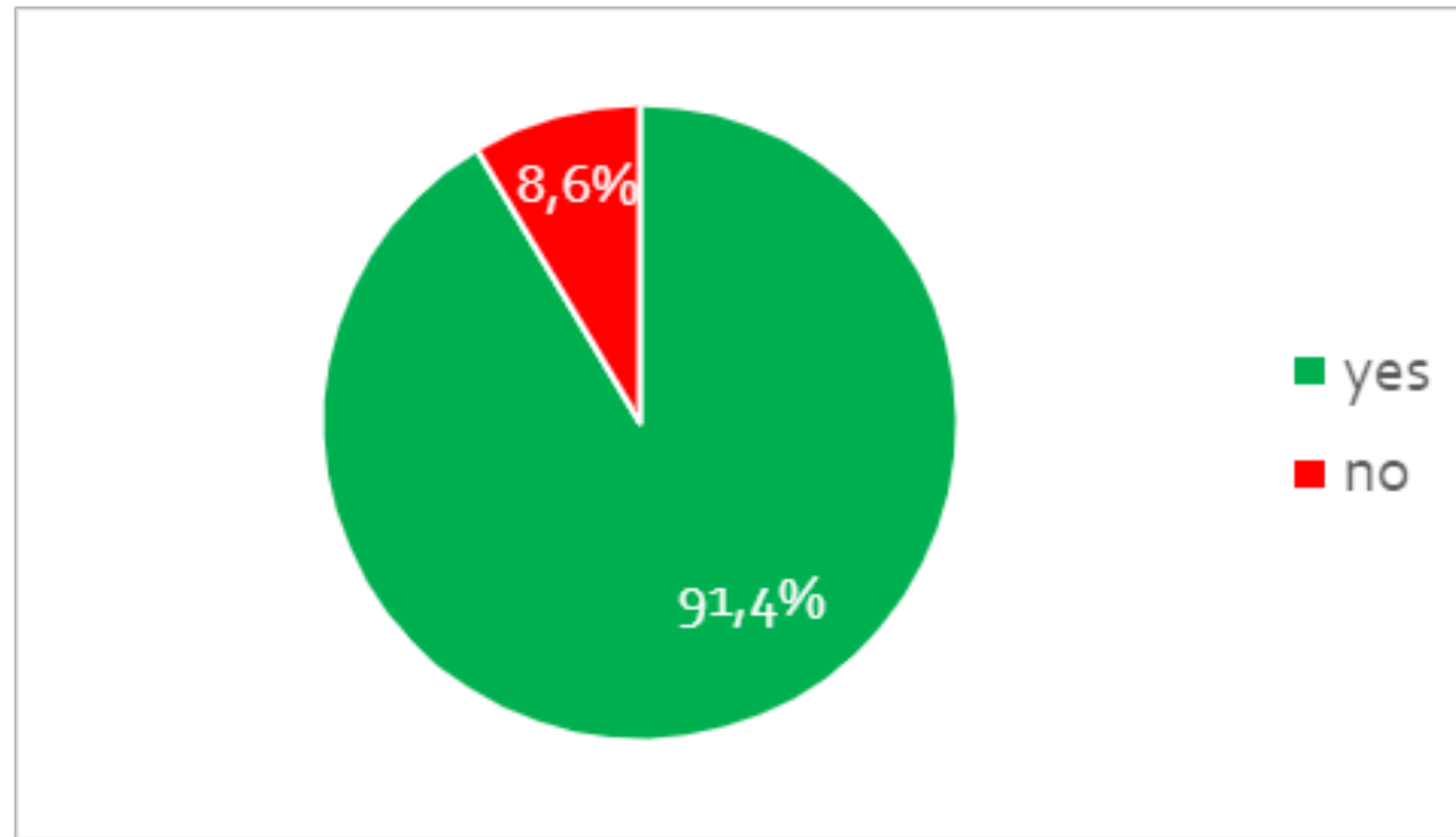


the Ultimate Water Factory

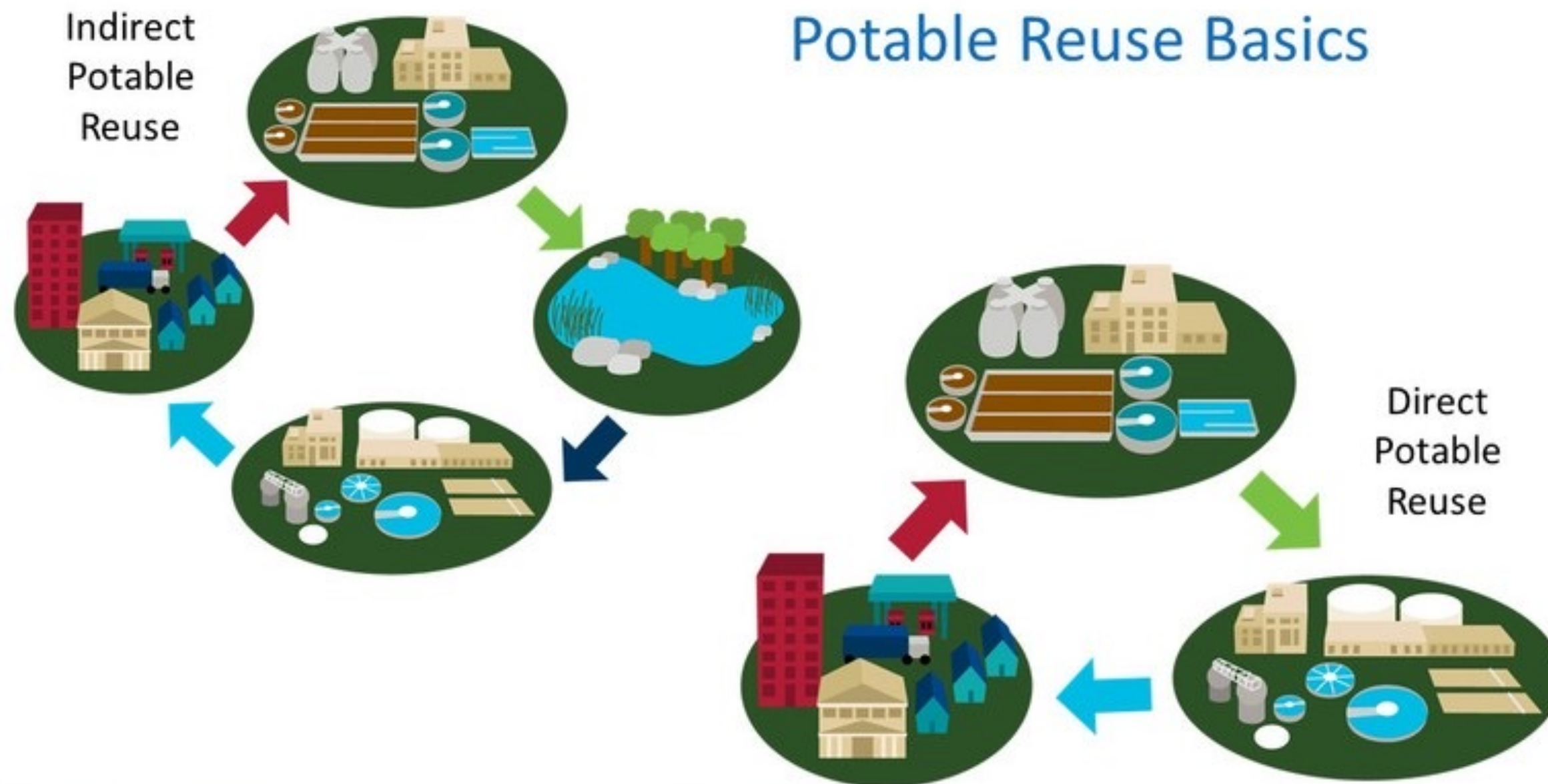
STOWA Aquatech 2021

Jelle Roorda, 4 november 2021

Would you drink water produced from wwtp-effluent?



