

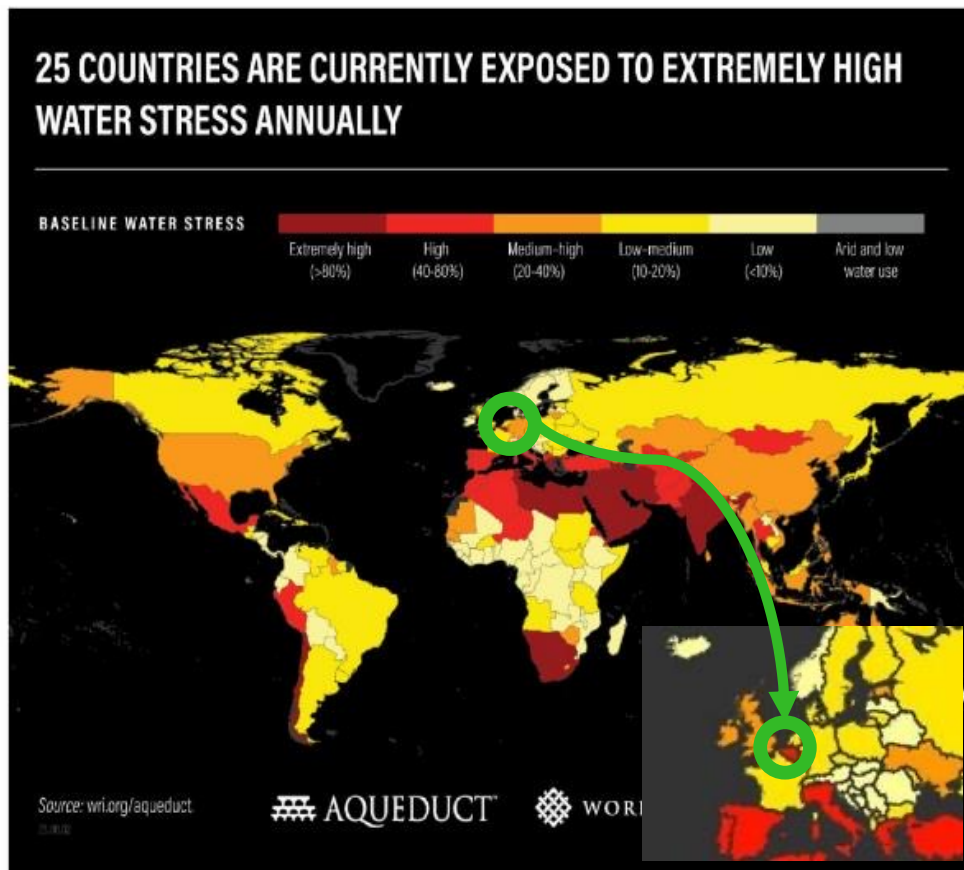


**Aqua
Flanders**

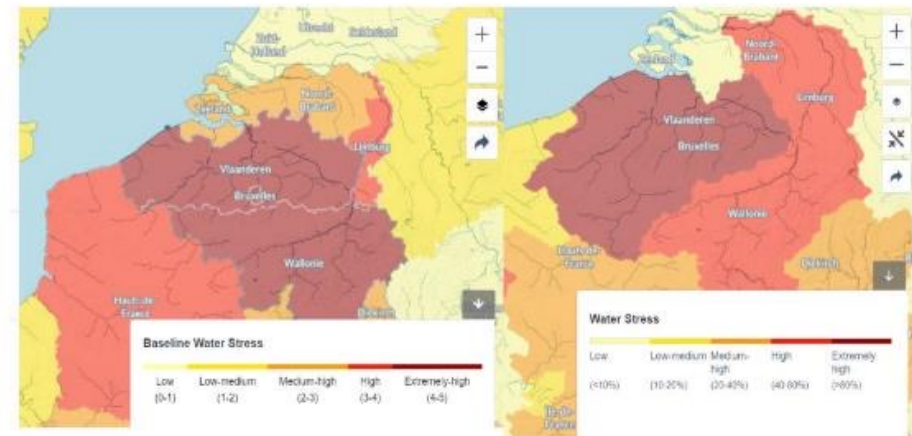
Establishing an NRW ecosystem for Water Loss Reduction

