

Water Management

Ecsite Environmental Emergency Action
Insights Live!

31/05/2023 – 02/06/2023

Kris Liekens and Hilde De Laet

Hidrodoe
een wereld van water
pidpa

Hidrodoe

Experience center about water in Belgium (opened in 2003).
Project of watercompany Pidpa.



Overview

- Facts & figures: water scarcity
- Basics about circular water management
- Watermanagement Hidrodoe
 - Measures already taken
 - Measures planned in the near future

Facts & figures



The Blue Planet

70% is covered with water



Water management? Water scarcity?

97% is salt water

3% is fresh water

Only 0,03% can be used as drinking water



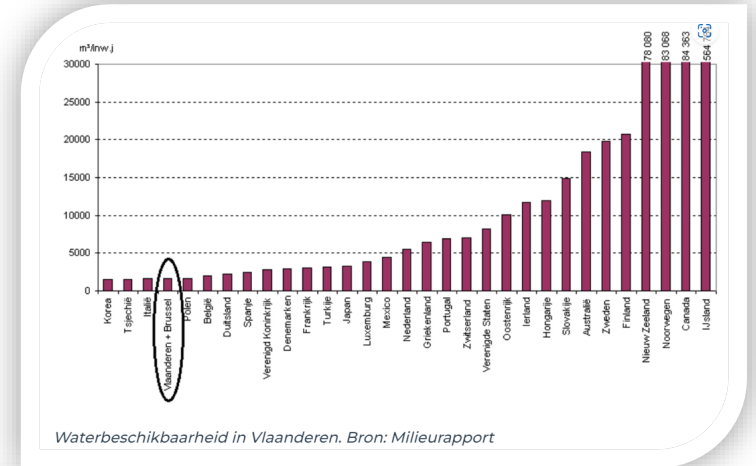
Water is a precious resource:
we have to use it wisely!

Facts & figures

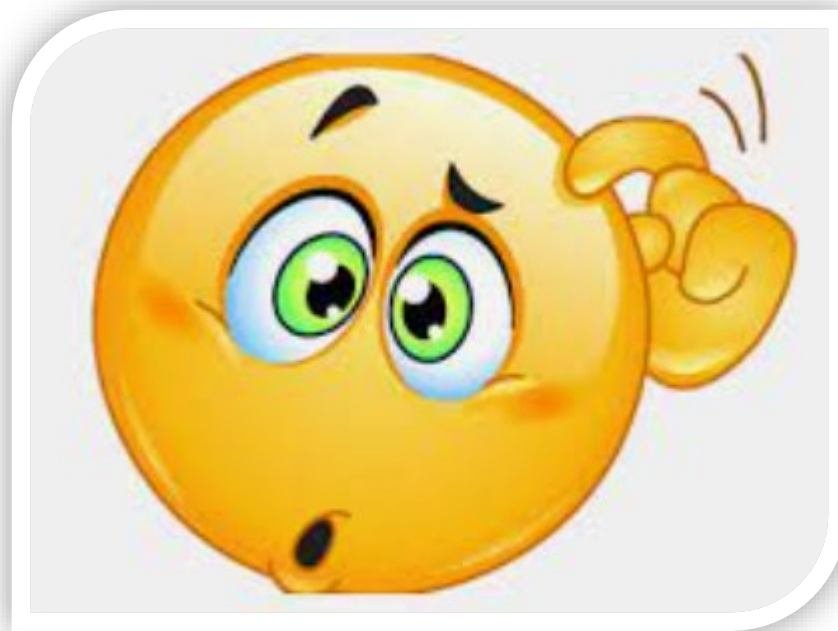


Climate change:

- Droughts
- Floods
- Water availability ↓



What can we do about it?

