

The Meuse, source of drinking water



Jeroen Daniels





Maaswater als bron voor drinkwater



5

**DRINKWATER
BEDRIJVEN**

Maaswater als bron voor drinkwater



5
DRINKWATER
BEDRIJVEN



500
 $10^6 \text{ m}^3/\text{j}$

Maaswater als bron voor drinkwater



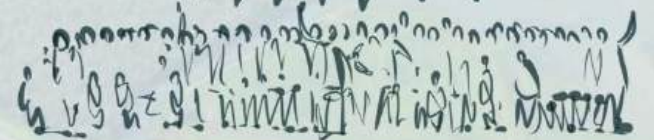
5
DRINKWATER
BEDRIJVEN



500
 $10^6 \text{ m}^3/\text{j}$

7.000.000 MENSEN

DORST!



Maaswater als bron voor drinkwater

Hoe robuust is de Maas
als bron van drinkwater
voor de toekomst?



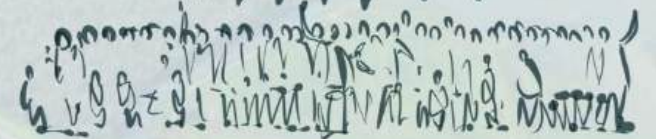
5
DRINKWATER
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500
 $10^6 \text{ m}^3/\text{j}$

7.000.000 MENSEN

DORST!



Maaswater als bron voor drinkwater



Maaswater als bron voor drinkwater

Geographical overview of water intake points for drinking water

HARINGVLIET

Onttrekking door: Evides

Kenmerk: infiltratie in duinen



BERGSCHÉ MAAS

Onttrekking door: Evides/WBB

Kenmerk: spaarbekkens in Biesbosch



ALBERTKANAAL

Onttrekking door: water-link

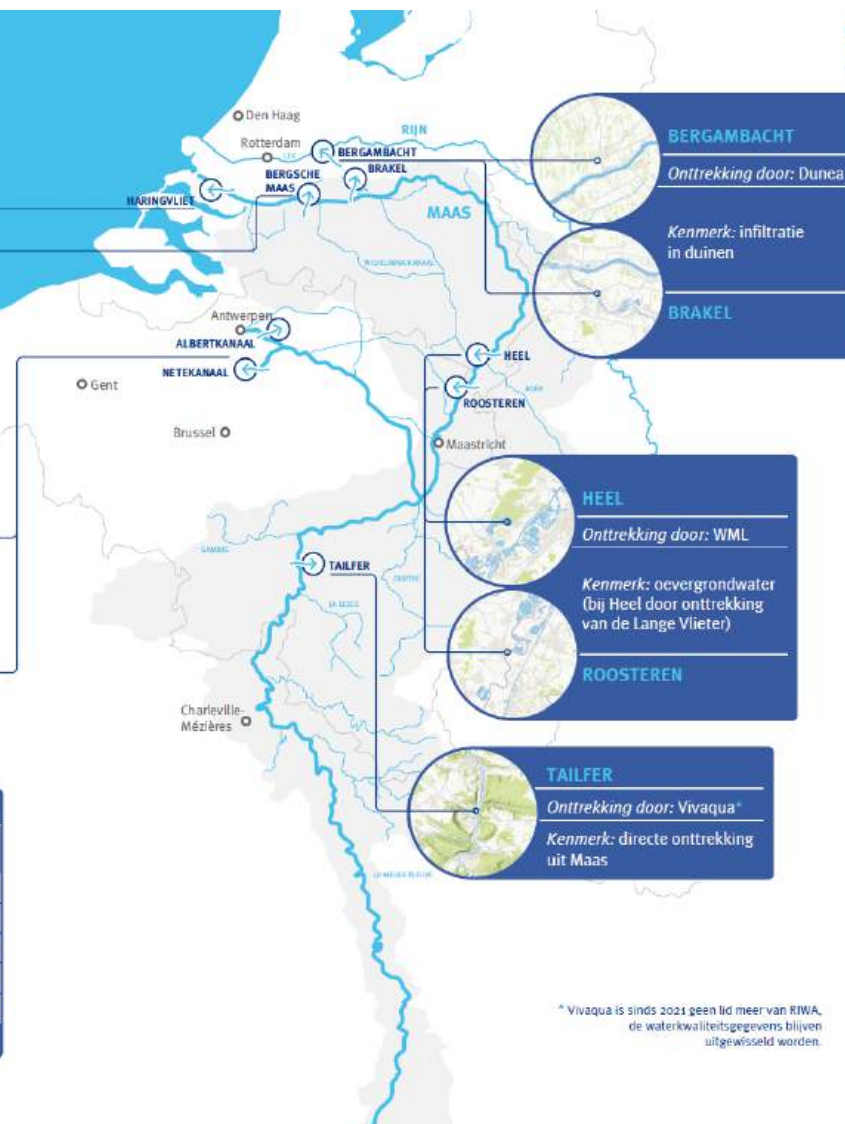
Kenmerk: voorzien 40% van Vlaanderen van drinkwater, ook via doorlevering aan de Watergroep Farys en PIDPA



NETEKANAAL



Lidbedrijven RIWA-Maas	Winning oppervlakte water (%)	Winning oppervlakte water (10 ⁶ m ³ /jaar)	Klanten verzorgd met oppervlaktewater
Evides (+WBB)	80%	209,8	2,0 miljoen
water-link	100%	153,4	2,5 miljoen
Dunea	100%	75,0	1,5 miljoen
Vivaqua*	30%	34,6	750.000
WML	25%	9,0	280.000
Totaal		481,8	7,0 miljoen

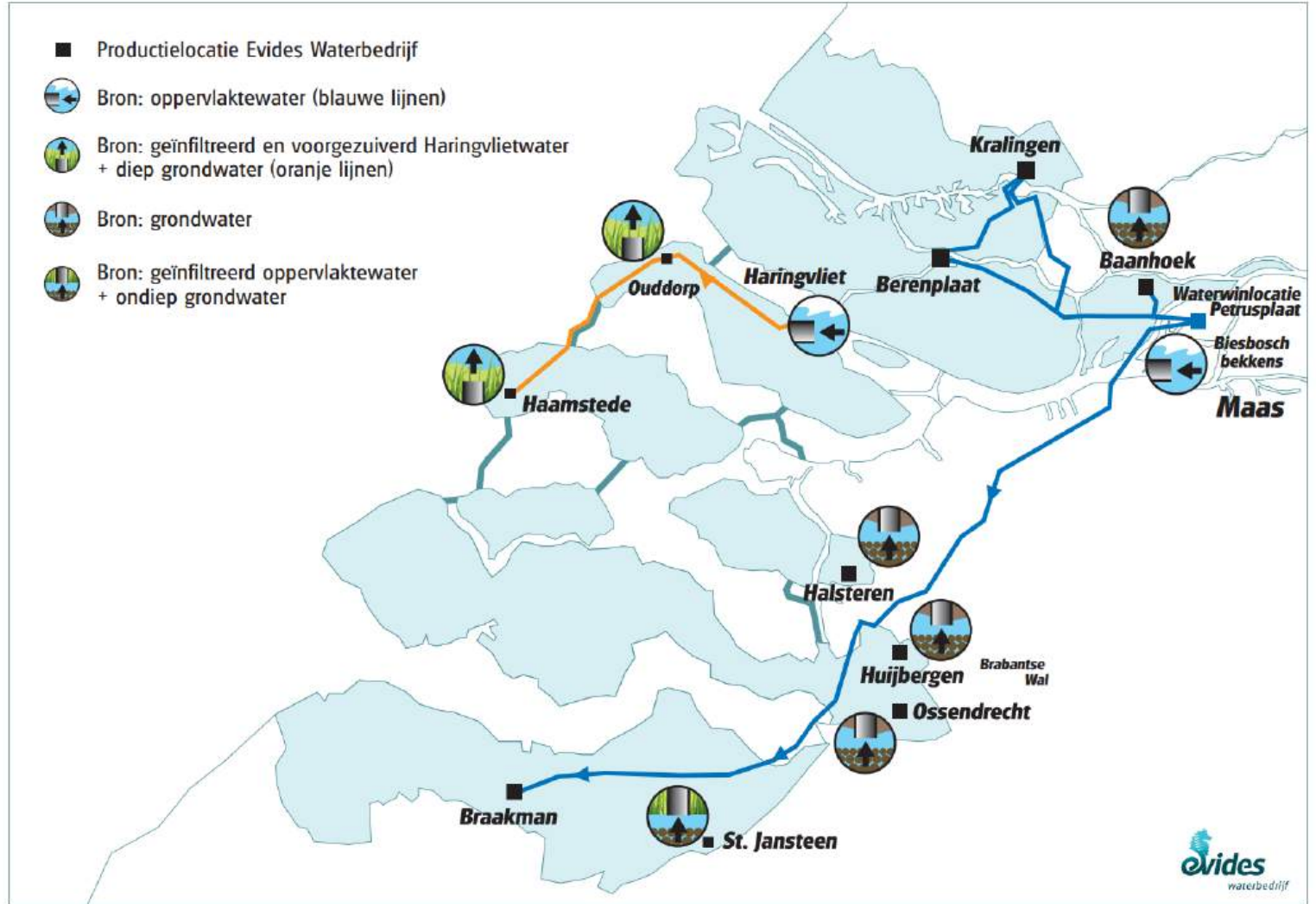


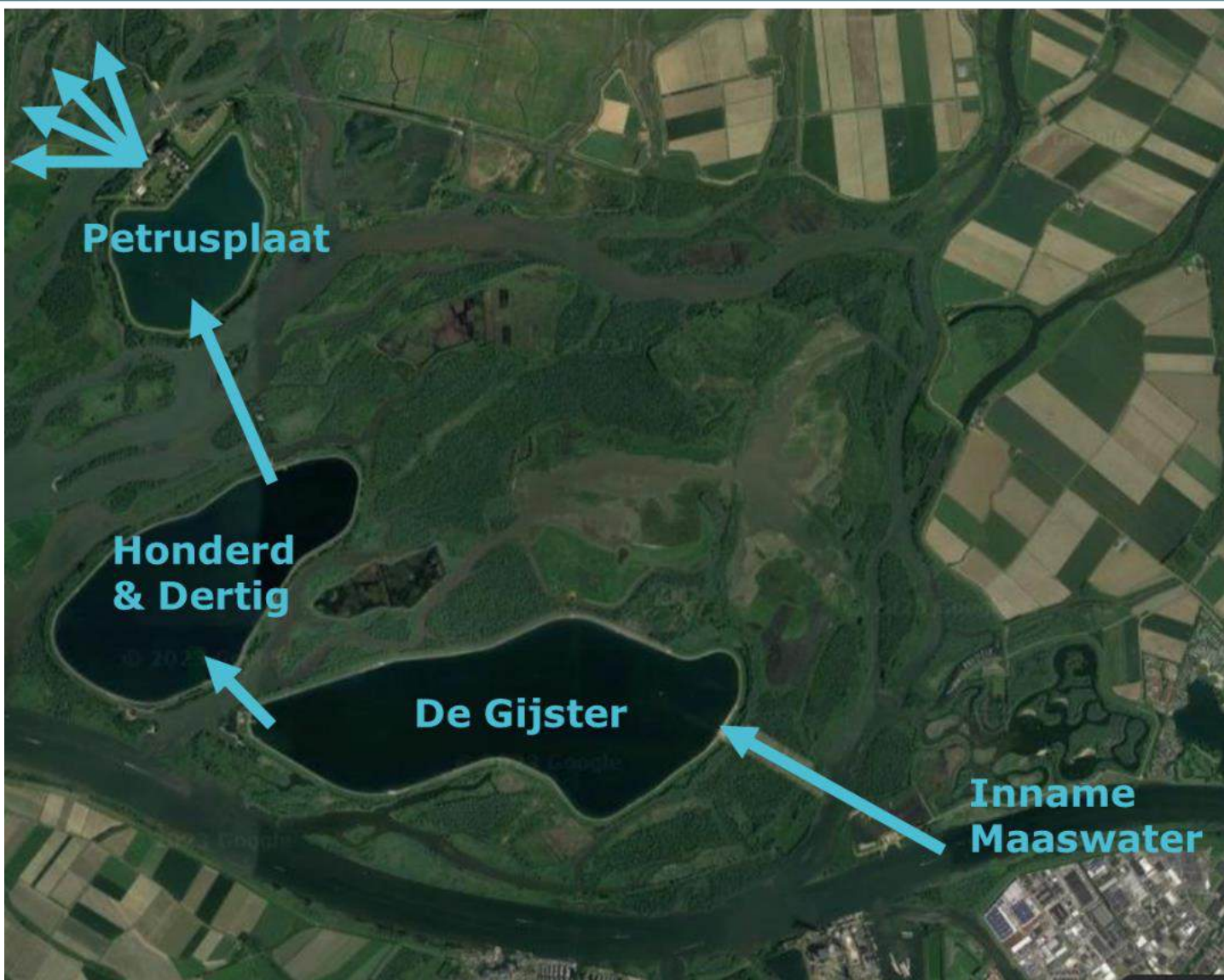
* Vivaqua is sinds 2021 geen lid meer van RIWA, de waterkwaliteitsgegevens blijven uitgewisseld worden.





The Meuse is the source for drinking water in the region of Rotterdam and Zeeuws Vlaanderen



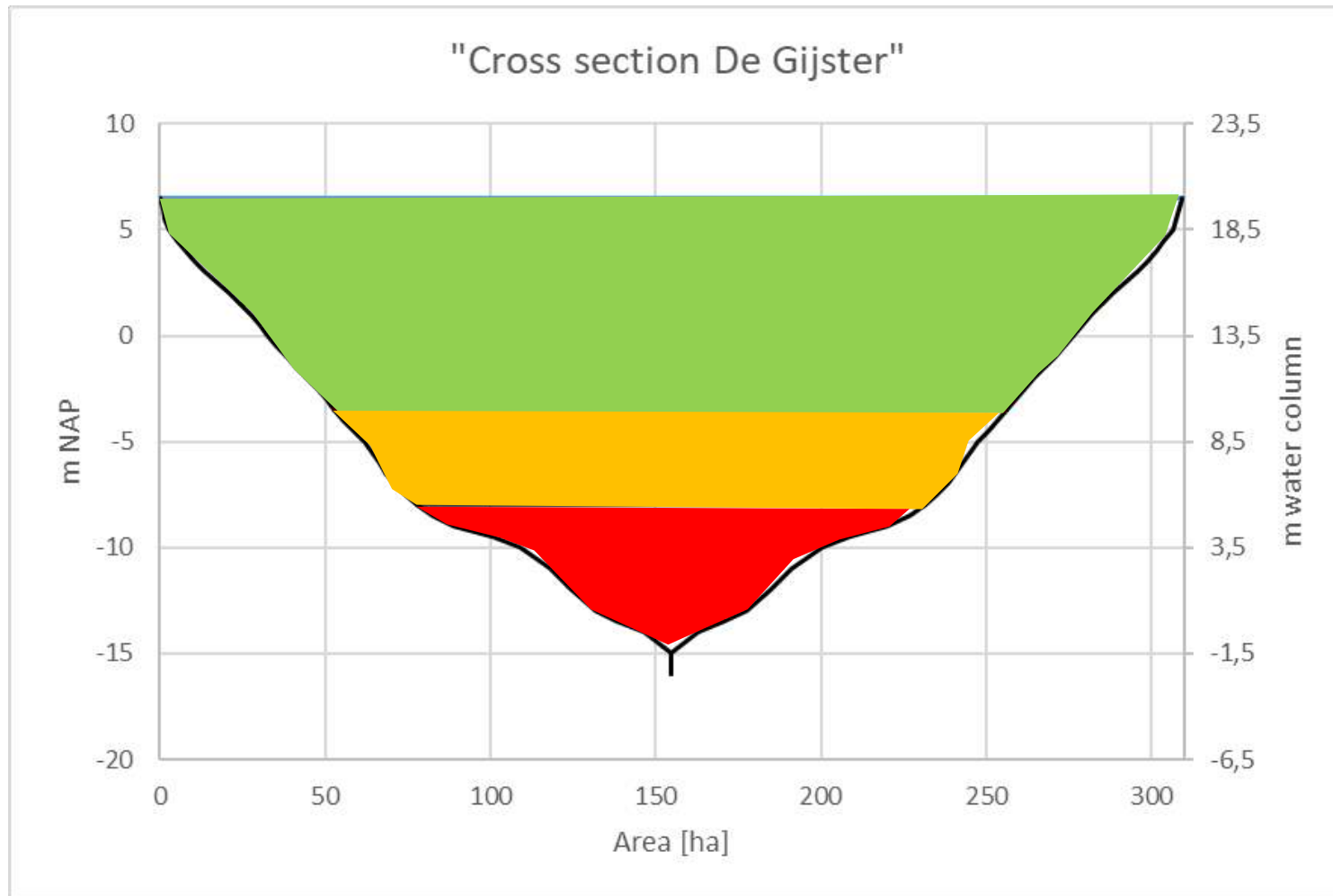


Evides uses one storage and two process reservoirs





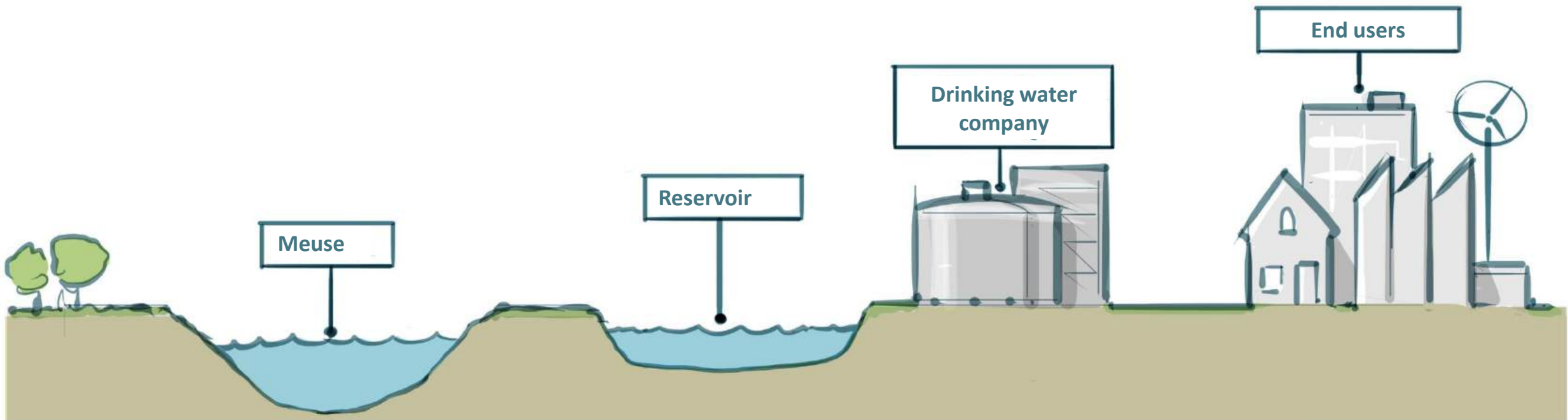
"Cross section De Gijster"



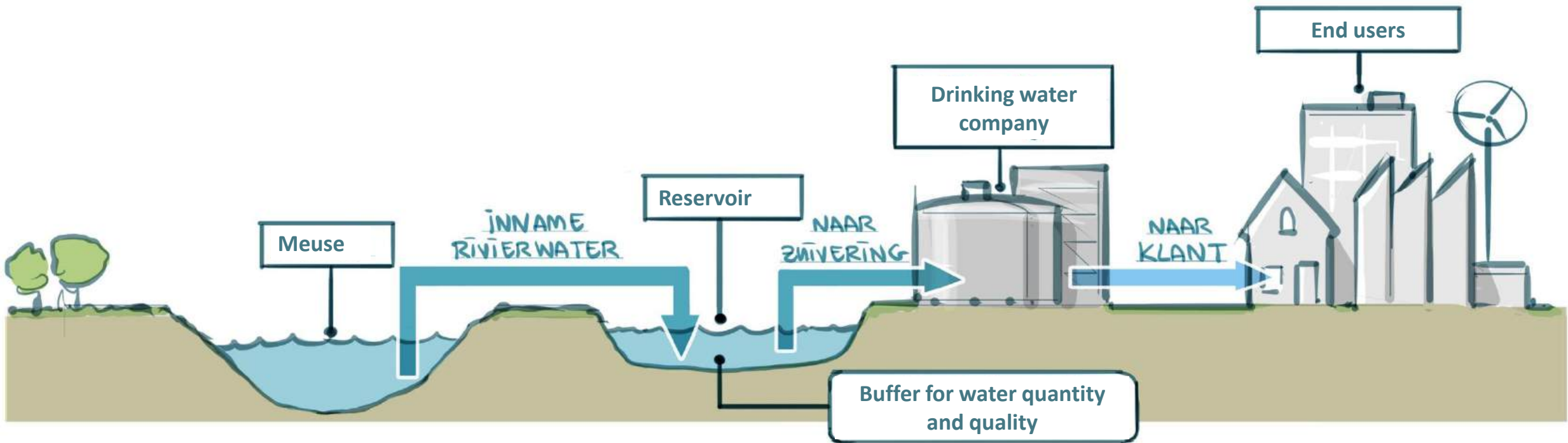
The Gijster has a safe buffer of about 25 million m³. The water level would drop 10 meters if that amount is used



