



# Experiences of a Dutch drinking water company

## in the Circular Economy

Martijn Olde Weghuis – Business Development Manager

# Vitens



5,8 million customers



370 MM<sup>3</sup>



8,3 score on customer satisfaction



€1 / 1000 L



1.500 employees



# From source to tap

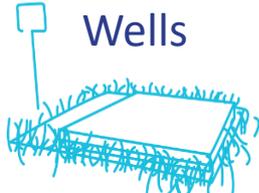
Water collection area



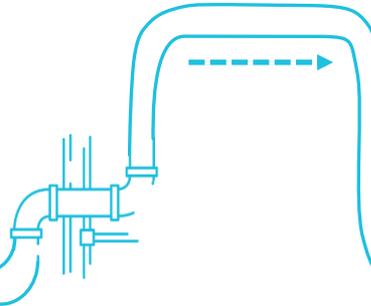
Production facility



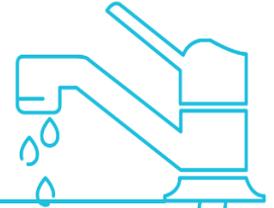
Wells



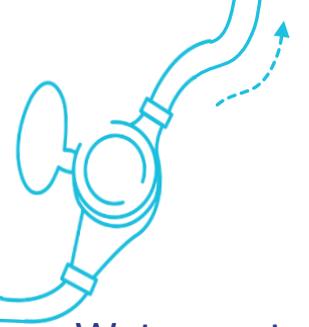
