digital-water.city

Leading urban water management to its digital future

H2020 innovation action | 5 M€ funding

2019-2022

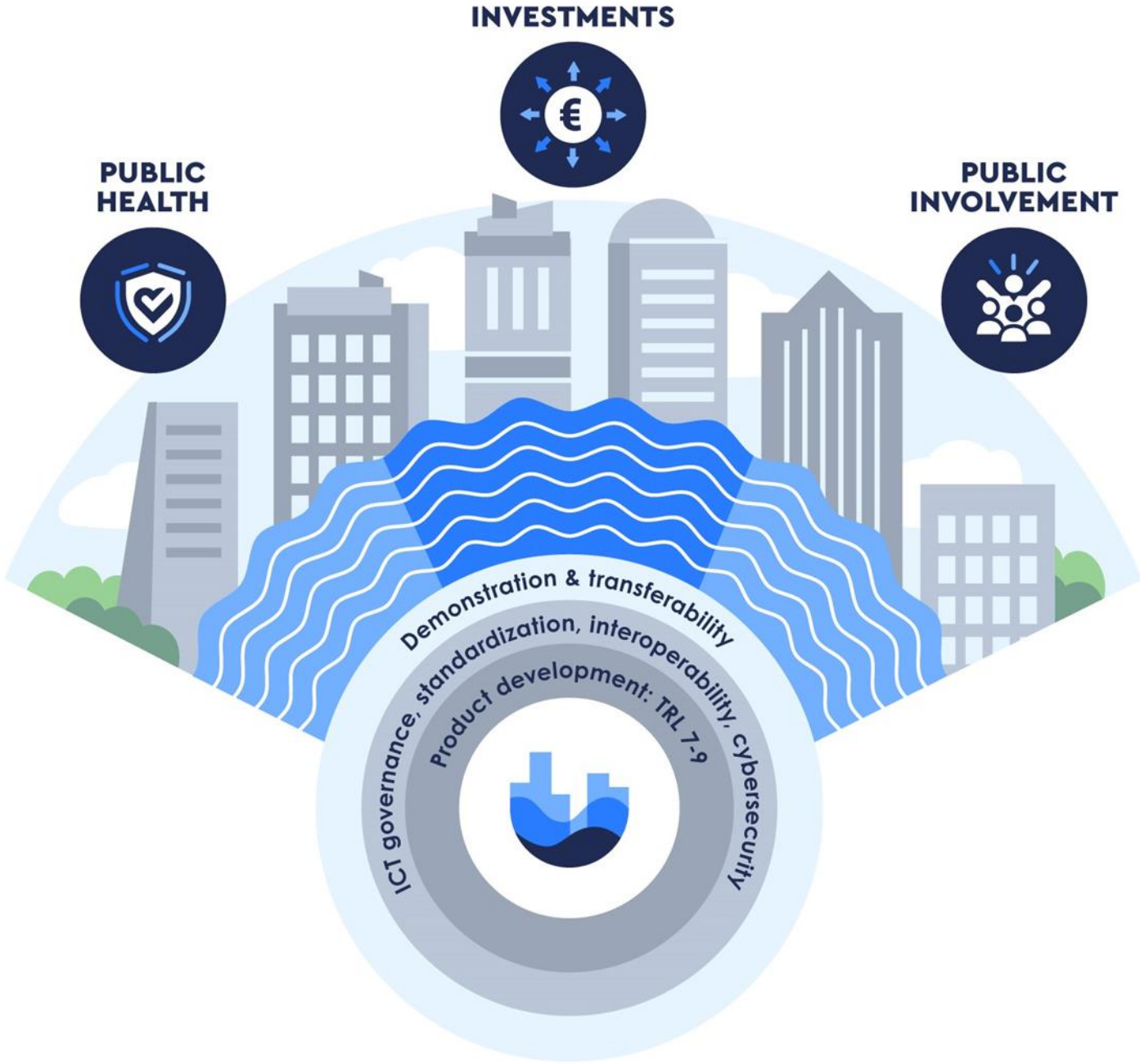
Nico Caradot

Kompetenzzentrum Wasser Berlin

digital-water.city has received funding from the European Union's H2020 Research and Innovation Programme under Grant Agreement No. 820954.

