

20649 - SCIENCE COMMUNICATION AS A CONDUCTIVE ENVIRONMENT BETWEEN GLOBAL SCIENTIFIC CHALLENGES AND LOCAL OPERATIONAL EXPERTISE TO ACHIEVE RESILIENT CITIES

The frequency and damages caused by pluvial floods in European cities are expected to increase as a consequence of climate change and urban development. New solutions are needed at local level to cope with extreme storm events and to reduce risks and costs on populations and infrastructures. The Chair 'Hydrology for Resilient Cities' aims to develop resilient urban systems with the help of innovative technologies, tools and practices based in particular on the use of high-resolution data, simulations, forecasts and management. Indeed, the availability of fine-scale rainfall data, due to the improved reliability of recent weather radars, open up prospects for new forms of urban flood risk management, which requires exchange of information with local actors and their full cooperation with researchers. This demands a large collaboration ranging from regional to international levels, e.g. the RadX@IdF project (Regional Council of Paris Region), the RainGain project (EU Interreg program), TOMACS (World Meteorological Organisation). For instance, RainGain involves four European pilot cities – Leuven, London, Paris, Rotterdam – whereas TOMACS is focused on the metropolis of Tokyo. This also requires to act at urban scale with local stakeholders and to bring together the know-how from all over the world (Europe, Japan and US). Communication activities become strategic in a project that relies on strong local and international interactions between scientists, concerned citizens, policy makers, water managers, weather services and urban planners. The pilot site of Paris will host a permanent platform for communication and dissemination that will act as a hub for community learning. In this context some of the challenges are: narrating research uncertainty and its open issues as a virtuous process, aligning diverging objectives and approaches in a common vision, making an

innovative technology visible to the public and managing rumors on security issues, bridging the gap between scientific discourses from an international academic community and operational discourses from local communities. The common question with respect to these communication goals is: how can we objectively assess the progress that is achieved?

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