



IMPRINTS: A JOINT EC EFFORT TO PROVIDE ADVANCED TOOLS FOR FLASH FLOOD RISK MANAGEMENT

D. Sempere-Torres⁽¹⁾ and C. Wittwer⁽²⁾

⁽¹⁾ Centre de Recerca Aplicada en Hidrometeorologia, Universitat Politècnica de Catalunya, Barcelona, Spain

⁽²⁾ Service Central d’Hydrométéorologique et d’Appui à la Prévision des Inondations, Toulouse, France

Abstract

IMPRINTS (acronym for IMproving Preparedness and RiSk maNagementT for flash floods and debriS flow events) is a FP7 project (2009-2012) whose ultimate objective is to contribute to the reduction of loss of life and economic damage through the improvement of the preparedness and the operational risk management of flash flood and debris flow (from now on FF/DF) generating events, as well as contributing to sustainable development through reducing damages to the environment. To achieve this ultimate objective, the project is oriented to produce methods and tools to be used by practitioners of the emergency agencies and utility companies responsible for the management of FF/DF risks and associated effects. Impacts of future changes, including climatic, land use and socioeconomic changes will be also analysed, in order to provide guidelines for mitigation and adaptation measures.

Specifically, the consortium will develop three methodologies of different complexities to provide FF/DF forecasting and warnings: (i) an early warning FF/DF system based on simplified calculations, (ii) an integrated probabilistic forecasting FF/DF system, and (iii) a probabilistic rule-based

Corresponding author:

Prof. Daniel Sempere-Torres

*Universitat Politècnica de Catalunya, Centre de Recerca Aplicada en Hidrometeorologia
Gran Capità, 2-4 – 08034 Barcelona, Spain*

E-Mail: imprints@imprints-fp7.eu



forecasting system adapted to the operational use by practitioners. These systems will be tested on five selected flash flood prone areas, two located in mountainous catchments in the Alps, and three in Mediterranean catchments. The practitioner partners of **IMPRINTS**, namely the risk management authorities and the utility company managers in charge of emergency management in these areas, will supervise these tests. The development of such systems will be carried out using, and capitalising on, the results of the previous and ongoing research on forecasting and warning systems for FF/DF, in which several of the partners have already played a prominent role.

One major result of the project will be a prototype of the operational platform including the tools and methodologies developed under the project (<http://www.imprints-fp7.eu>).