Objective

Develop and demonstrate **15 advanced digital solutions** to address water-related challenges



24 partners

KOMPETENZZENTRUM Wasser Berlin

Digital Water .City

Utilities

Berliner Wasserbetriebe

Sofiyska Voda

SIAAP
Service public de l'assainissement francilien

GRUPPO CAP

BIOFOS

R&D

UNIVERSITÀ POLITECNICA DELLE MARCHE

UNIVERSITÀ DEGLI STUDI DI MILANO

SINTEF

irstea

SORBONNE UNIVERSITÉ

DHI

eco logic

ISTITVTO SVPERIORE DI SANITÀ

Companies and SME

ICRA
Institut Català de Recerca de l'Aigua

PARTNERS4URBANWATER
Langeveld | Liefting | Schilperoort | De Haan | Post

IPEK

ICATALIST

fluidion
fluidic intelligence

GIMENO grupo

kando

Vragments

Strane Innovation

Arctik
Communication for sustainability

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5 cities > EU challenges

#Copenhagen

Flooding and environmental impacts

#Paris

2024 Olympic games

#Berlin

Protection of river quality and drinking water sources

#Milan

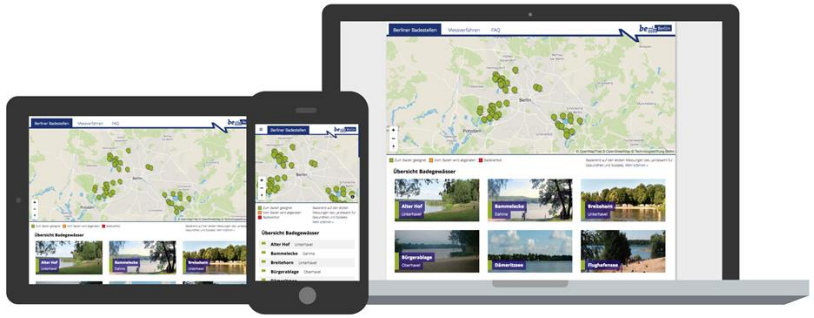
Safe water-reuse

#Sofia

ROI and operational costs

Bathing water

Early warning system to forecast bathing water quality and communicate with the public

