



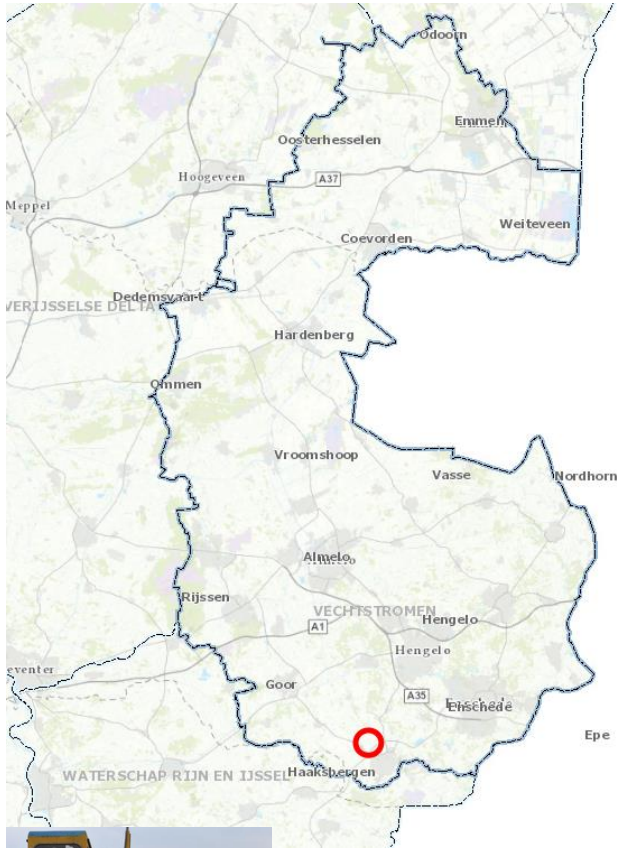
Fieldtest Haaksbergen 2011 - 2023

Effluent as