Distribution network

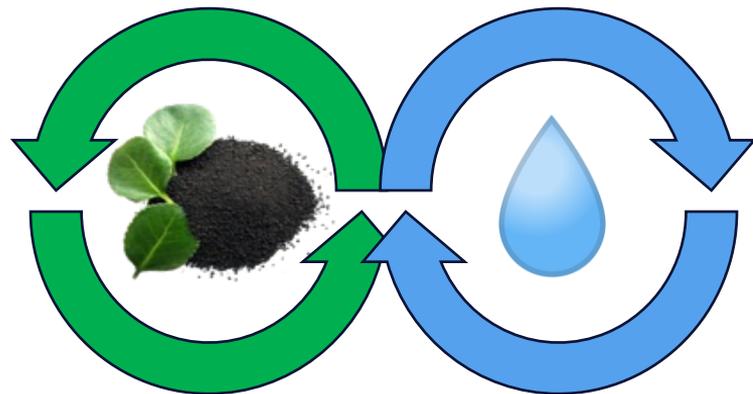


Tap



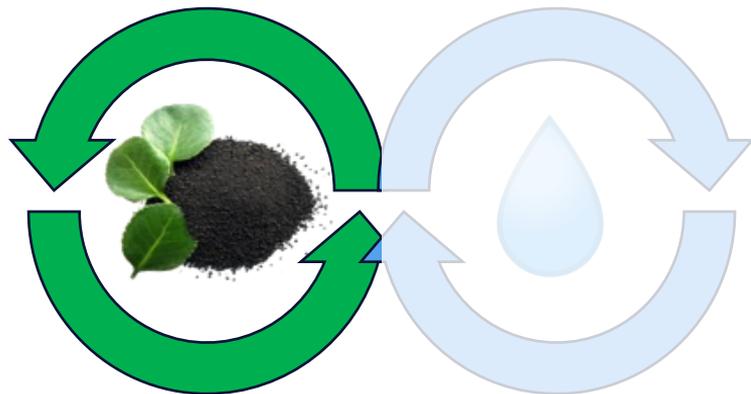
Water meter





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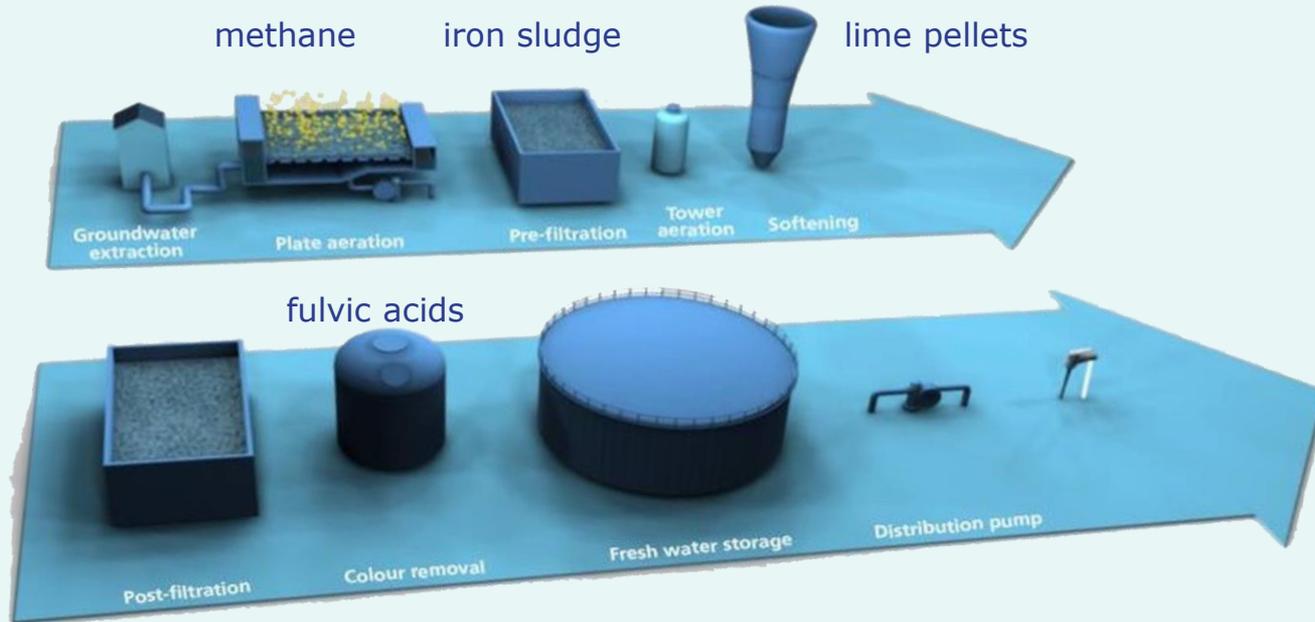




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# Resource Recovery in drinking water production



# Vitens byproducts

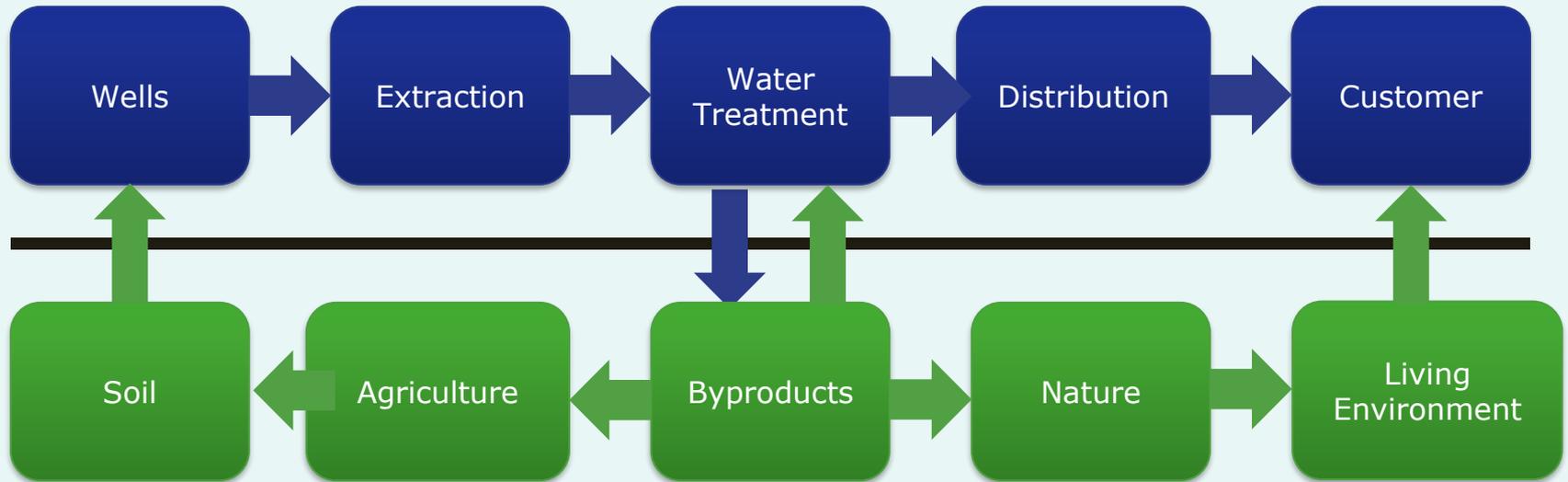
Byproducts	Volume (ton/y)
Iron sludge	35.000
Lime pellets	25.000
Fulvic acids	1.000
<b>Total</b>	<b>&gt;60.000 ton</b>



