Aquafin



Slimme sturingen in het afvalwater- en hemelwaterbeheer

M. Weemaes

CIW, 30 november 2018

Opdracht Vlaamse Gewest



financiering



bouw



ontwerp



beheer

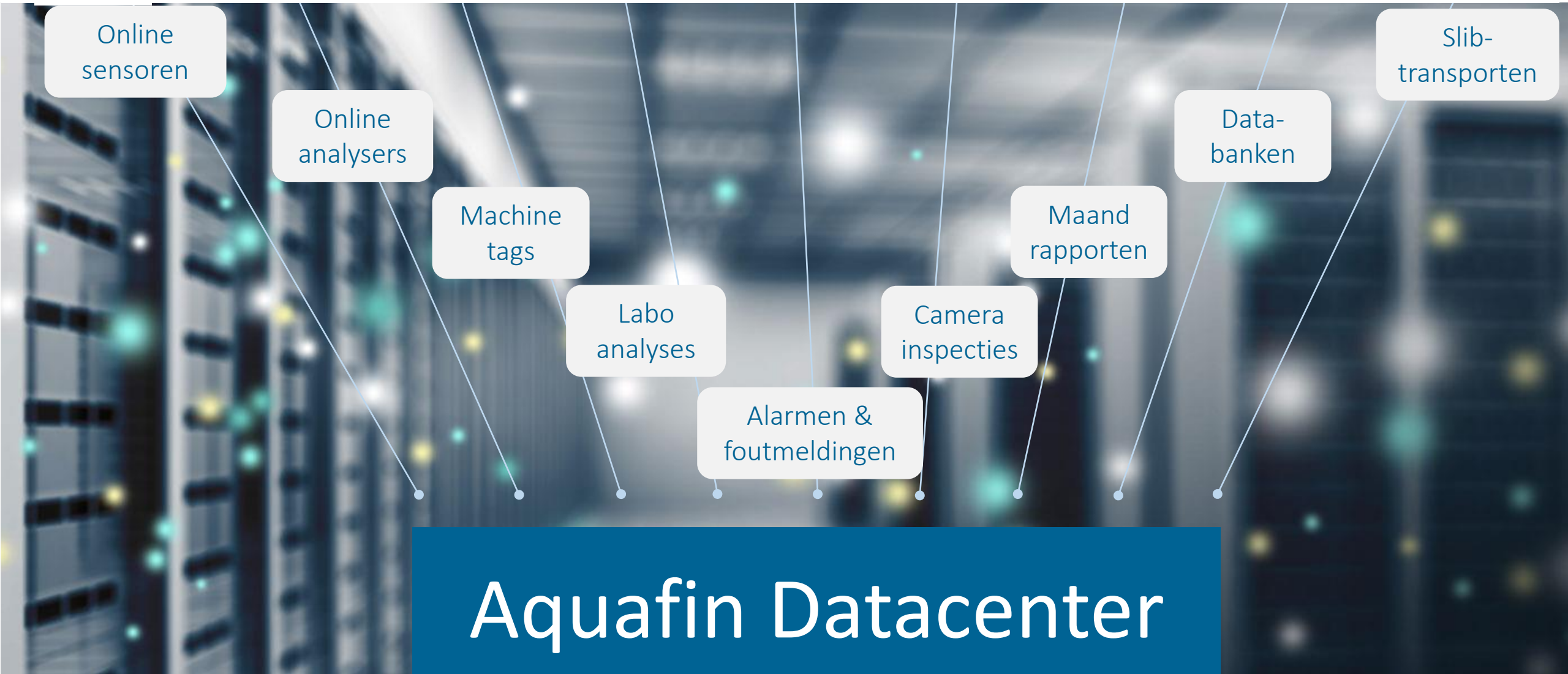
Infrastructuur in beheer voor Vlaamse Gewest



