Plastic Spotter
Successes and challenges of co-creating a local citizen science project on plastic pollution

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Plastic Spotter

Volunteers from the citizen science project Plastic Spotter study litter floating in the canals of Leiden, the Netherlands. With the gained knowledge we can improve cleanup efforts and ultimately even prevent litter ending up in the water in the first place. So we can prevent that riverine litter reaches the sea and a city like Leiden contributes to the plastic soup.

Project Development

+ Match **local citizens questions** with **local scientists**

! Challenging to match different agendas and expectations

+ Build on **existing tools, projects** and **initiatives** and collaborate where possible

! You must identify relevant stakeholders, initiatives and tools

+ **Involve citizens** not only in data collection but also **other phases**

! Encourage and acknowledge motivated volunteers

Methods

Download CrowdWater
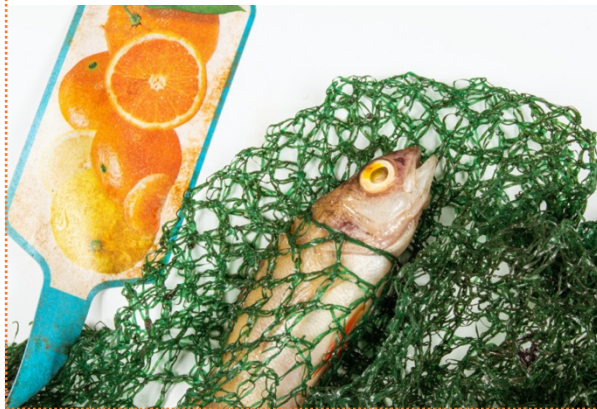- Existing hydrology app configurated for plastic pollution
- Using SPOTTERON

Observe litter
- Making it as accessible as possible (e.g. language)
- Updating app based on feedback
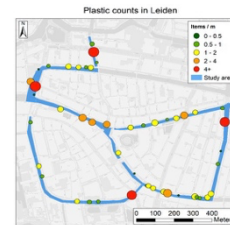

Remove and identify sources
- Making it positive and letting citizens feel part of the solution
- Collecting items and imagery for educational purposes
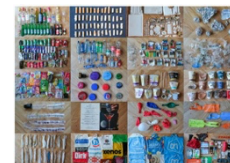

Future outlook

Improve **cleanup** measures

- Make local plastic hotspot maps
  - More efficient litter fishing by municipality ánd volunteers
  - Install devices to collect litter automatically
- Tasseron et al. (2020) Plastic Hotspot Mapping in Urban Water Systems. Geosciences,10, 342

Plastic counts in Leiden

Improve measures to **prevent**

- Confront and collaborate
  - Canal Cups
  - Plastic free terraces

Leiden may be the first, but who follows…

Tips & Tricks

- Hire project and community coordinators
- Appoint enthusiastic ambassadors
- Manage expectations stakeholders and volunteers
- Involve politicians and policy makers from the start
- Make it visual to have stronger emotional reactions
- Celebrate achieved milestones to keep up the moral
- Use social media to reach and update target groups

Acknowledgements