The Delft Measures Recipe

How to implement a similar citizen science project in other cities

de Vries, Sandra; Droste, Arjan

DOI
10.5194/egusphere-egu24-11306

Publication date
2024

Document Version
Final published version

Citation (APA)
de Vries, S., & Droste, A. (2024). *The Delft Measures Recipe: How to implement a similar citizen science project in other cities*. Abstract from EGU General Assembly 2024, Vienna, Austria. https://doi.org/10.5194/egusphere-egu24-11306

Important note
To cite this publication, please use the final published version (if applicable).
Please check the document version above.

EGU24-11306, updated on 07 May 2024
https://doi.org/10.5194/egusphere-egu24-11306
EGU General Assembly 2024

The Delft Measures Recipe: how to implement a similar citizen science project in other cities

Sandra Vries[1,2] and Arjan Droste[2]
[1]Pulsaqua, Rotterdam, the Netherlands
[2]Delft University of Technology, Delft, the Netherlands

The Dutch citizen science project Delft Measures (https://bit.ly/DelftMeasures) focuses on the collaboration between citizens, local institutions, and NGOs to map the weather and changing climate in the city of Delft. It has been running for 4 years, during which citizens of Delft measure long-term changes in rainfall patterns, temperature, and now also soil moisture in their private gardens. Currently, there are over 45 of the Alecto WS5500 citizen-science weather stations spread across neighborhoods in Delft, capturing rainfall variability in different urban microclimates. But in the past years, more than 100 different inhabitants have already been engaged and have helped to collect data.

The data is used by a diverse number of organizations like the National Meteorological Institute, the Delft University of Technology and the Delft Municipality, to answer different scientific, engineering, or policy questions. We collaborate with multiple NGOs in project execution. Considering the diverse interests of all stakeholders, the project addresses a variety of goals from education to improving climate adaptation to implementing open science practices.

All in all, the project grew into a successful co-creation between many different partners. Delft Measures has been growing and changing and it managed to reach a consistent base of enthusiastic citizens that support the goals of the project, engaging them in making changes in the city for climate change adaptation. For Delft, as a city below sea level, this means a better drainage network to deal with the larger showers of summer rain, while retaining water during longer periods of drought. By setting up secure collaborations with the municipality and university, the data citizens collect is used as direct input for the (future) efficiency of the municipality's city-wide sewer and drainage network. For the university, this is valuable for education and research into how city infrastructure influences local weather patterns and the variability of rainfall, to understand better where high-intensity rainfall events will have the highest effect. Currently, such high spatial resolution on rainfall in cities is scarce. Additionally, the project functions as a case study for the university's Open Science program, aiming to evaluate the implementation of open science practices in local citizen science projects, while NGOs invested in climate change adaptation in the city roll up their sleeves to help citizens make the practical changes needed for our new climate.

We are currently in the process of writing down the 'recipe' of Delft Measures, to help other cities

implement similar projects and not to have to reinvent the wheel. We would like to share this recipe during this session, where we will answer questions such as how we manage to collect useful information and increase community involvement and awareness, what kind of participatory approaches we implemented to facilitate community involvement, how we tackle legitimate concerns about potential data biases, inaccuracies and how we ensure the long-term sustainability of the project.