Indirect and direct potable reuse

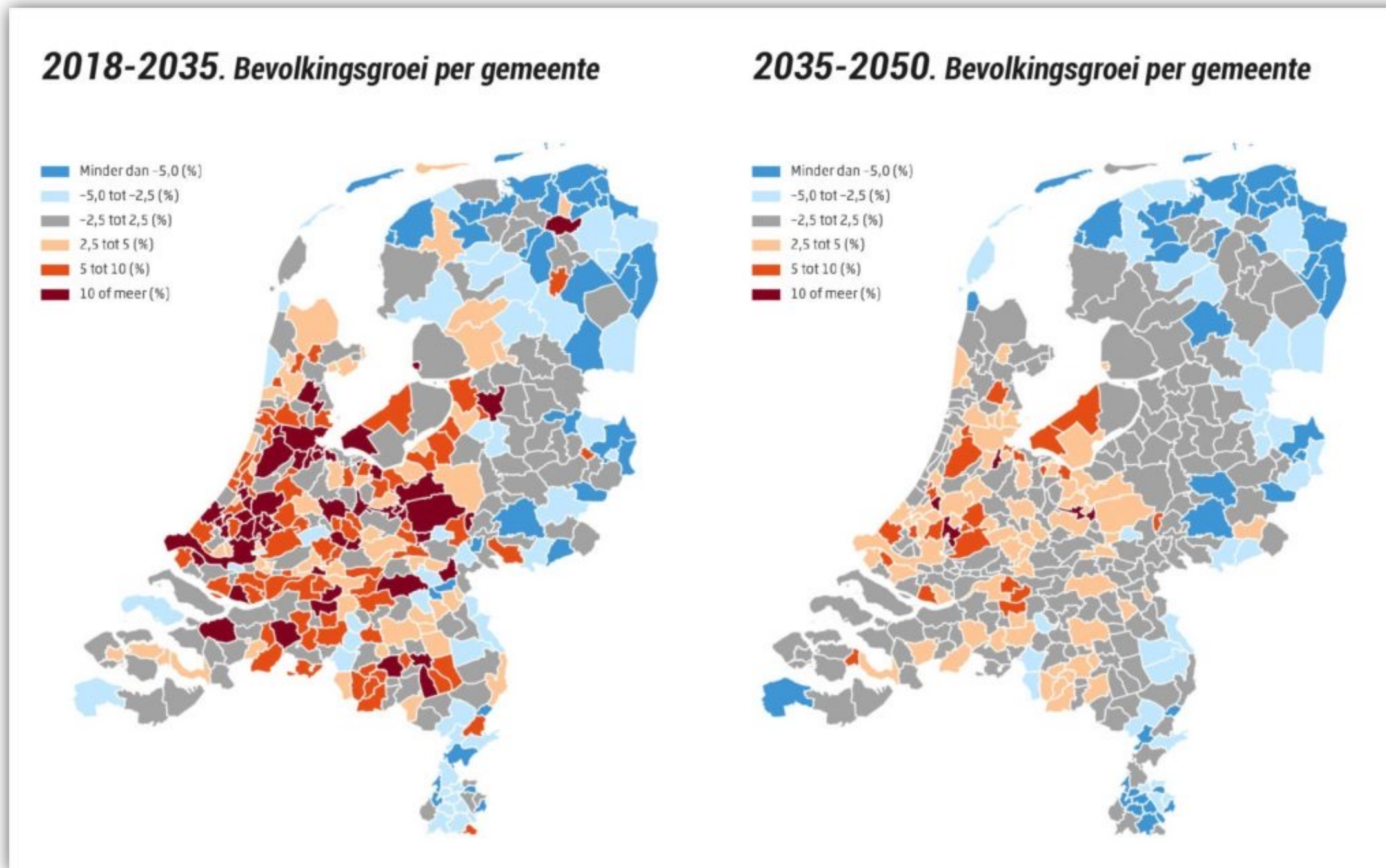


Climate change resulting in drought: rising water demand

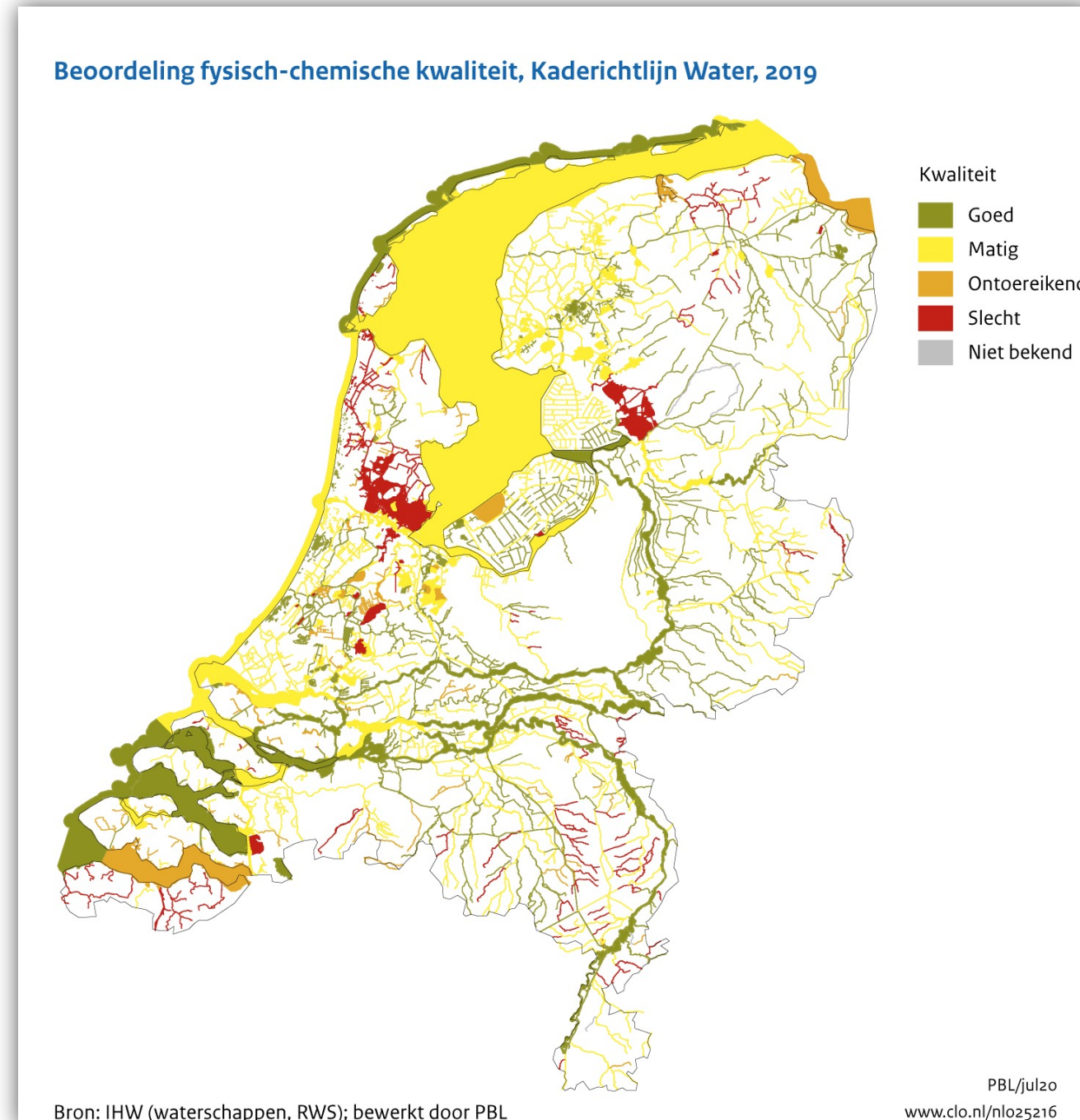


Population growth:

1. spatial pressure & 2. rising water demand



Waterquality under pressure: additional sources necessary



Solutions

- ✓ Keep water clean and treat polluted water
- ✓ Reduce usage of drinking water
- ✓ New additional sources for drinking water
- ✓ Is wwtp-effluent a possible source?