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**Global Leakage Summit sept 2026  
Filip Vancoillie**

# Water scarcity in Flanders, Belgium

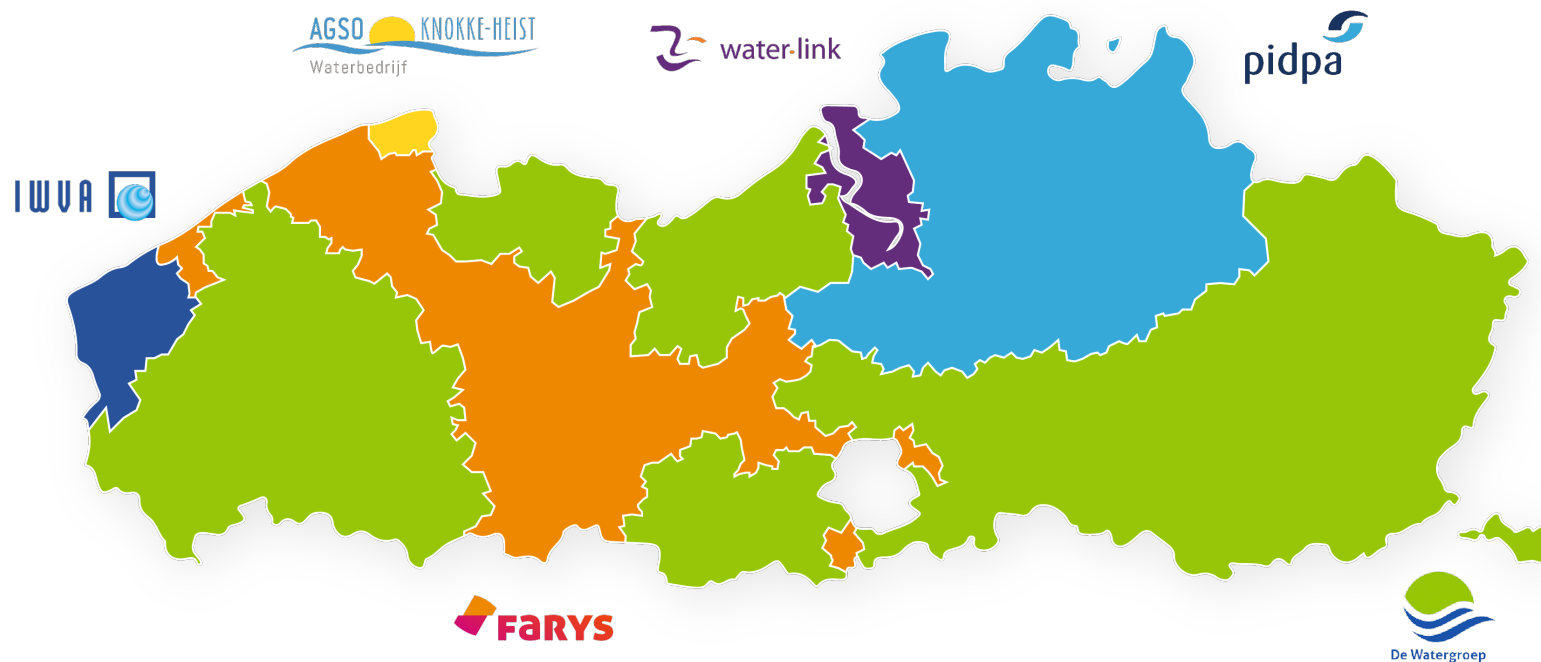


| Rank | Name       | Sectoral Score       | Total Score |
|------|------------|----------------------|-------------|
| 1    | Bruxelles  | 0.00<br>0.00<br>0.00 | 5.00        |
| 2    | Vlaanderen | 4.37<br>4.35<br>4.39 | 4.58        |
| 3    | Wallonie   | 4.38<br>4.12<br>4.12 | 4.13        |