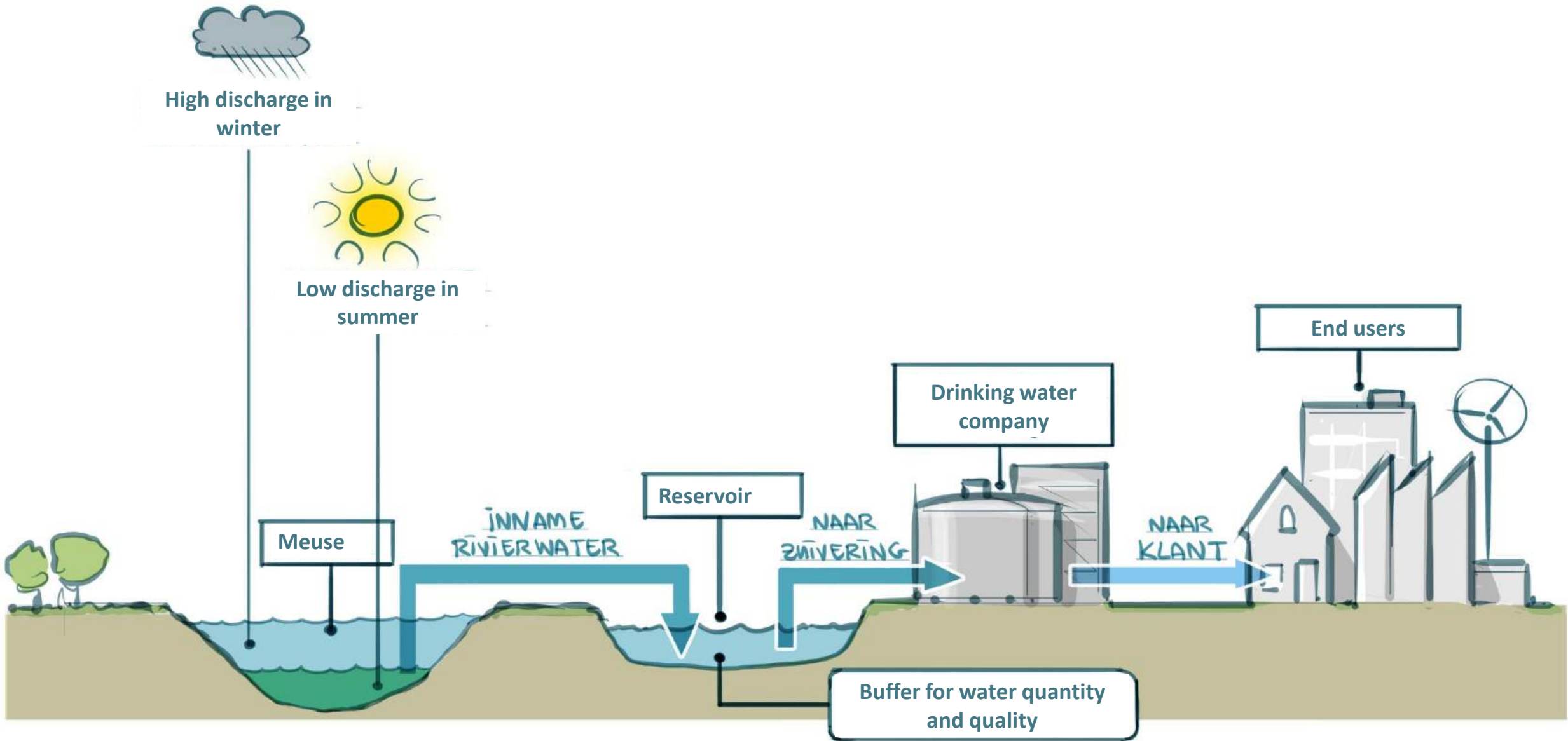
The process from source to tap



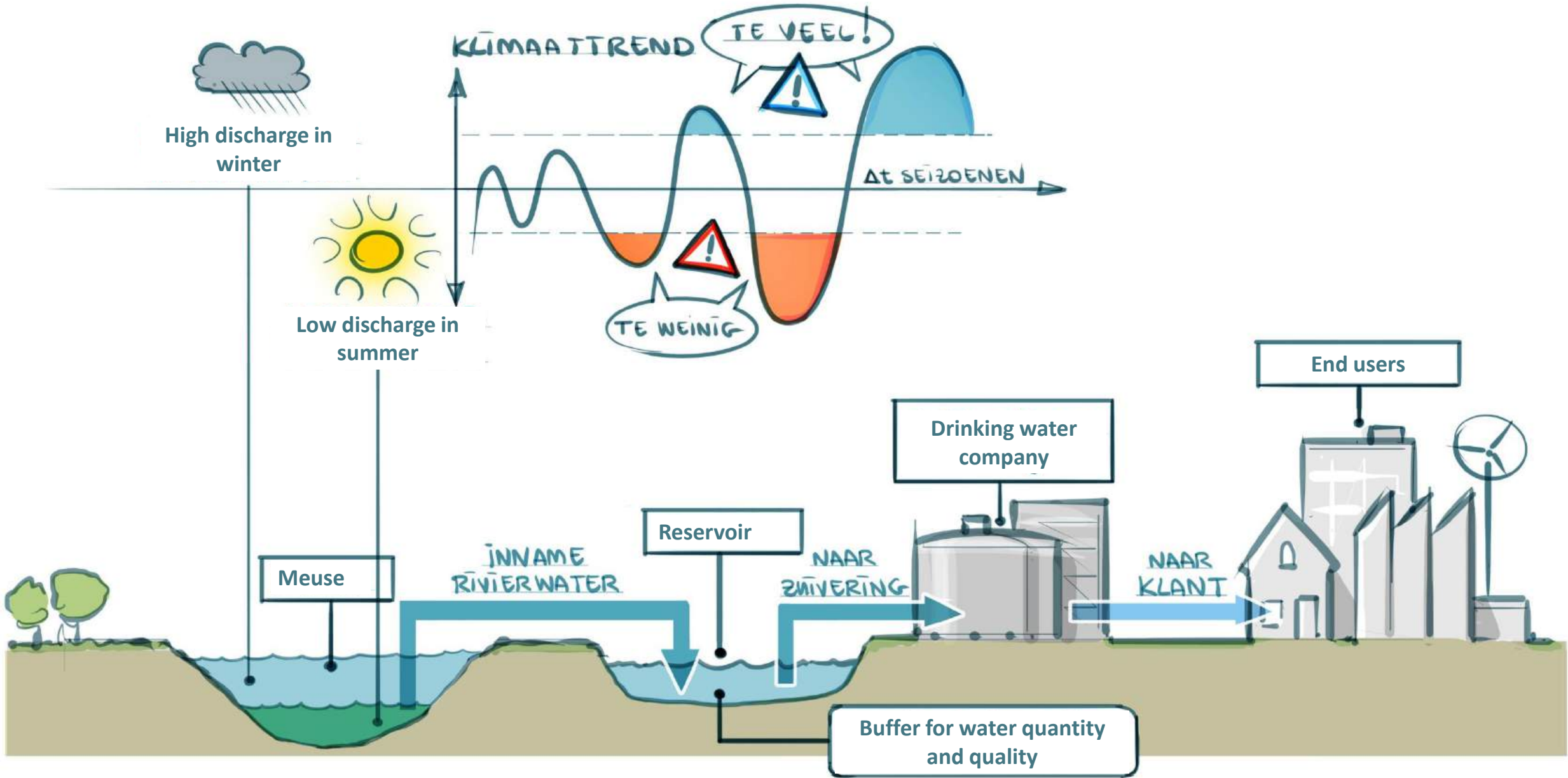
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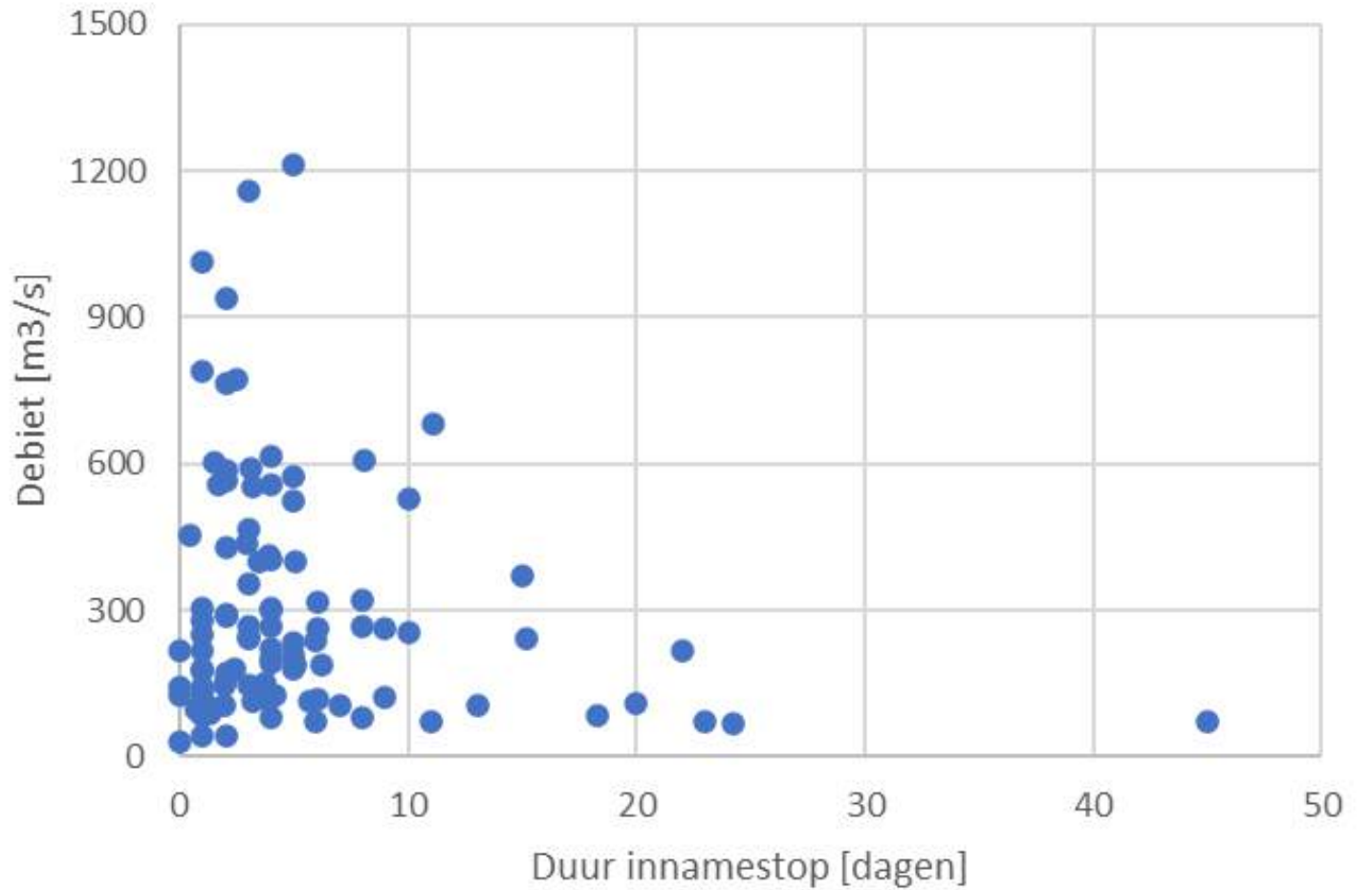




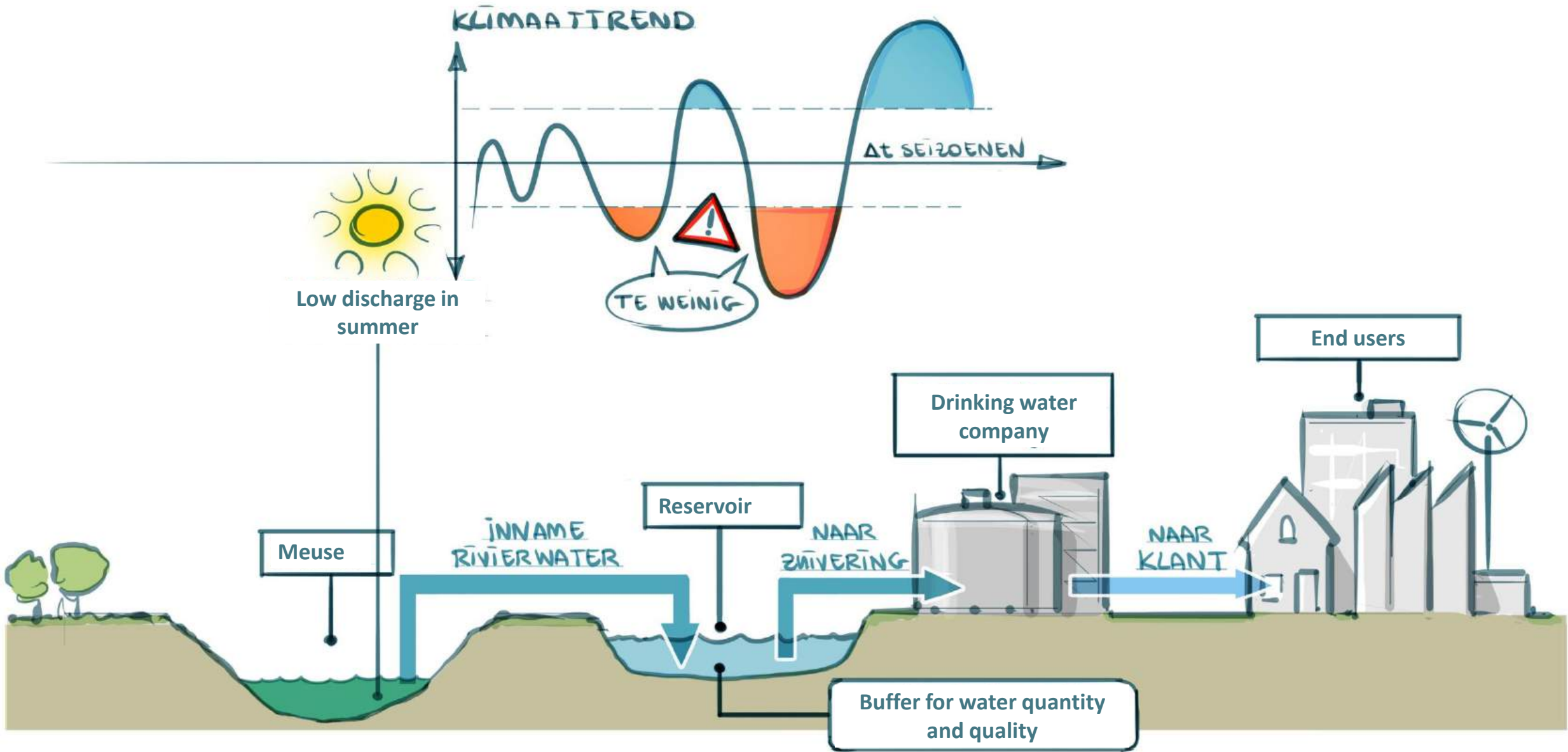
Historically, long lasting intake stops occur during low discharges due to high concentration of contaminants