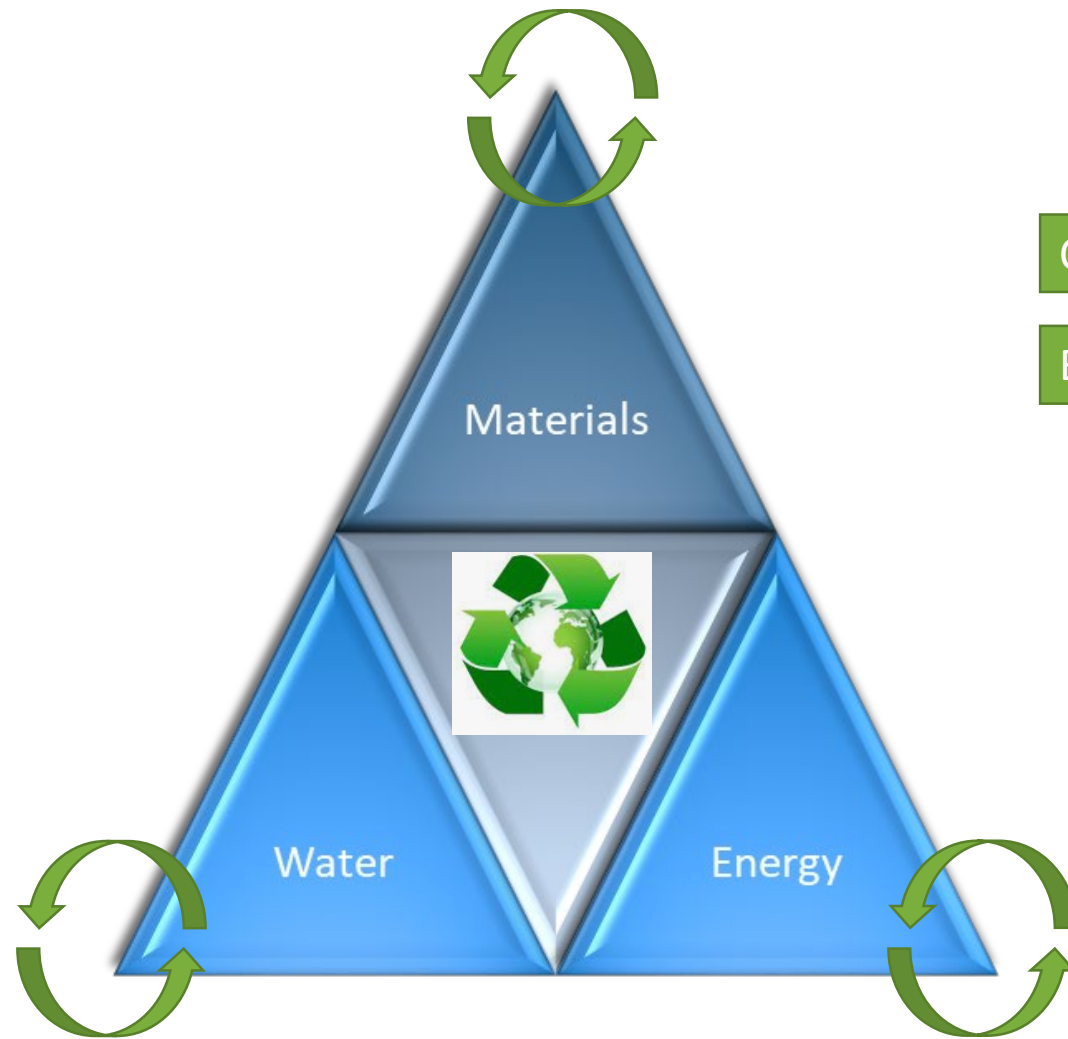


Basics about circular WM

- Ladder of Lansink



Principles of Circularity



Closing the loop

Balance!

Water management Hidrodoe

Measures already taken – promotion drinking of tapwater!



Water management

Why tapwater?

- 120 x cheaper
- No SU plastics
- Good quality: healthy
- Local product with natural taste
- CO₂ footprint: +/-1000 x lower

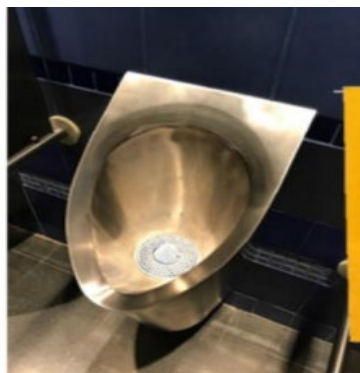
→ Why not!



