

FloodCitiSense

Early warning service for urban pluvial floods for and by citizens and city authorities

Programm / Ausschreibung	ENERGIE DER ZUKUNFT, JPI Urban Europe, ERANET Co-fund Smart Cities/Urban Futures 2014/15	Status	abgeschlossen
Projektstart	01.04.2017	Projektende	31.07.2020
Zeitraum	2017 - 2020	Projektlaufzeit	40 Monate
Keywords	Flood Early Warning System, urban pluvial flooding, citizen science, smart sensing, co-creation in urban living labs		

Projektbeschreibung

This project aims at developing an urban pluvial flood early warning service for, but also by citizens and city authorities, building upon the state-of-the-art knowledge, methodologies and smart technologies provided by research units and private companies. FloodCitiSense targets the co-creation of this innovative public service in an urban living lab context with all local actors. This service will reduce the vulnerability of urban areas and citizens to pluvial floods, which occur when heavy rainfall exceeds the capacity of the urban drainage system. Due to their fast onset and localized nature, they cause significant damage to the urban environment and are challenging to manage. Monitoring and management of peak events in cities is typically in the hands of local governmental agencies. Citizens most often just play a passive role as people negatively affected by the flooding, despite the fact that they are often the 'first responders' and should therefore be actively involved. The FloodCitiSense project aims at integrating crowdsourced hydrological data, collaboratively monitored by local stakeholders, including citizens, making use of low-cost sensors and web-based technologies, into a flood early warning system. This will enable 'citizens and cities' to be better prepared for and better respond to urban pluvial floods.

Abstract

This project aims at developing an urban pluvial flood early warning service for, but also by citizens and city authorities, building upon the state-of-the-art knowledge, methodologies and smart technologies provided by research units and private companies. FloodCitiSense targets the co-creation of this innovative public service in an urban living lab context with all local actors. This service will reduce the vulnerability of urban areas and citizens to pluvial floods, which occur when heavy rainfall exceeds the capacity of the urban drainage system. Due to their fast onset and localized nature, they cause significant damage to the urban environment and are challenging to manage. Monitoring and management of peak events in cities is typically in the hands of local governmental agencies. Citizens most often just play a passive role as people negatively affected by the flooding, despite the fact that they are often the 'first responders' and should therefore be actively involved. The FloodCitiSense project aims at integrating crowdsourced hydrological data, collaboratively monitored by local stakeholders, including citizens, making use of low-cost sensors and web-based technologies, into a flood early warning system. This will enable 'citizens and cities' to be better prepared for and better respond to urban pluvial floods.

Projektpartner

- "Internationales Institut für angewandte Systemanalyse"- "International Institute for Applied Systems Analysis"