



Assessing the impact of science communication in the development of resilient cities to extreme weather

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The combined effects of climate change and increasing urbanisation call for new solutions to achieve urban resiliency to extreme weather. The research projects carried out by the HM&Co team (LEESU & Chair 'Hydrology for Resilient Cities' sponsored by Veolia) need to be supported by communication activities aimed to support community capacity building and cooperation between scientists and their partners and stakeholders.

While outreach activities are becoming an integral part of many research projects on climate adaptation, their evaluation is scarce, rather optional, very limited. This work aims to develop quantitative and qualitative evaluation of science communication and to design corresponding assessment tools.

It will be examined how evaluation can eventually improve the quality, efficiency and impact of communication activities in enhancing collaboration between scientists, professionals (e.g. water managers, urban planners) and beneficiaries (e.g. concerned citizens, policy makers). The research takes hold on several case studies on projects and programs aiming to increase the resiliency of cities to extreme weather: French projects and programmes such as RadX@IdF and Chair "Hydrology for a resilient city", European projects such as Climate KIC Blue Green Dream and Interreg NWE IVB RainGain and worldwide collaborations (e.g. TOMACS).

The evaluation techniques and tools developed in the framework of this work are intended to become a useful support for engineers and researchers involved in projects on urban hydrology where resilience to extreme weather events relies also on effective communication processes between the above mentioned social actors. In particular, one of the purposes of this work is to highlight how auto-evaluation can improve on-going communication activities and create a virtuous circle of planning/implementation/evaluation.

This research has links with those on the development of exploration techniques of the unstructured social big data, with a particular focus on digital communications.