The digitalization of civil protection knowledge in forecasting and monitoring activities: the DEWETRA platform

G. Boni (1), A. Botto (2), A. Burastero (2), P. Campanella (3), A.C. Corina (4), L. Ferraris (1), D. Miozzo (1), L. Molini (1), P. Pagliara (4), L. Rossello (1), S. Traverso (1), and C. Versace (2)

(1) Cima Research Foundation, Savona, Italy, (2) ACROTEC SRL, Savona, Italy, (3) Fadeout Software S.r.l., Genoa, Italy, (4) Italian Civil Protection Department, Rome, Italy

From a common necessity of establishing an integrated forecasting and warning system, for the entire Italian territory, stemmed the project that led to the implementation of the first Italian web platform for Civil Protection activities.

The system, designed by CIMA Research Foundation and ACROTEC on behalf of Italian Civil Protection, was firstly and experimentally used as a support for a real-time monitoring and forecasting of natural events, during the G8 meeting in l'Aquila (2009). The responsiveness of Dewetra platform during the first phase of tests led to a rapid adoption of the system by the National Department of Civil Protection. Dewetra has been technically and operationally certified and is currently being exported abroad for International Cooperation initiatives (i.e. Lebanon and Albania).

The effectiveness of the platform relies on the rapid availability of data which strengthen the forecasting system enabling to produce up-to-date and consistent forecasts. Dewetra uses a hybrid architecture which combines a clientserver middle-ware to ensure robustness and data local back-up, with a web-based application to ensure capillary distribution of information. The added value of Dewetra is its capability of merging hydrometeo-rological knowledge with innovative informatics tools and a user friendly GUI (Graphic User Interface).

As of may 2011, the access to Dewetra has been granted to all the Italian administrative Regions which can request a personalized account to access the network. By so doing decisional centers are increasingly becoming connected into a network that shares data, procedures, models and expertise. Thus, a widespread knowledge of Civil Protection activities is being codified into an unambiguous language recognizable at all levels. This work wants to give an account of what has been done so far.