

Assessing communication as one of the drivers of urban resilience to weather extremes.

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The quality of science and technology communication has become more challenging due to the fact that access to information has hugely increased in terms of variety and quantity. This is a consequence of different factors, among others the development of public relations by research institutes and the pervasive role of digital media (Bucchi 2013; Trench 2008). A key question is how can we objectively assess science and technology communication? Relatively few studies have been dedicated to the definition of pertinent indicators and standards (Neresini and Bucchi 2011).

This research aims to understand how communication strategies, addressed to the general public, can optimise the impact of research findings in hydrology for resilient cities and how this can be assessed. Indeed urban resilience to extreme weather events relies both on engineering solutions and increased awareness of urban communities as it was highlighted by the FP7 SMARTesT project and the experiences carried out in the framework of TOMACS (Tokyo Metropolitan Area Convective Studies for Resilient Cities) and CASA (Engineering Research Center for Collaborative Adaptive Sensing of the Atmosphere, supported by the U.S. National Science Foundation).

Communication assessment should be included in an alternative approach to evaluate urban resilience to weather extremes. Various qualitative and quantitative methods to monitor communication exist. According to this study, resilience indicators shouldn't only consider communication infrastructures but should also assess communication processes and their interactions with other resilience drivers; furthermore quantitative variables are considered as particularly relevant. Last, but not least, interesting inputs are provided by those case studies that exploit resilience assessment campaigns as an opportunity to practice participatory communication. This research is being led in the framework of the Chair Hydrology for Resilient Cities, co-founded by Veolia, Fondation des Ponts, and École des Ponts ParisTech.