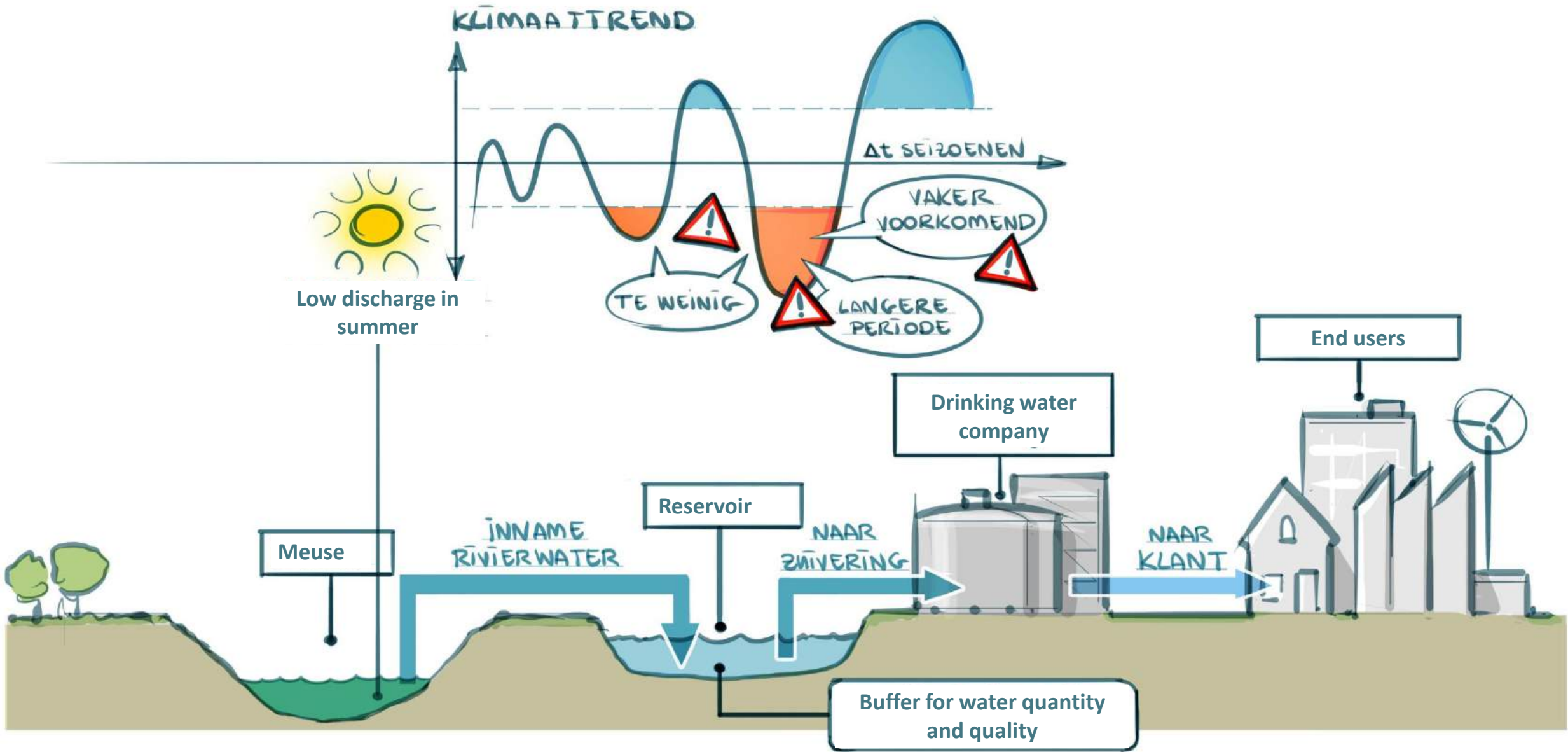
Waterkwaliteit



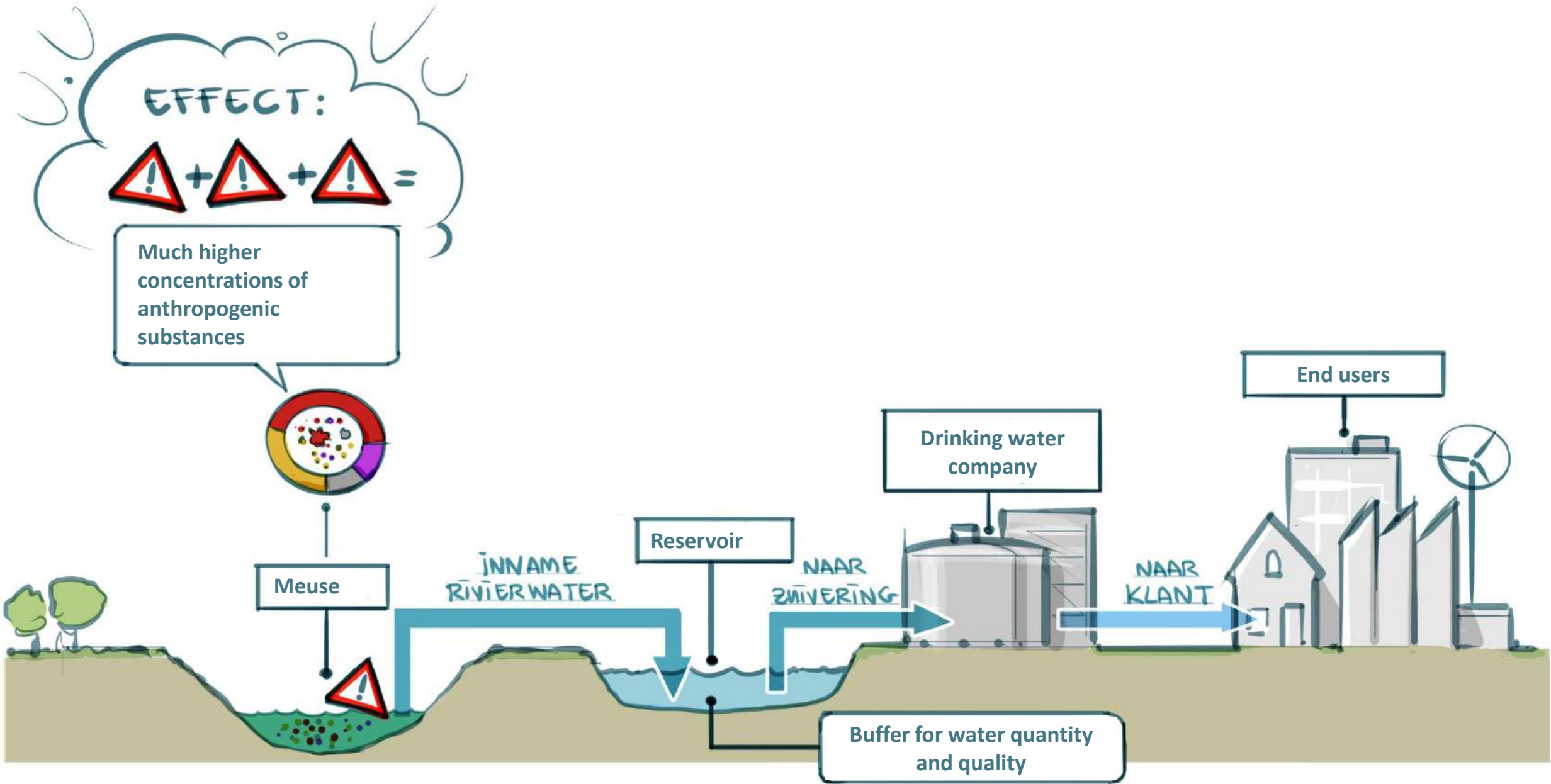
The process from source to tap



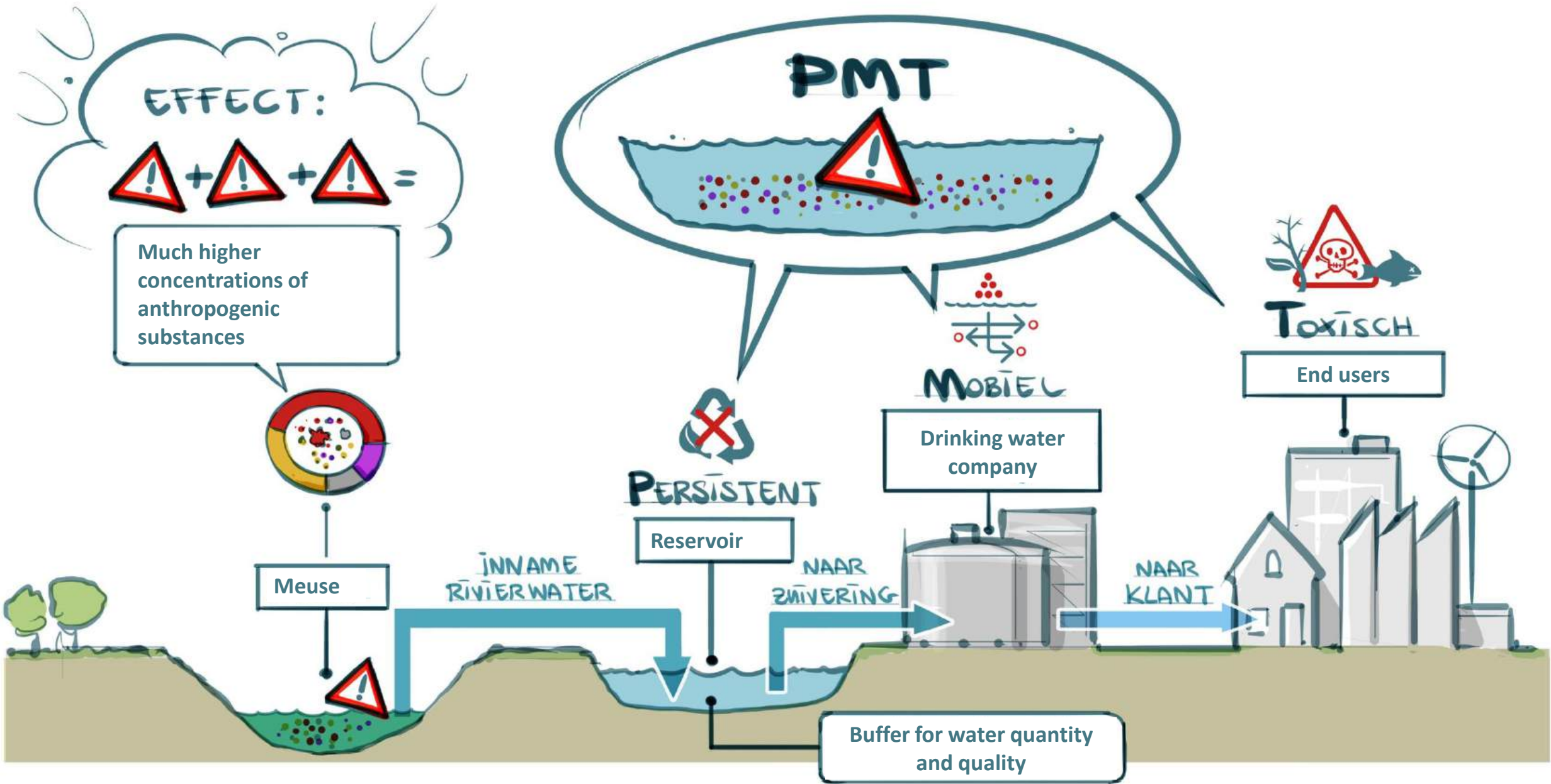
The process from source to tap



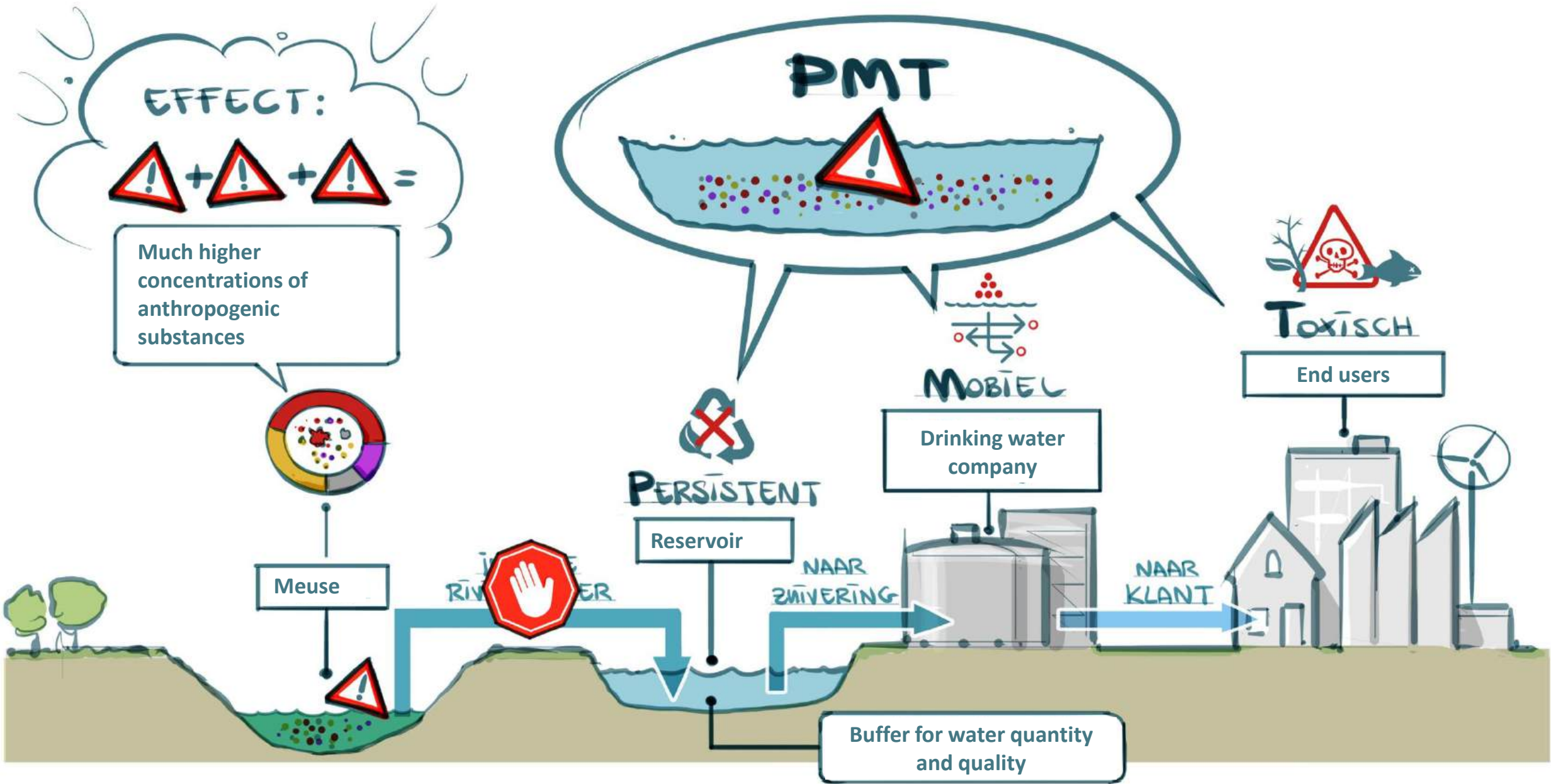
The process from source to tap



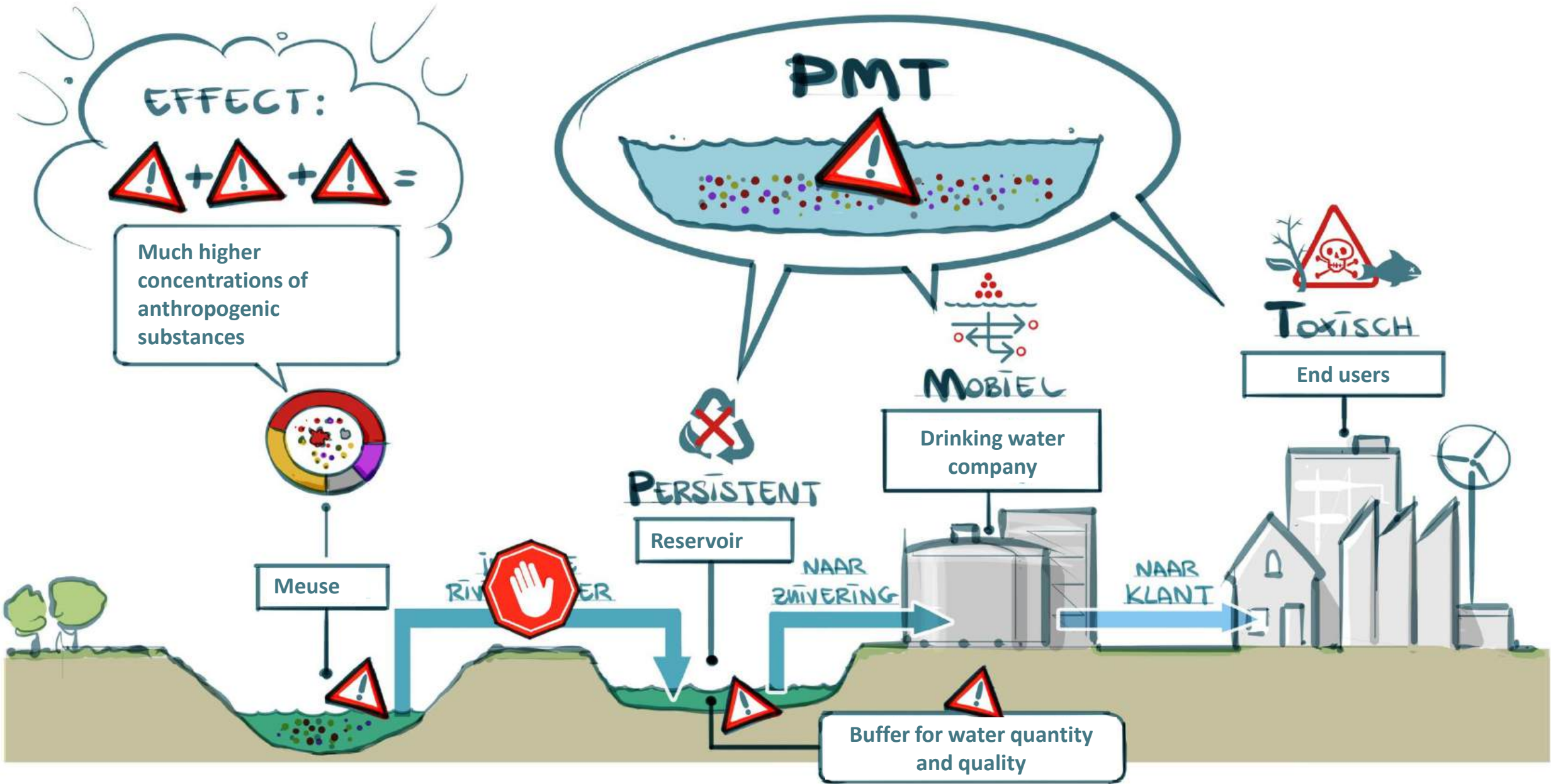
The process from source to tap



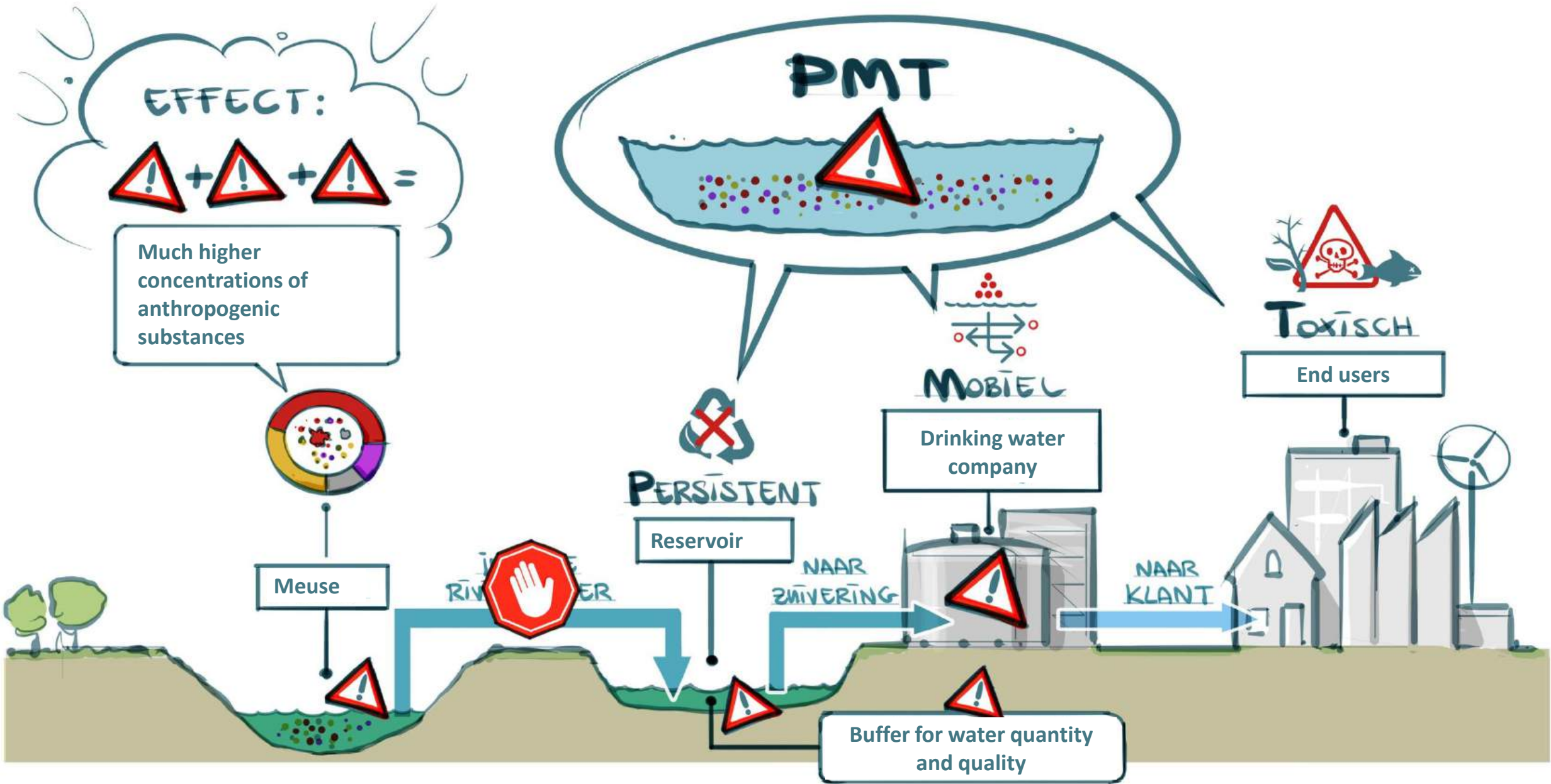
The process from source to tap



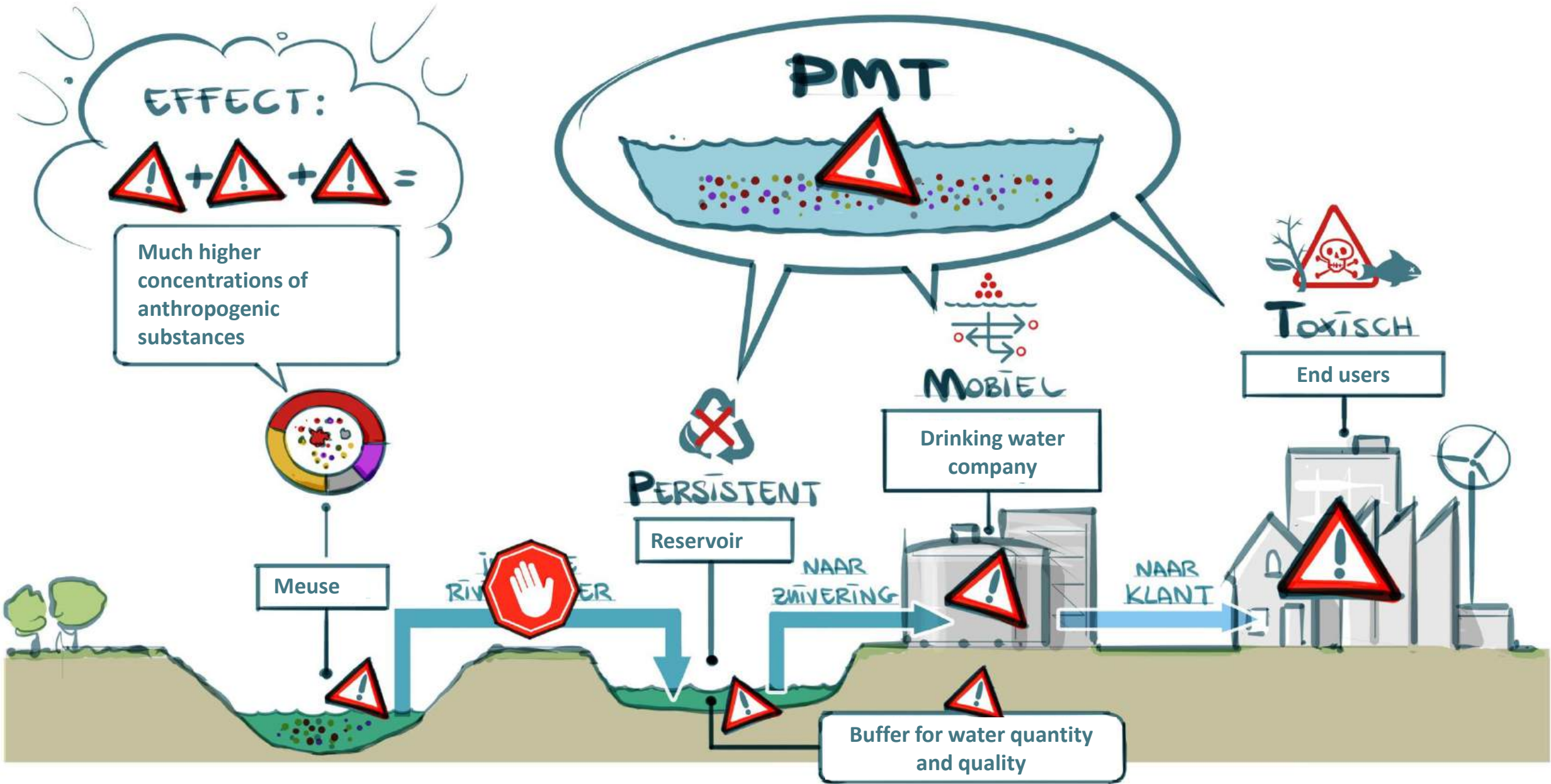
The process from source to tap



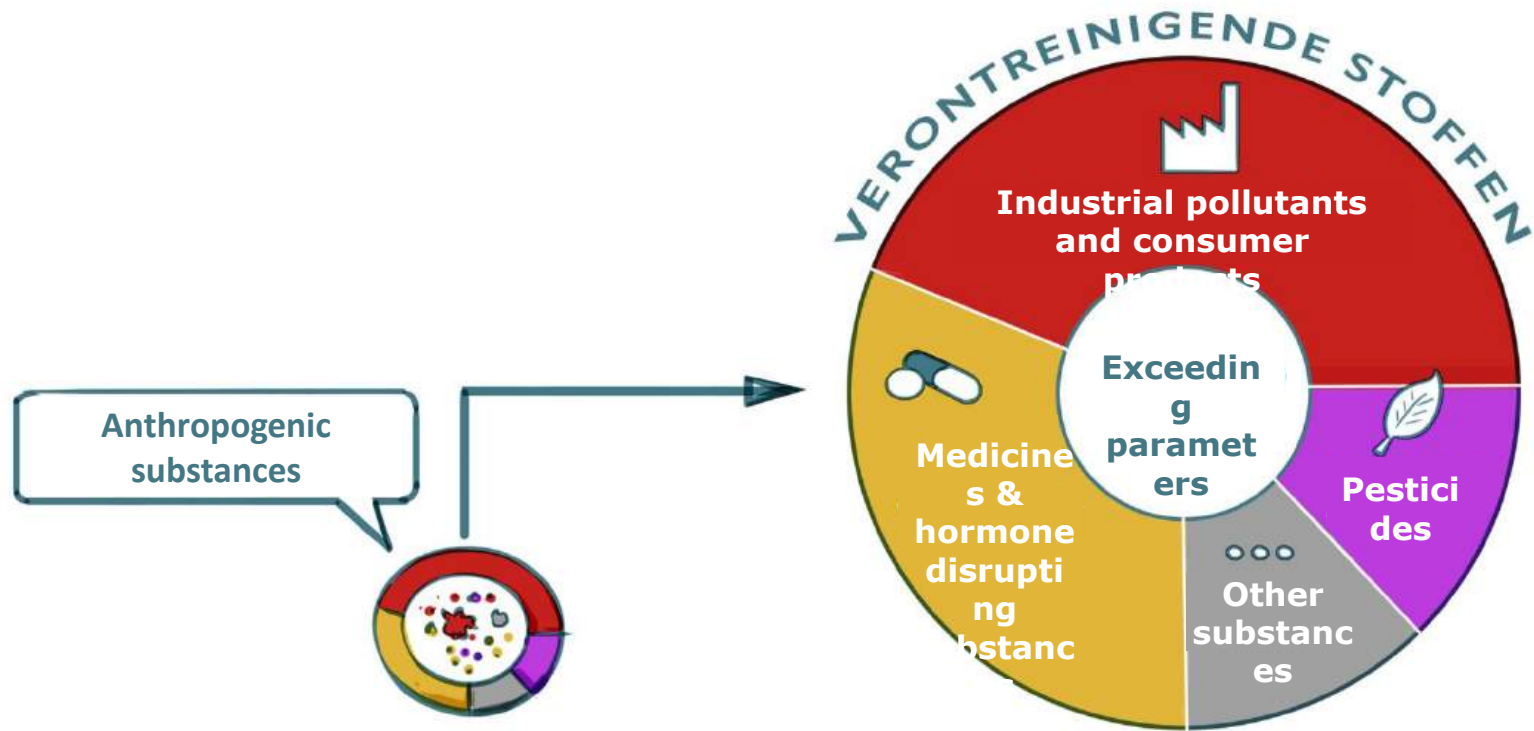
The process from source to tap



