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**oasen**  
drinkwater

Benefits of PMT criteria  
for substances under  
REACH for drinking  
water company Oasen



 **Vewin**

# Oasen drinking water company



**753.000 customers**



**47 million m<sup>3</sup>/a**



**7 drinking water utilities**

# Supply Area



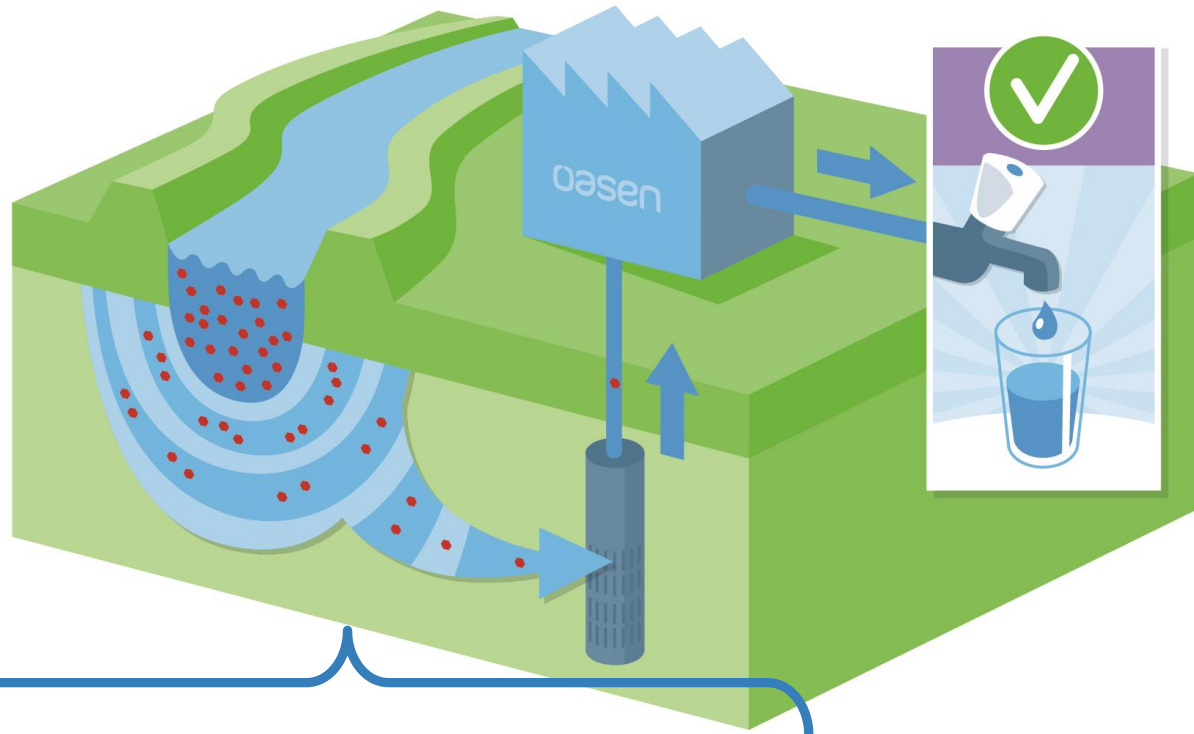
# River Bank Filtration

Ufer Filtrat



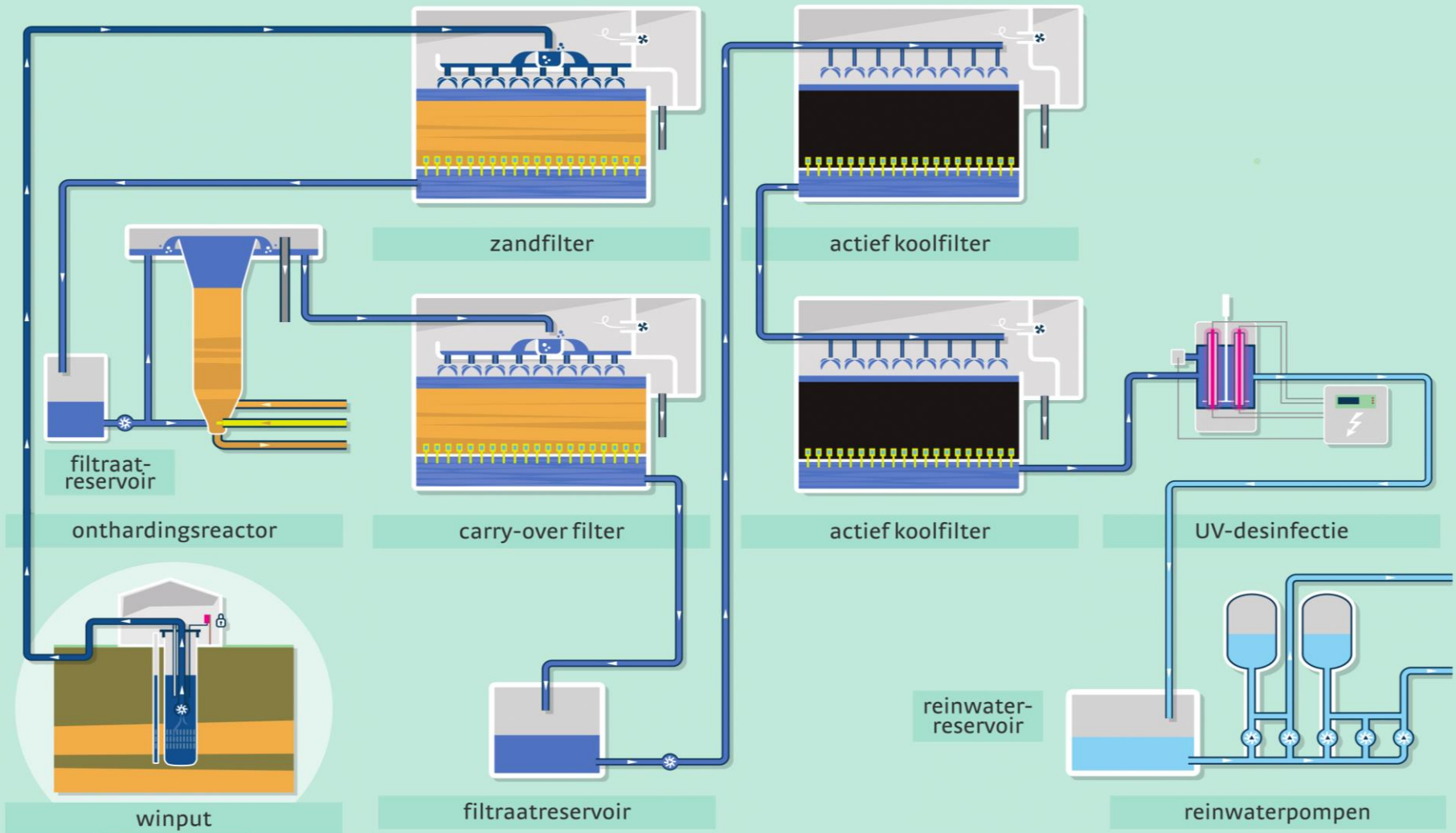


B: 99.9 % purification



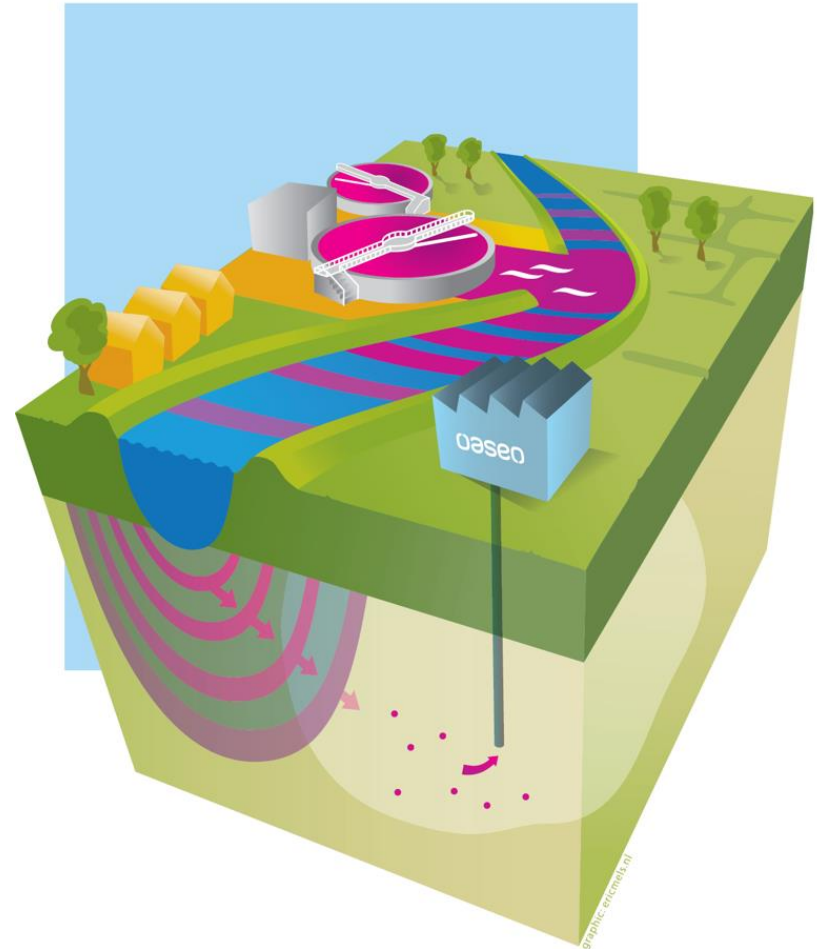
A: 95% natural processes