6.120
km leidingen

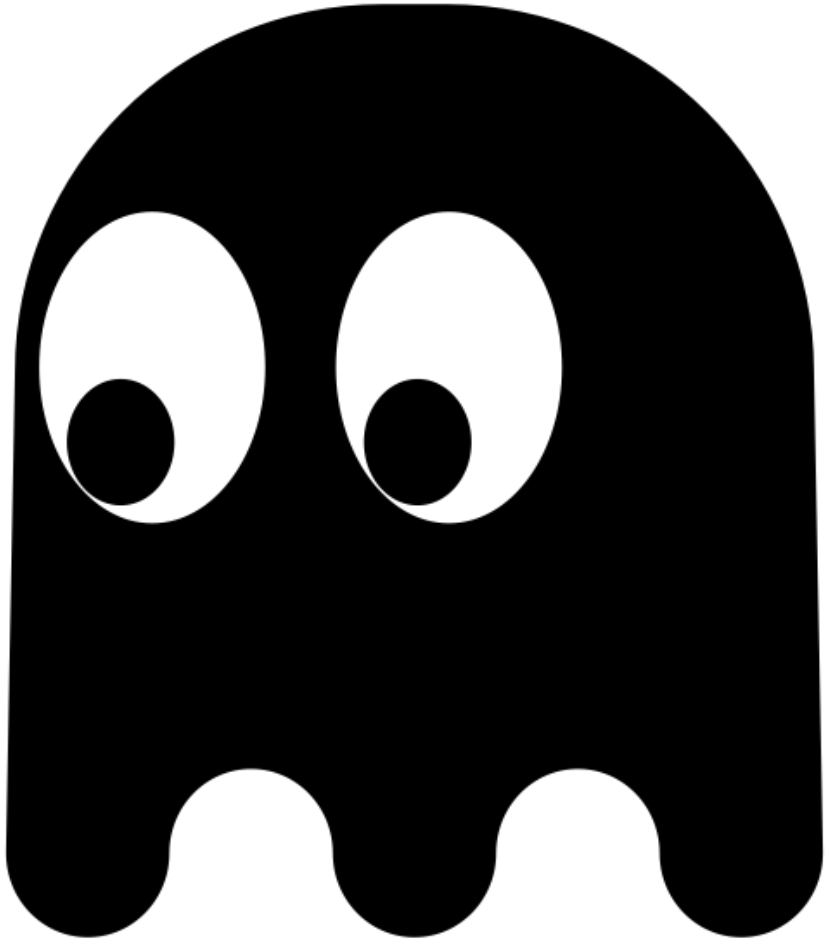
311
zuiverings-installaties

1.690
pompstations en bergbezinkings-bekkens