freshwater supply for agriculture

AquaConnect

12 october, 2023

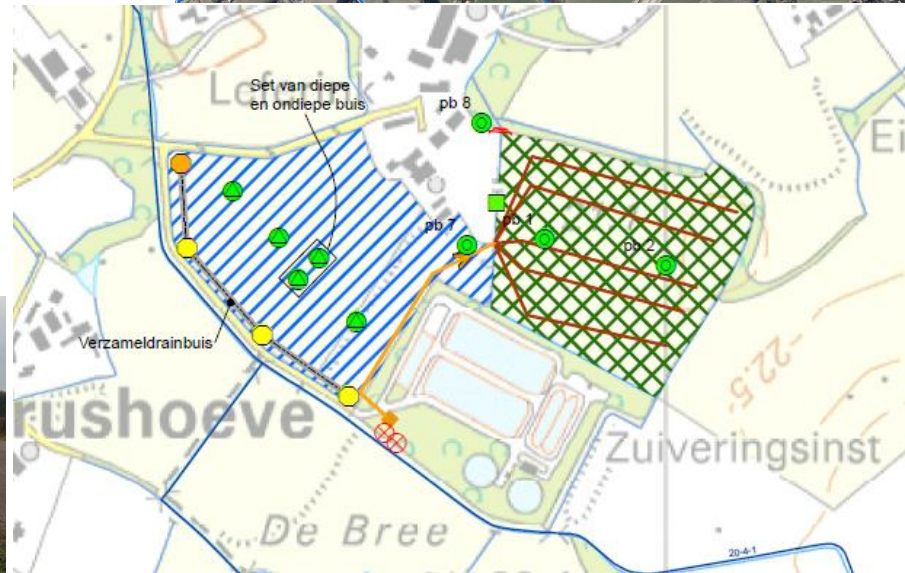