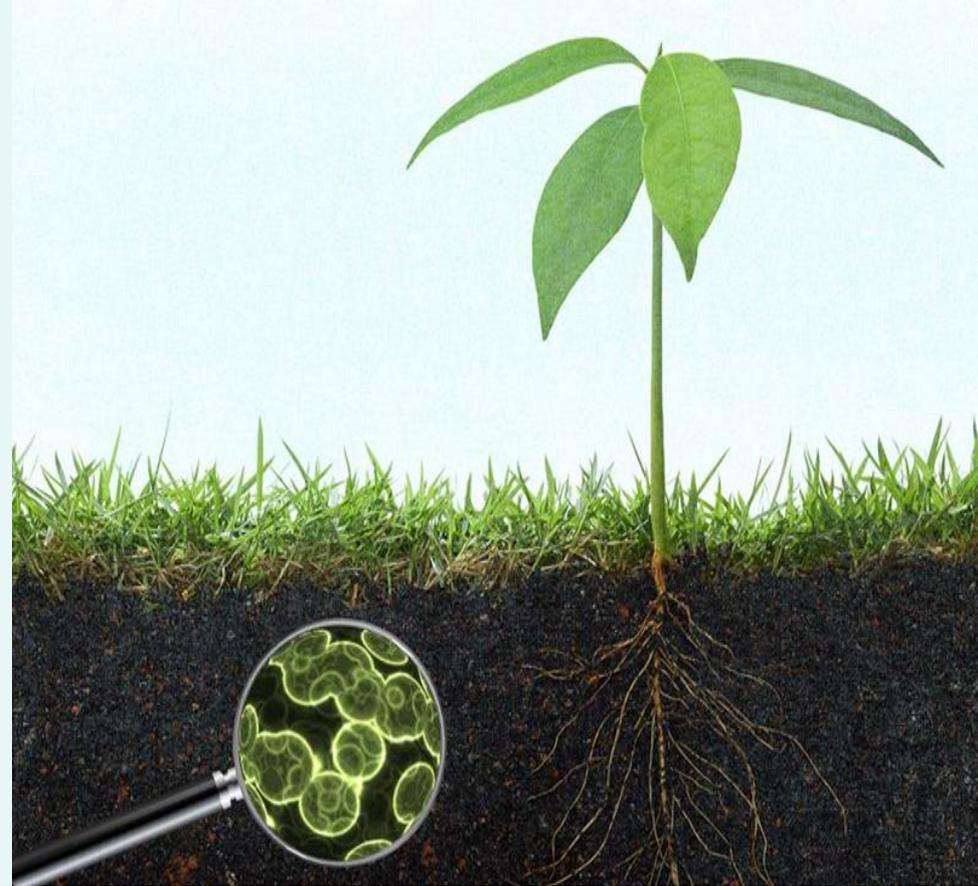
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# Circular strategy: from the ground back into the soil