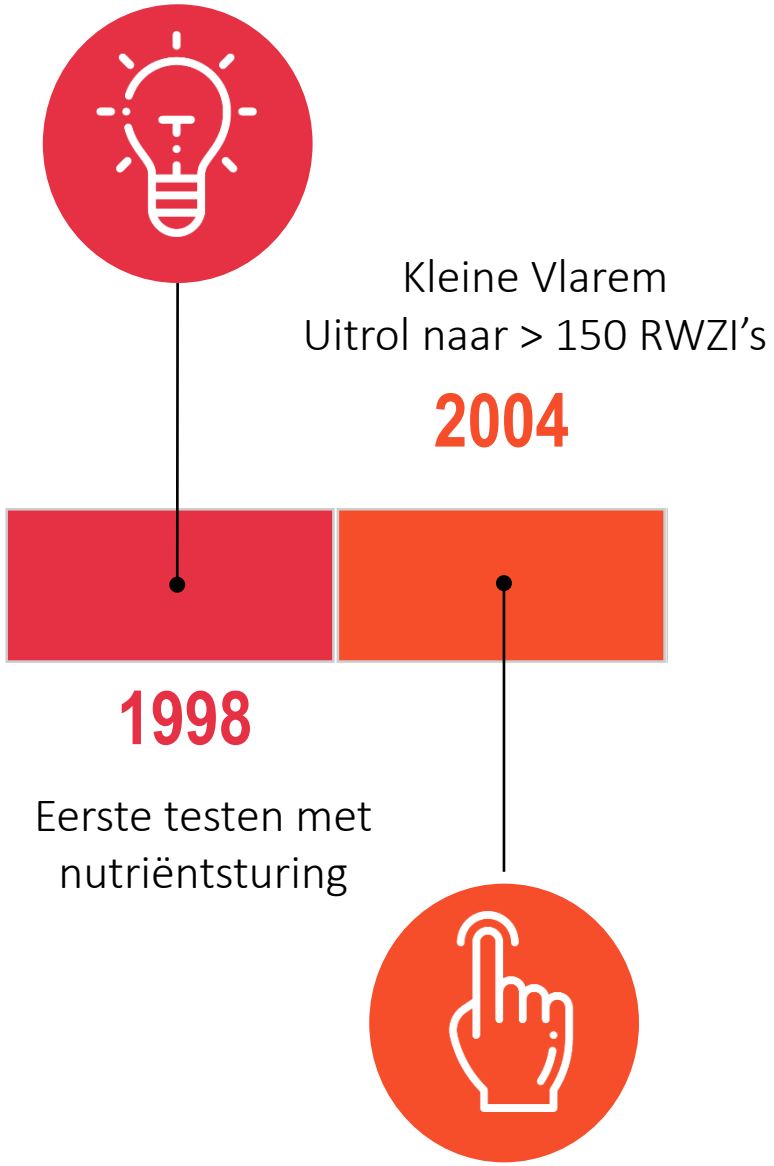


Aquafin Datacenter

Een terugblik …



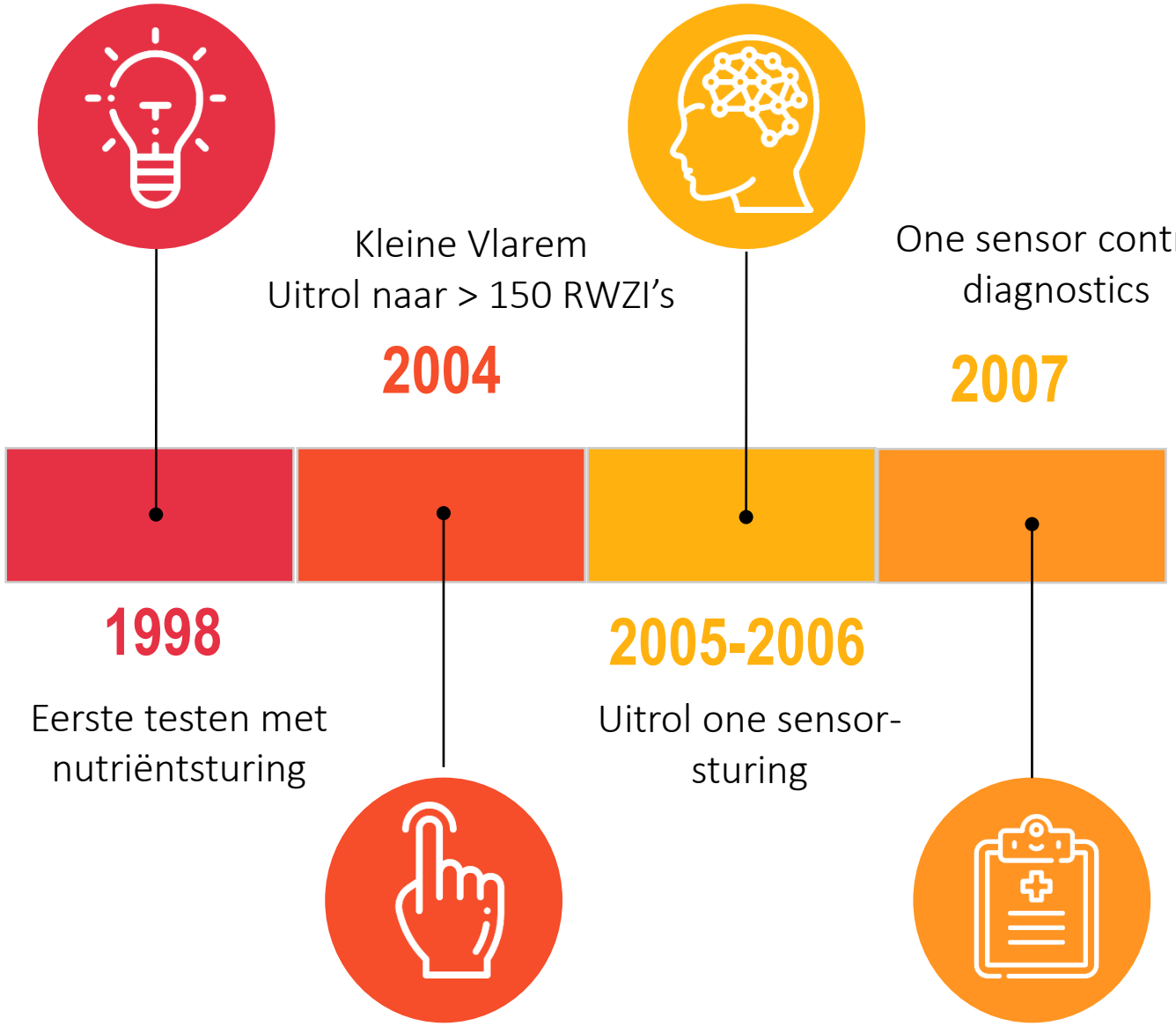
Waar staan we vandaag?



