
**Herzlich
Willkommen!**

Collaboration as key to innovation

Daniel Gerdes

OOWV in facts and figures



OOWV in facts and figures



Waterworks 15

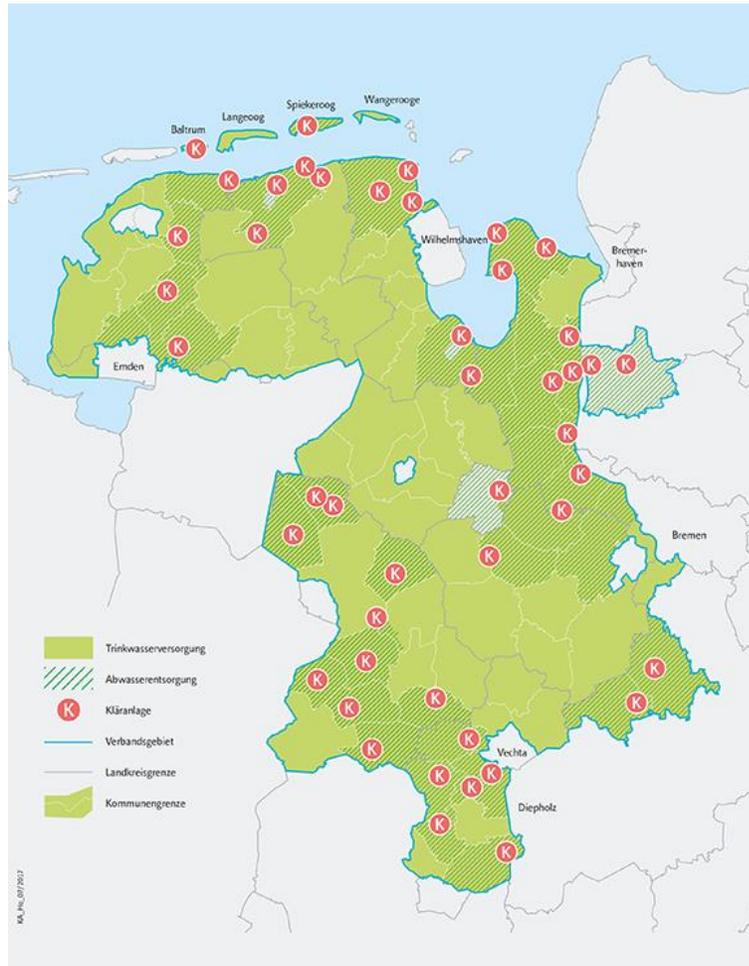
Storage pumping stations 5

Production wells 267

Peak demand 346.261 m³/day

Drinking water production at works 84,9 Mio. m³/year

OOWV in facts and figures



Sewer network length 4.722 km

Domestic connections 191.300

Sewage volume 2019 ca. 35,5 Mio. m³

Sewage sludge production 2019 (4% TR) 256.600 m³

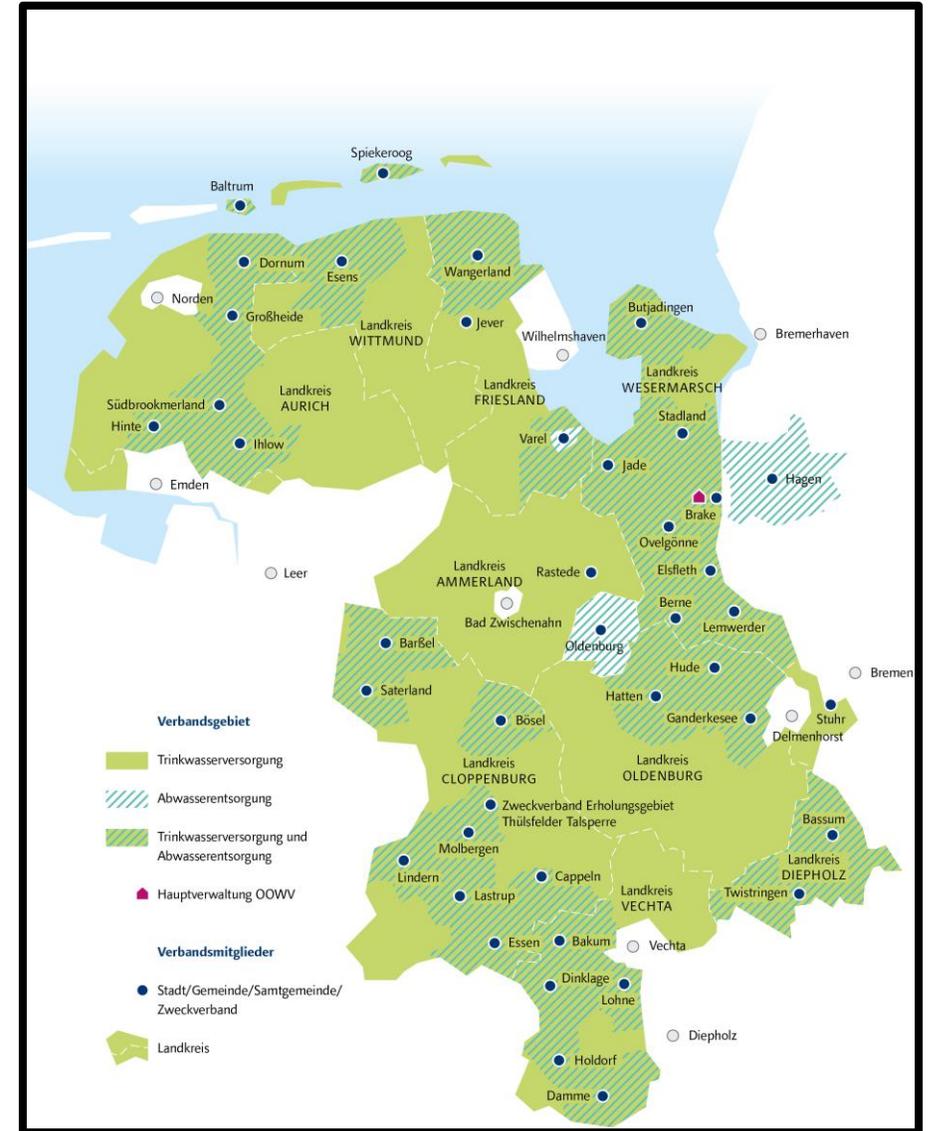
Investments 2019 36 Mio. €

Service area 3.770 km²

WWTW 46

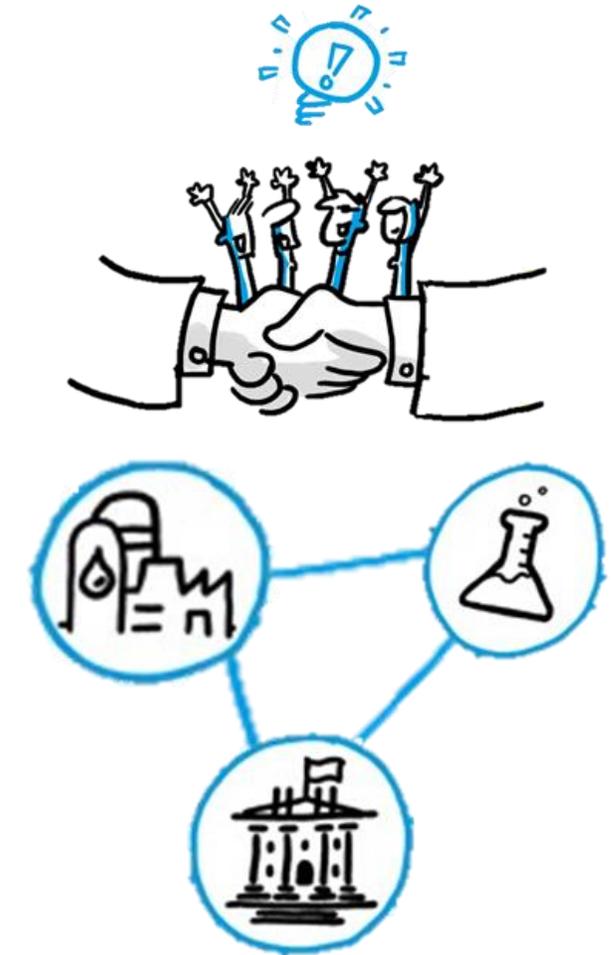
Identified Challenges and Changes

- Competing uses with regard to groundwater
- **Heavy rainfall** events in urban and rural areas
- Dealing with **multi-resistant germs** in wastewater
- Water **scarcity** in industrial areas
- Input of **pollutants** into the groundwater or displacement of substances in the upper soil layers
- Threat to groundwater from **saltwater intrusion**
- Increasing complexity in applying for **water rights** and cooperation, insufficient regulatory framework



Collaboration is key

- There are pressing challenges to be faced now, these challenges are **urgent** and so **big** that they require **a joint effort**
- Collaboration allows organizations to bring their **best thinking** to bear on a problem
- Working at scale; Regional, National, International
- Breaking out of **existing patterns** and **silos thinking**
- Collaboration between **industry, government and academia** (Triple Helix)