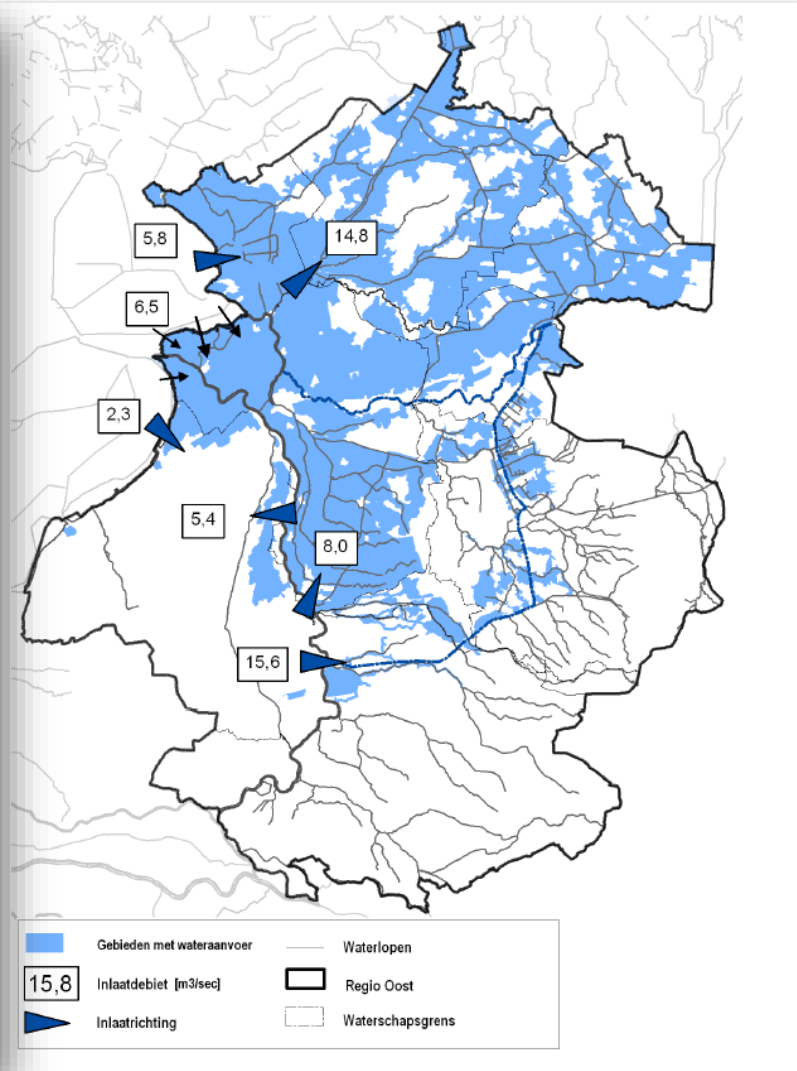
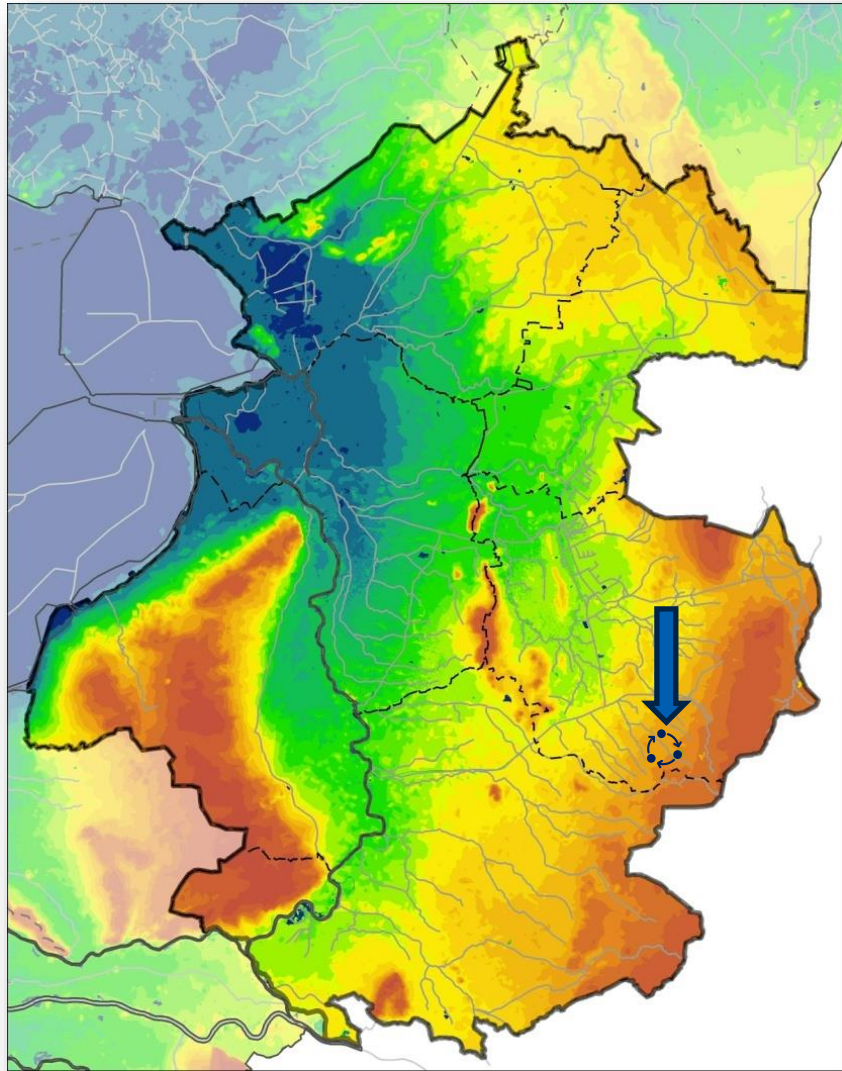