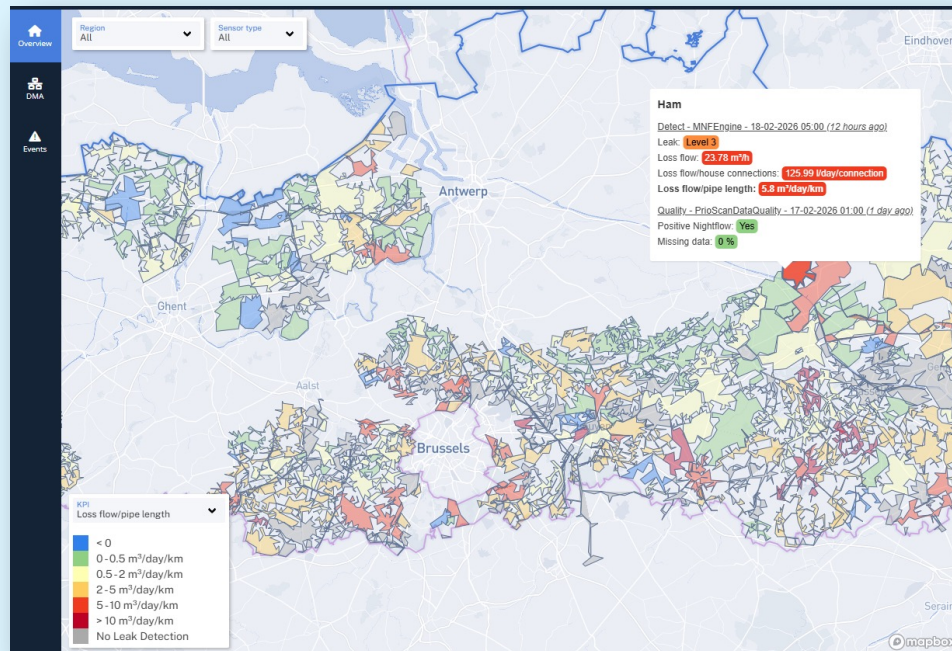
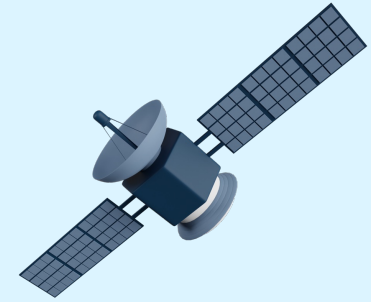


