

UWWT directive hands-on solutions

Implementating a future UWWTD into practice

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CHALLENGES

Small
agglomerations



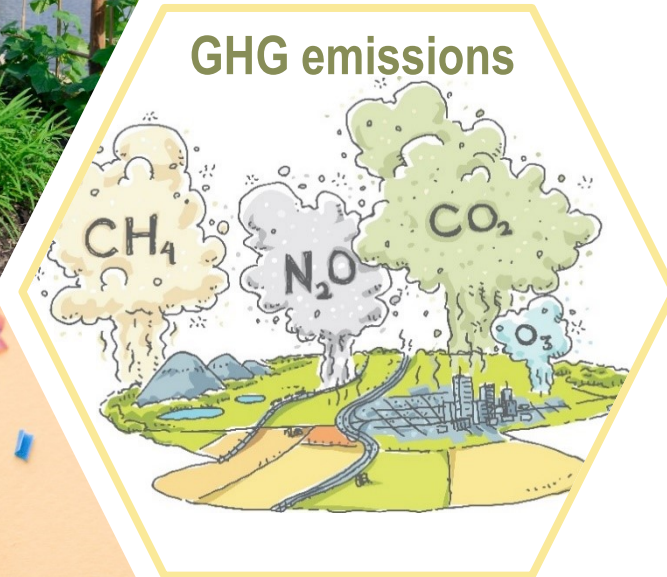
Pharmaceuticals



Nutrient removal
& recovery



GHG emissions



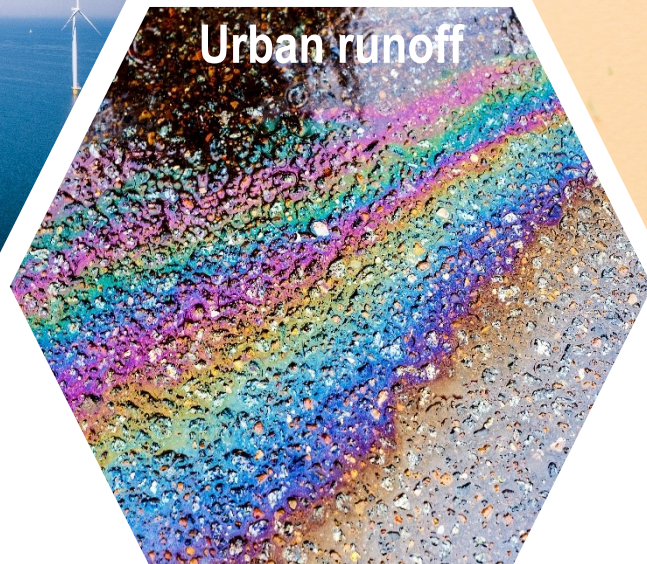
Energy efficiency



Microplastics



Urban runoff



Combined sewer
overflow



Systemic approach





Natural Capital

System based solutions

- 💧 Climate proof
- 💧 Green infrastructure
- 💧 Blue-green cities
- 💧 Nature based solutions
- 💧 Reduction at source
- 💧 Closing cycles
- 💧 Water/food link
- 💧 Water/energy link

How can we put this in practice?



1. Enable innovation: flexibility to think 'out of the box'

- CSO's:
 - take into account the whole water system
 - Monitoring and control algorithms, IoT
- Micropollutants:
 - catchment scale modelling and LCA
- Energy:
 - consider total GHG emissions