# Creating added value for farmers



# Successful commercialization of byproducts



# Product 1: HumVi™

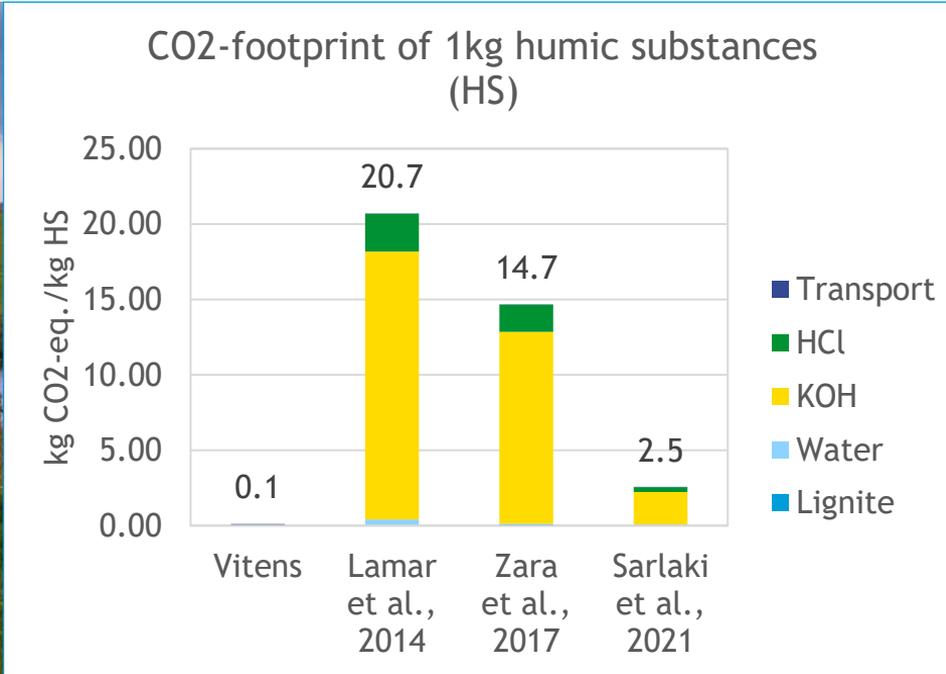
Fulvic acid natural soil conditioner, chelating agent and biostimulant