Goal of the transition project

Prove that drinkingwater quality can effectively be met
by using wwpt-effluent as a source

Doelstelling de Ultieme Waterfabriek

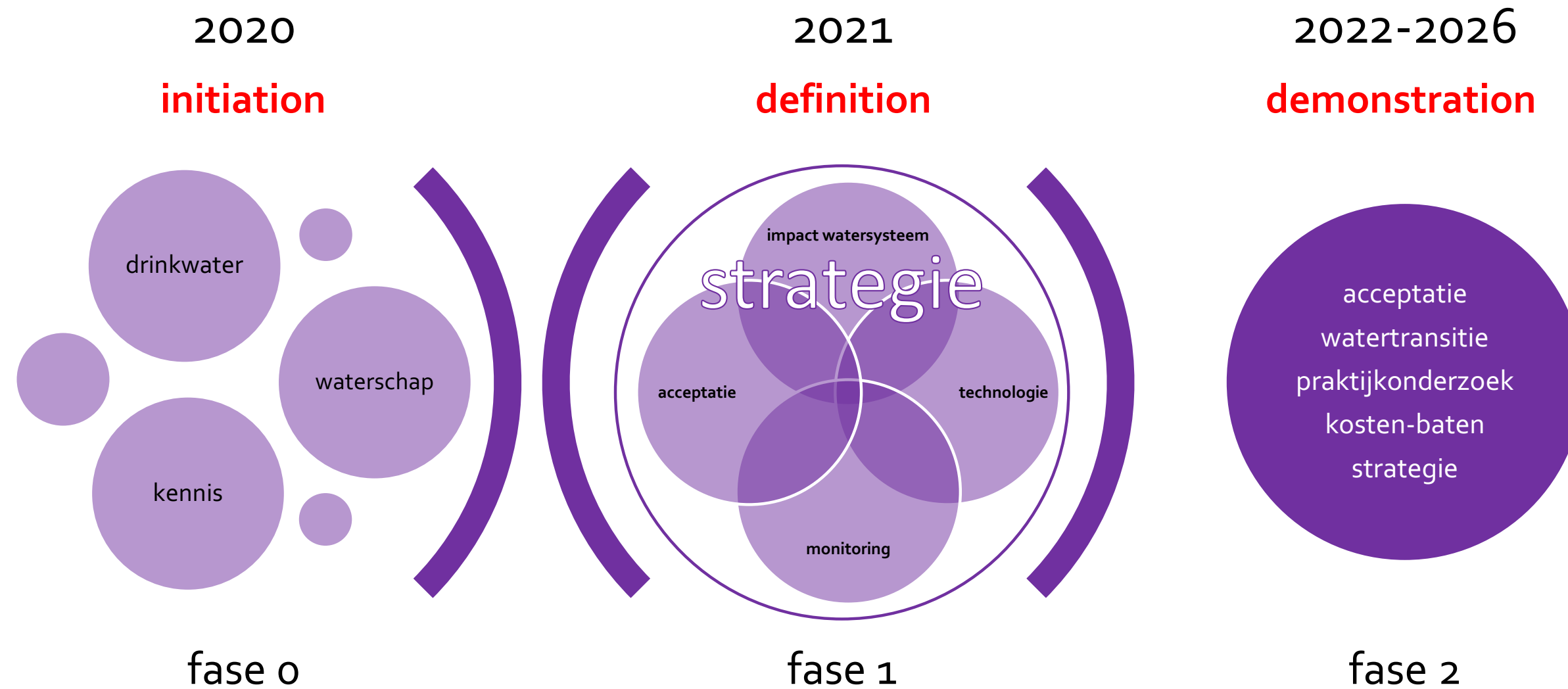
Prove that drinkingwater quality can effectively be met
by using wwpt-effluent as a source

Can this be used as drinking water?