# Current purification process drinking water



# Threats

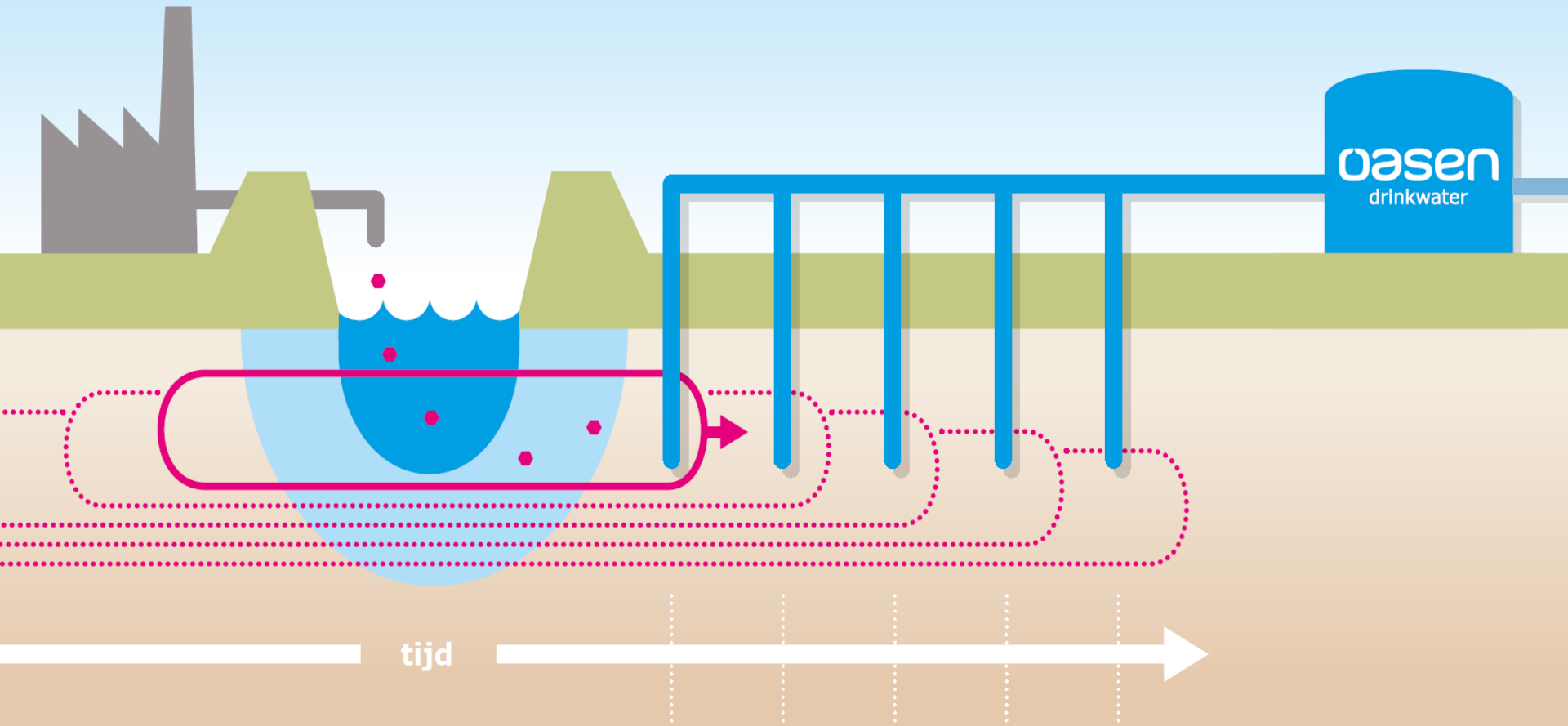
- Pharmaceuticals
- X-ray contrast media
- Endocrine disrupting compounds
- Pesticides
- Industrial emissions
- Cosmetics
- Detergents
- Dyes and micro plastics