**PHC**  
Plant Health Cure  
part of Den Ouden Groep

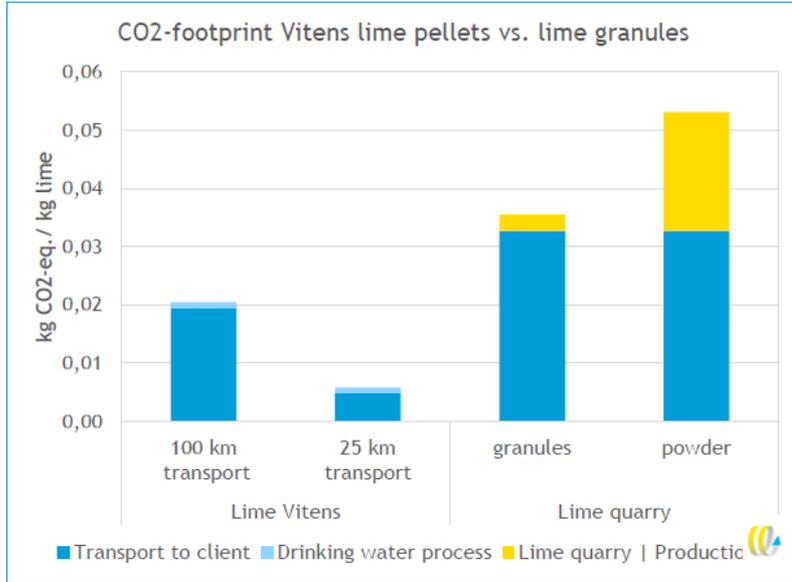


# HumVi replaces products extracted from mined lignite



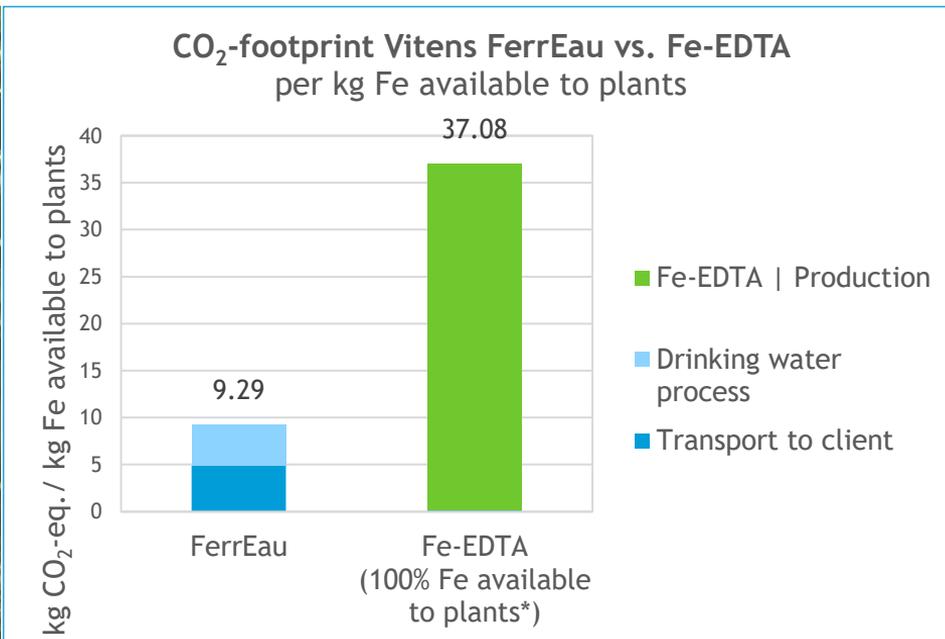
# Product 2: Lime pellets

Cirkal® Slow Release Soil Improver



# Product 3: FerrEau® Iron micronutrient

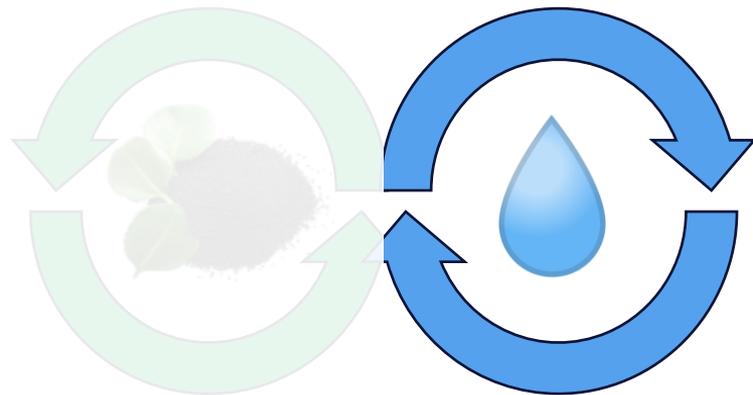
A natural alternative for synthetic iron chelates