# AquaFlanders represents water utilities in Flanders managing 65 000 km of main pipes

Water loss reduction  
2020 – 2025:  
10 million m<sup>3</sup>/y

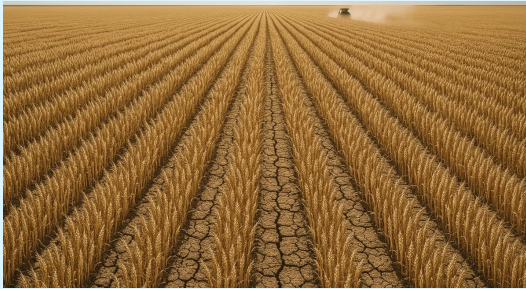


# Many opportunities – Combining different technologies

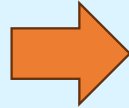


# An ecosystem approach to meet the potential of technologies

## Challenge



- Fragmentation
- Vulnerability
- Low user-friendliness



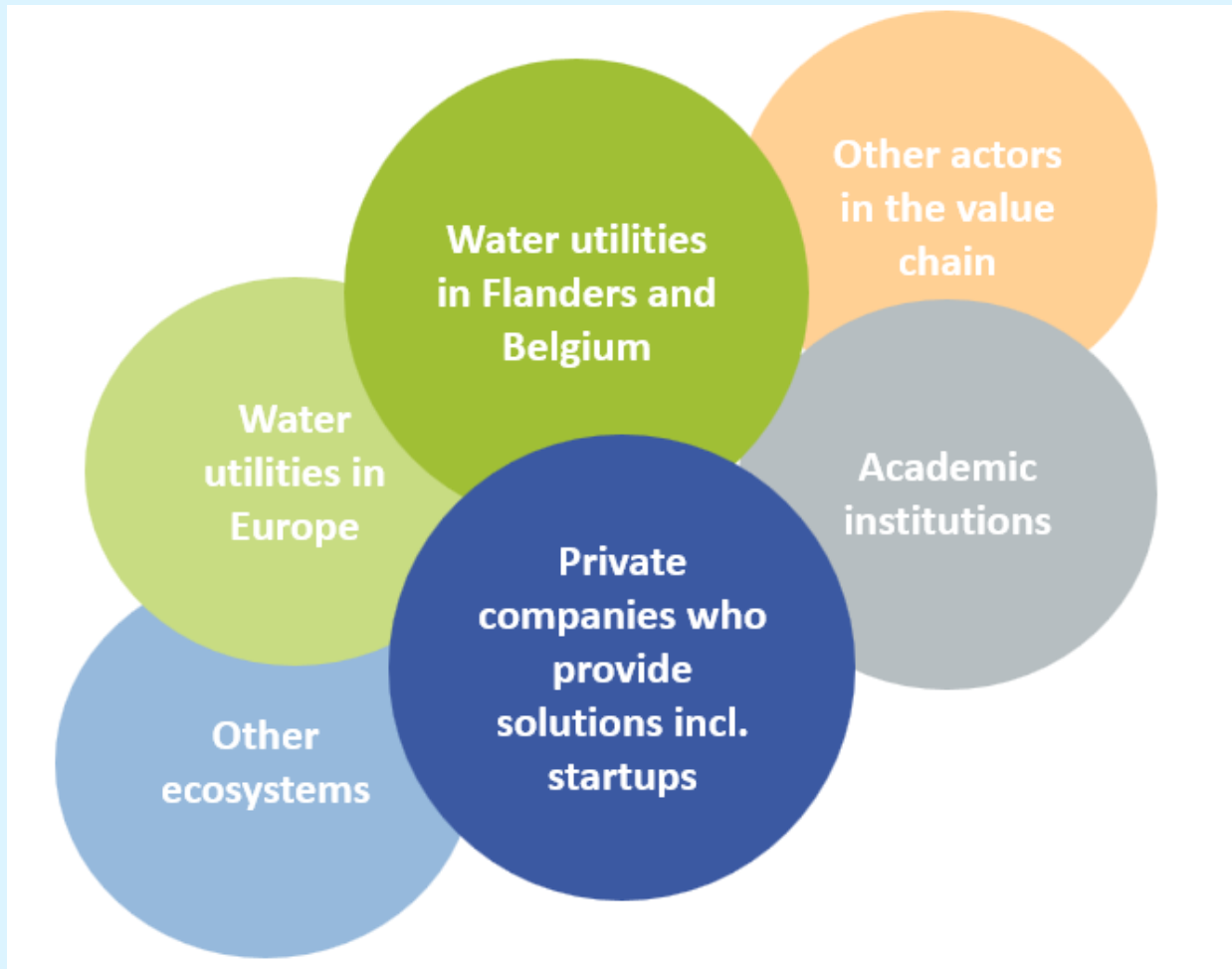
## Opportunity



- Show strength through diversity
- Interacting and interdependent
- Mutual reinforcement
- Open and innovative

**Healthy ecosystems are resilient!**

# Ecosystem for NRW reduction in Flanders



## Bringing together

- Water utility sector
- Private sector
- Academic sector

# Ecosystem for NRW reduction in Flanders with 6 goals



Accelerating NRW reduction within partner drinking water companies



Maximising decisiveness by setting up forms of cooperation with the partners in the ecosystem



Systemic co-creation and sharing of knowledge and expertise between the partners within the ecosystem



Designing the operation towards a win-win value creation for each partner



Develop and realize future-proof state-of-the-art know-how, technology and methodologies and solutions



Acting as a leading ecosystem in Flanders, Belgium

# Ecosystem approach

## How we started the ecosystem

- Workshops with utilities, private sector and academic sector
- Innovative tender supported by Flemish government
- By AquaFlanders and the regional accelerator for innovation VITO