Team Development

2003

Start of first projects

2014

Development of innovation strategy

2015

Restructure of organisation

2016

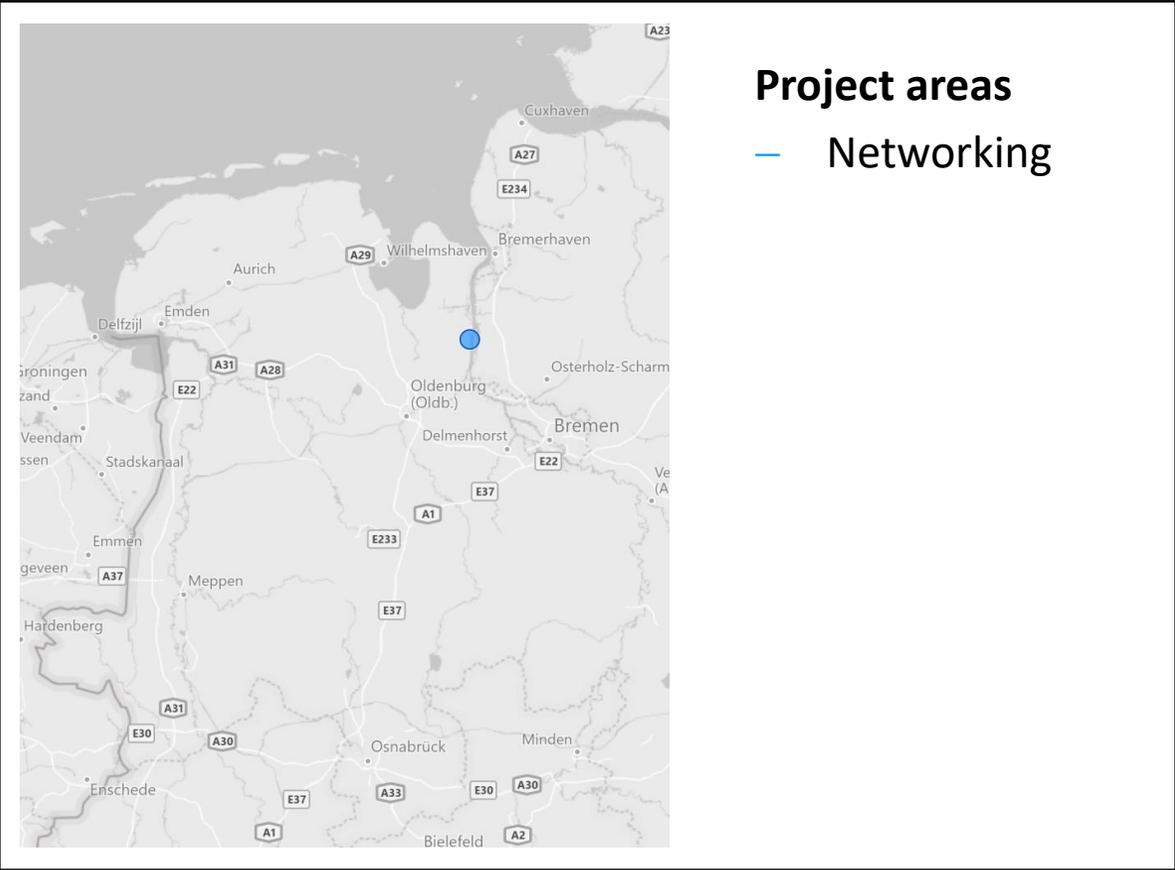
Implementation of a new department

2021

Expansion of department

