Assessment of Severe Weather Warning Systems in Europe

Alois M. Holzer (1), Pieter Groenemeijer (1), Tomáš Púčik (1), Katrin Nissen (2), Nico Becker (2), Uwe Ulbrich (2), Andrea Vajda (3), Hilppa Gregow (3), Ilkka Juga (3), Pieter H. A. J. M. van Gelder (4), Oswald Morales-Napoles (4), and Dominik Paprotny (4)

(1) ESSL, European Severe Storms Laboratory, Wessling, Germany (alois.holzer@essl.org), (2) FUB, Freie Universität Berlin, Institute for Meteorology, Berlin, Germany, (3) FMI, Finnish Meteorological Institute, Helsinki, Finnland, (4) TU Delft, Delft University of Technology, Delft, The Netherlands

In recent years, weather services in Europe made efforts to improve their severe weather warnings and make them more consistent internationally, for example via the METEOALARM project and website.

Within the EU-FP7 project RAIN, we assess the current state of early warning systems in Europe from sub-hourly to monthly time scales, their availability and skill, and their means of communication. The assessment does not only take public warnings into account, but focuses on the use of warning information by managers of critical infrastructure, who often have tailored arrangements between weather services and critical infrastructure providers.

We will present first results of this work in progress, based on a recent survey within national hydro-meteorological services and private or commercial weather services in Europe, as well as critical infrastructure managers. Further input relates to additional assessments of the RAIN partners. The RAIN vision is to develop a systematic risk management framework that explicitly considers the impacts of extreme weather events on critical infrastructure and develops a series of mitigation tools to enhance the security of the pan European infrastructure network.