**PHC**  
Plant Health Cure  
part of Den Ouden Groep

 **CE Delft**  
Committed to the Environment

**Vitens**

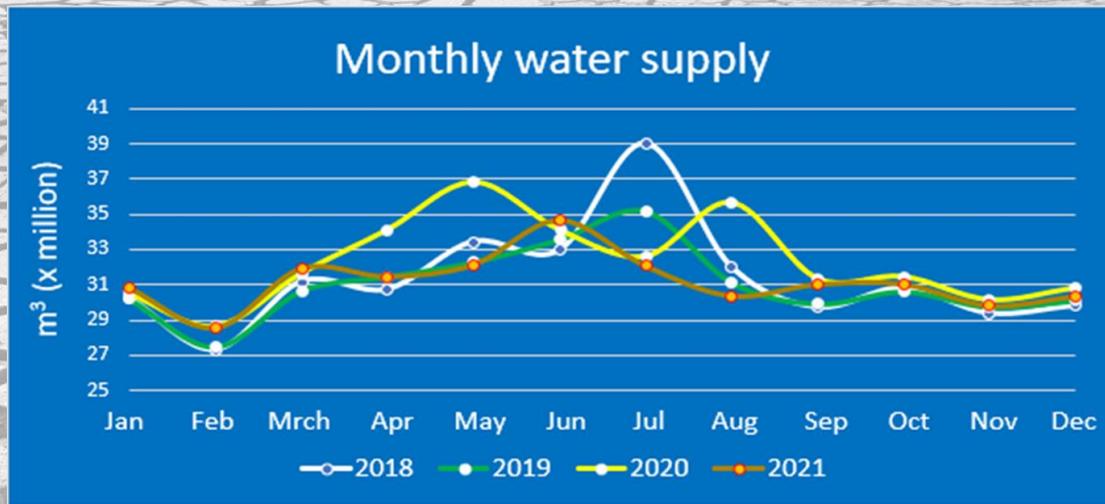
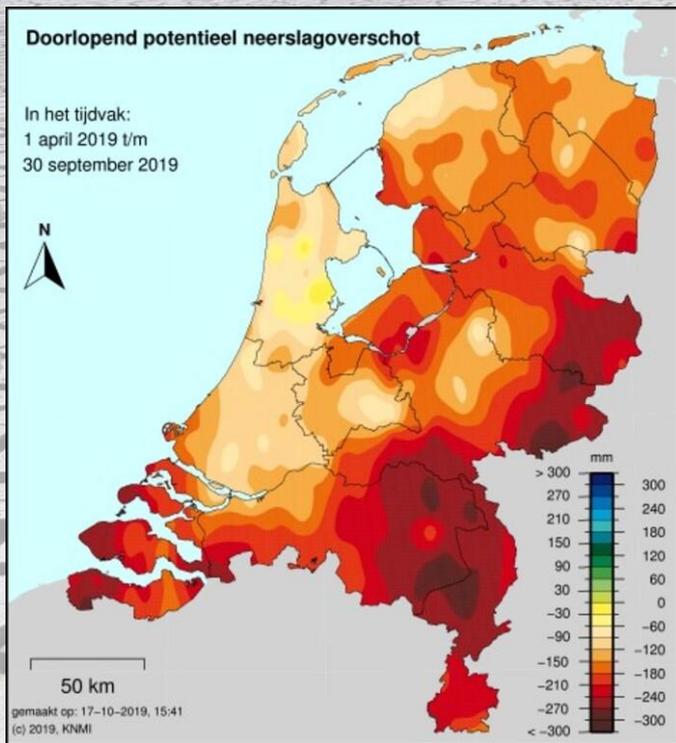


