



## **Communication on urban resilience to extreme weather: challenges and achievements in the dialogue between the international scientific community and local stakeholders**

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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, in particular in disadvantaged urban areas. The HM&Co team (LEESU & Chair 'Hydrology for Resilient Cities' sponsored by Veolia) 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 low-cost weather radars, opens up prospects for new forms of local 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 programme) and Blue Green Dream project (Climate-KIC programme), TOMACS (World Meteorological Organisation). These research projects and programmes include awareness raising and capacity building activities aimed to stimulate cooperation between scientists, professionals (e.g. water managers, urban planners) and beneficiaries (e.g. concerned citizens, policy makers). A dialogue between these actors is indeed needed to bring together the know-how from different countries and areas of expertise, avoid fragmentation and link it to the needs of the local stakeholders. Without this "conductive environment", research results risk to remain unexploited.

After a general description of the background communication needs, this presentation will illustrate the outreach practices that are carried out by the HM&Co team. The major challenges will be also discussed, some examples 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 rumours on security issues, bridging the gap between scientific discourses from an international academic community and operational discourses from local communities.