Where did it start?

WWTP Haaksbergen
& local farmer

Impact on/in
AquaConnect





Fresh water supply in Eastern Netherlands





UNIVERSITEIT VAN AMSTERDAM



AquaConnect

KLIMAP



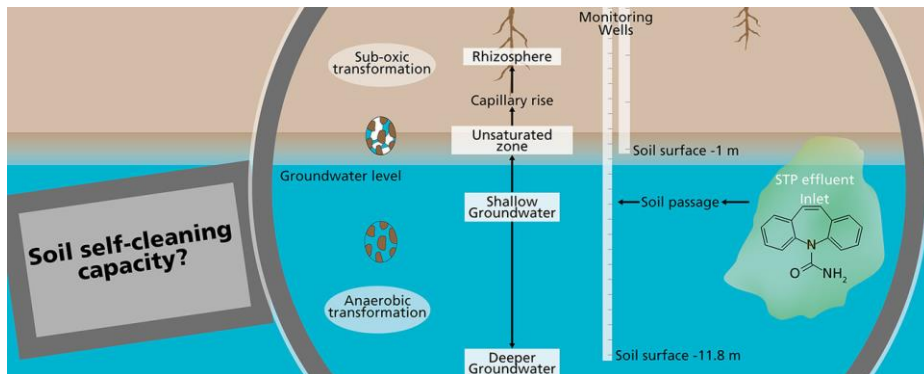
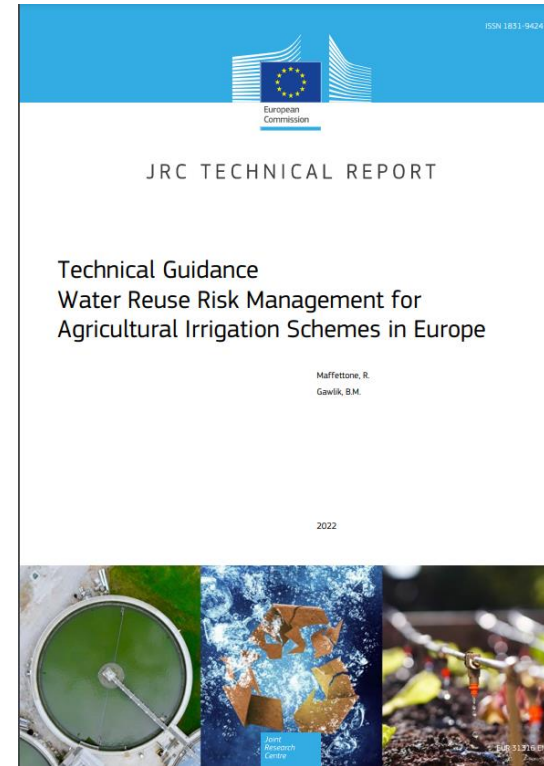
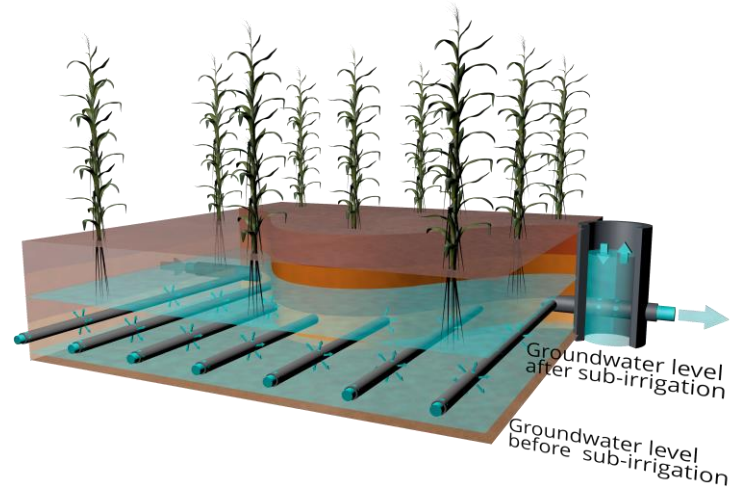
Bedrijfstakonderzoek voor waterbedrijven (BTO)

Knowledge-development in unique cooperation with several partners 2011 - 2023



Search topics

- **Water quantity**
- **Water quality**
- **Governance**



Water quantity

Adjustable drainage and sub-irrigation (CAD)

Tool for local watermanagement.
In this case for agriculture.

Goals:

- 1) Discharge Water (drain)
- 2) Harvest Water
- 3) Supply of Water (sub-irrigation)



Some results.....