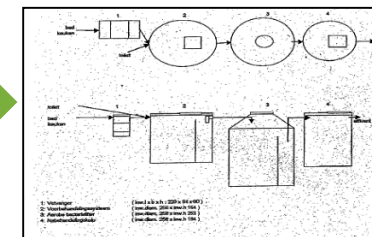
Water management Hidrodoe

Measures already taken

Water-saving measures	Waste water treatment
Waterfree urinals	Grey water: grease trap + individual WWTP
Water saving shower, toilet, sink (with sensor), washing programme	Black water: individual WWTP
Toilets on rainwater	
Sensitizing our visitors	

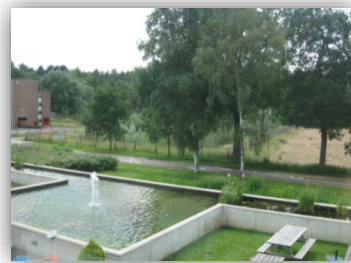


Zonder kan ook!
Plassen zonder spoelen?
Met deze water vrije urinoirs kan het!
Zo besparen we dagelijks
meer dan 1200 liter water



Water management Hidrodoe

Measures already taken – (partial) reuse of water



Water management Hidrodoe

Inspiration session SDGs:

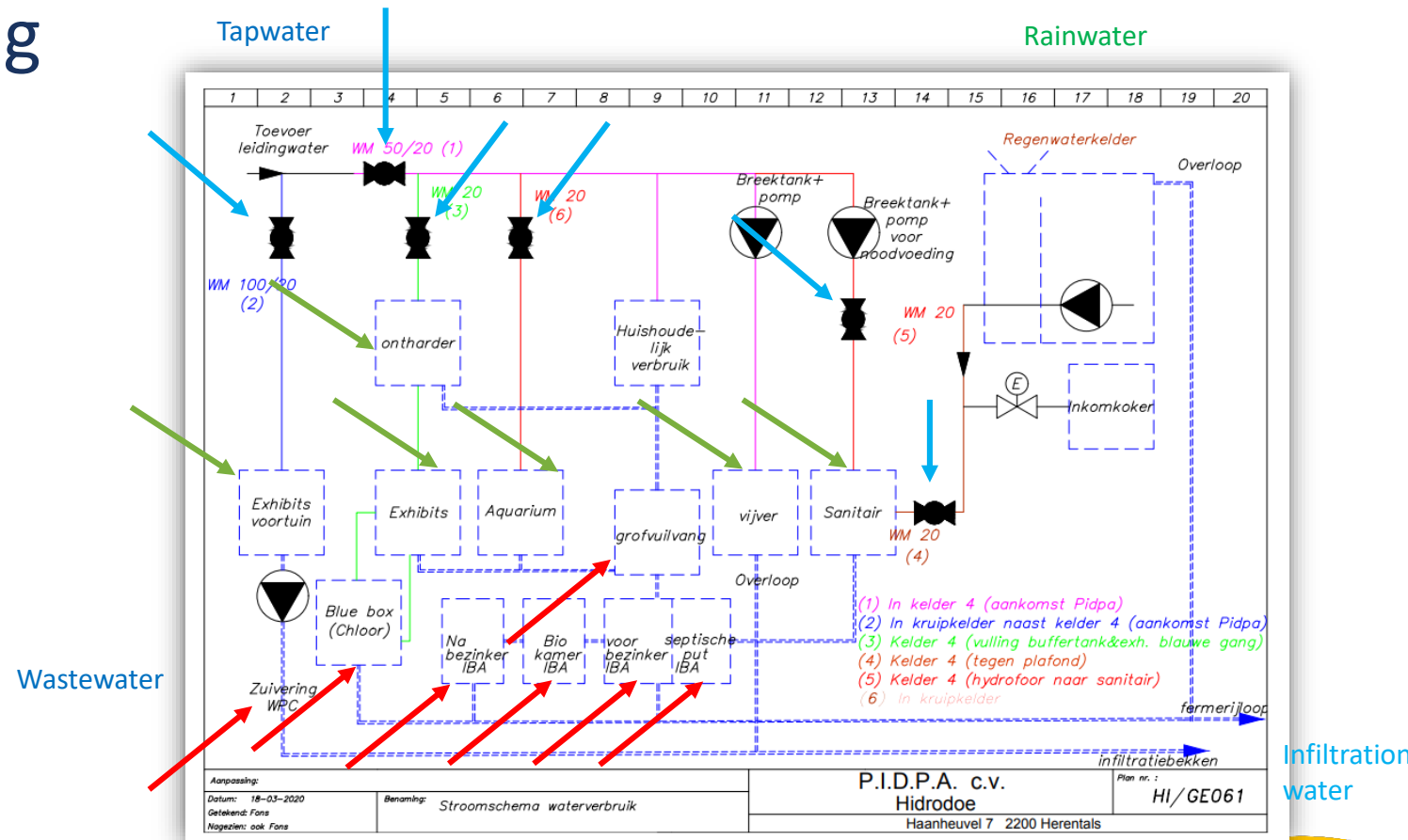
- Brainstorm Hidrodoe on SDGs
- Wild idea: “let’s turn Hidrodoe into a closed ecosystem”:
 - Project circular materials
 - Project circular/renewable energy
 - Project circular water