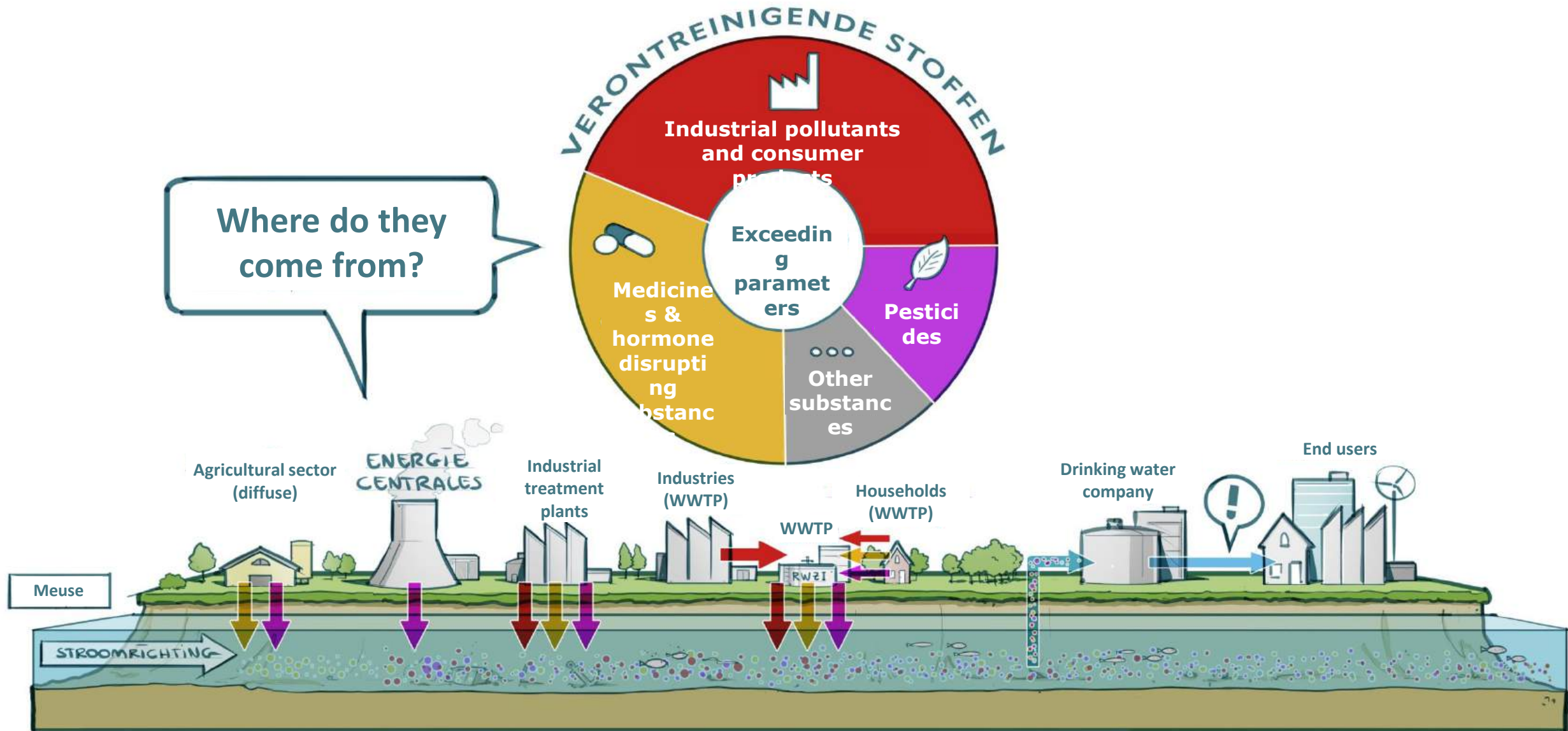
The process from source to tap



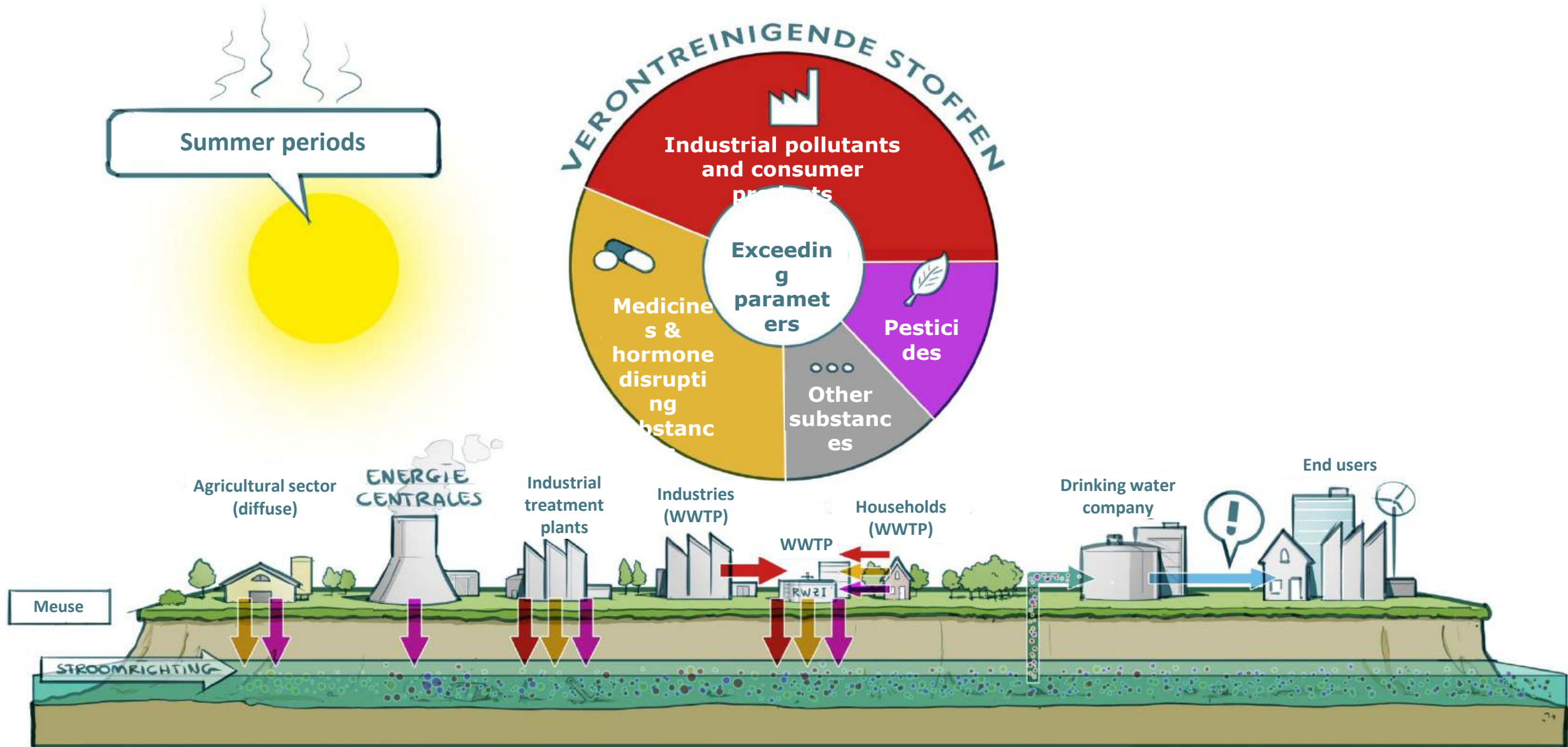
The origin of contaminants and importance of water quality



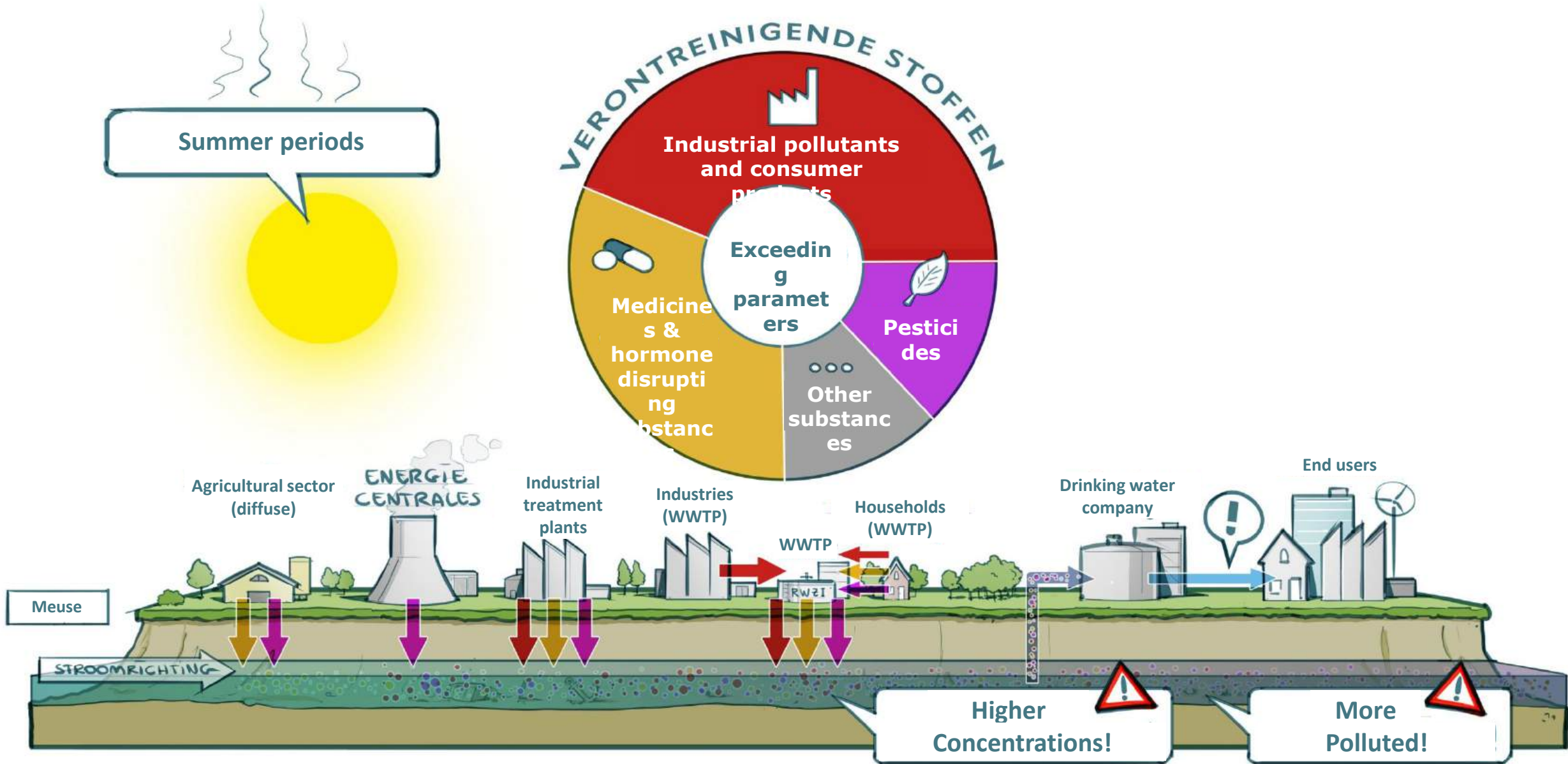
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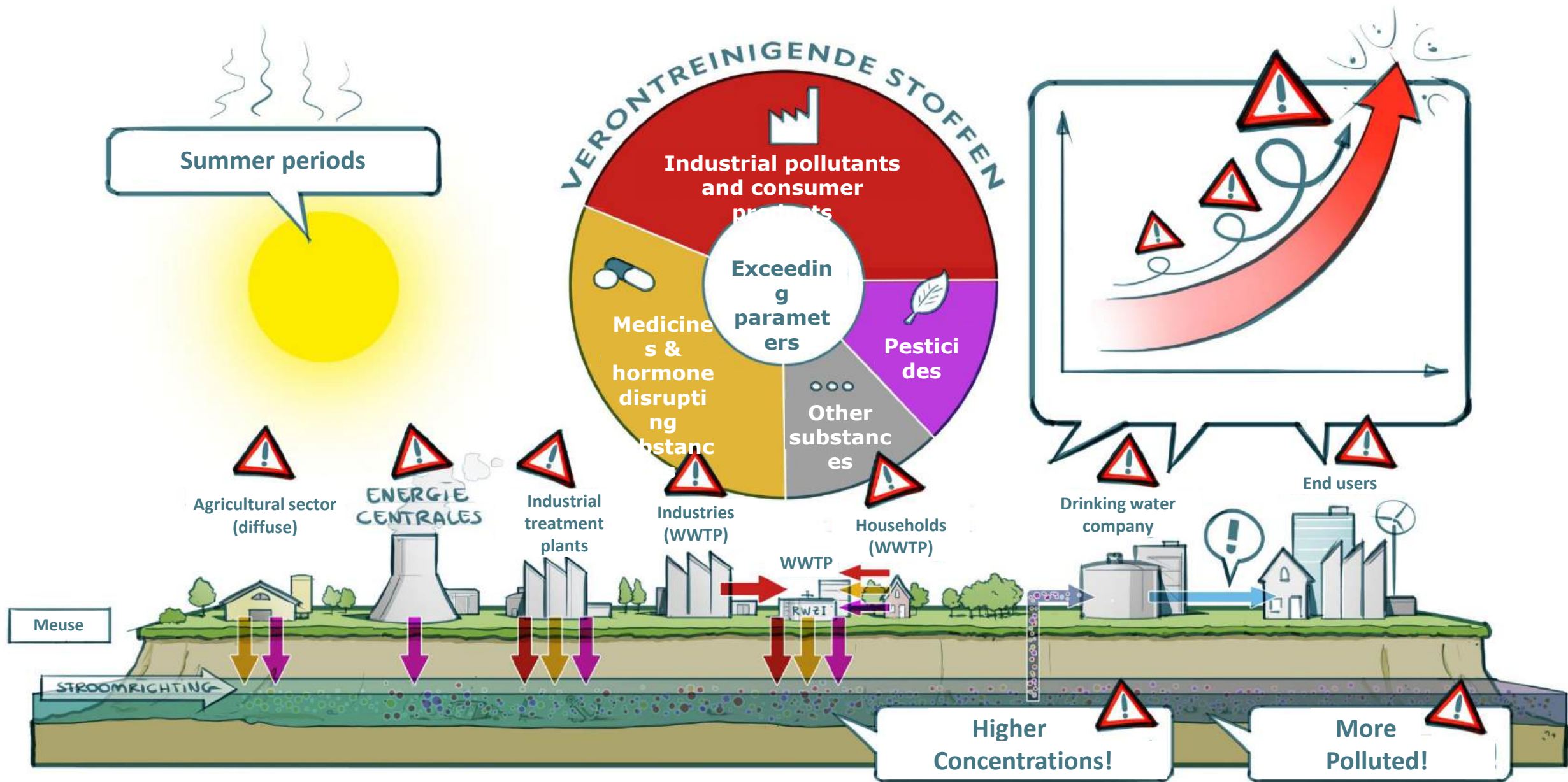
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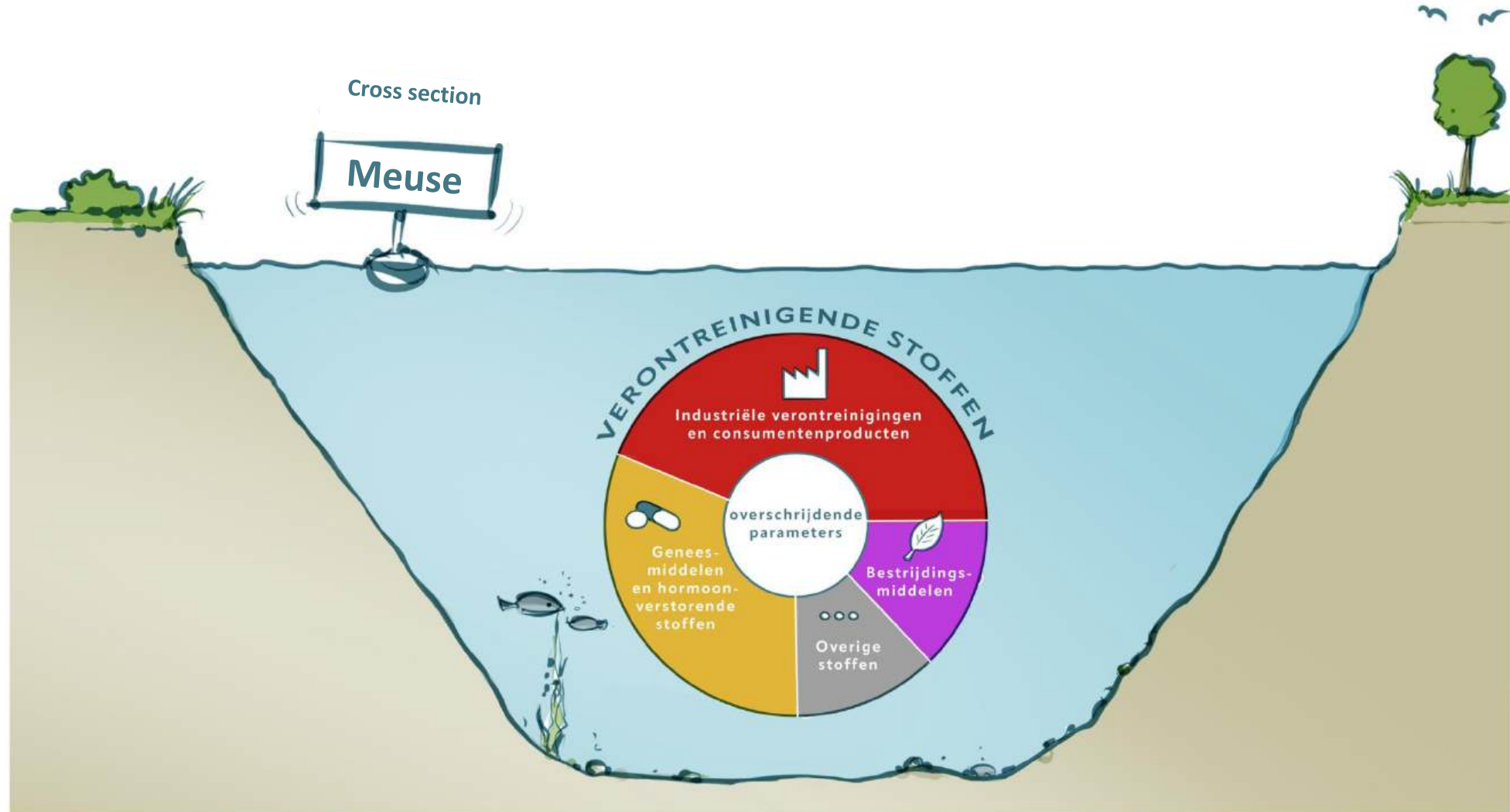
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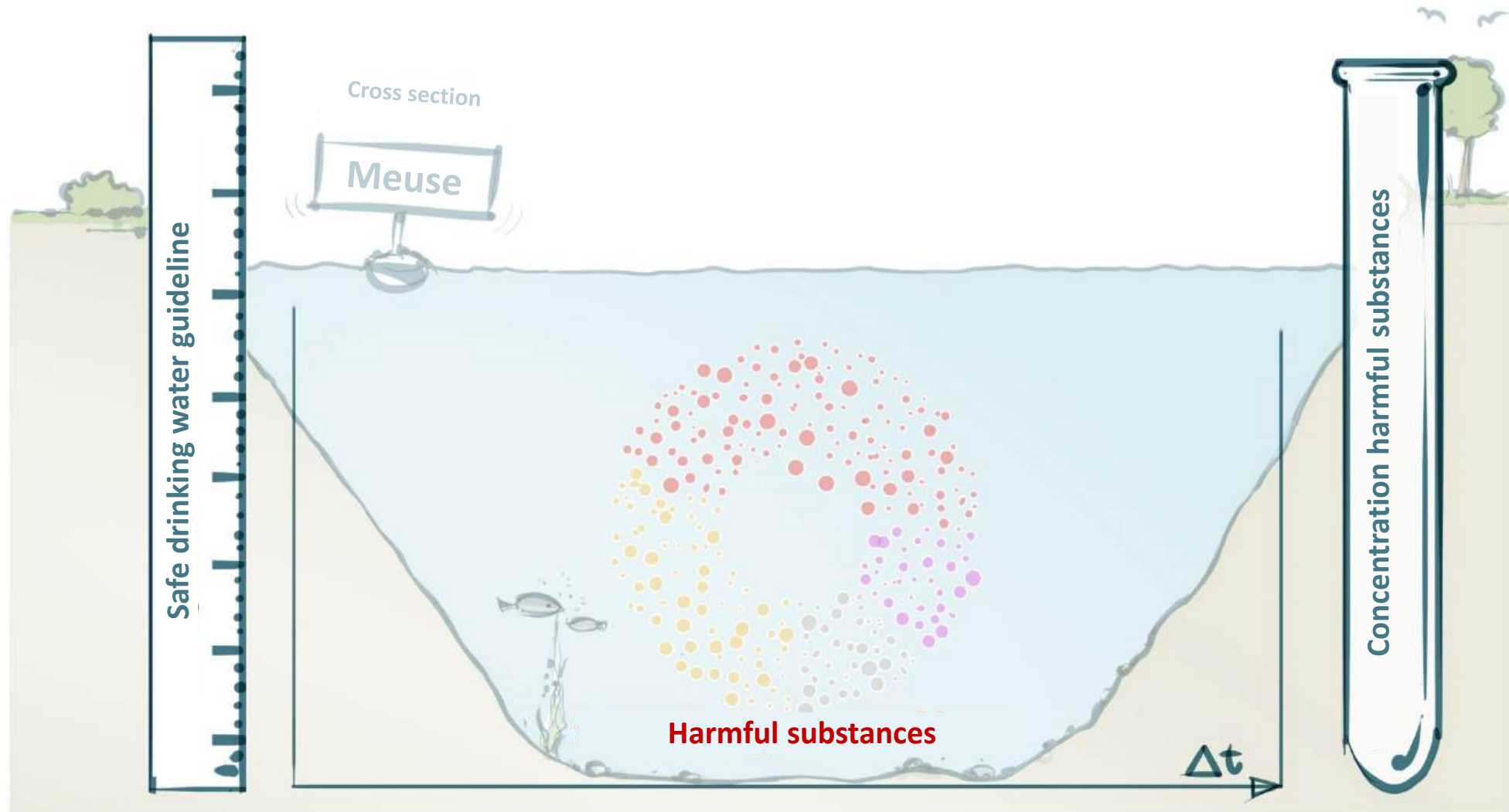
The origin of contaminants and importance of water quality