## Challenge

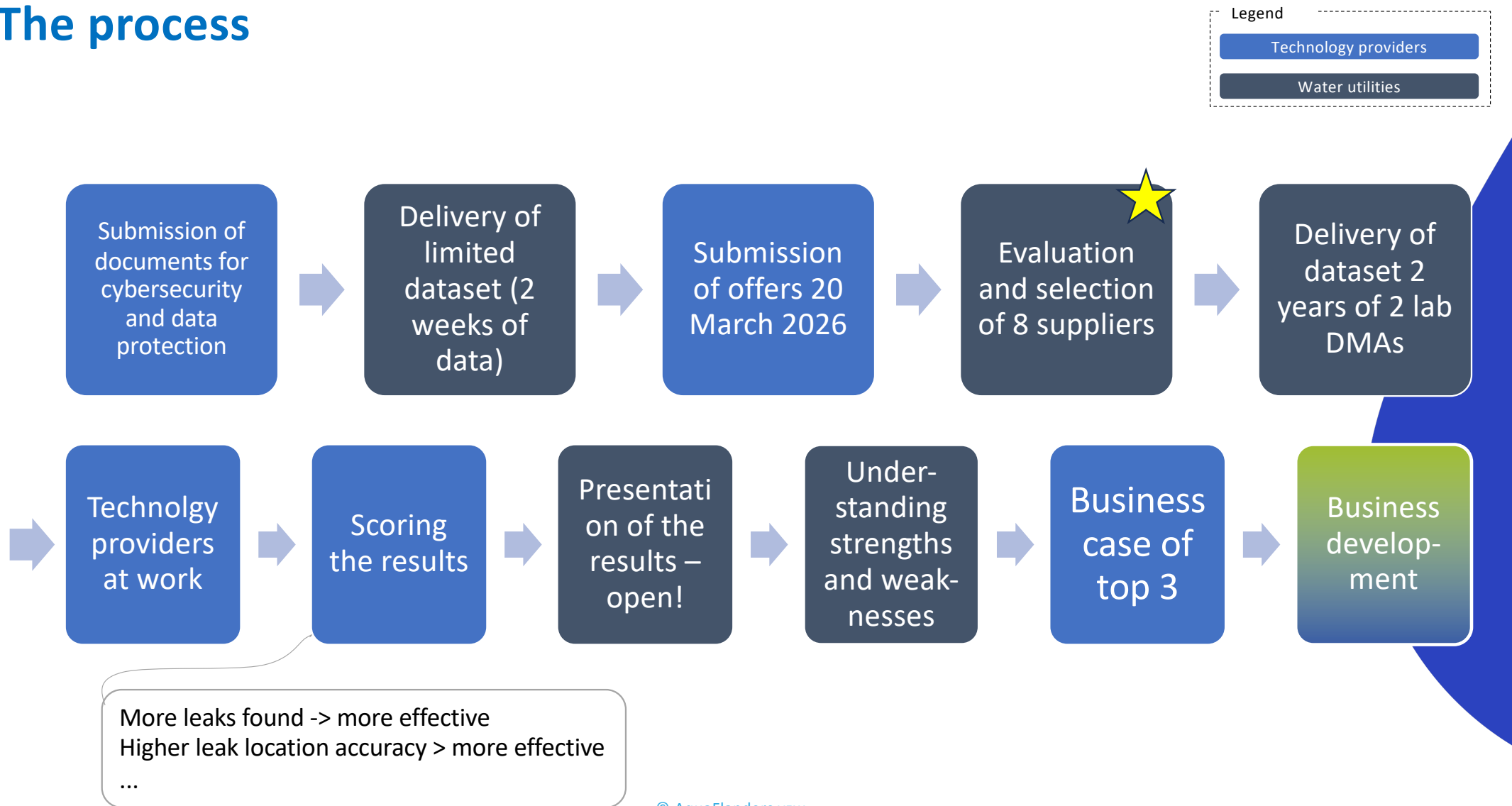
- Demonstrate solutions to detect and localize leaks
- We offer 2 years of data from 2 lab DMAs
  - The leaks from the last 6 months are not included