Transition project of the Dutch watersector



Fasering



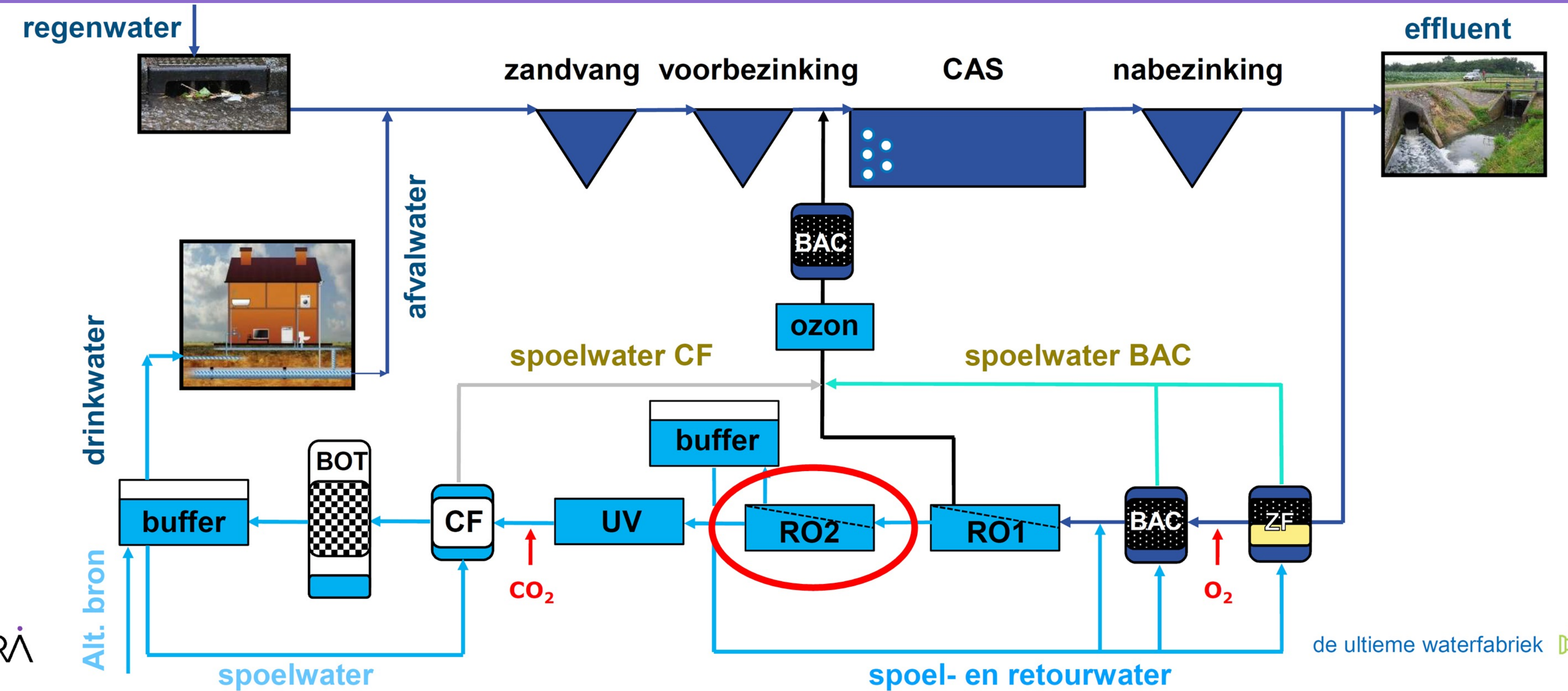
Research

1. Impact on the water system
2. Drinking water technology
3. Monitoring (drinking)waterquality
4. Acceptance and behaviour
5. Strategic aspects

Technology

- Water reuse: effluent as a new source?
 - ✓ Indirect: pre-treatment – quality buffer (infiltration) – drinking water production
 - ✓ Direct: pre-treatment – quality buffer (second RO) – drinking water production
- Water mining?
 - ✓ Harvest pure water from wwtp-effluent
 - ✓ Convert pure water into potable water

Basic technology scheme



Strategic aspects

- Acceptance of wwtp-effluent as a source
 - ✓ Acceptance by experts and institutions
 - ✓ Public acceptance, trust in institutions: drinking water companies
- Sustainable or not?
- Cooperation
- (integrated) costs?
- Additional to conventional sources?

What are your remarks and suggestions?



Thank you for your attention!



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stowa

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Tackling Micropollutants in Wastewater

Approaches on Implementation and Innovation in Europe and The Netherlands



Rijkswaterstaat
Ministry of Infrastructure
and Water Management

November 3 and 4 2021
Aquatech Amsterdam

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