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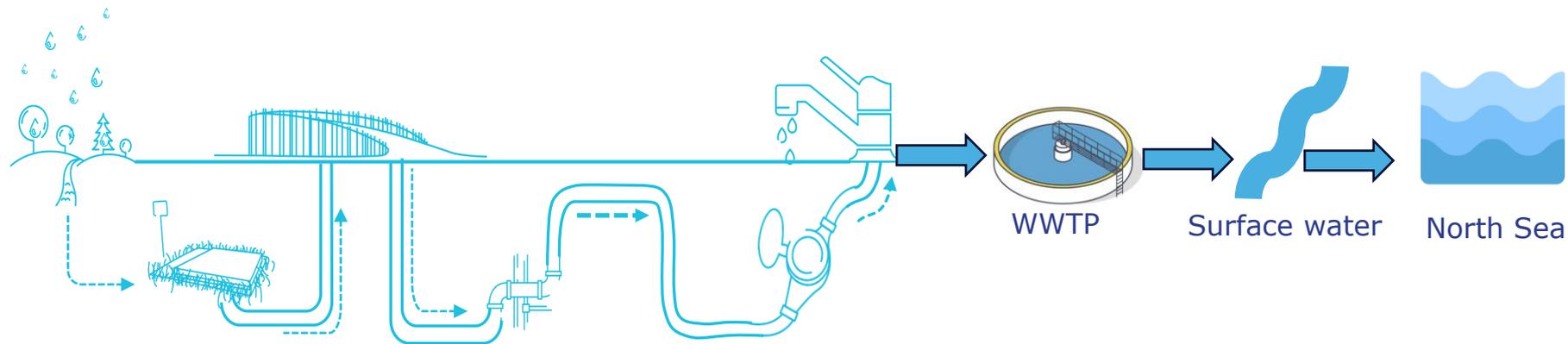
# Climate change and water scarcity

## Ground water resources under pressure



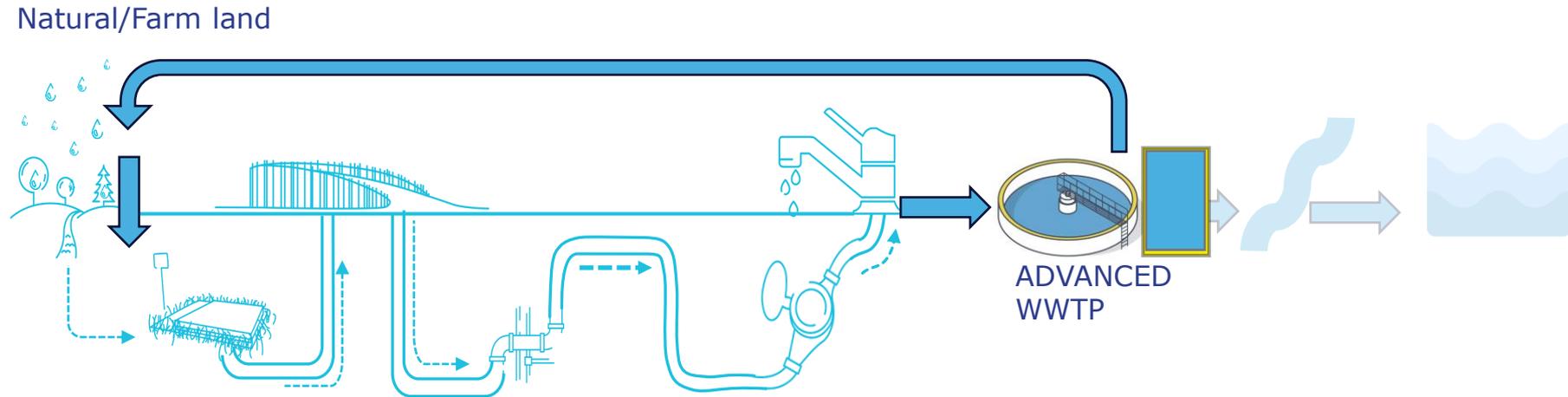
# “Get rid of water as quickly as possible”

## Historical linear water system



# “Keep the water in the system”

Working together on circular water ecosystems



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# EU-LIFE “Eternal source”

## Circular water ecosystem

### Waterlandscape catchment area ‘Klaarbeek’ and ‘Dorpse Beek’ (Eper brooks)

Including urban water system Epe



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**water**

**voor nu**

**en later**

[www.vitens.nl](http://www.vitens.nl)