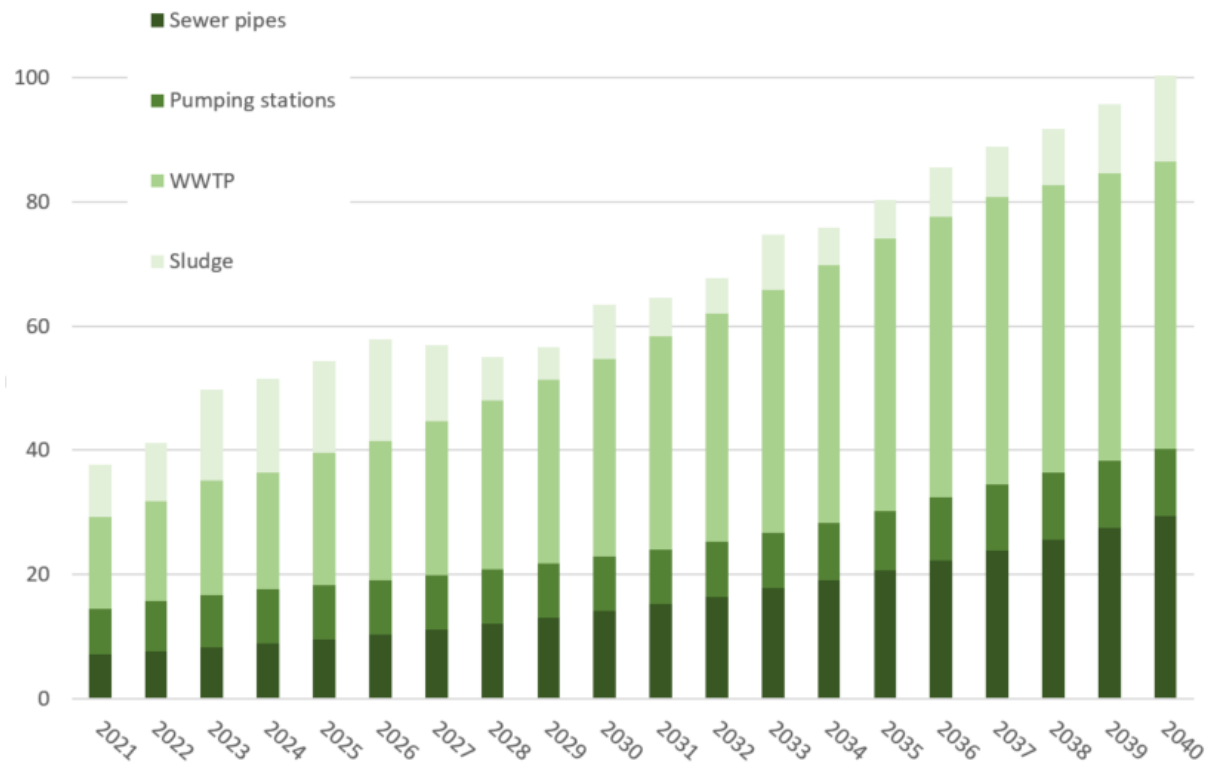


2. Rethink infrastructure

Infrastructure renewal? Or rethinking it?

Giant opportunities to close circles

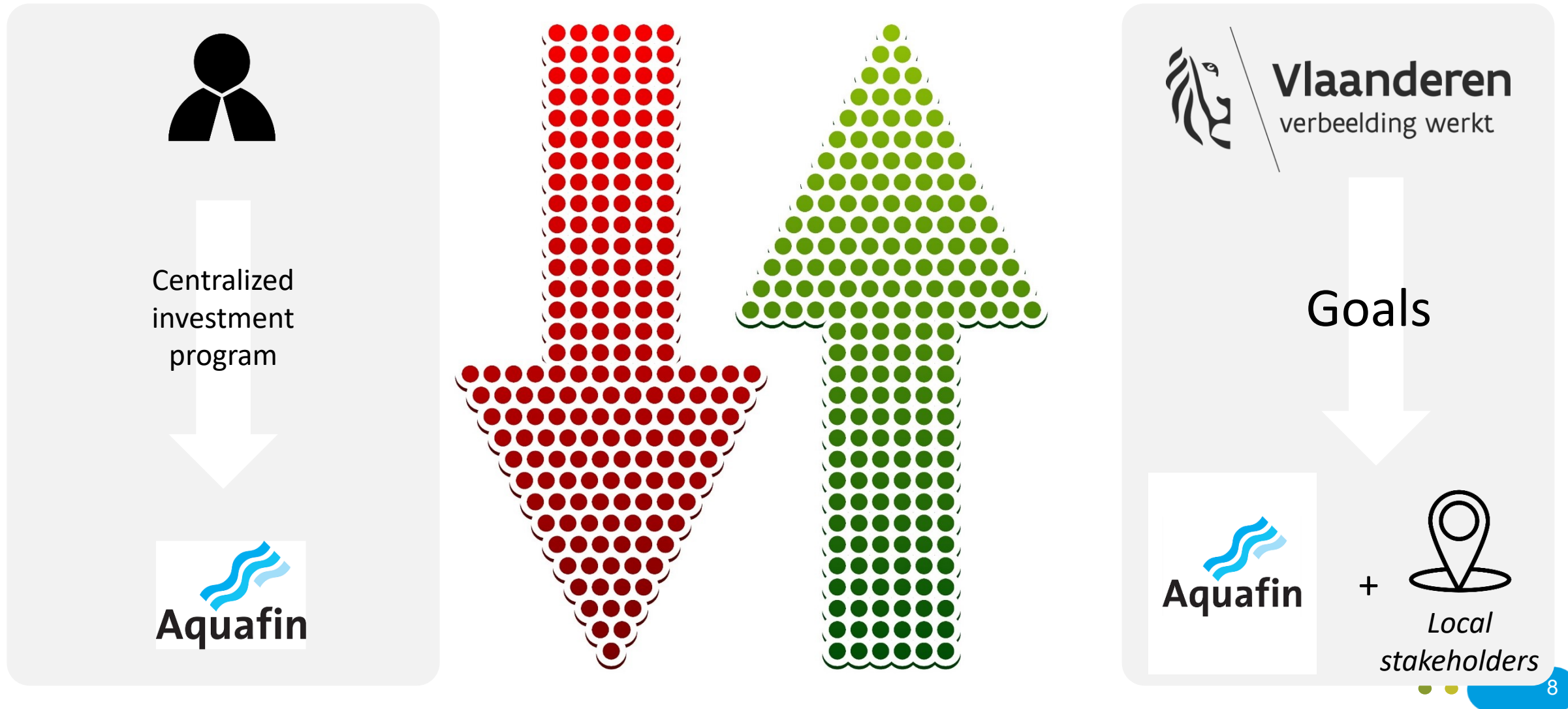
E.g. sludge infrastructure Aquafin:



Is this what wastewater treatment should look like in 2050?



3. ~~One-size~~ Local customization fits all: from top down to bottom up



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Think global act local

Blue green

Mobility

Recreation

Energy



3. ~~One-size~~ Local customization fits all: from top down to bottom up

Exchange of

Energy

Water

Nutrients





flexibility to think “out of the box”

Asset management renewal

⇒ Rethink infrastructure

~~One-size~~ Local customization fits all