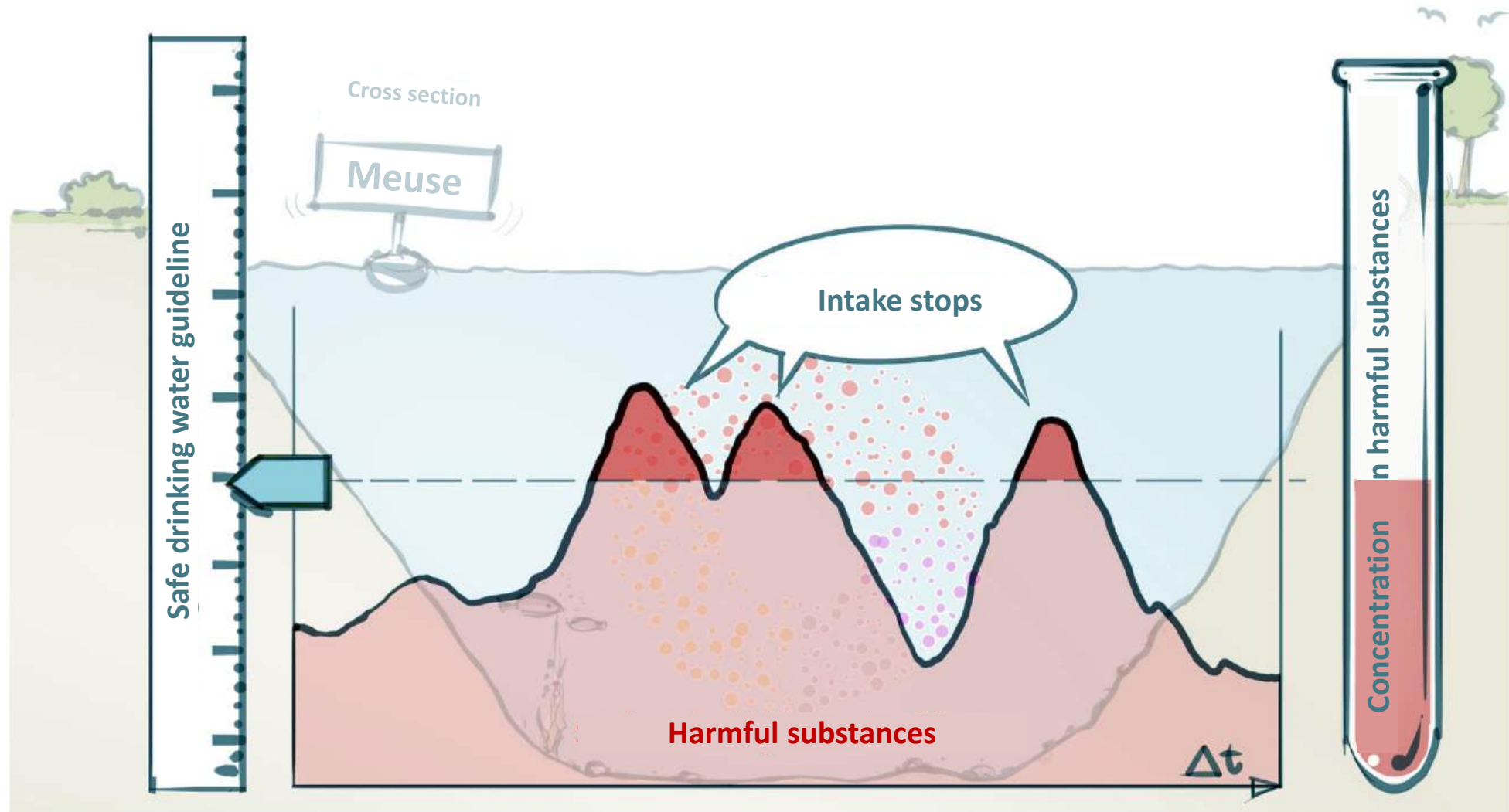
Pressure on water quality



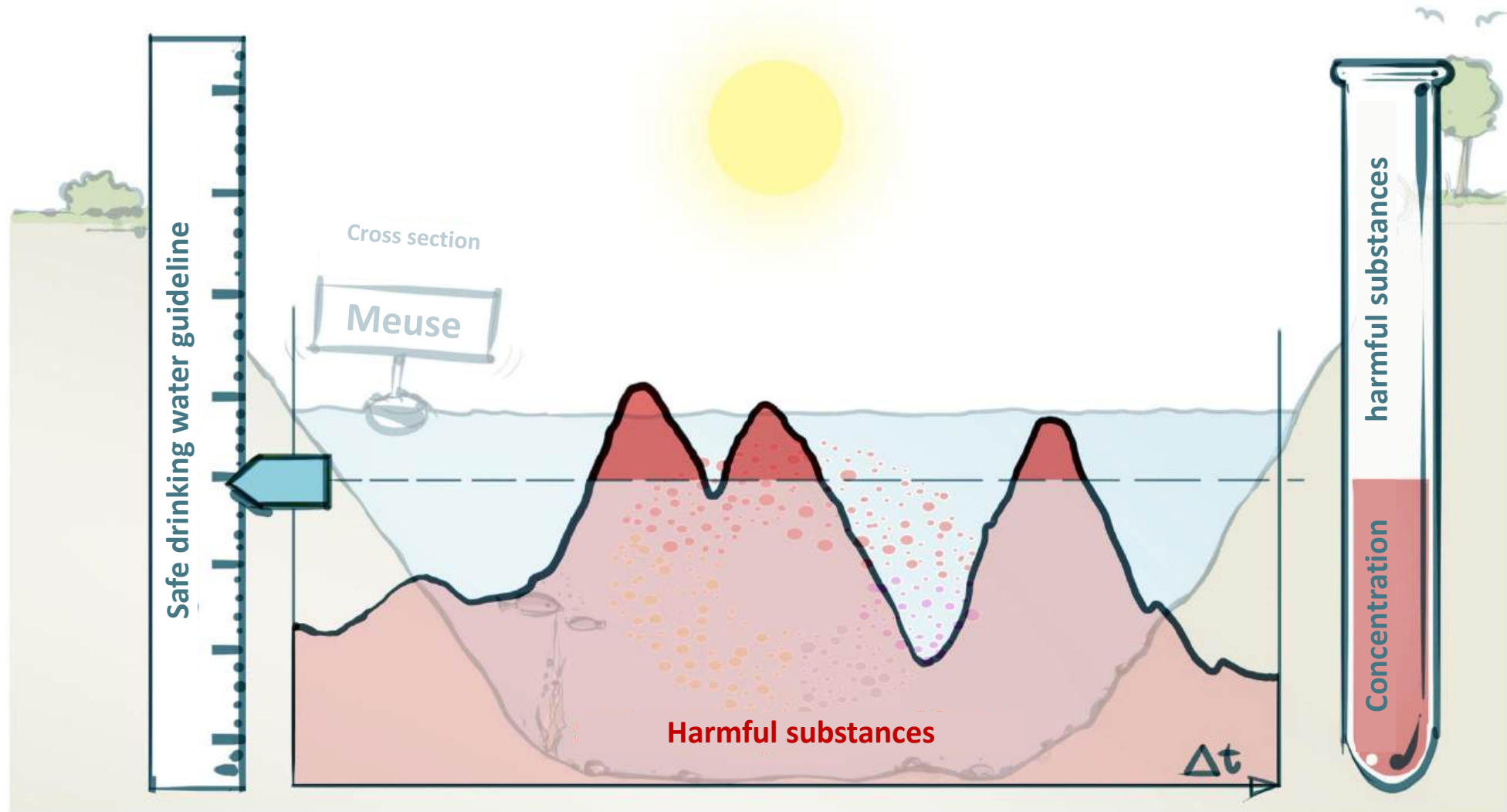
Pressure on water quality



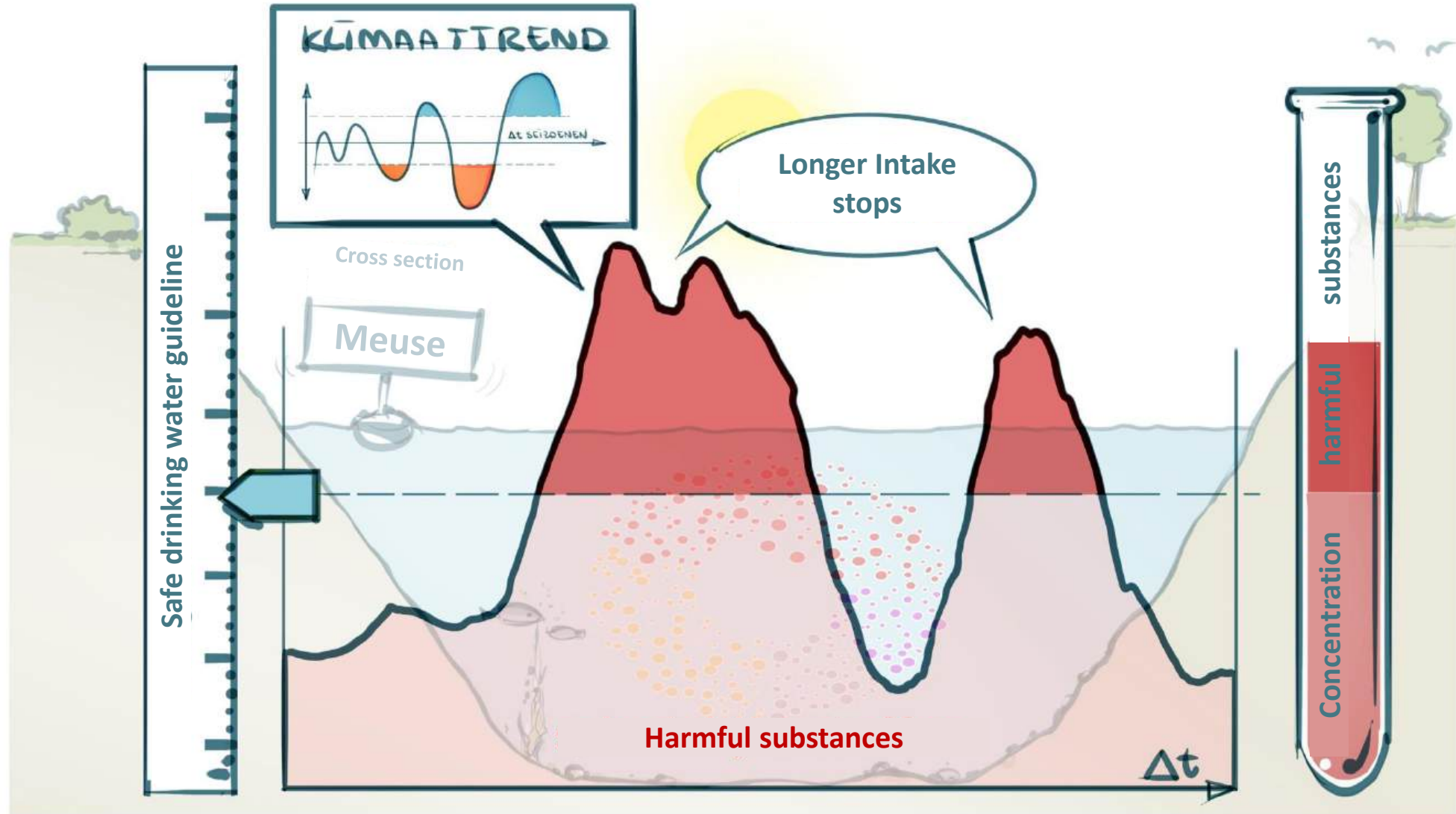
Pressure on water quality



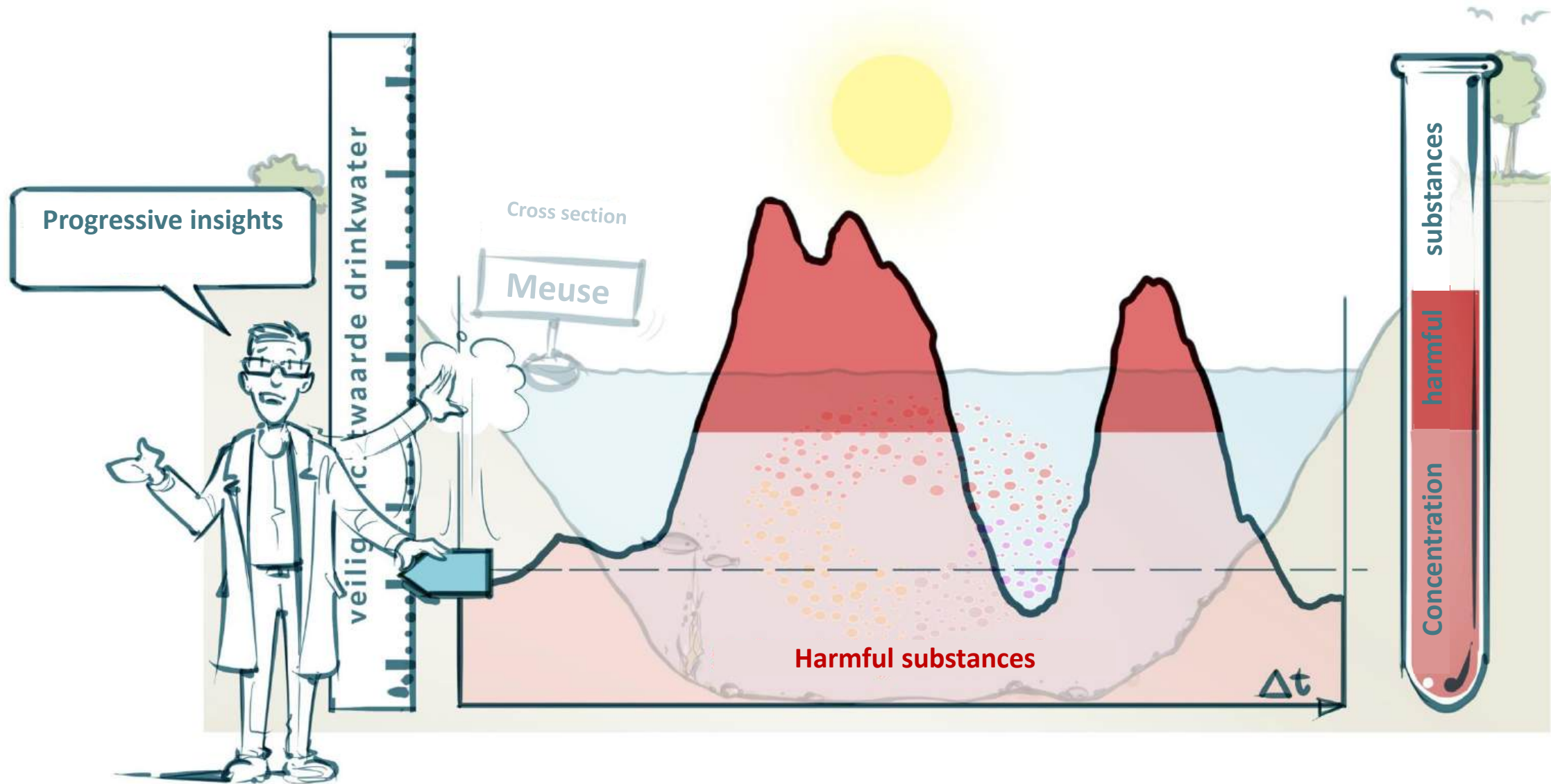
Pressure on water quality



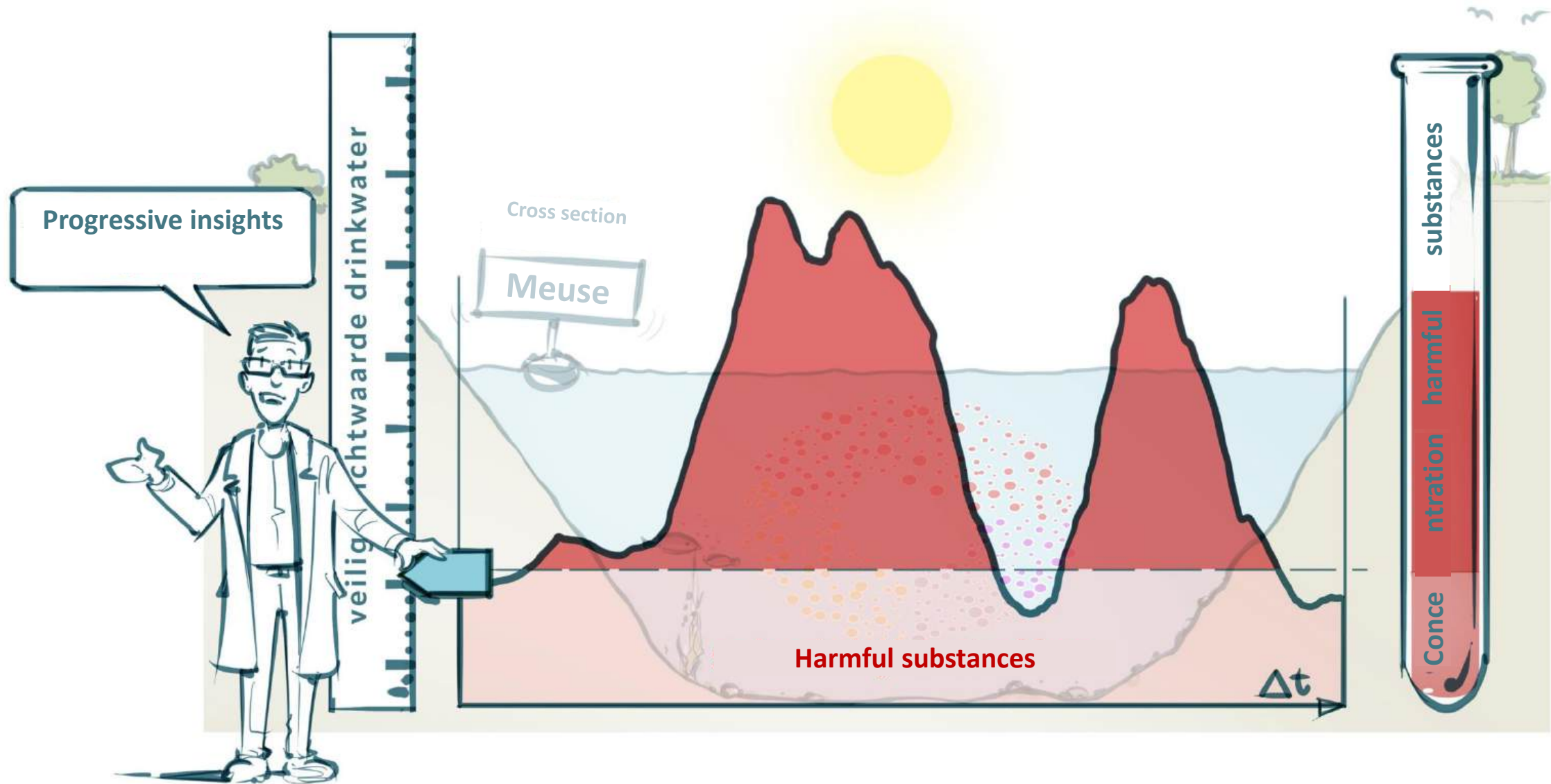
Pressure on water quality



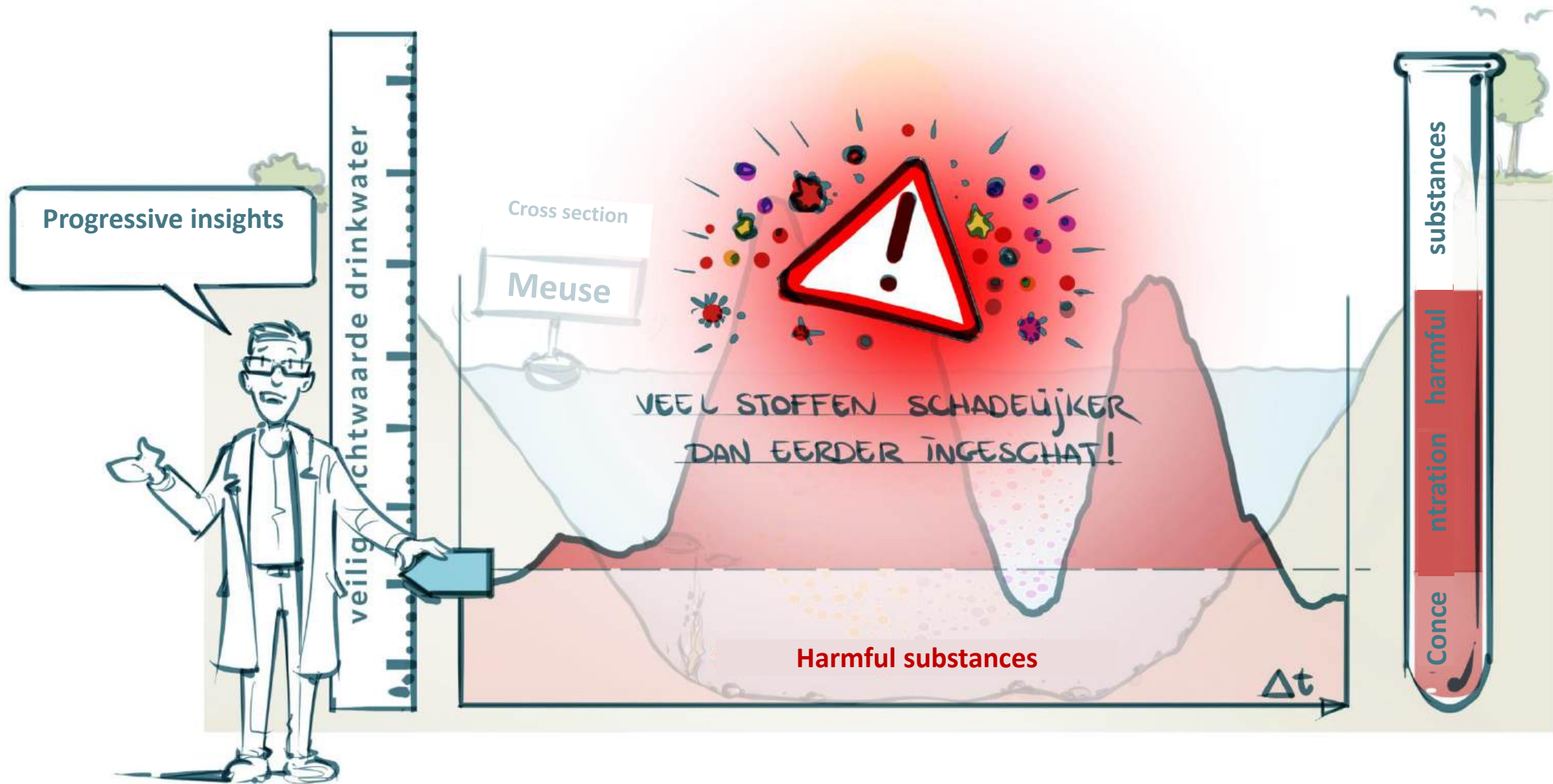
Pressure on water quality



Pressure on water quality



Pressure on water quality





Pressure on drinking water system increases





Water quality issues
during low flow
conditions

Pressure on drinking