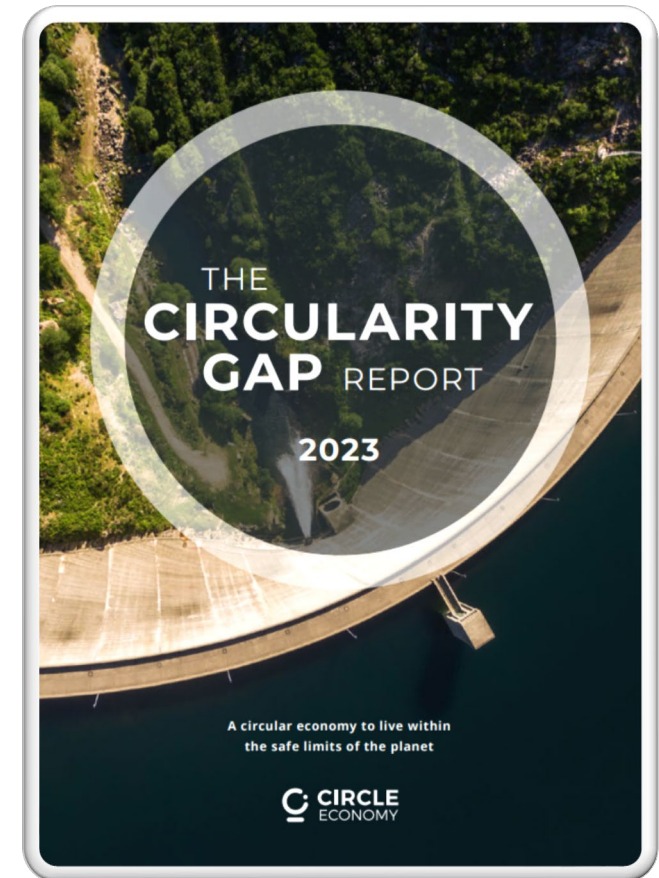
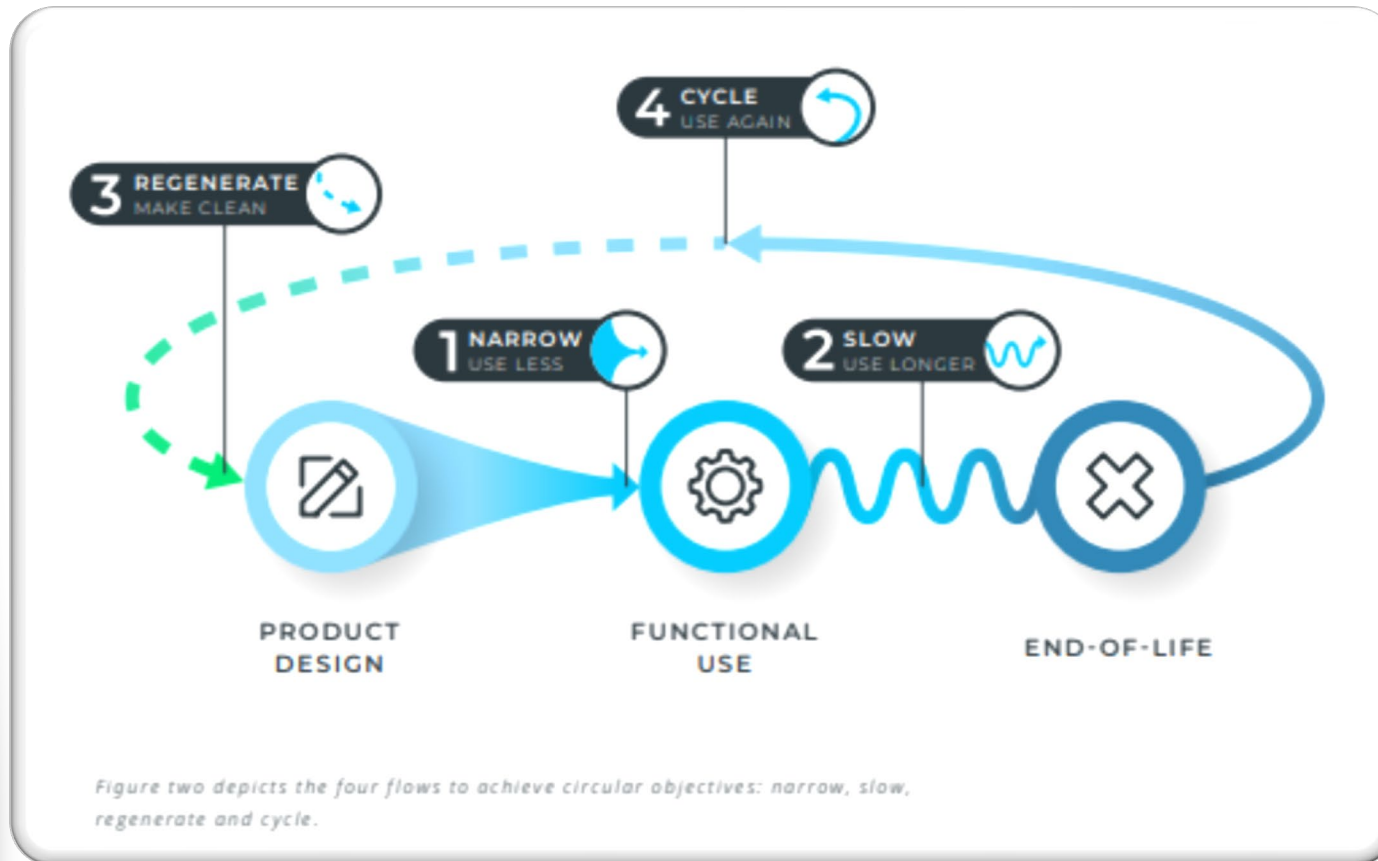
Water management