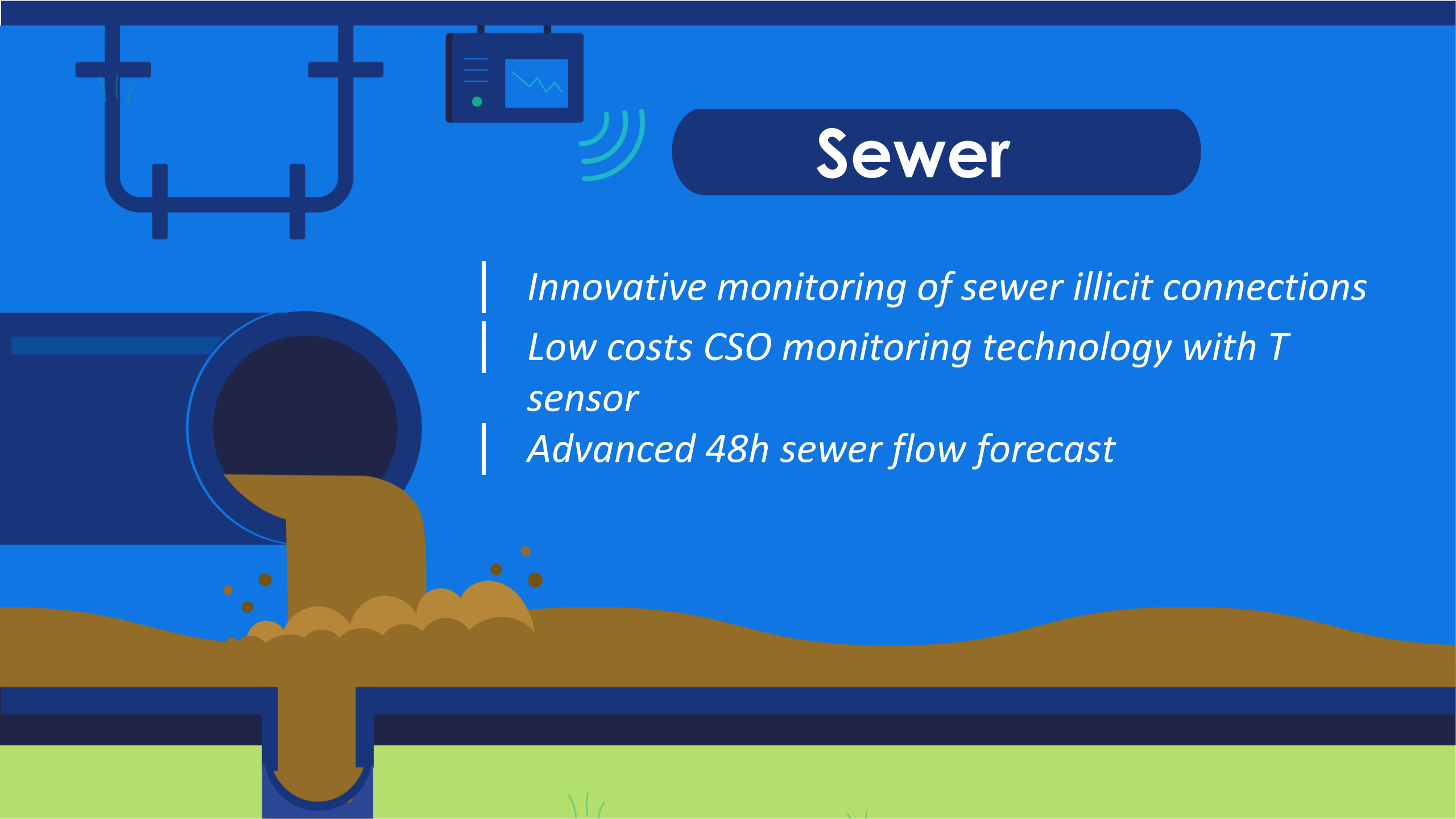


Mockup: Technologiestiftung Berlin

Real-time measurement of bacterial contamination

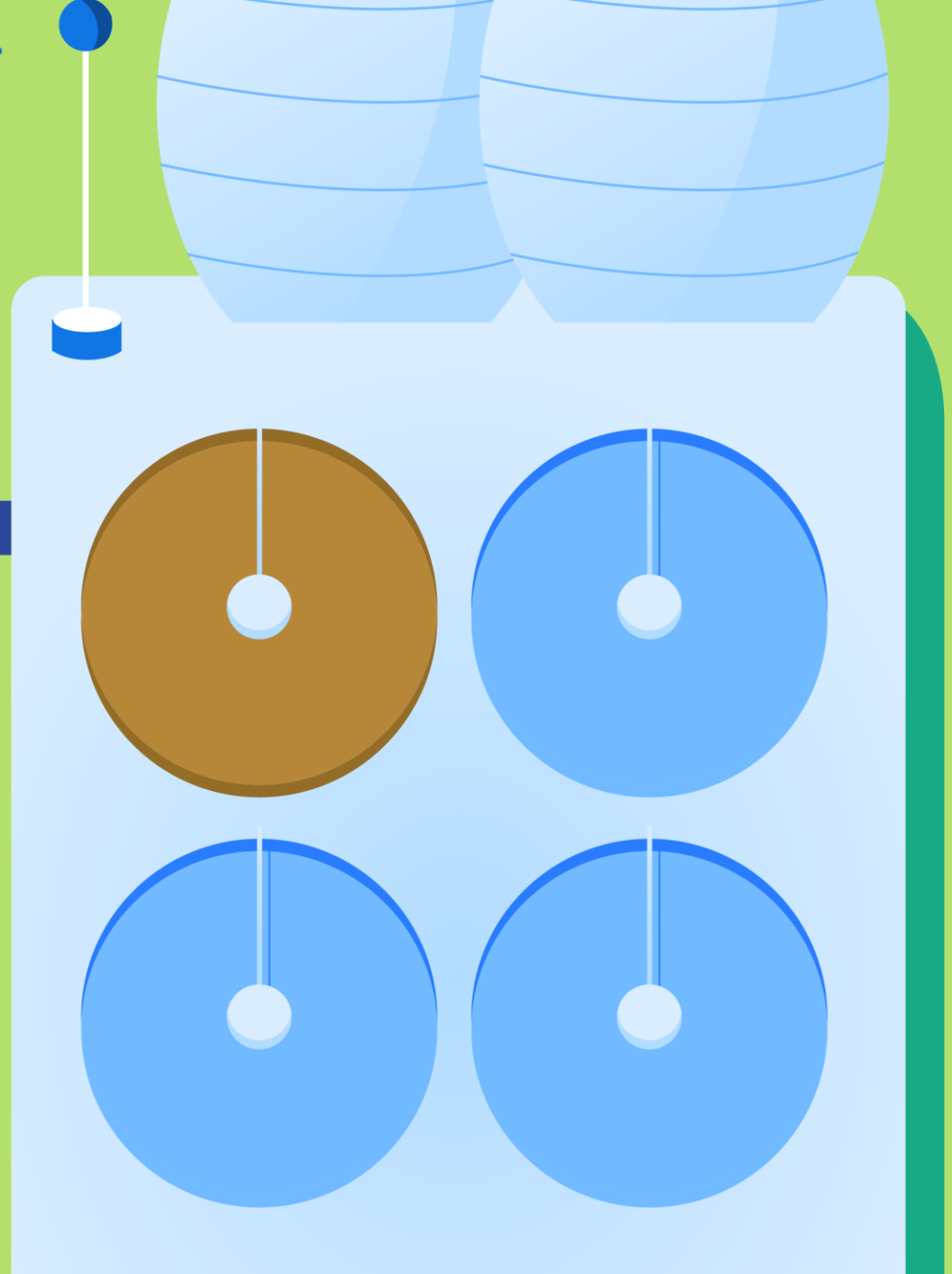
Drinking water

Predictive asset management of drinking water wells


Sewer
Innovative monitoring of sewer illicit connections
Low costs CSO monitoring technology with T sensor
Advanced 48h sewer flow forecast

Treatment plant

- *Real-time control of WWTP and sewer retention capacities*
- *Early Warning System for water reuse*



