Service for Improved Emergency Management - a new Horizon2020 project to serve the international community and improve the accessibility to gravity field products

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A proposal for a European Gravity Service for Improved Emergency Management (EGSIEM) has been submitted in response to the Earth Observation Call EO-1-2014 of the Horizon 2020 Framework Programme. EGSIEM shall demonstrate that observations of the redistribution of water and ice mass derived from the current GRACE mission, the future GRACE-FO mission, and additional data provide critical and complementary information to more traditional Earth Observation products and open the door for innovative approaches to flood and drought monitoring and forecasting. The EGSIEM project has recently started in January 2015. We present the three key objectives that EGSIEM shall address: 1) to establish a scientific combination service to deliver the best gravity products for applications in Earth and environmental science research based on the unified knowledge of the European GRACE community, 2) to establish a near real-time and regional service to reduce the latency and increase the temporal resolution of the mass redistribution products, and 3) to establish a hydrological and early warning service to develop gravity-based indicators for extreme hydrological events and to demonstrate their value for flood and drought forecasting and monitoring services. All of these services shall be tailored to the various needs of the respective communities. Significant efforts shall be devoted to transform the service products into user-friendly and easy-to-interpret data sets and the development of visualization tools.