water system increases





Water quality issues during low flow conditions



Stricter regulations

Pressure on drinking water system increases

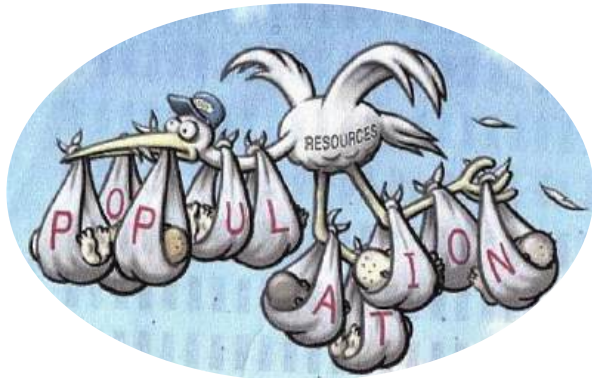




Water quality issues during low flow conditions



Stricter regulations

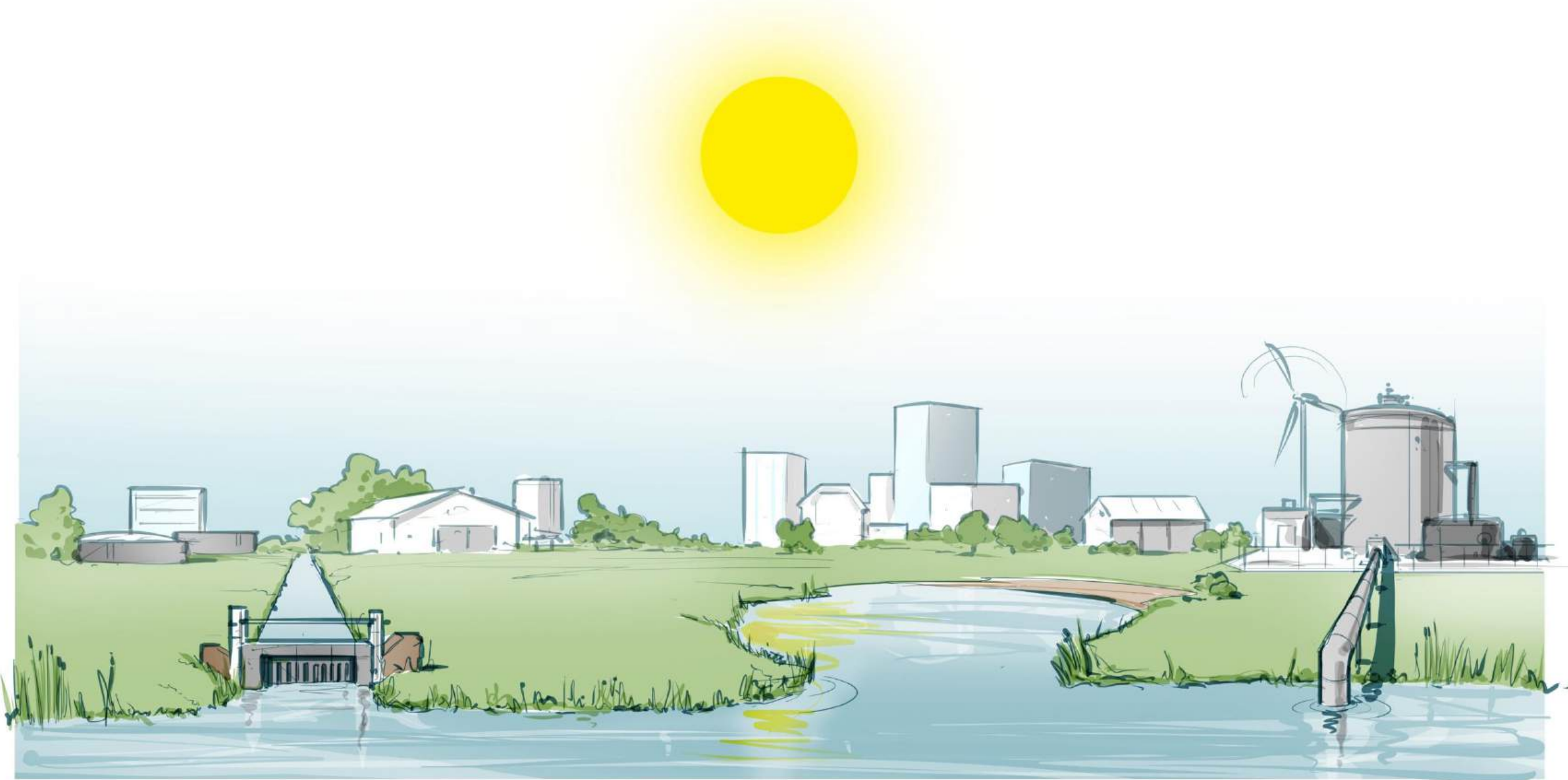


Water demand increases

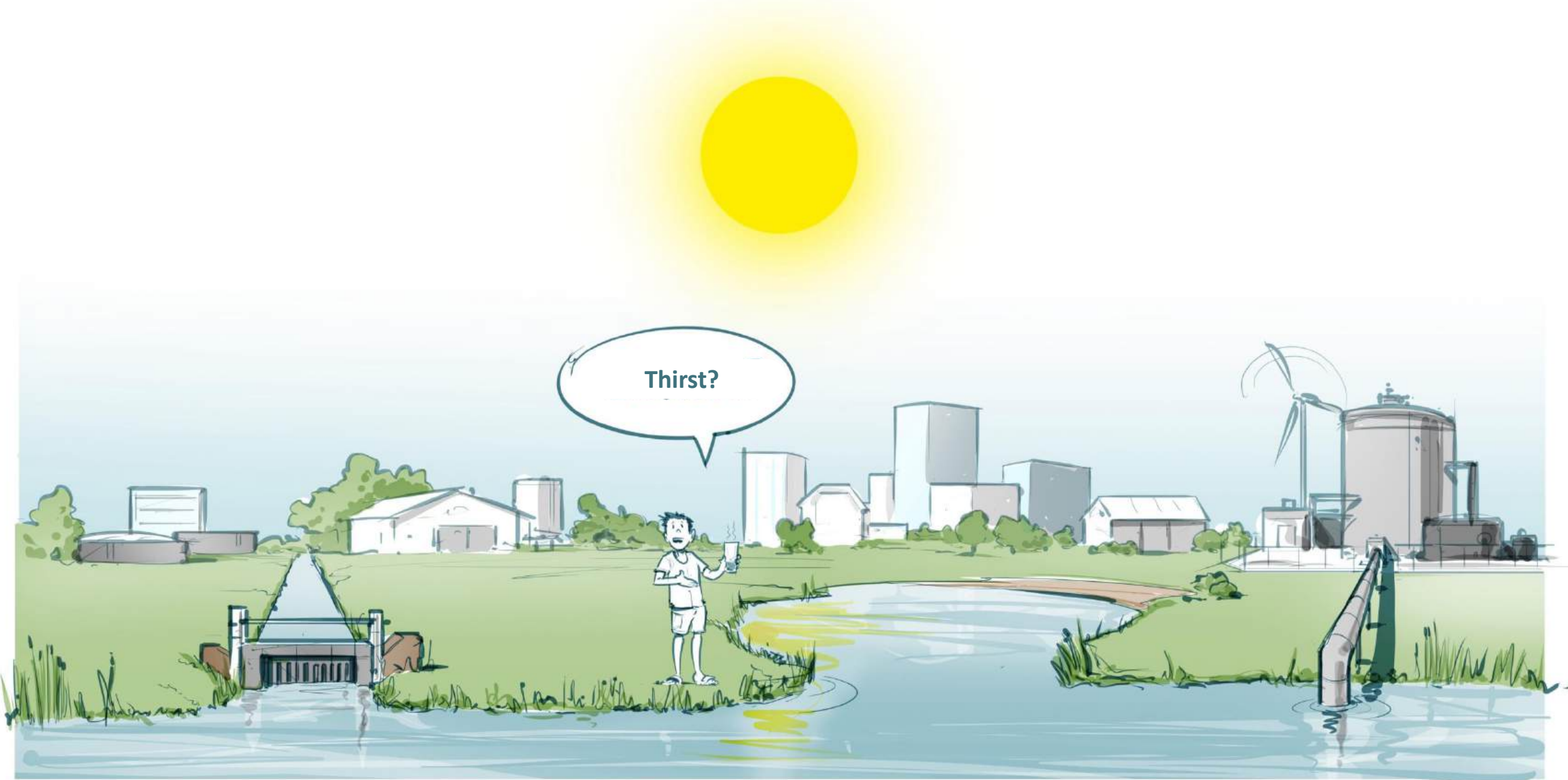
Pressure on drinking water system increases



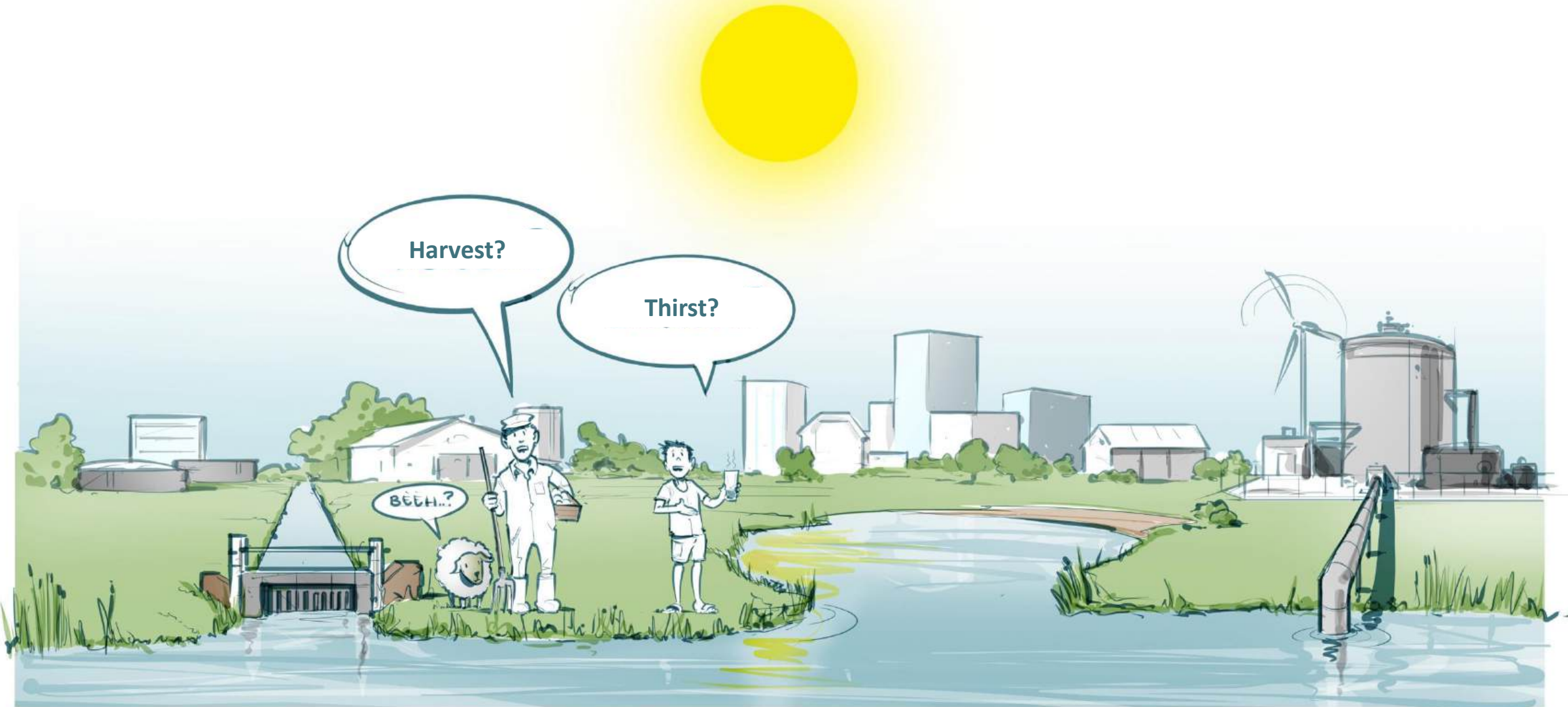
Social risks of water quality and quantity



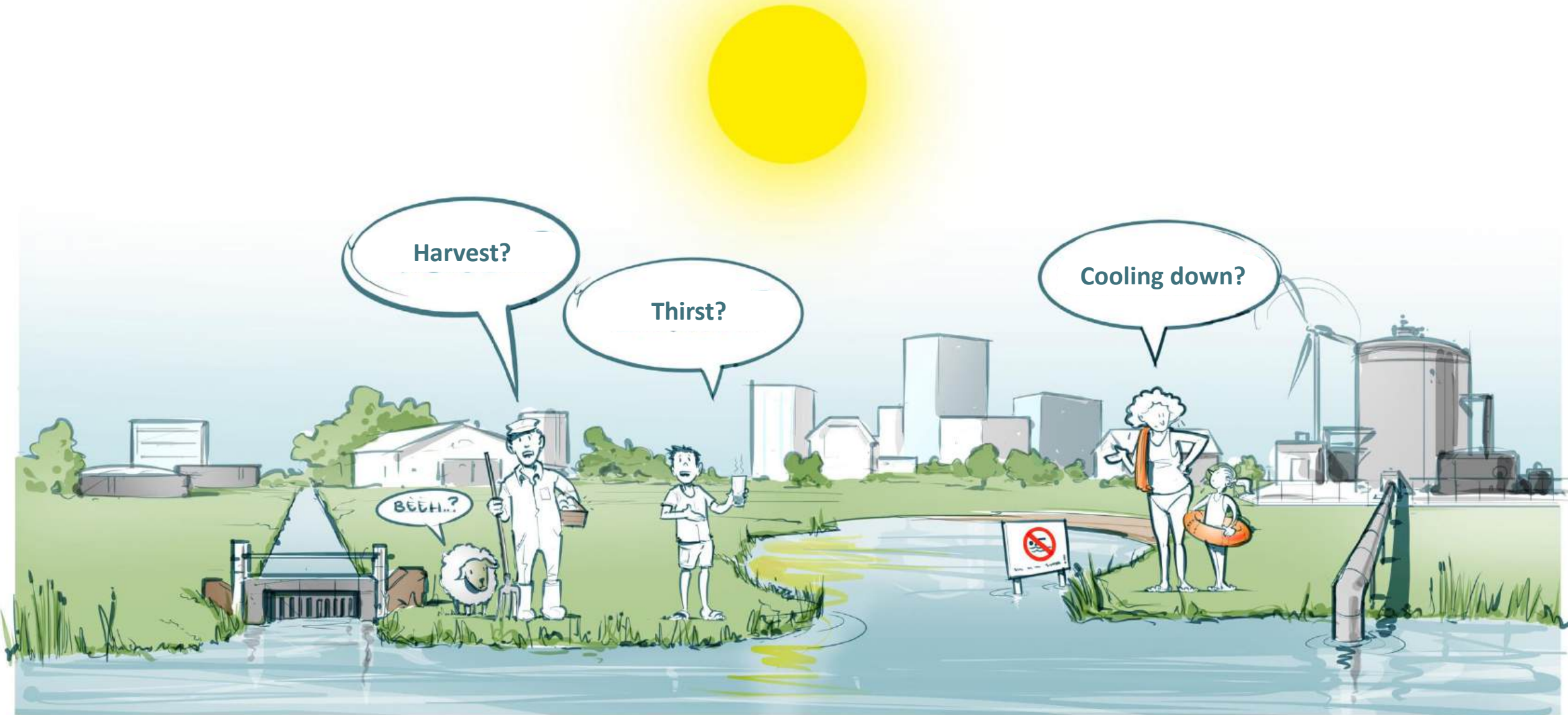
Social risks of water quality and quantity