## Goal

- insight into which algorithms work well and when



# The process



# Ecosystem approach

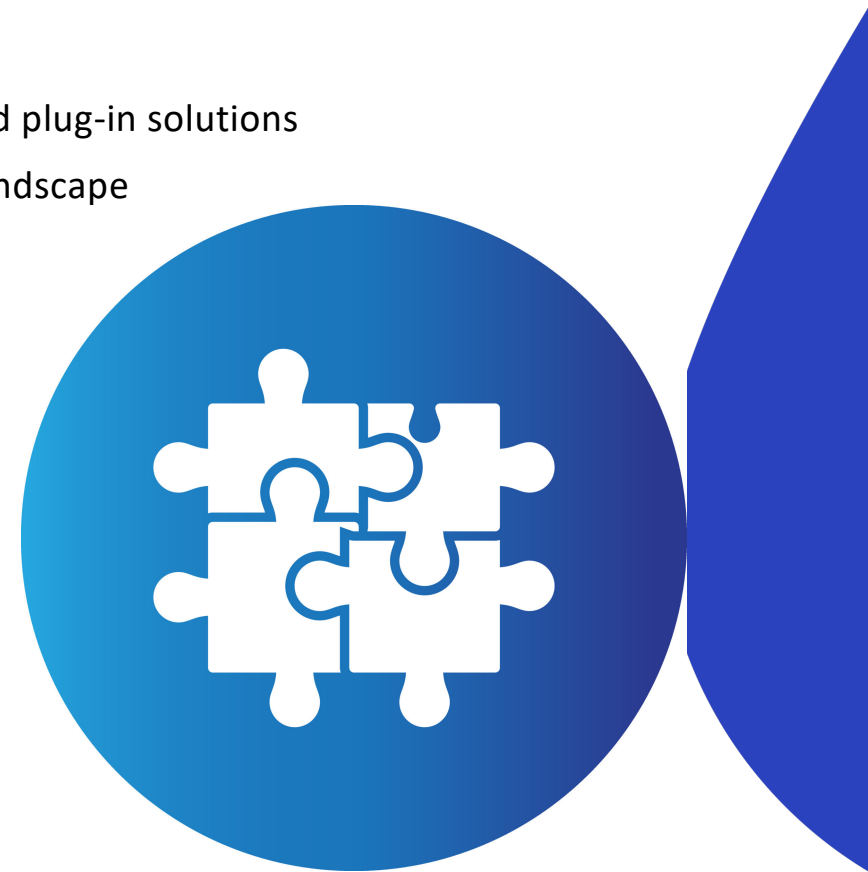
## Modular by design

- Not one monolithic platform; we build a **modular digital ecosystem**
- NRW management platform acts as **shared foundation** for specialised plug-in solutions
- Provider success depends on **seamless integration** into an existing landscape

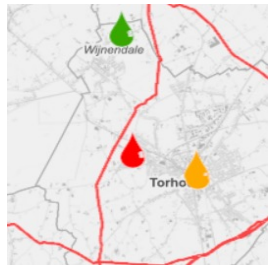
## Where solution providers can plug in

- Analytics & AI (leaks, demand, asset health,... )
- Sensors & data acquisition (IoT, telemetry)
- Optimisation & decision support (operations, planning)
- Visualisation & user workflows (control room, field apps)

**Rule:** integrate cleanly—avoid lock-in

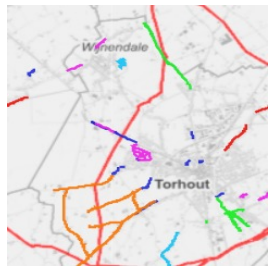


# How about defining a new challenge on pipe replacement strategy?



## Pipeline risk

- ◆ Input data: pipeline characteristics and historic leak repair data related to condition, impact of pipe interruption and damage
- ◆ Output: estimation of the chance and impact of failure of pipelines



## Prioritized projects

- ◆ Input: estimation of the chance and impact of failure of pipelines
- ◆ Output: prioritized pipelines to be replaced within the timeframe of the tariff plan



## Synergy planning

- ◆ Input: prioritized pipelines to be replaced within the timeframe of the tariff plan
- ◆ Output: optimized planning & maximized synergy of validated, prioritized pipelines

**Filip Vancoillie**

**De Watergroep**

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**Thanks!**



**Aqua  
Flanders**

*Only by working together we can achieve our goals*