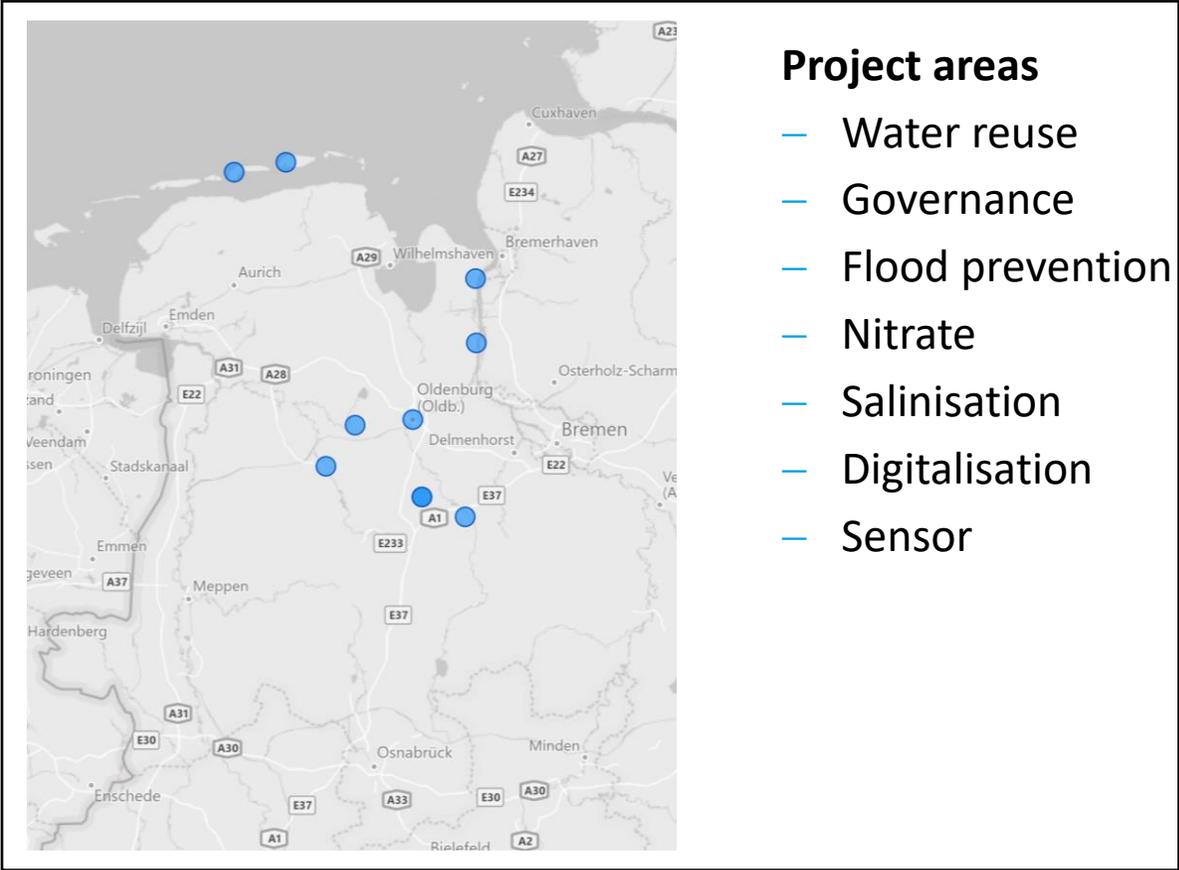
Pilot/Project build up

2003



Project areas
— Networking

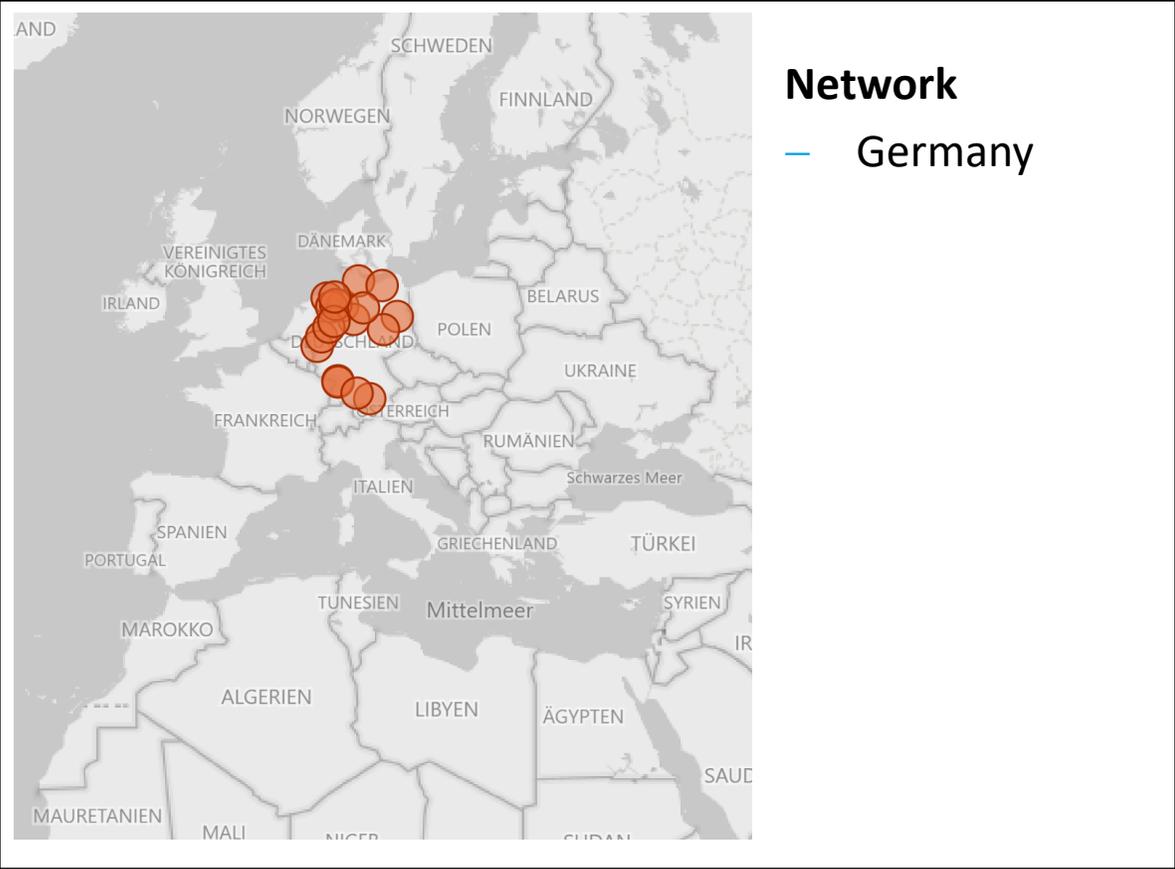
2021



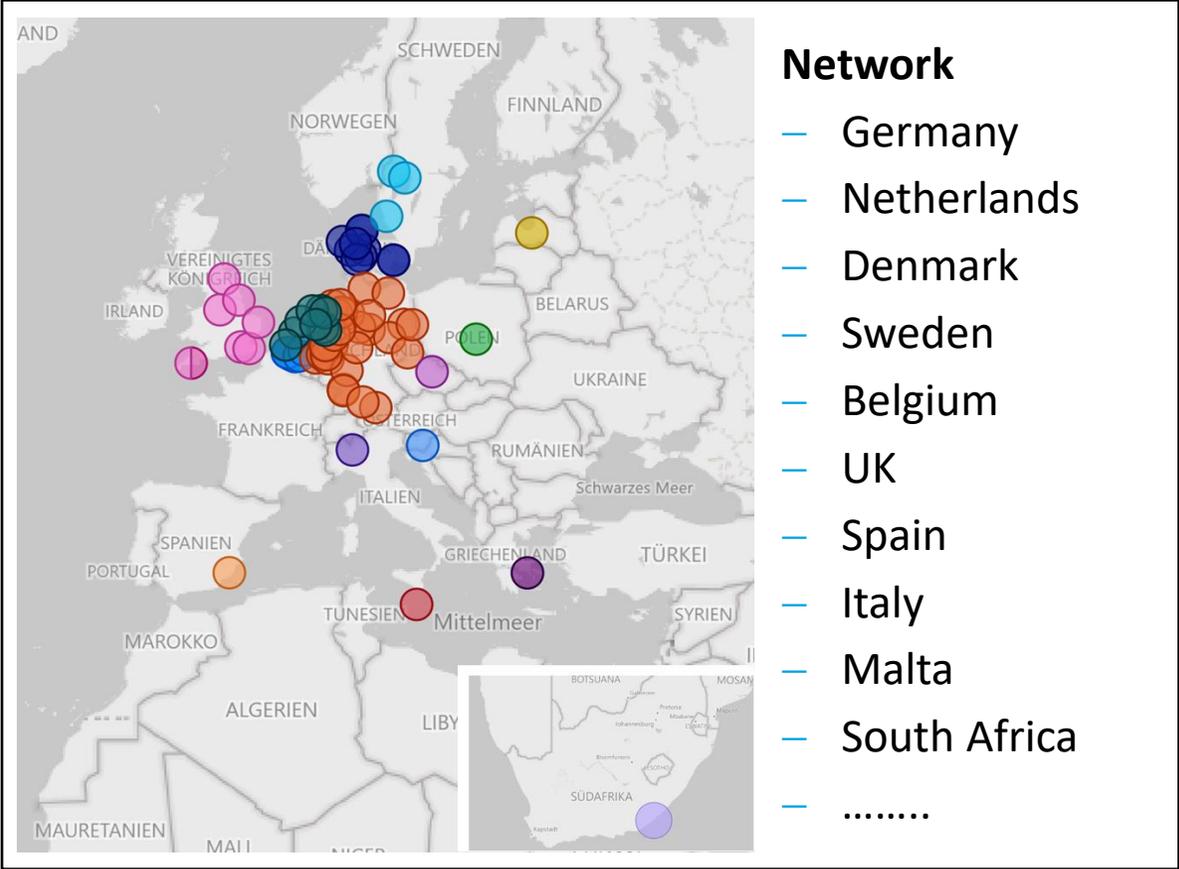
Project areas
— Water reuse
— Governance
— Flood prevention
— Nitrate
— Salinisation
— Digitalisation
— Sensor

Collaborative Network

2003



2021



B-WaterSmart - Accelerating Water Smartness in Coastal Europe and beyond

Water efficiency

- **Grant Funding:** EU, Horizons
- **Project team:** IWW (Coordination), OOWV, Envirochemie, DMK, 36 partners spread across Europe
- **Duration:** 01.09.2020 – 30.08.2024
- **Scope:** Accelerating the transformation to water-smart societies and economies in Europe