Ervaring RWZI nutriëntsturing

In house ontwikkelde algoritmes

Waar staan we vandaag?



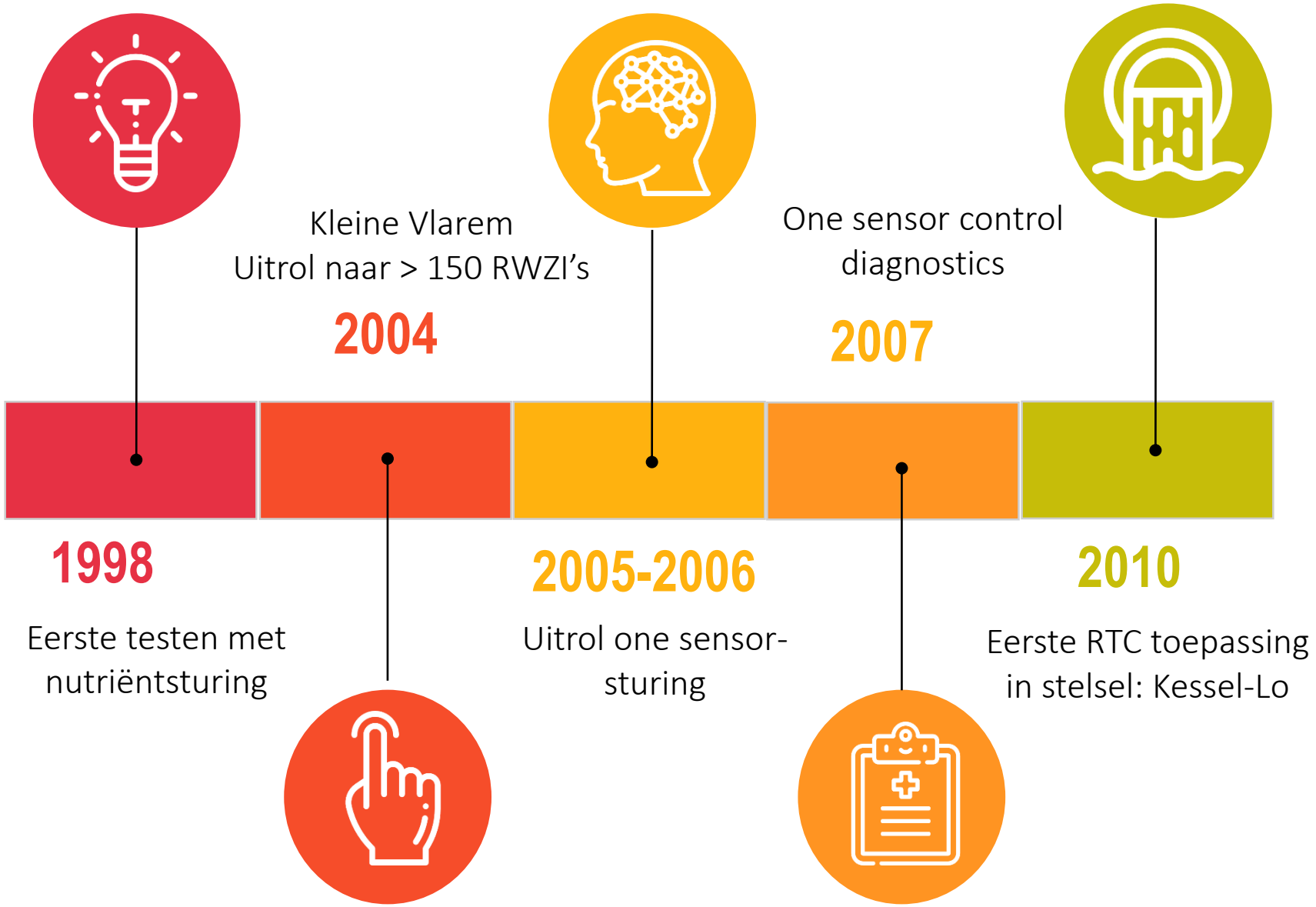
Ervaring RWZI nutriëntsturing

In house ontwikkelde algoritmes

Sensorsignaalanalyse

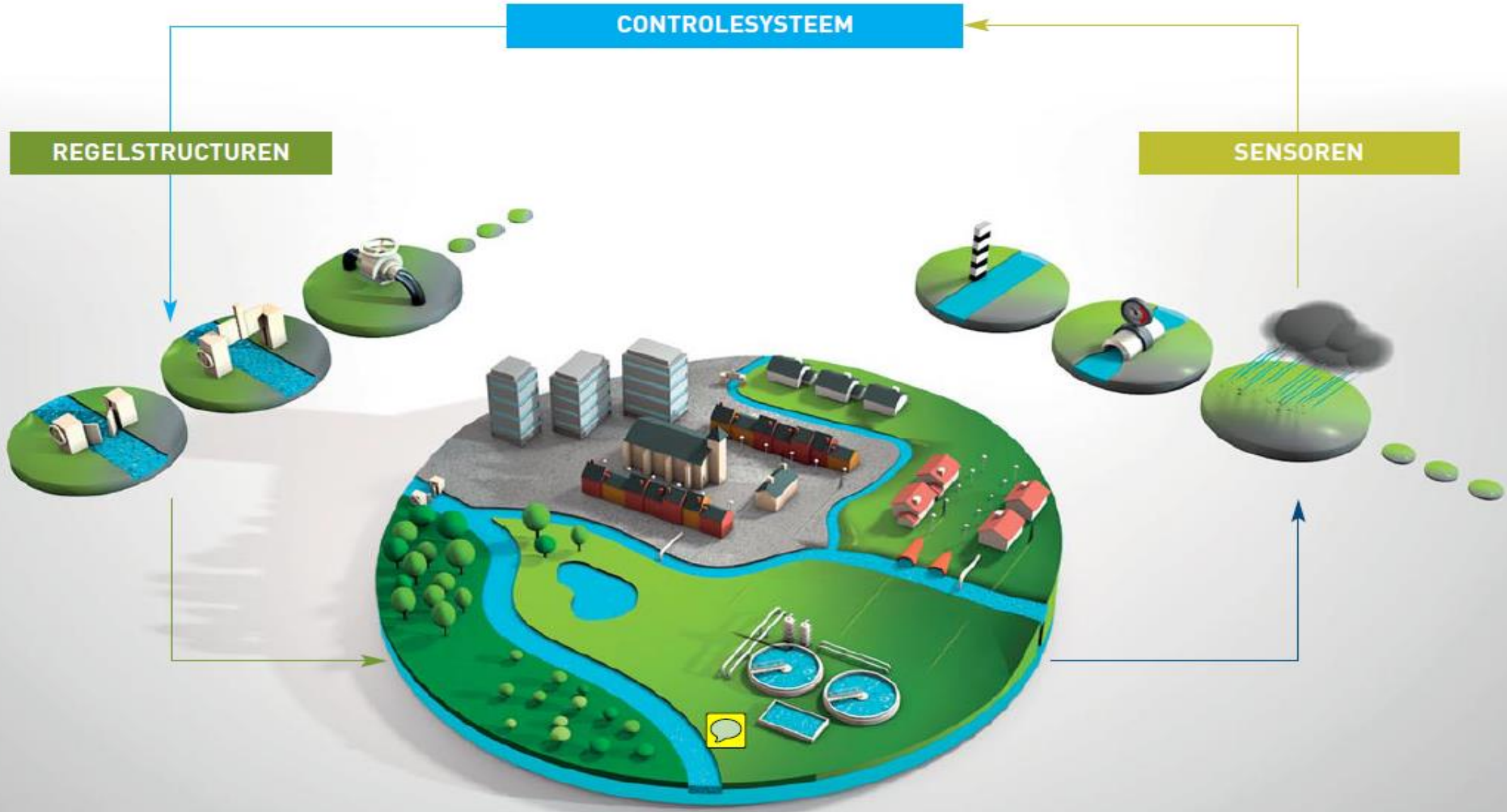
- Proxy voor andere parameters
- Voorspelling van sensorfalen

Waar staan we vandaag?