Water-audit: mapping

- Sources?
 - Quality
 - Quantity
 - Balance
- Water consuming installations/exhibits
- Flowmeters (useful)
- Waste water treatment



Water management



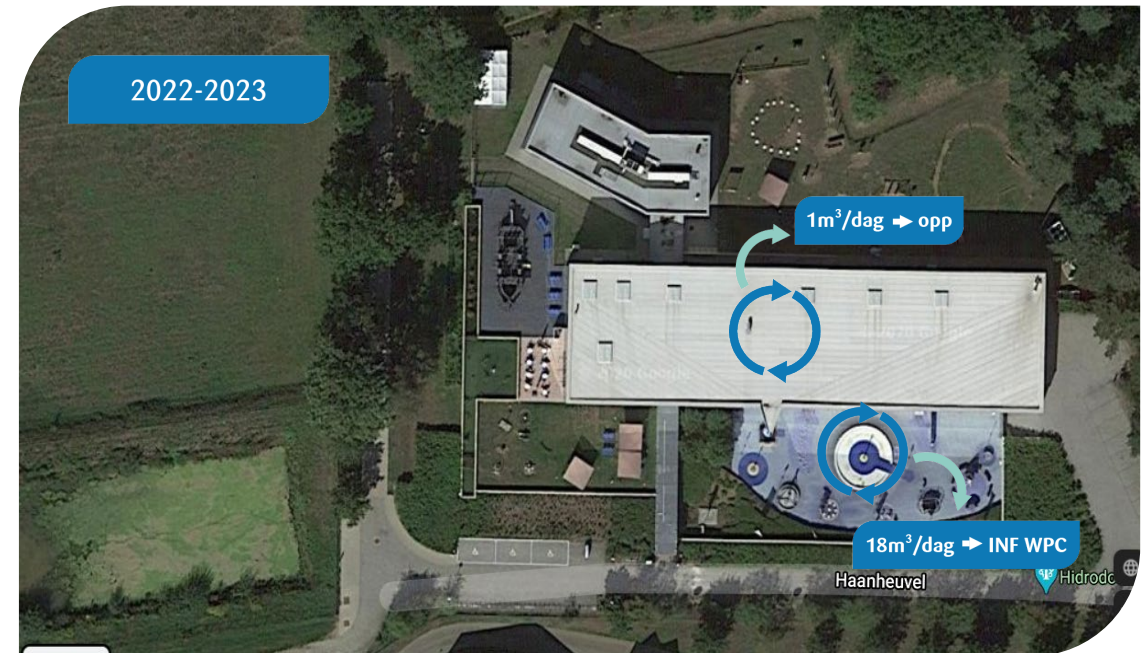
Water management

Water conservation:

- 1 m³/d inside: infiltratie wadi?
- 18 m³/d outside:
 - Leakage reduction
 - More recirculation
 - Upgrade disinfection (sensors)
 - Glassfiltration
- Target: >> 13 m³/d reduction tapwater

Narrow Strategy

Slow Strategy



Water management

Use alternative watersources:

Now:

- +/- 100% tapwater
- Toilets: rainwater

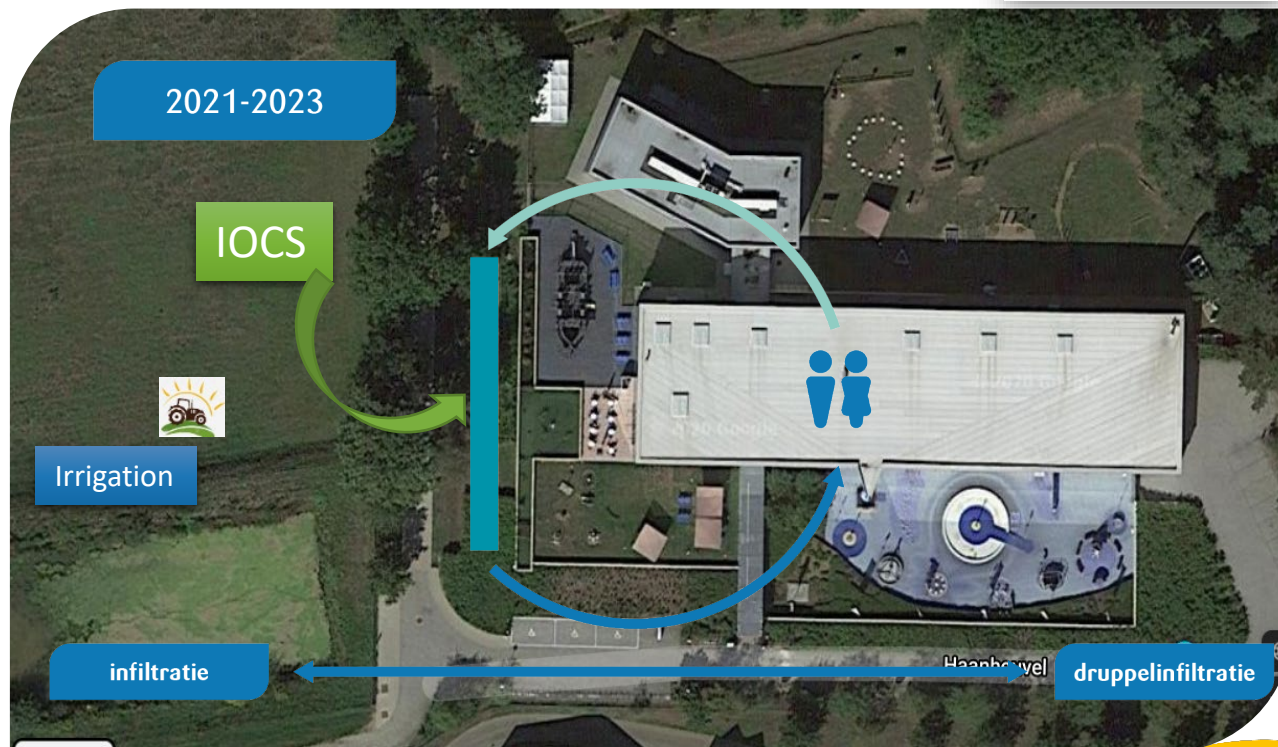
Circular Project:

- Toilets: Purified waste water
 - MBR (Blue elephant)
 - IOCS filter (Foscube)
- Rainwater:
 - Drip infiltratie for plants
 - Infiltration drinkingwaterproduction

Cycle



Regenerate



Good luck with going circular!



Always welcome to
visit us for
inspiration.

Contact us:

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