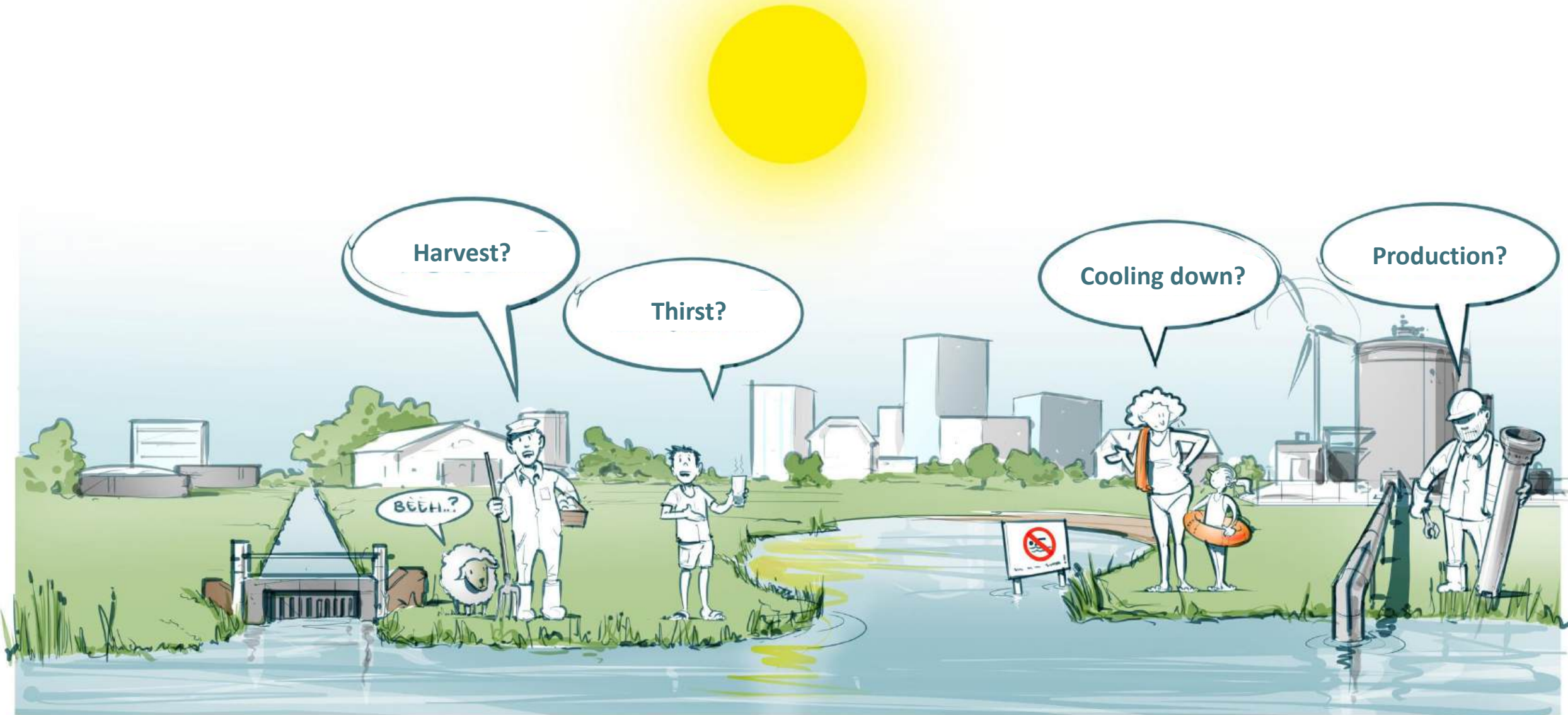
Social risks of water quality and quantity



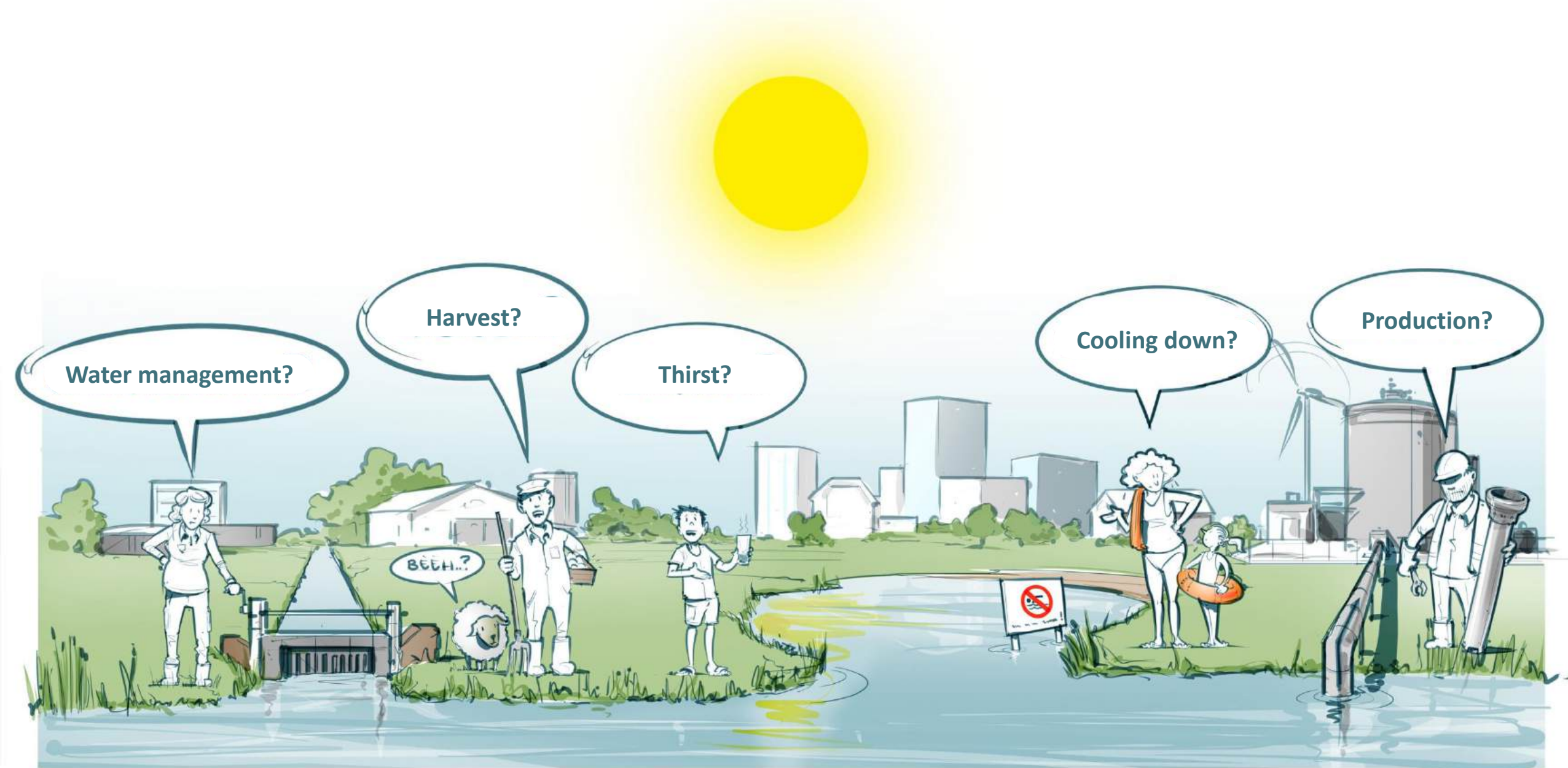
Social risks of water quality and quantity



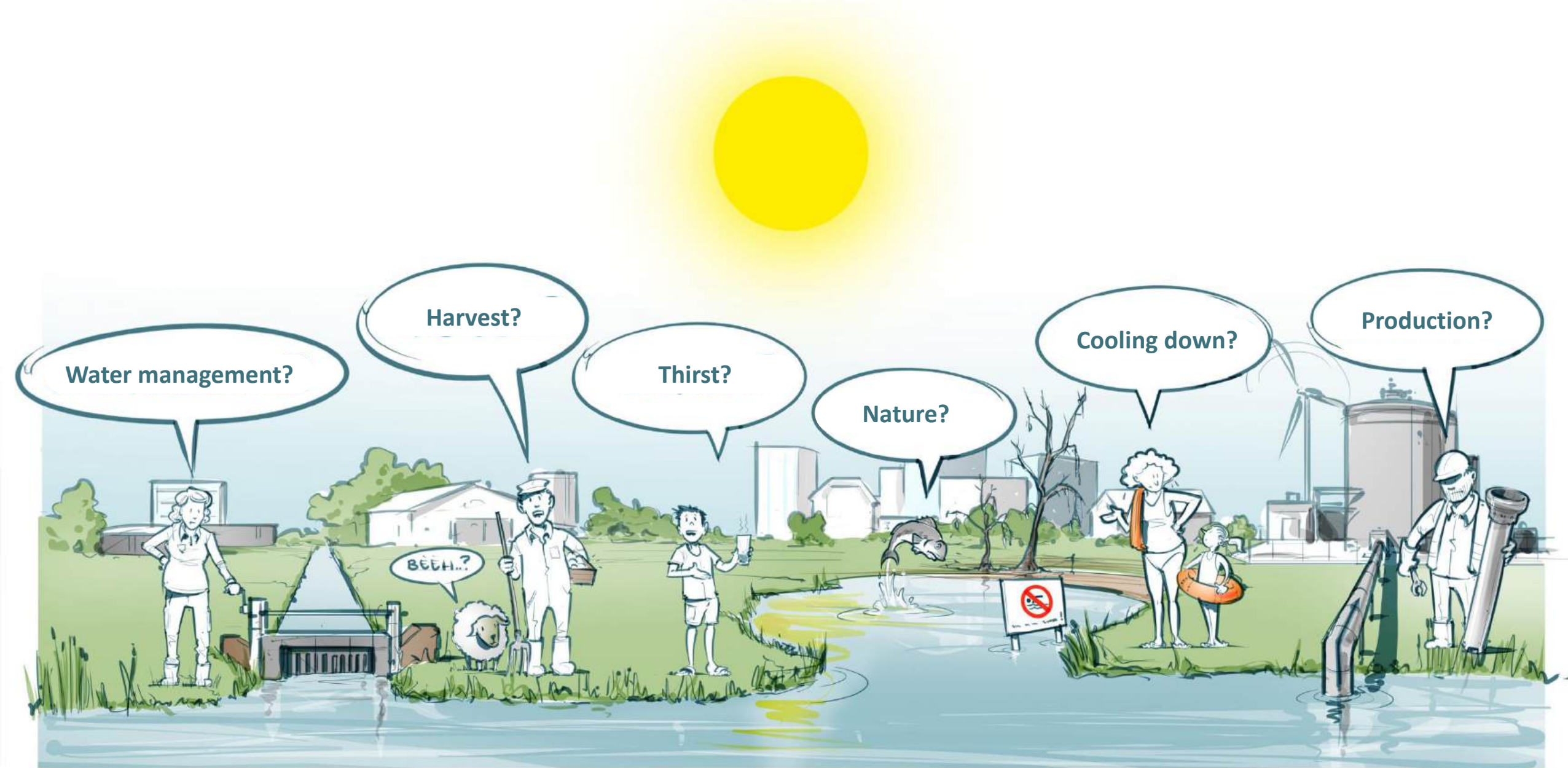
Social risks of water quality and quantity



Social risks of water quality and quantity

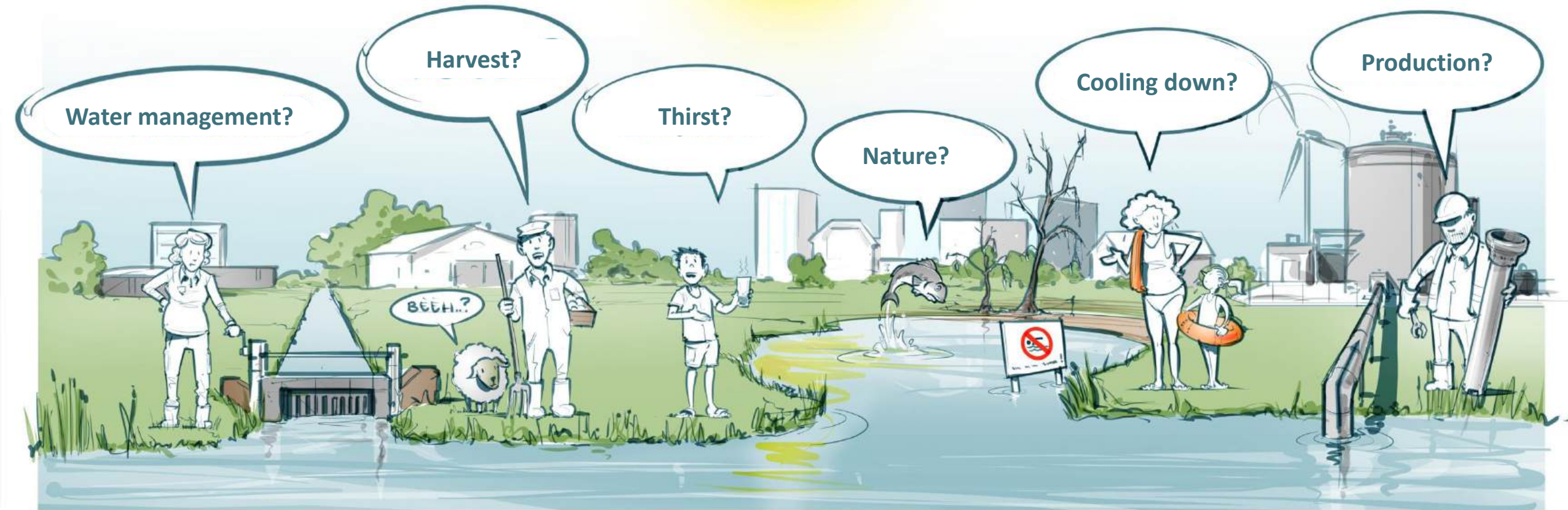


Social risks of water quality and quantity



Social risks of water quality and quantity

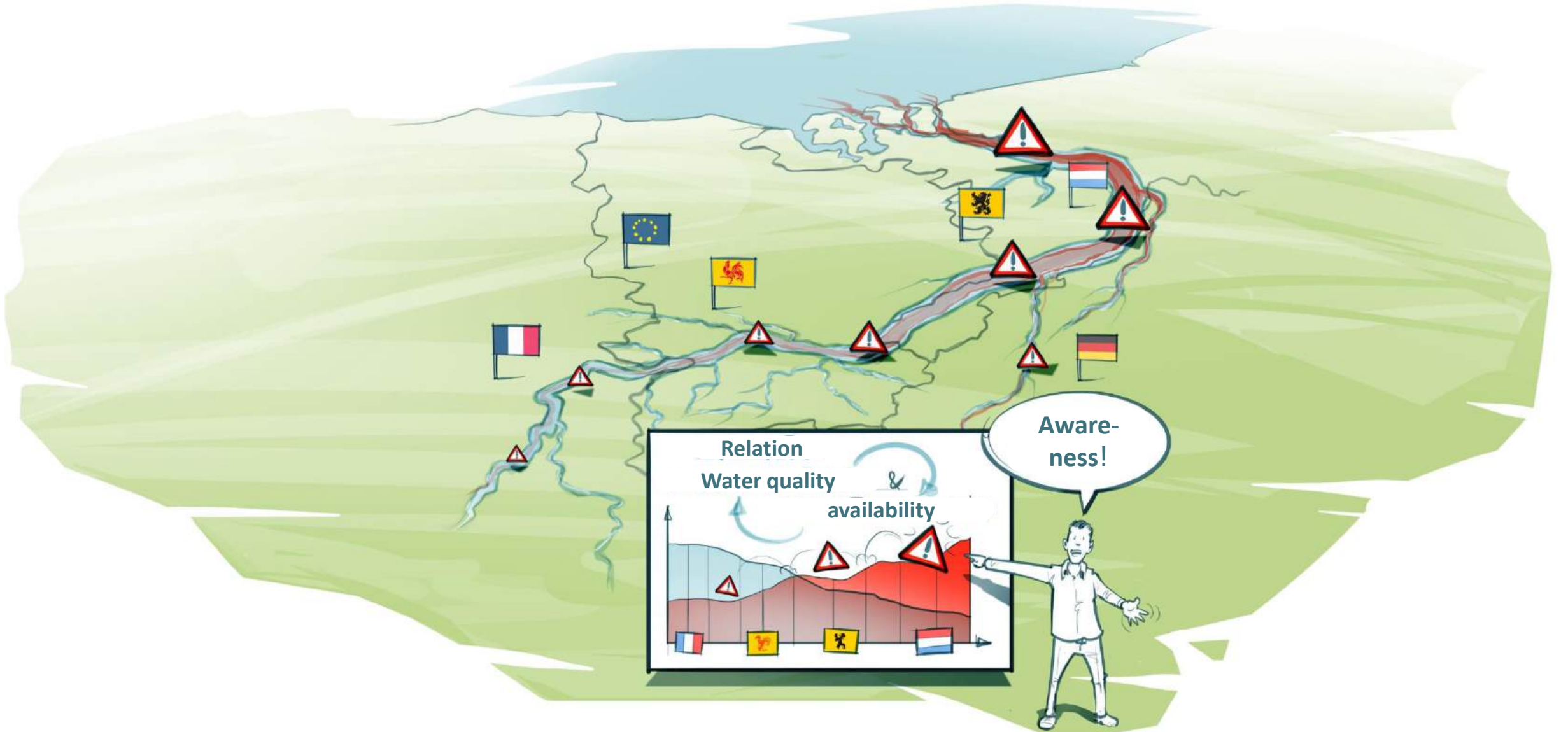
Good water quality is of collective importance