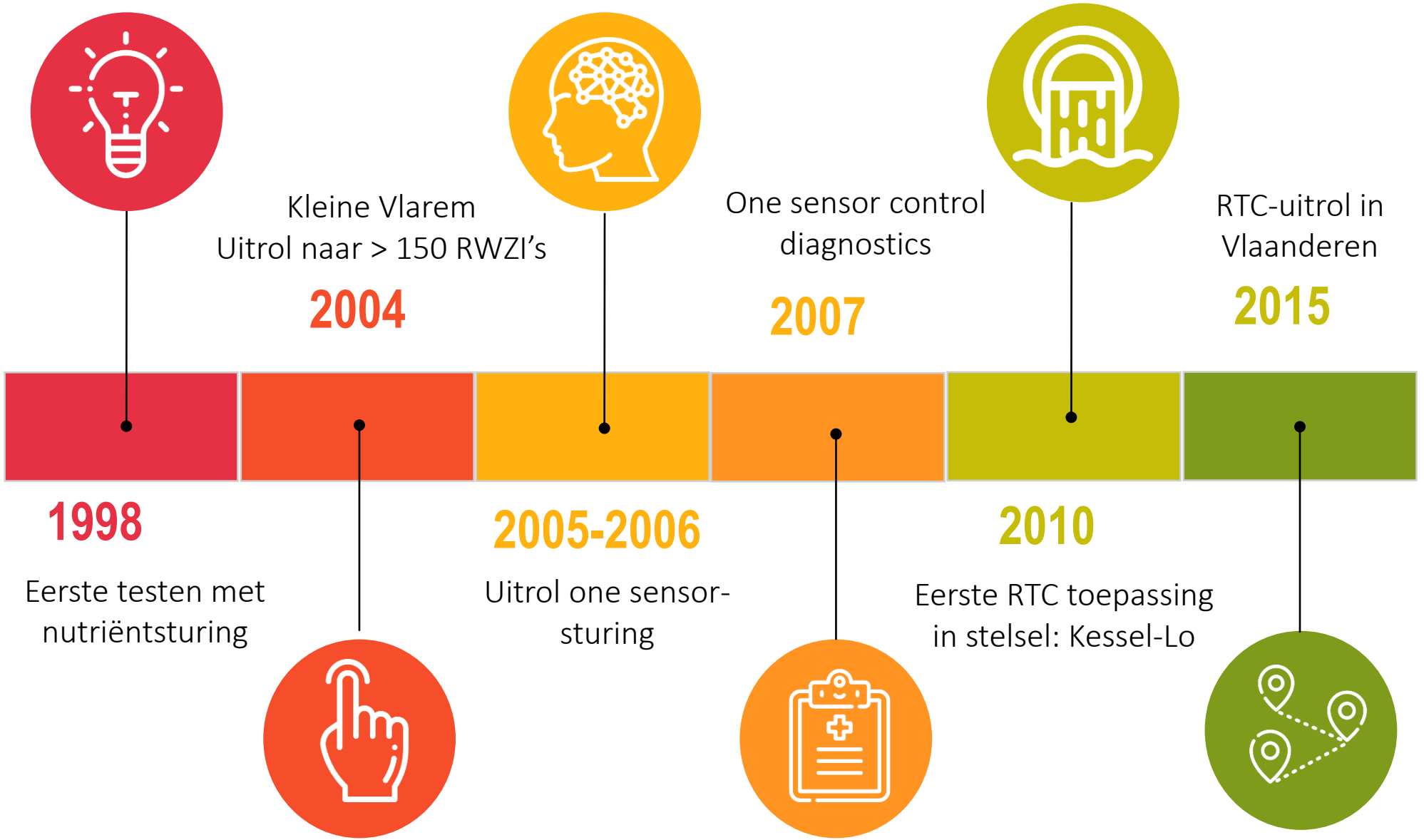


Uitbreiding naar stelsel

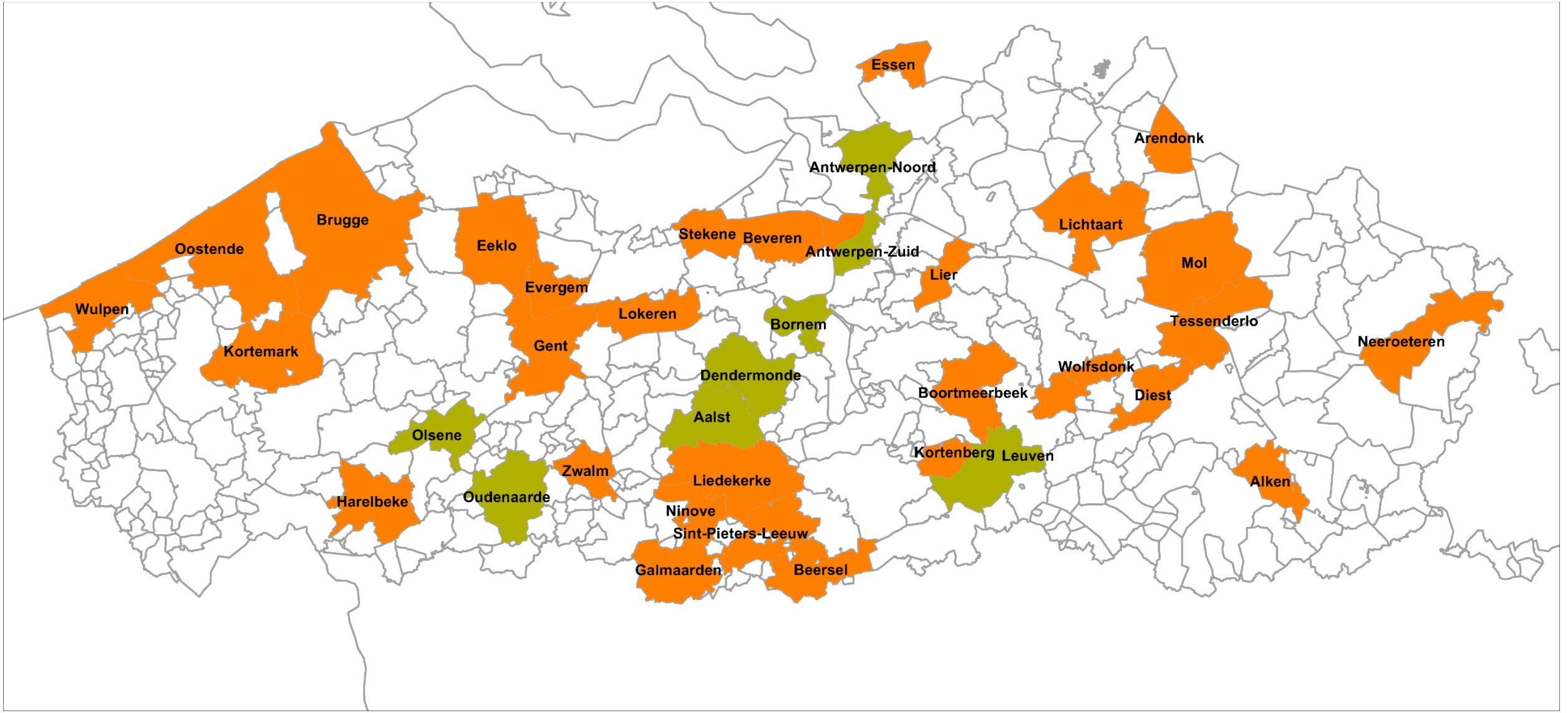



CONTROLESYSTEEM
REGELSTRUCTUREN
SENSOREN

Waar staan we vandaag?



Waar staan we vandaag?