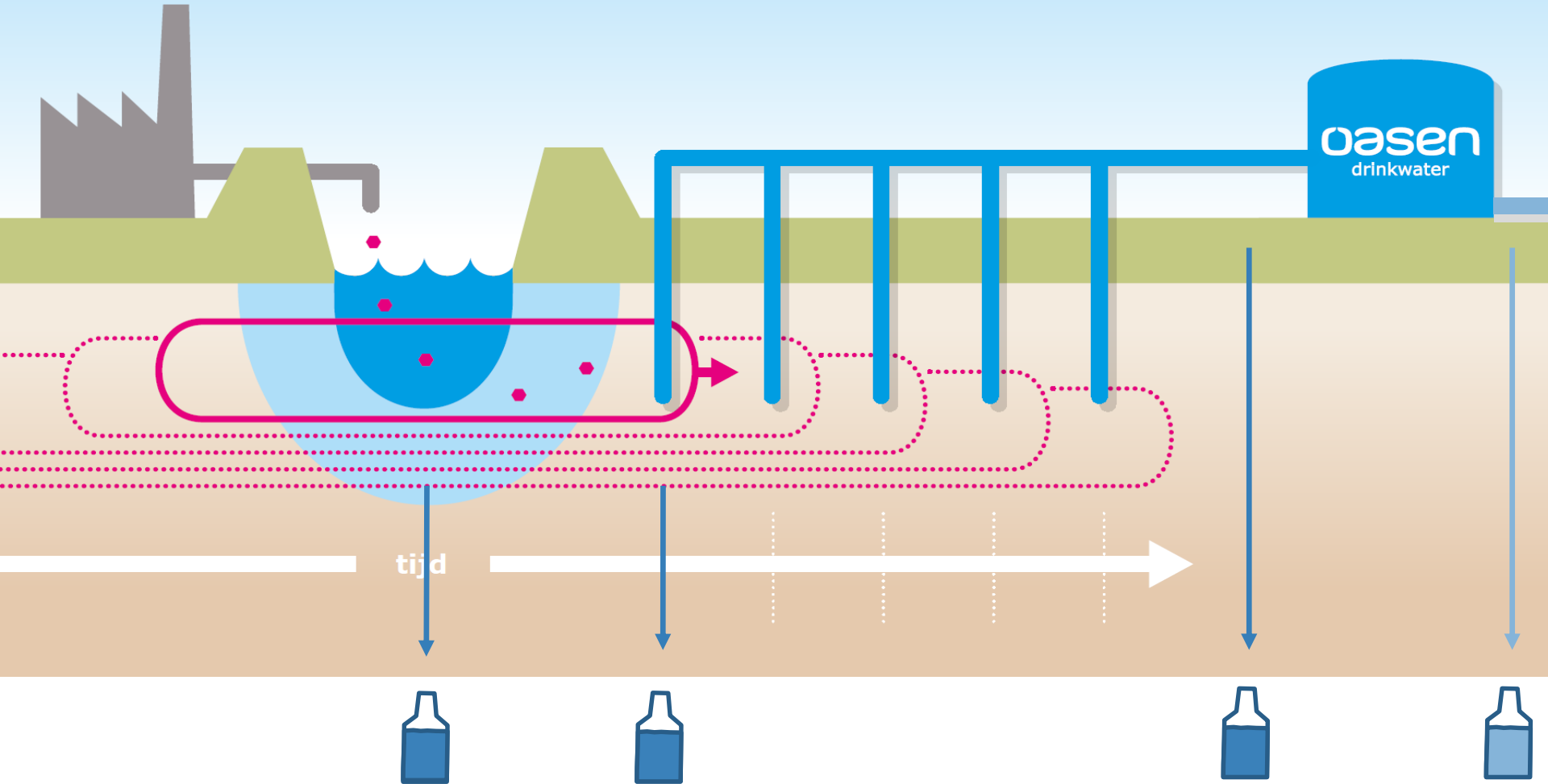




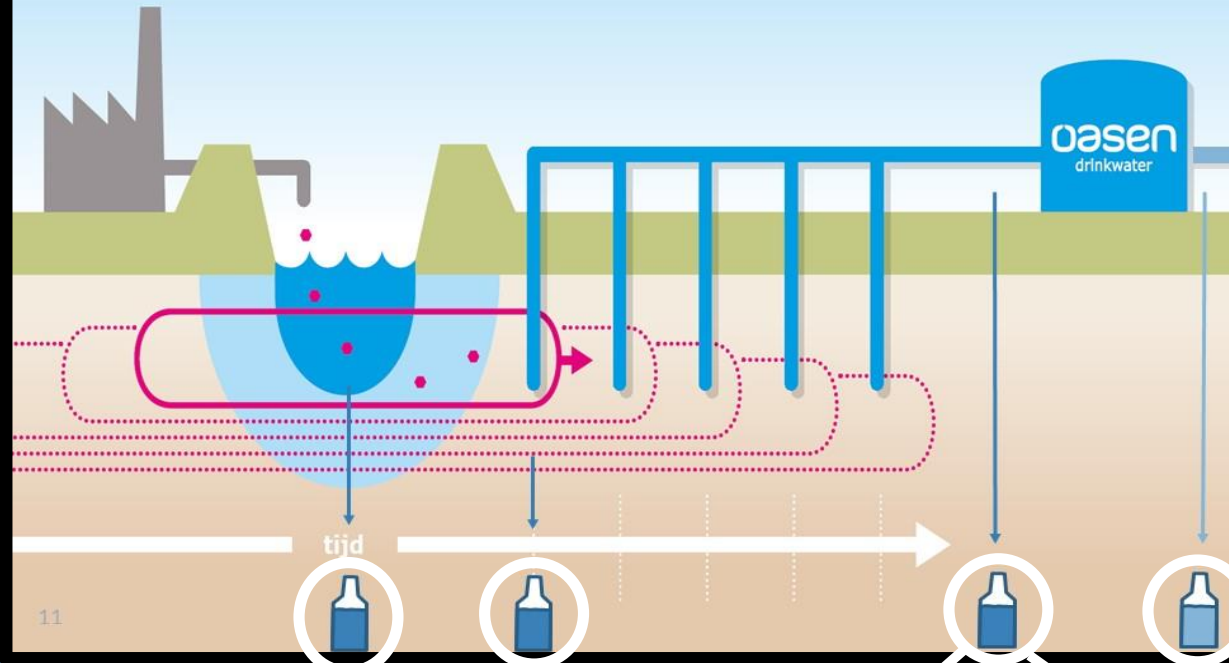
# Monitoring micro pollutants



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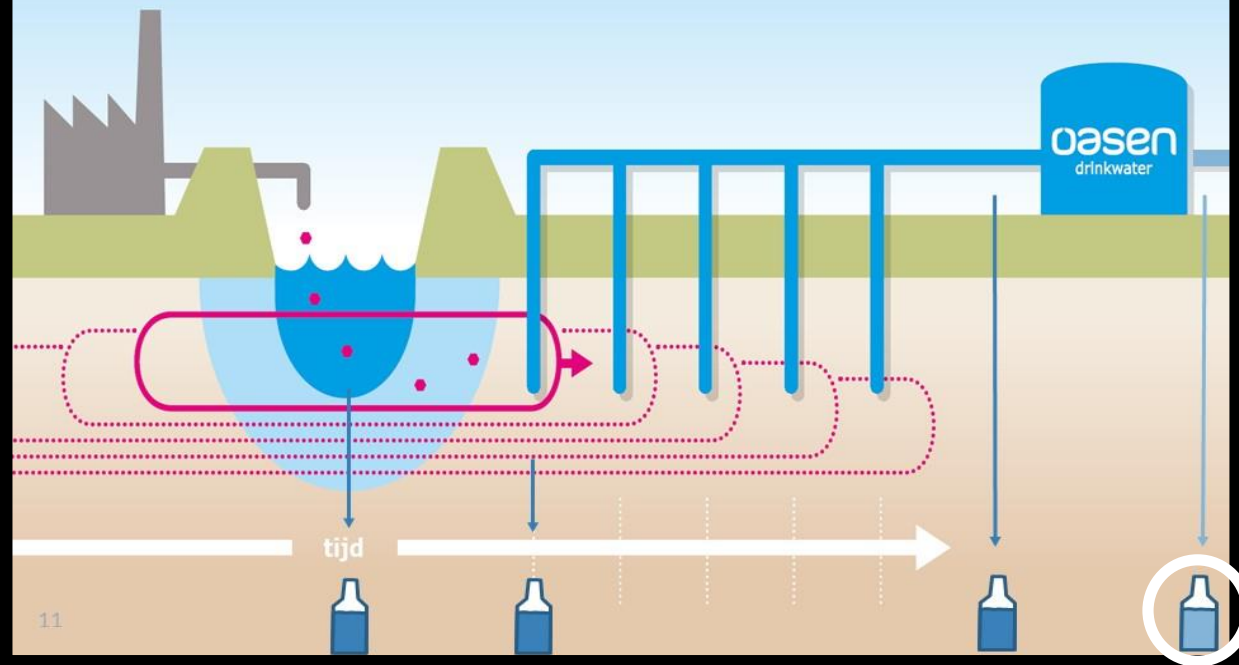
# Anthropogenic Substances & regulatory framework

> 1 µg/l or > 0,1 µg/l  
Exemption needed from regulator

> 0,1 µg/l  
Attention!(Oasen)

>1 µg/l  
Exemption needed from regulator

## Monitoring micro pollutants



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# When is action needed?

EDTA / TFA / MTBE /  
1,4 Dioxan / PFOA /  
PFOS / GenX /  
Pyrazole (vPvM)

> 0,1  $\mu\text{g/l}$

**High concern**



MTBE / 1,4 Dioxan /  
PFOA / PFOS / GenX /  
Pyrazole (vPvM & PMT)




(Provisional) Drinking water  
standard  $\approx 1 \mu\text{g/l}$  or unknown  
**Very high concern**

