# Waterhub Proof of Concept

**Dashboarding water levels in Belgian municipalities**
**A3 Strategic ThinkTank**

Project 4.0 Cipal Schaubroeck

ST
Strategic ThinkTank

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# 1

**The project**

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# Objective

- **An easy to use and functional dashboard**

- **View trends and conduct analysis**

- **Flexible / dynamic**

- **Digital transformation municipalities**

**CIPAL SCHAUBROECK**

**2**

# Team

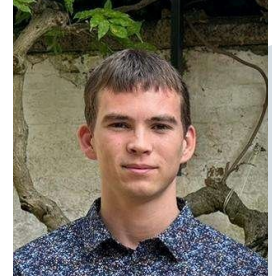# Project Team

Joppe
APP

Finn
APP

Natan
APP

Leander
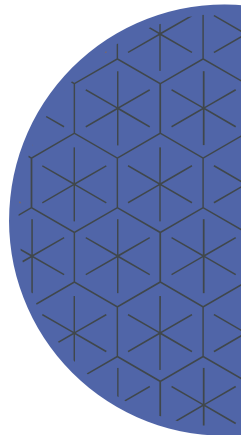CCS

Emre
AI

Mathieu
IoT

# 3

**Waterhub Proof of Concept**

# What is Waterhub

- **Structured dashboard with clear information**
- **Intuitive & user friendly design**
- **Discover trends in measurements**
- **Add info to stations**

WATERHUB

## Stations



| | |
|---|---|
| + | Zoom to my location |
| − | Reset zoom |

Leaflet | © OpenStreetMap contributors

| Filter by Station Name | Filter by Number | Filter by Province<br>All provinces ▾ |
|---|---|---|

| Name ↑ | Number | Province |
|---|---|---|
| Aa/Poederlee/Stuw3 | K10_132 | Antwerpen |
| Aa/Vorselaar/Stuw4 | K10_133 | Antwerpen |
| Aalst/Molenbeek | L07_28C | Oost-Vlaanderen |
| Aalst/Stuw2/Molenbeek | K07_407 | Oost-Vlaanderen |
| Aarschot/Grote Motte | S09_14E | Vlaams-Brabant |

# What did we use



Node-RED







Grafana
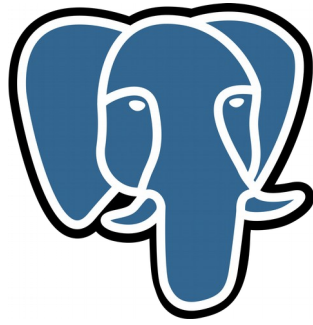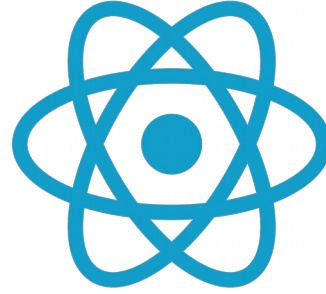
# What did we use

Demo

# Strong points

- **Can choose from map**

- **Can compare**

- **Can add measurement/sensor (logged in)**

# Possible improvements

- **Integration of prediction model**
- **Incorporation of rainfall data**
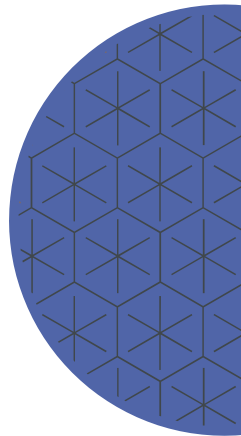- **Locations of locks**
- **MERATCH sensor**



Casing

Battery

Detection

Cover

52 mm

90 mm

# 4
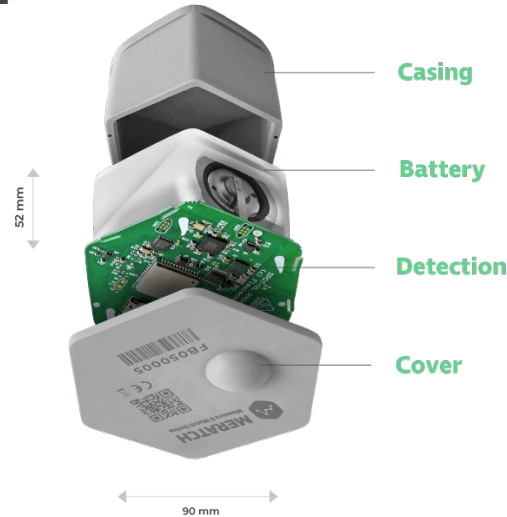
# Teamwork Retrospective

# Teamwork retrospective

**Technical context**

- **Working with Node-Red**
- **Communication protocols**
- **Building CI/CD pipeline**

**Soft skills**

- **Communication with the client**
- **On-site work is best**
- **Team meetings**

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**Conclusion**