Time for action in the Meuse catchment



Time for action in the Meuse catchment



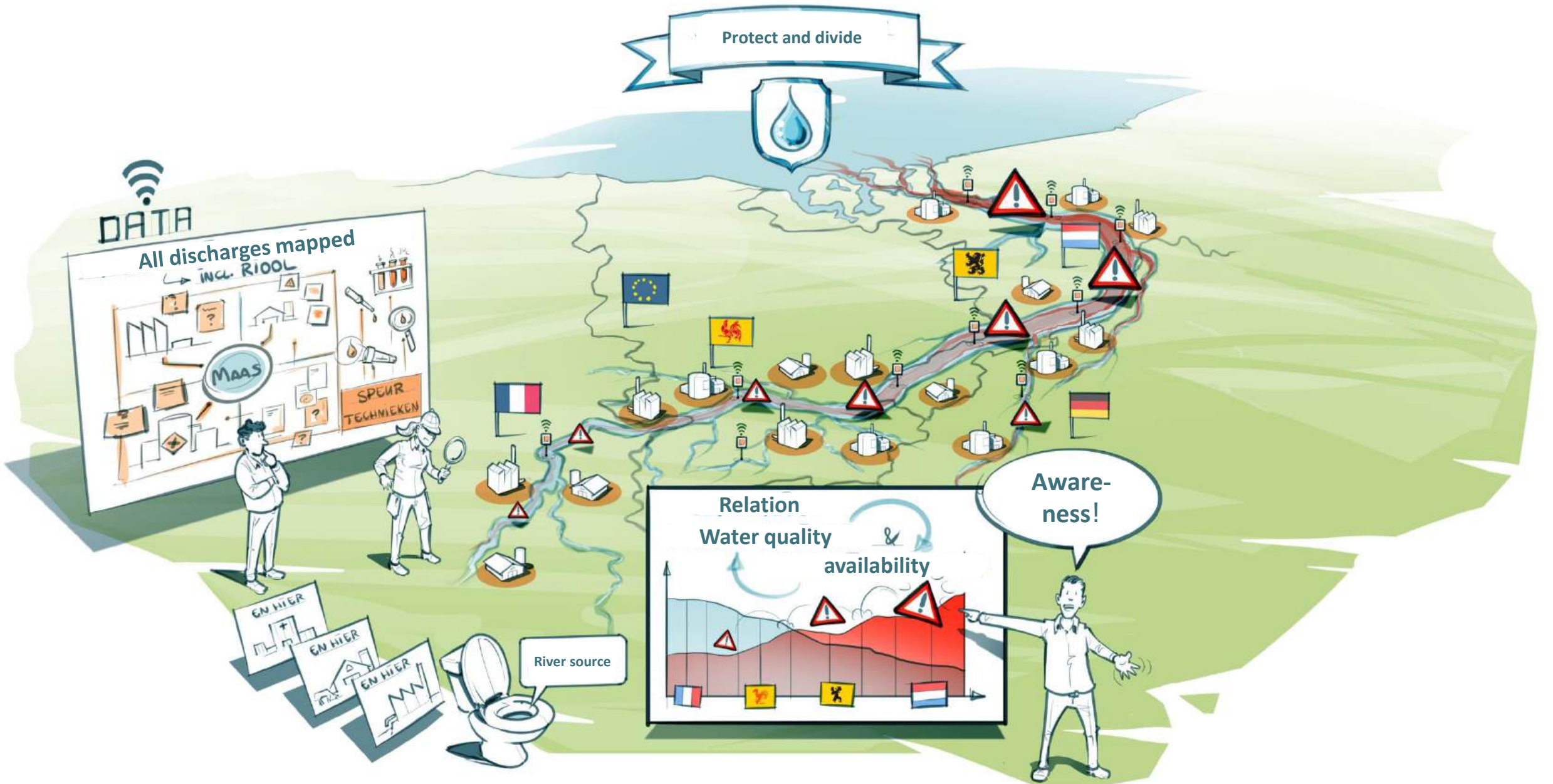
Time for action in the Meuse catchment



Time for action in the Meuse catchment



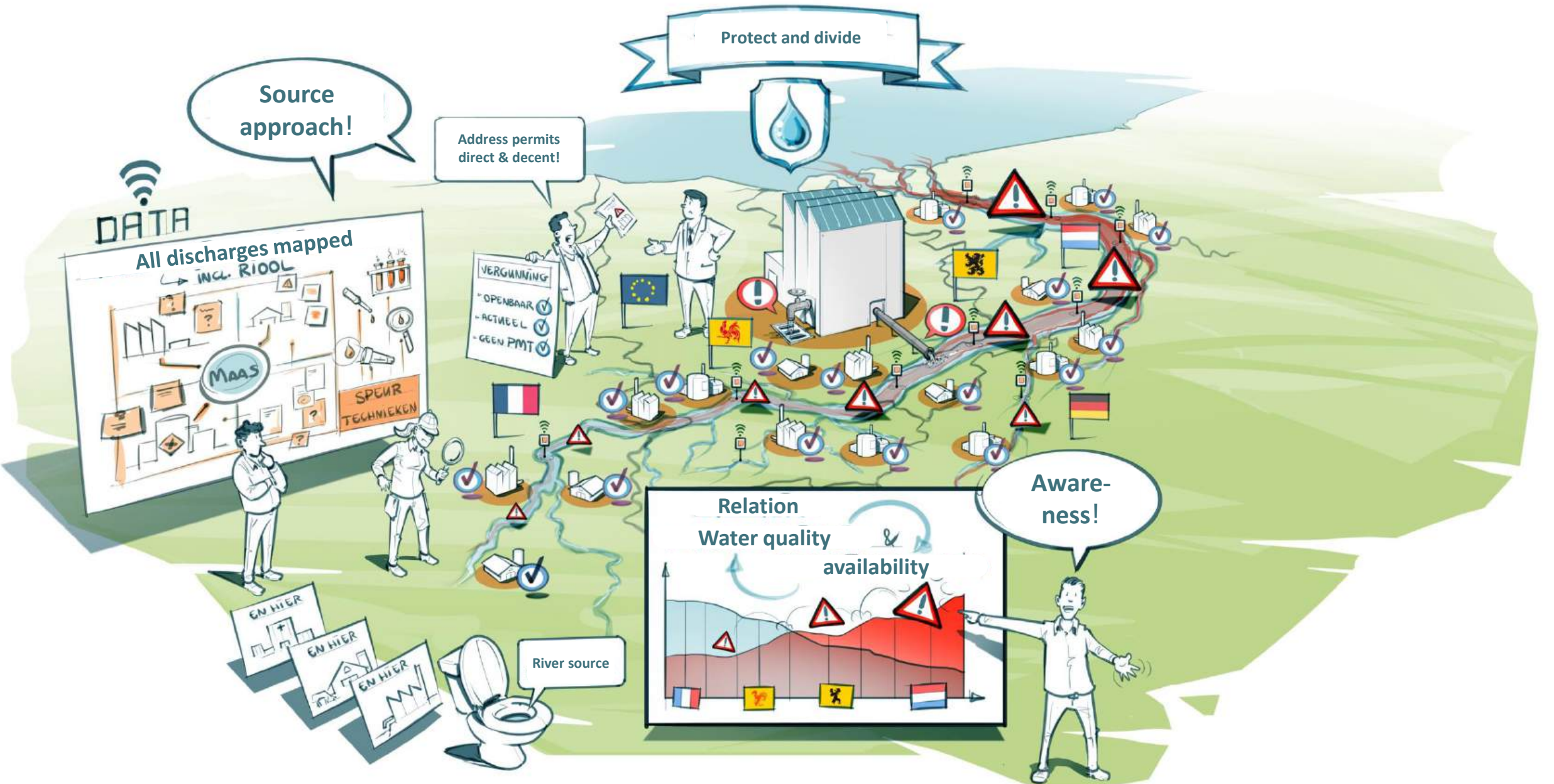
Time for action in the Meuse catchment



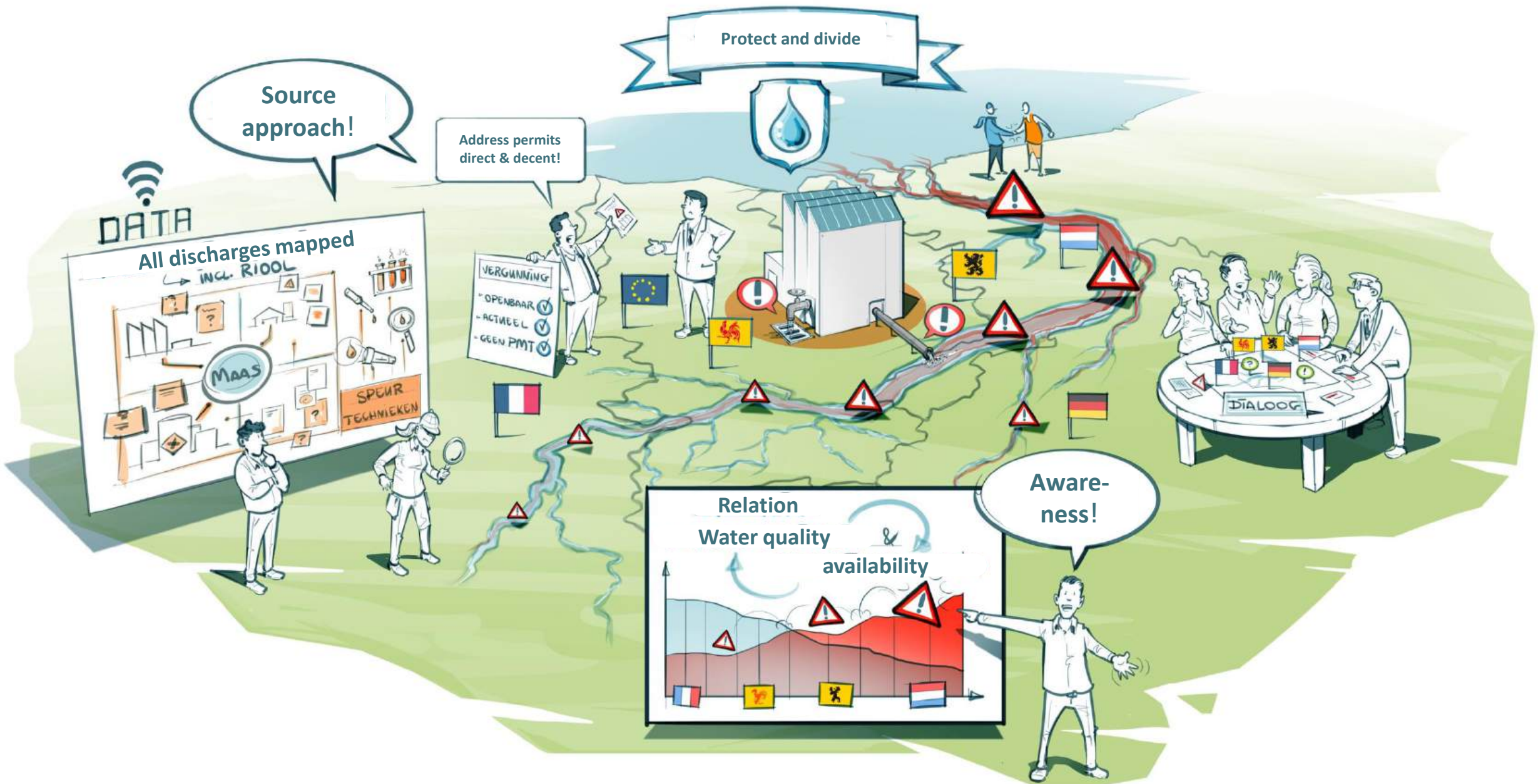
Time for action in the Meuse catchment



Time for action in the Meuse catchment



Time for action in the Meuse catchment



Source approach!

Protect and divide

Address permits direct & decent!

Awareness!

Relation
Water quality & availability

DATA

All discharges mapped
INCL. RIOL

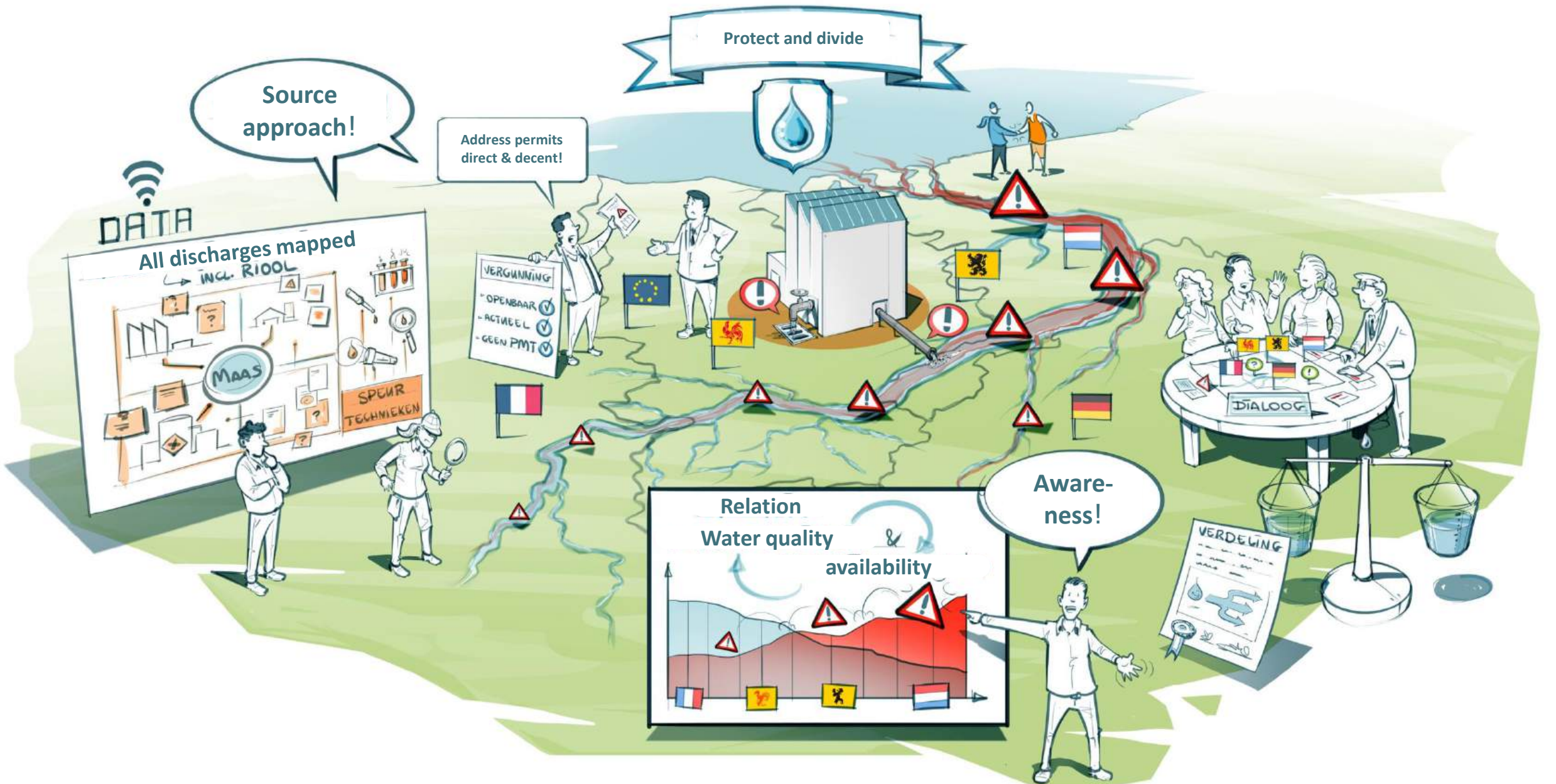
MAAS

SPEUR
TECHNIEKEN

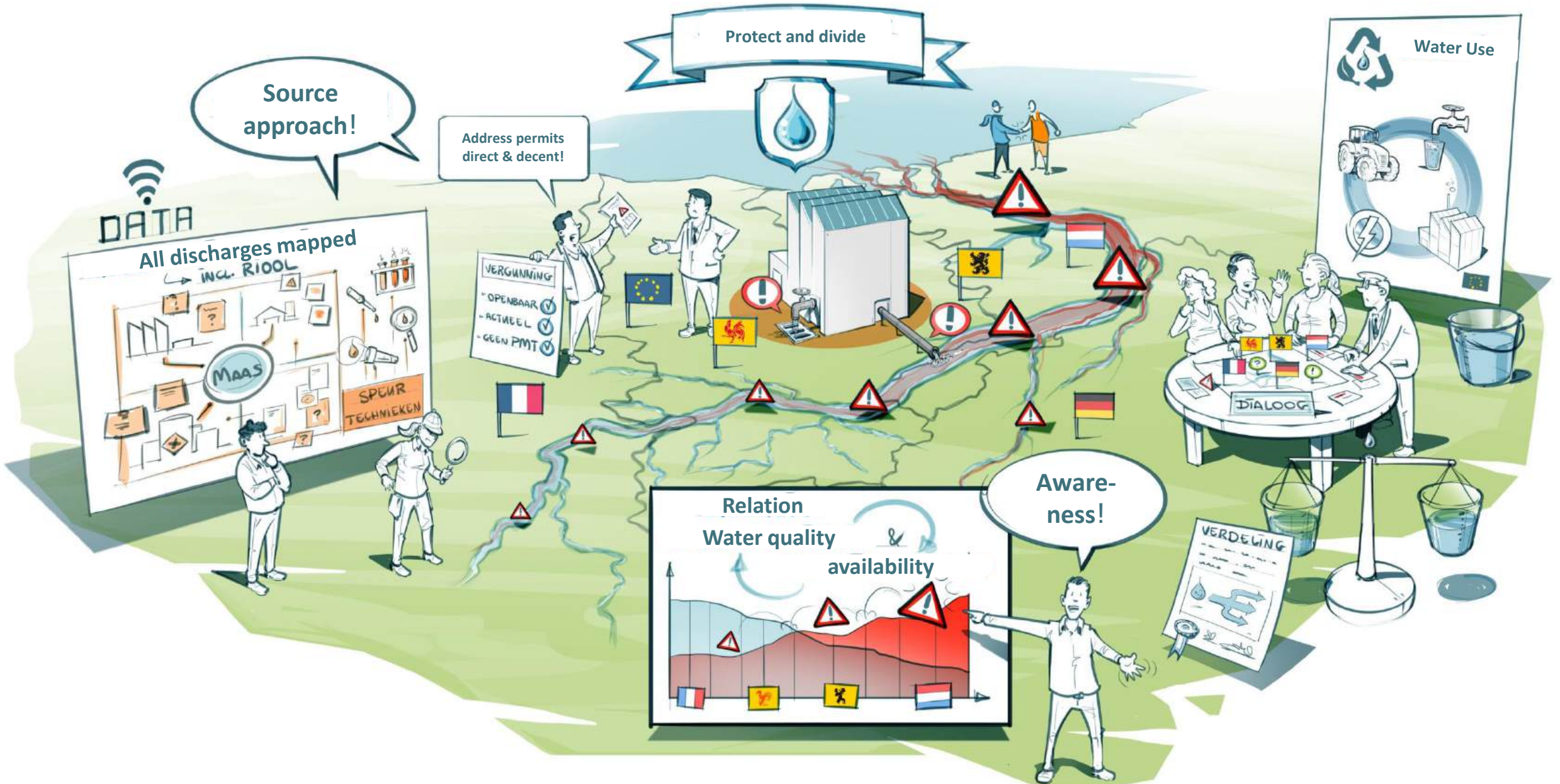
VERGUNNING
- OPENBAAR
- ACTUEEL
- GEEN PMT

DIALOOG

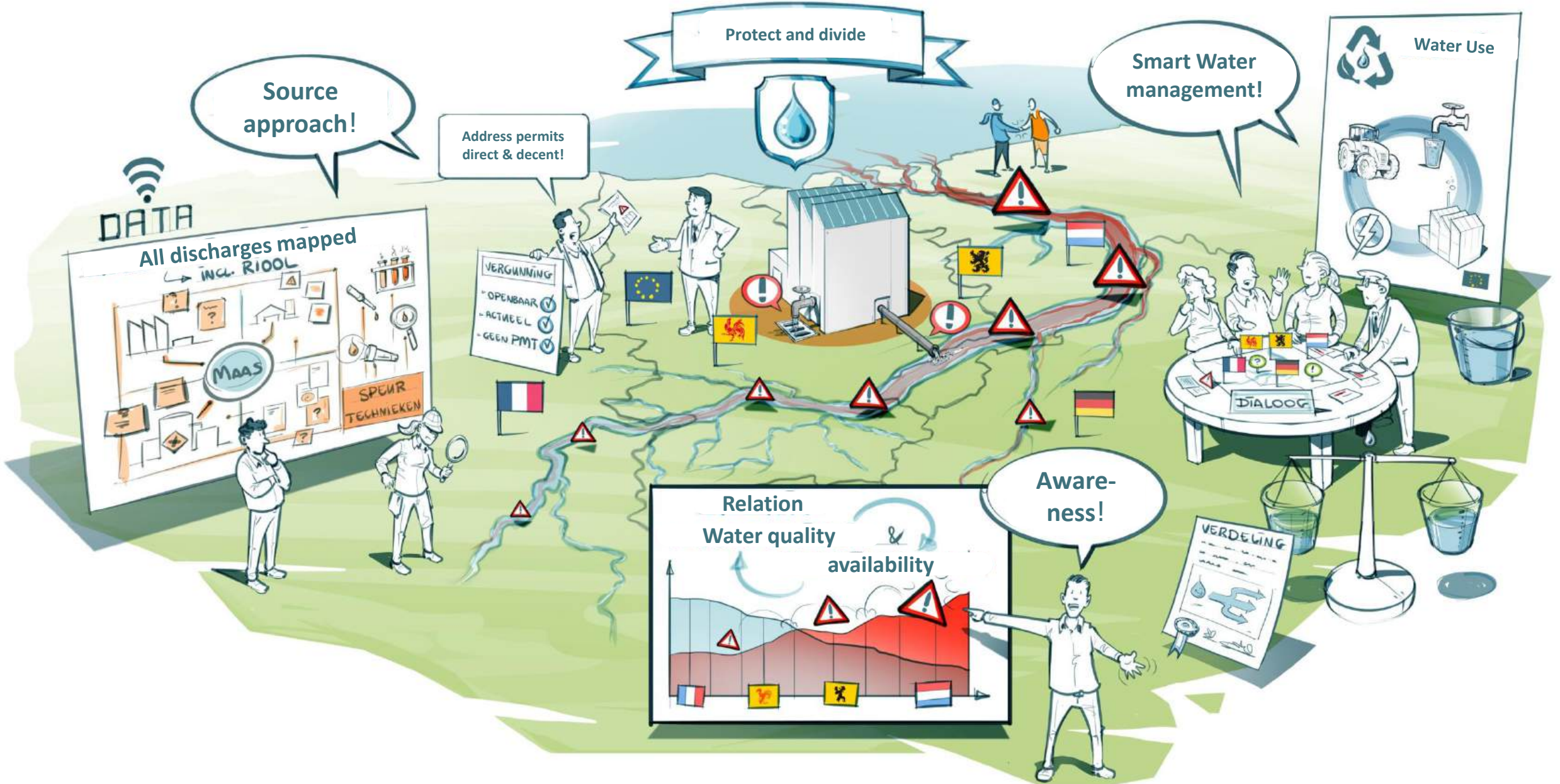
Time for action in the Meuse catchment



Time for action in the Meuse catchment



Time for action in the Meuse catchment



Source approach!

Protect and divide

Smart Water management!

Water Use

Address permits direct & decent!

Awareness!

Relation Water quality & availability

DATA

All discharges mapped INCL. RIOL

MAAS

SPEUR TECHNIEKEN

VERGUNNING
- OPENBAAR
- ACTUEEL
- GEEN PMT

VERDELING

DIALOOG

An aerial photograph showing a wide river delta with numerous smaller channels and islands. The water is a deep blue, and the surrounding land is lush green with fields and forests. The text is overlaid on the lower half of the image.

Dank voor uw aandacht

Maaswater als bron voor drinkwater