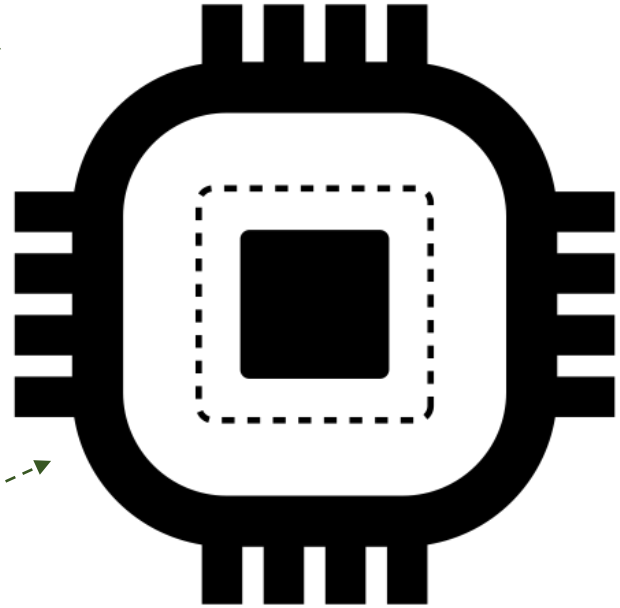


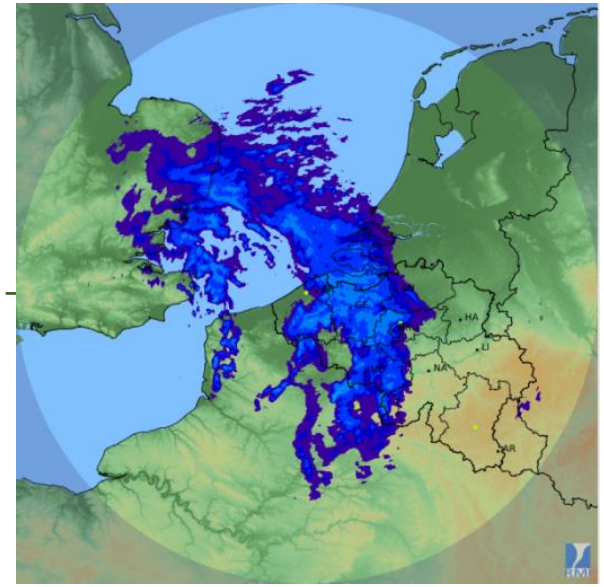


Meetnet overstorten

Rioolverstopping detecteren

Epi-Gone



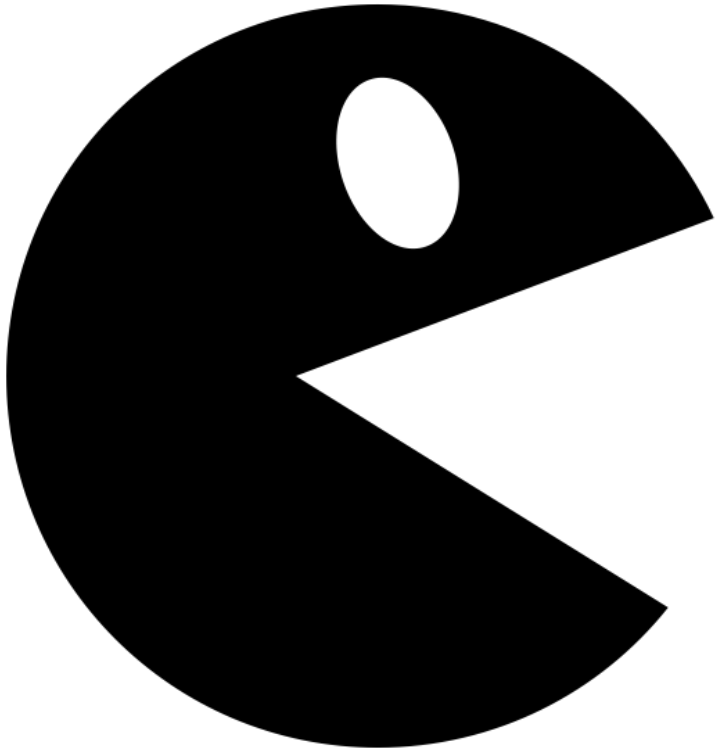


Signaal buienradar



rioolmodellen

Wateroverlast voorspellen



Een vooruitblik …

Conceptuele modellen

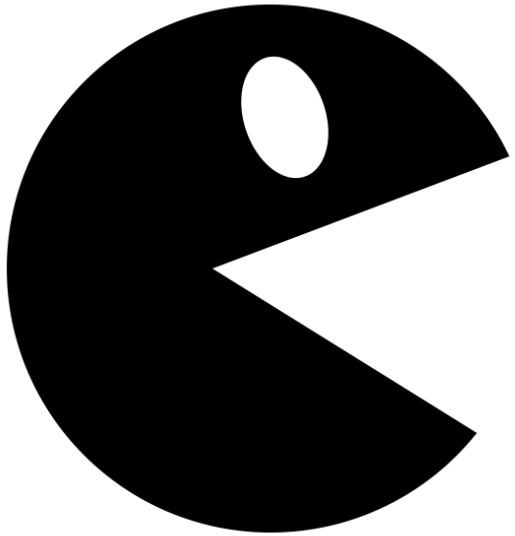