Saltwater intrusion

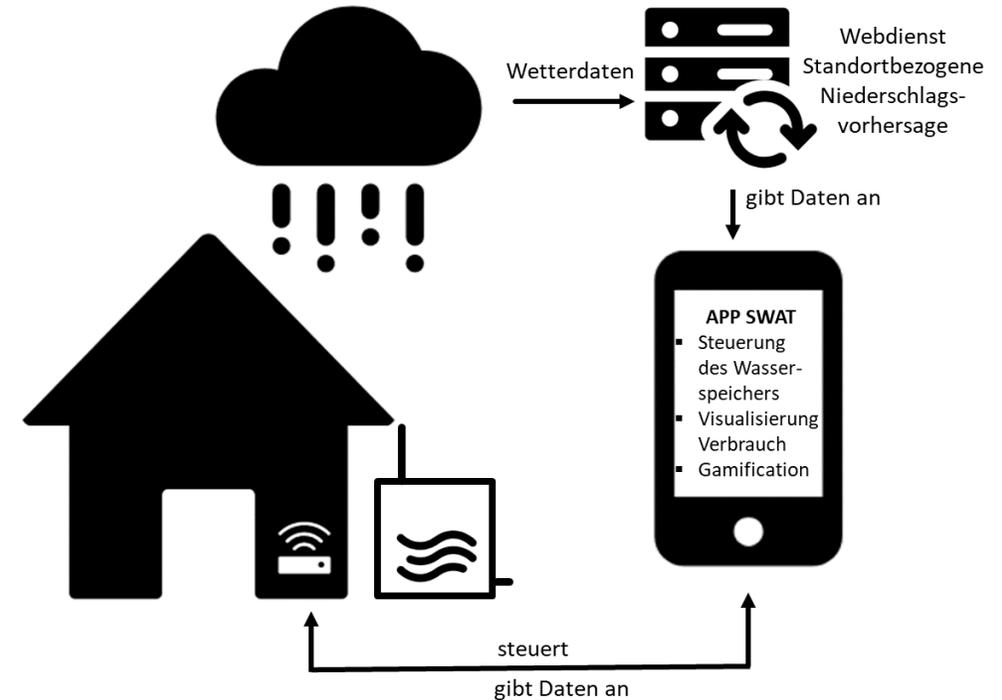
- **Grant Funding: Bundesministerium für Bildung und Forschung (BMBF) – Fördermaßnahme WAVE II**
- **Project team: TU Dresden (Coordination), Uni Oldenburg, OOWV, and 7 more partners**
- **Duration: 01.02.2021 – 31.01.2024**
- **Scope:**
 - Development of an efficient desalination process (targeted removal of monovalent ions) e.g. for groundwater recharge.
 - A pilot plant will be tested on Langeoog.
 - Possible areas of application will be reviewed and an ecological-economic sustainability assessment will be carried out.



SWaT – SmartWaterTank

Stormwater management

- **Grant Funding: LEADER - Community-led local development (EU)**
- **Project team: OOWV**
- **Duration: 01.07.2022 – 31.12.2023**
- **Scope:**
 - Development of a decentral stormwater management system based on precipitation forecasts
 - Integral water management approach combining stormwater management and rainwater usage
 - Possible areas of application are households as well as rainwater retention basins





Road ahead

Expansion

Expand our network, find new partners for collaboration and increase interaction with SMEs and universities in Germany and abroad.

Centre of expertise

Establish ourselves as the go to partner and centre for water expertise in North West Germany.

Topics for potential collaboration projects

Multiresistant bacteria

Pollutants in Groundwater

Heavy Rainfall

Water-reuse

Salinization

Environmental Education

Microplastic

Nitrate

Hydrogen

Process optimisation

Digitalisation

Island water supply



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Thank you!