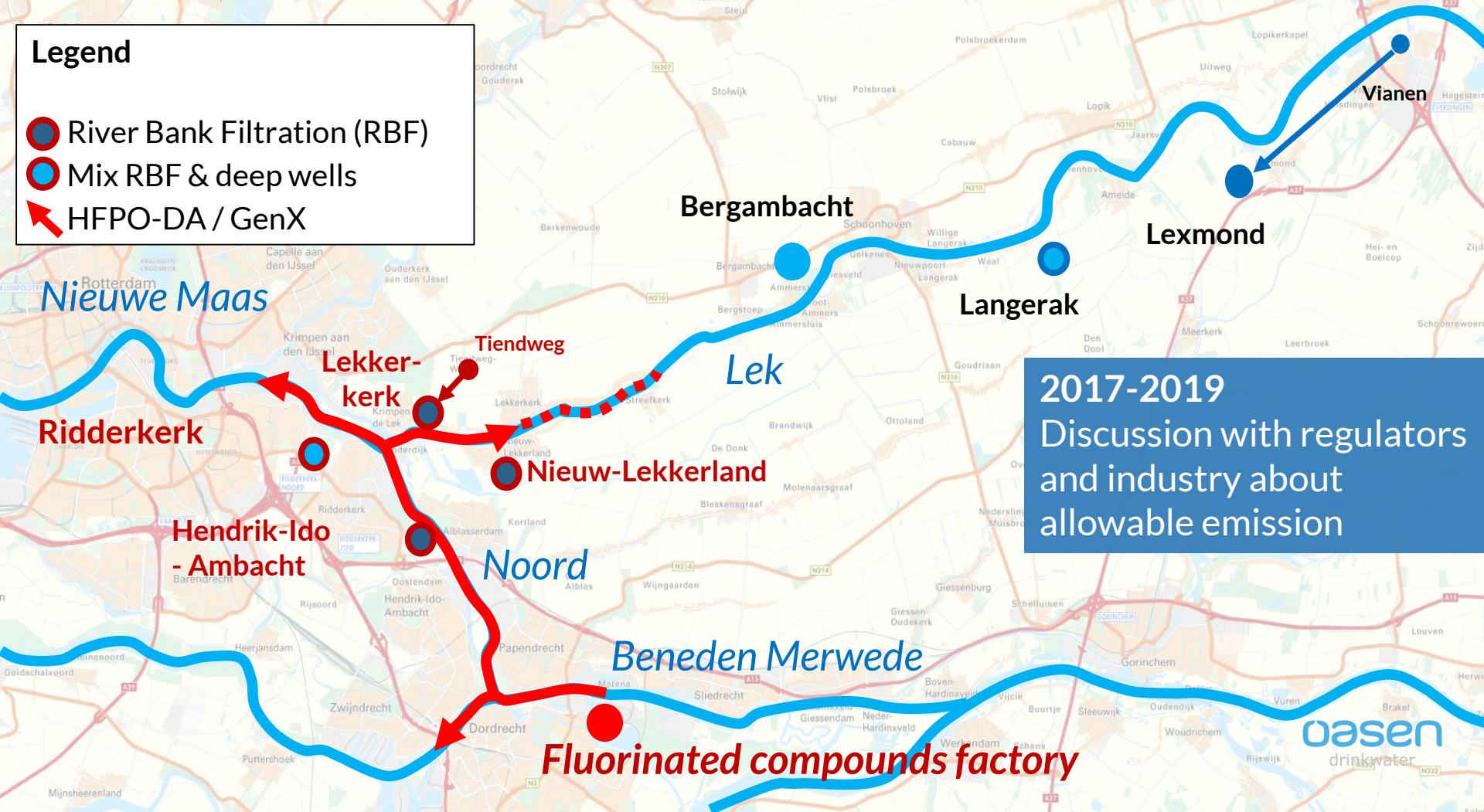


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# Example : PFOA / HFPO-DA / GenX

## Legend

-  River Bank Filtration (RBF)
-  Mix RBF & deep wells
-  HFPO-DA / GenX



2017-2019  
Discussion with regulators  
and industry about  
allowable emission





# Conclusion

Industrial PMT /vPvM substances are the most serious threat for river water quality



# Positive side: Prevention is Possible in existing framework

- Classify PMT / vPvM Substances in REACH (UBA initiative)
- Minimize the discharge of these particular substances on order to protect the sources for drinking water, by national regulation



POSITION // OCTOBER 2017

## Protecting the sources of our drinking water

A revised proposal for implementing criteria and an assessment procedure to identify Persistent, Mobile and Toxic (PMT) and very Persistent, very Mobile (vPvM) substances registered under REACH

# What is the Strength of this Solution?

- Prevention instead of Cure
- European → Level playing field
- European → Complete watershed
- Fits with National regulation
- Possible within the existing REACH regulation
- Existing initiative or high valued institutes
- Support from the Dutch Government



POSITION // OCTOBER 2017

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# Fall-back: improved purification



Bottom line

*Prevention is better than cure*





Thanks!  
Any questions?



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