Mechanistische modellen

Netwerk van sensoren

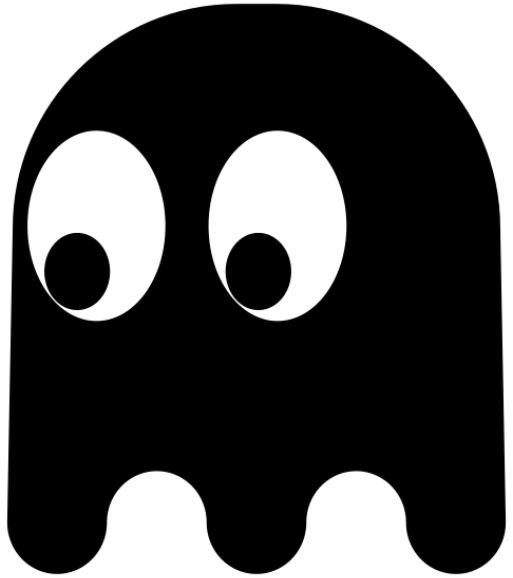
Netwerk pluviometers

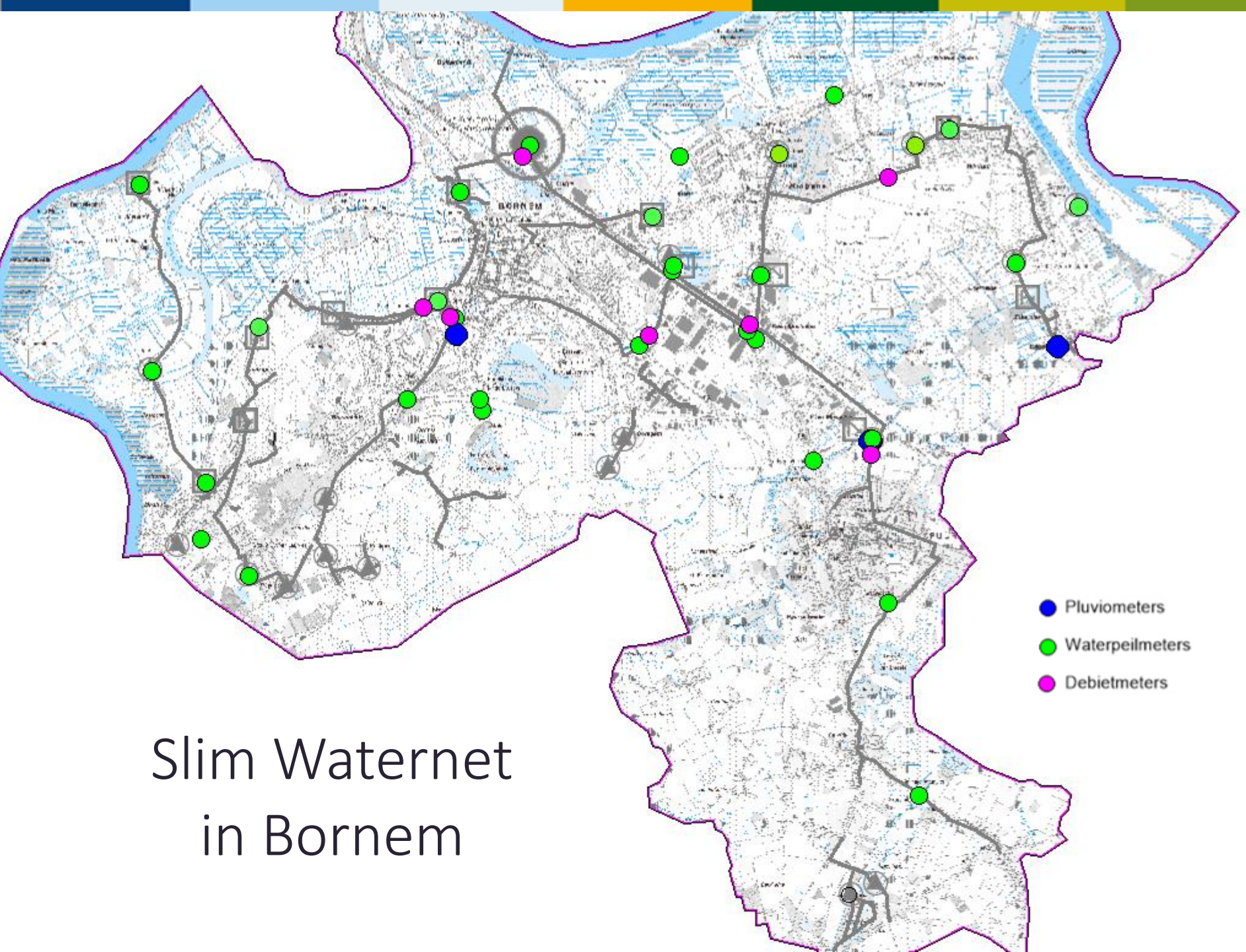
Amateur weerstation

GSM masten



Concrete projecten





Slim Waternet in Bornem

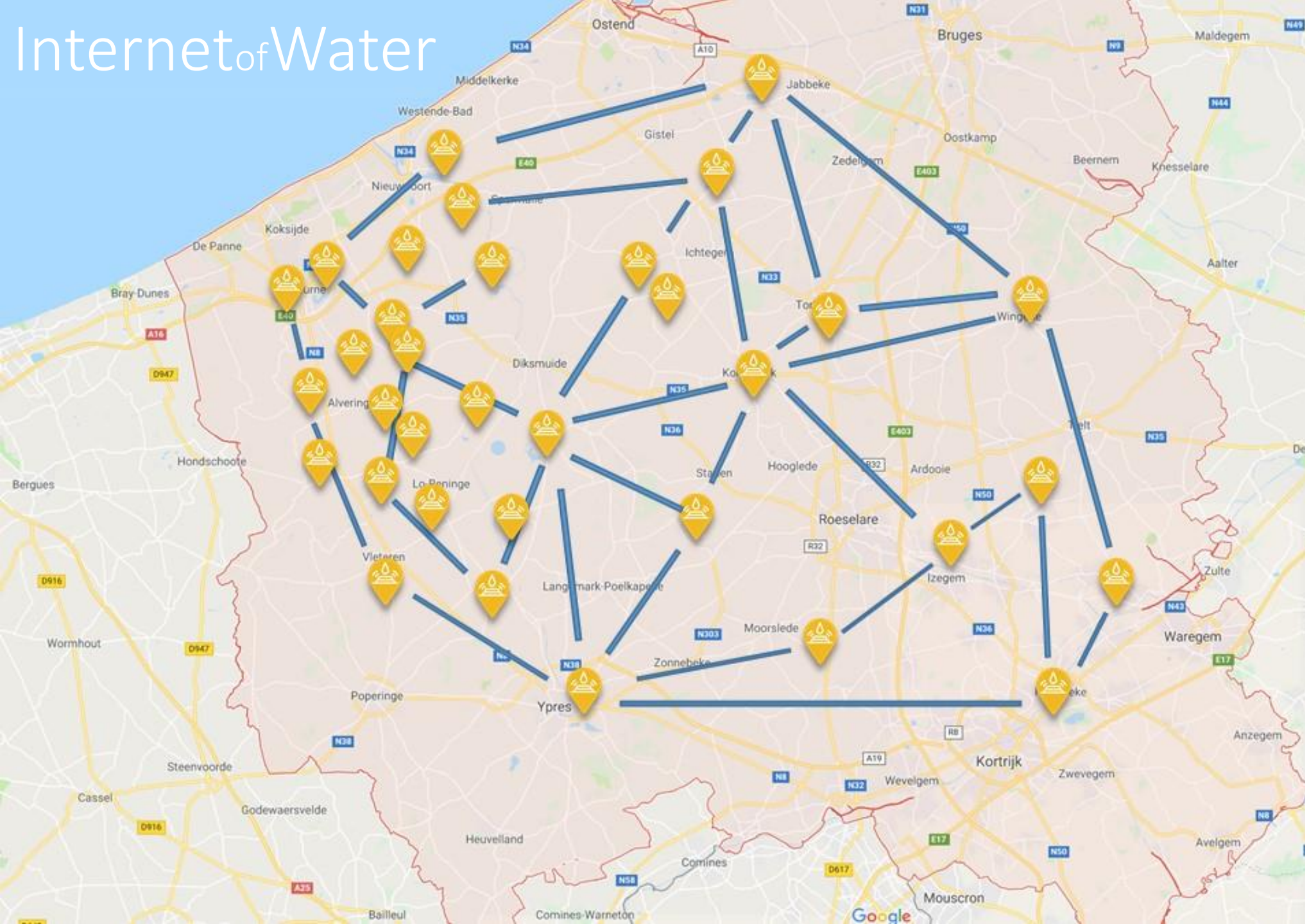
Conceptueel model

Netwerk van sensoren