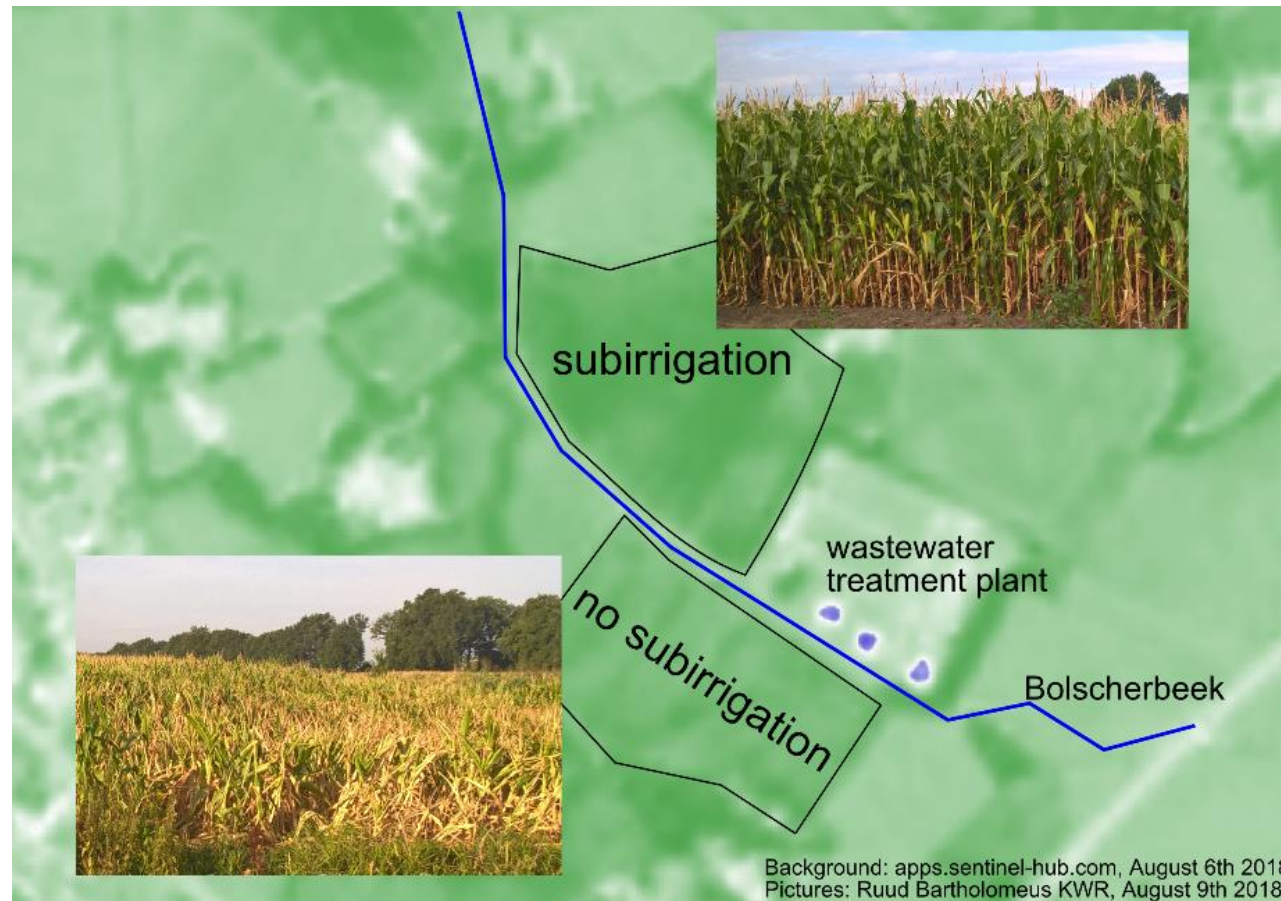
Crop (corn) growth in 2018

Effluent supply

~ 200 m³/d

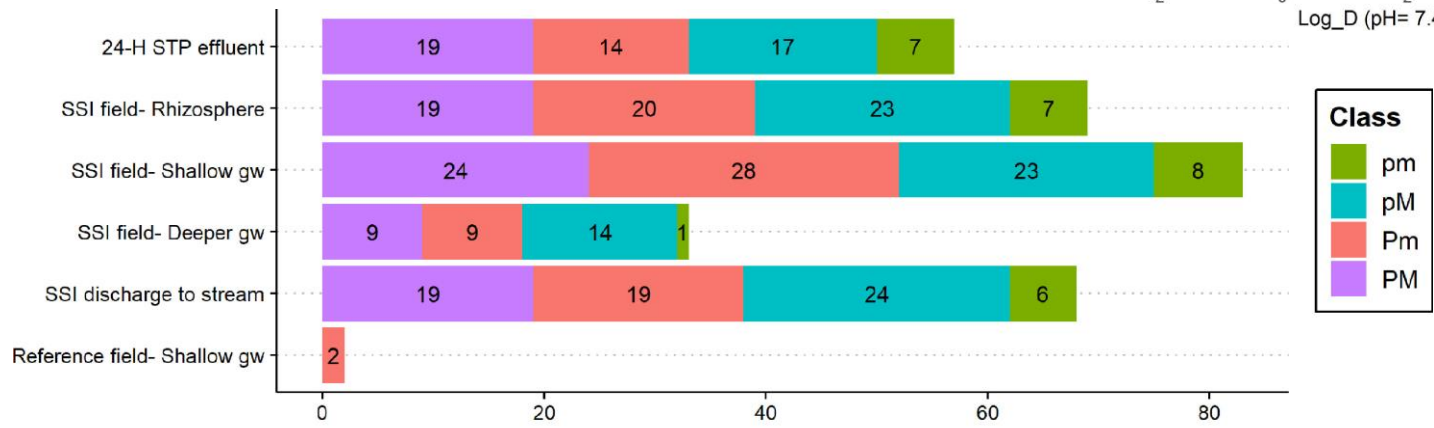
