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The ARISTOTLE Multi-Hazard Expert Advice System for ERCC preparedness actions

Alberto Michelini (1), Gerhard Wotawa (2), Delia Arnold-Arias (2), Gavin Iley (3), Giovanna Forlenza (1), and the ARISTOTLE Consortium

(1) Istituto Nazionale Geofisica e Vulcanologia, Centro Nazionale Terremoti, Roma, Italy (alberto.michelini@ingv.it), (2) Zentralanstalt für Meteorologie und Geodynamik, Vienna, Austria (gerhard.wotawa@zamg.ac.at), (3) Met Office Fitzroy Road Exeter Devon EX1 3PB United Kingdom (gavin.iley@metoffice.gov.uk)

The utilisation of multi-hazard information across the Disaster Risk Management Cycle has proven to be important but poses many challenges when a robust operational system needs to be implemented. The European Commission's Emergency Response and Coordination Centre (ERCC) of the European Commission's Directorate-General for Humanitarian Aid and Civil Protection (DG-ECHO) is tasked with coordinating the response to crisis of EU Member States within Europe and also, as necessary, globally. Such task requires the processing of a large array of information with the primary goal of assessing rapidly the gravity of the crisis situation. To reduce such analytical load, in 2015 the DG-ECHO issued a tender pilot project to develop a multi-hazard advisory service for natural hazards. The ARISTOTLE Consortium, with 15 partner institutions (11 from EU Countries; 2 from non-EU countries and 2 European organizations) operating in the Meteorological and Geophysical domains, was selected and since then it has been working to overcome the many challenges of designing, building and running a multi-hazard advisory service for ERCC with information and expert assessment and advice with respect to flooding, earthquakes, severe weather, volcanic emissions and tsunamis.

Within the first year of ARISTOTLE, an operational multi-hazard advisory service was designed in all its components. In the second year, the service was deployed and entered into full operations at the beginning of 2017. The service focuses on the power of sharing information between the experts all belonging to national operational centers in the corresponding hazards. The service offered relies on an underpinning IT platform that gathers information automatically from available global and local hazard services as basis upon which the expert assessment is built-up and then delivered to ERCC both verbally and as reports. The system, with routine and emergency modes, has reached maturity within this year and provided advice into the ERCC for 37 emergencies (by December, 2017) covering all the aforementioned hazards. The presentation will illustrate the basic components of the ARISTOTLE 24*7 advisory service, its modes of operations and lessons learnt within the one year operational phase.