Mechanistisch model

RTC algoritme

InternetofWater



imec

vito

De Watergroep

Aquafin

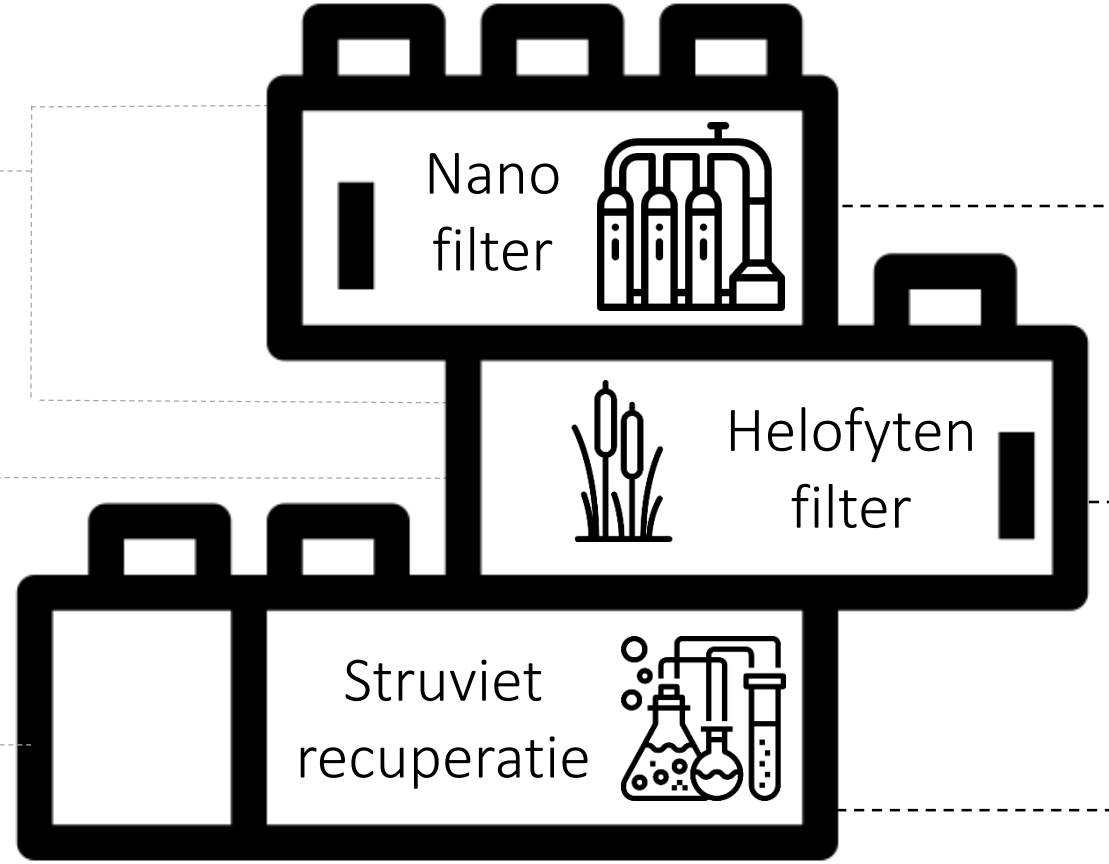
VMM
VLAAMSE MILIEUMAATSCHAPPIJ

De Kruitfabriek: een flexibel en adaptief watersysteem voor de robuuste klimaatadaptieve stad

Grijs water

Hemel water

Urine




Aquafin
The future is now !