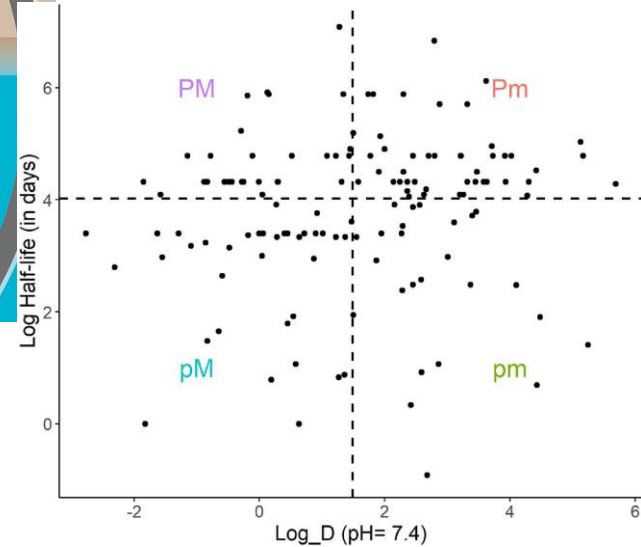
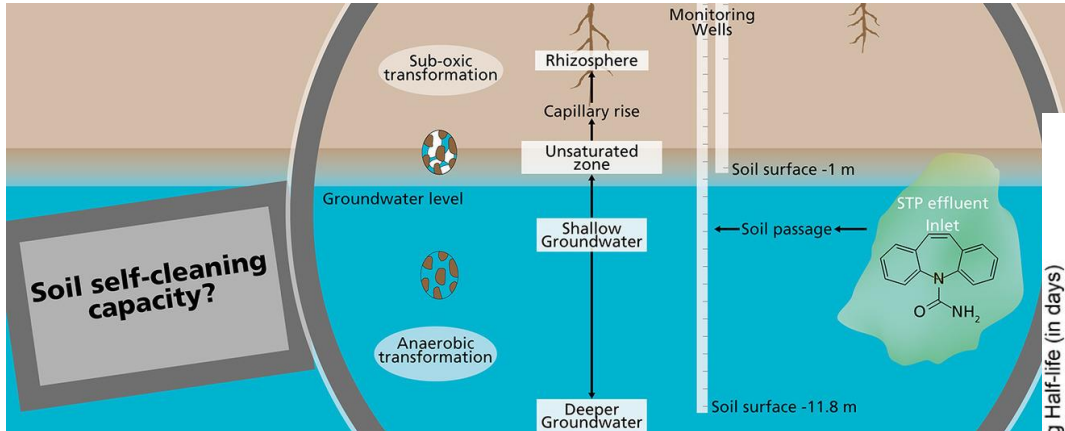
~ 5 ha

~ 4 mm/d



Water quality

Used effluent is without additional treatment.



