HARVEST

Royal Meteorological Institute

The Royal Meteorological Institute (RMI) is a federal scientific institute serving as the national centre for meteorological services, weather, climate, and geophysics data. Engaging in international collaboration, our research supports public responsibilities, including weather forecasts, warnings, climate monitoring, data collection, verification, archiving, infrastructure management, and model development.

"Every observation counts: with the HARVEST project we prove that citizens can contribute substantially in improving RMI's services and warnings."

Maarten Reyniers, project lead

THE FSI'S VISION ON CITIZEN SCIENCE

RMI has a long history of citizen science, predating its formal recognition as such. The so called "climatological network" comprises around 200 observers: passionate meteorology enthusiasts who meticulously record their observations in all weather conditions. Hence, for decades citizen science has already been an invaluable asset to meteorological and climatological research.

In line with this tradition, RMI is exploring new technologies to modernize and expand citizen science initiatives. These efforts are reflected in RMI's current Strategic Plan (2019-2025), which includes various references to citizen science. It is RMI's intention to "further improve the observation networks based on the most recent technologies (new instruments, new communication channels, smartphone apps, public science, crowdsourcing, opportunistic data, Internet of Things)" (p. 8). In its research activities, RMI is developing expertise in machine learning and big data techniques for enhanced use of existing and innovative observations, like private weather stations and citizen observations.

Project HARVEST

THE HARVEST PROJECT: 11 MILLION POTENTIAL WEATHER OBSERVERS!

The HARVEST project aims to enhance weather monitoring and crisis response through citizen participation in meteorological observations. Implemented through the RMI smartphone app in August 2019, the project encourages citizens across Belgium to submit their own observations of various weather phenomena, including potentially hazardous ones like fog, floods, thunderstorms, hail, and snow. Citizens can also attach photos to their observations.

This initiative empowers citizens to actively engage in weather monitoring, contributing valuable data that supplements traditional methods. By leveraging citizen observations, RMI can improve the accuracy and timeliness of weather forecasts, issue localized warnings, and provide for example real-time flood information to relevant authorities. The project underscores the importance of citizen involvement in enhancing public safety during extreme weather events.

CALL TO ACTION

Get involved today! Download the RMI app, submit your meteorological observations, and help us in shaping more accurate forecasts. Consult the latest observations on our visualisation platform wow.meteo.be or download the dataset via our open data portal. As a stakeholder, get in touch with us to integrate the citizen observations in your own research or application.

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