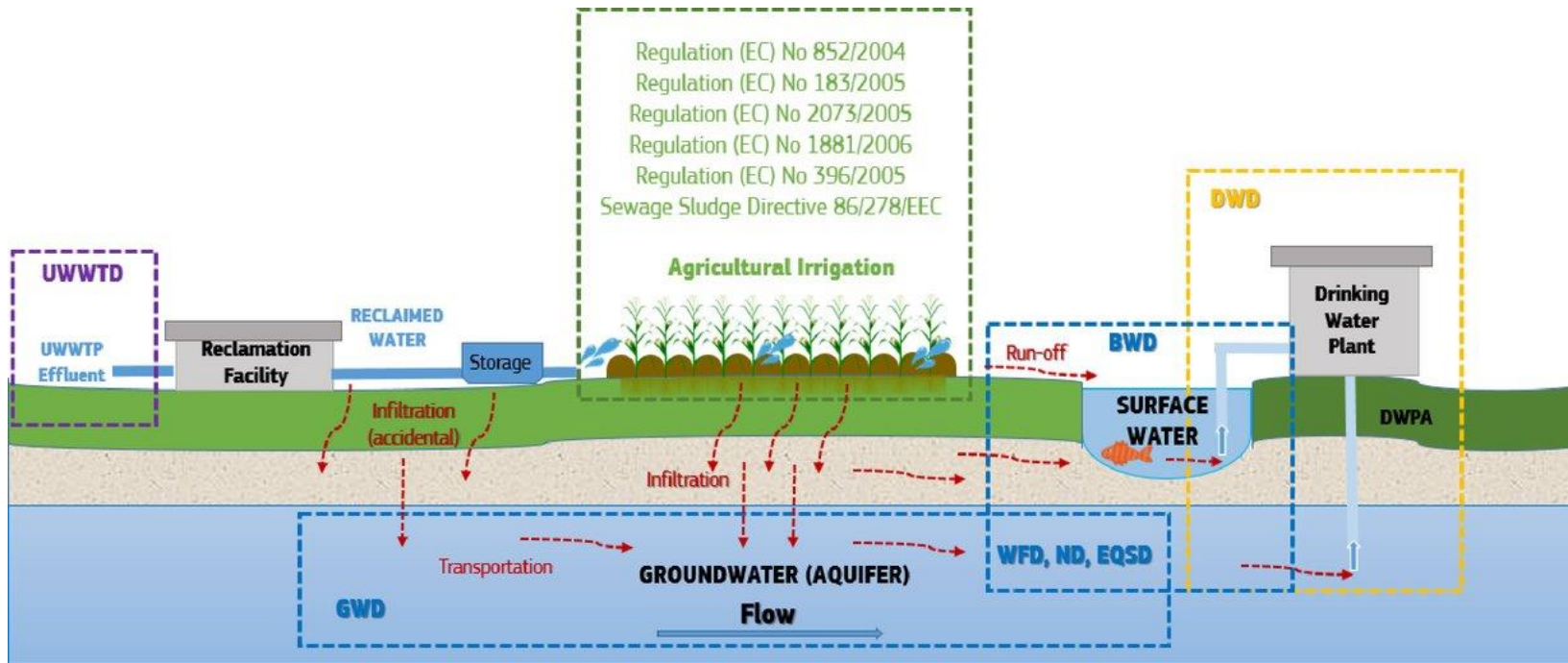
Total CoECs detected in this study = 89



Governance

EU directives

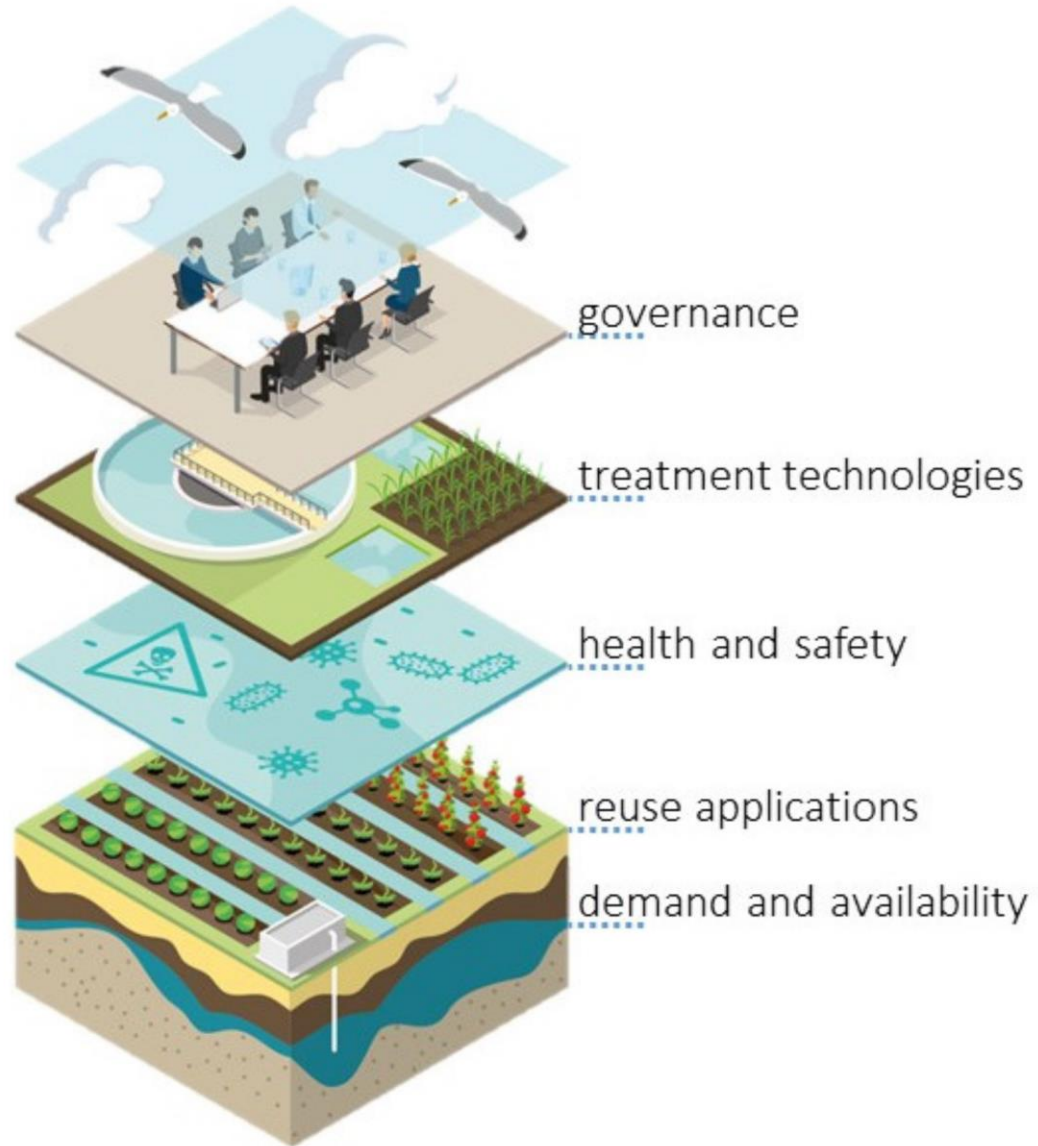
e.g. Technical guidance - water reuse risk management for agricultural irrigation schemes in Europe



UWWTPD: Urban Wastewater Treatment Directive; DWD: Drinking Water Directive (if surface or groundwater are classified drinking water protected area (DWPAs)); BWD: Bathing Water Directive (if surface water is used for bathing activities); GWD: Groundwater Directive; WFD: Water Framework Directive; EQSD: Environmental Quality Standard Directive; ND: Nitrate Directive (if water reuse scheme falls into Nitrate Vulnerable Zone (NVZ))



Water system





*Groeten uit
Haaksbergen!*

JUST DO IT.