Water reuse

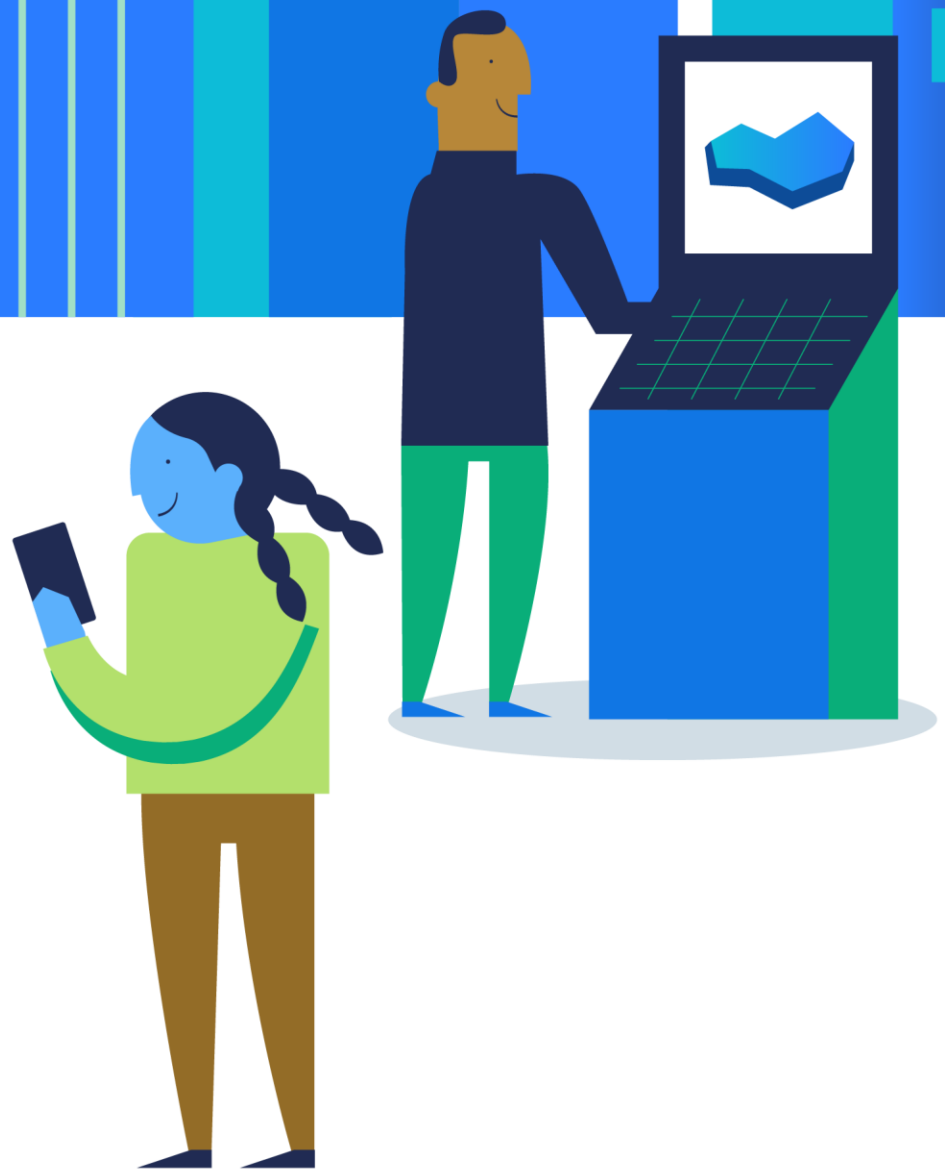
Remote monitoring of water stress

Match making platform to support water allocation

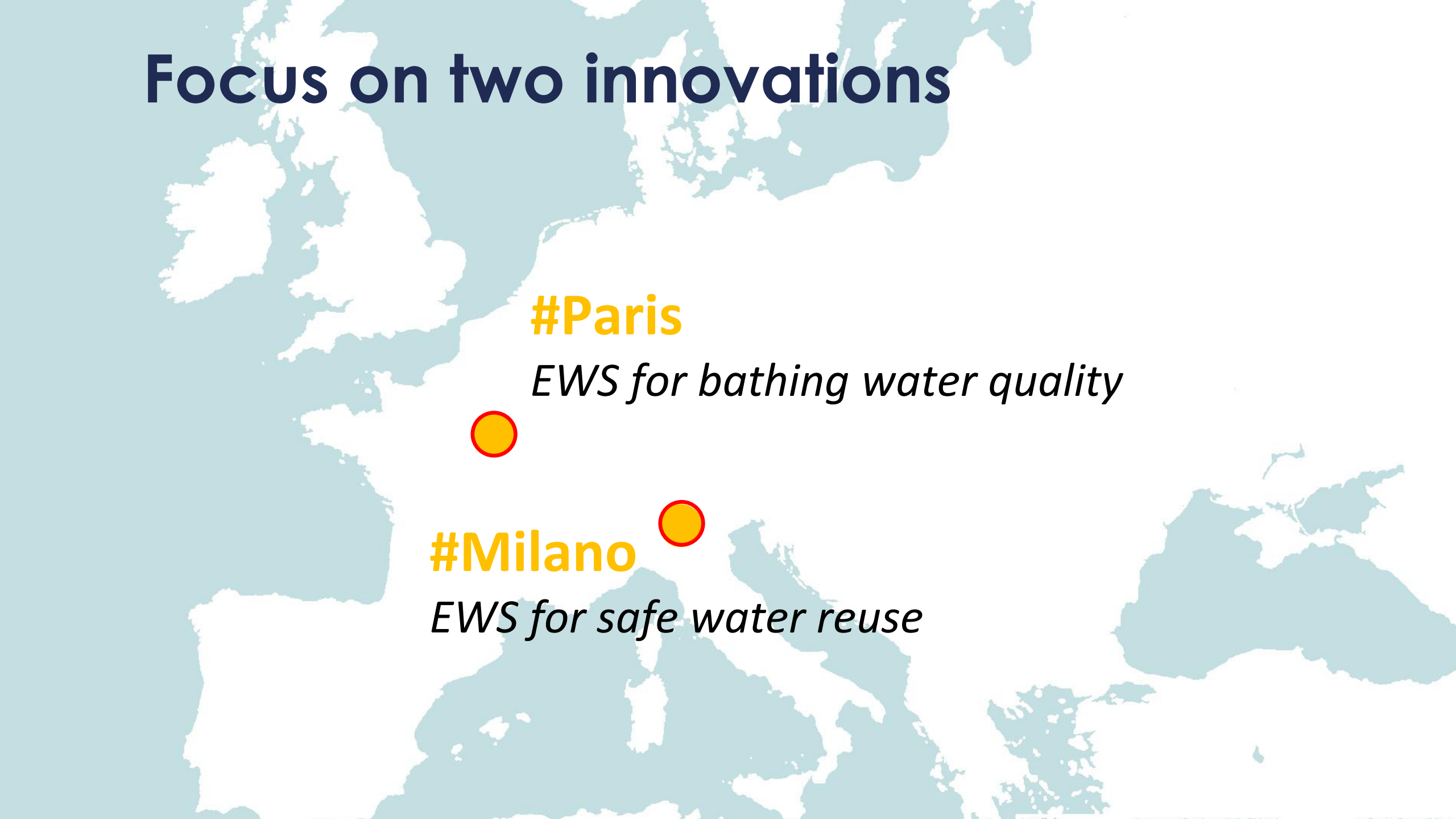
Public involvement

- *Augmented Reality (AR) app to communicate groundwater issue with the public*

- *Serious game to communicate the benefits of reuse in term of nexus*



Focus on two innovations



#Paris

EWS for bathing water quality

#Milano

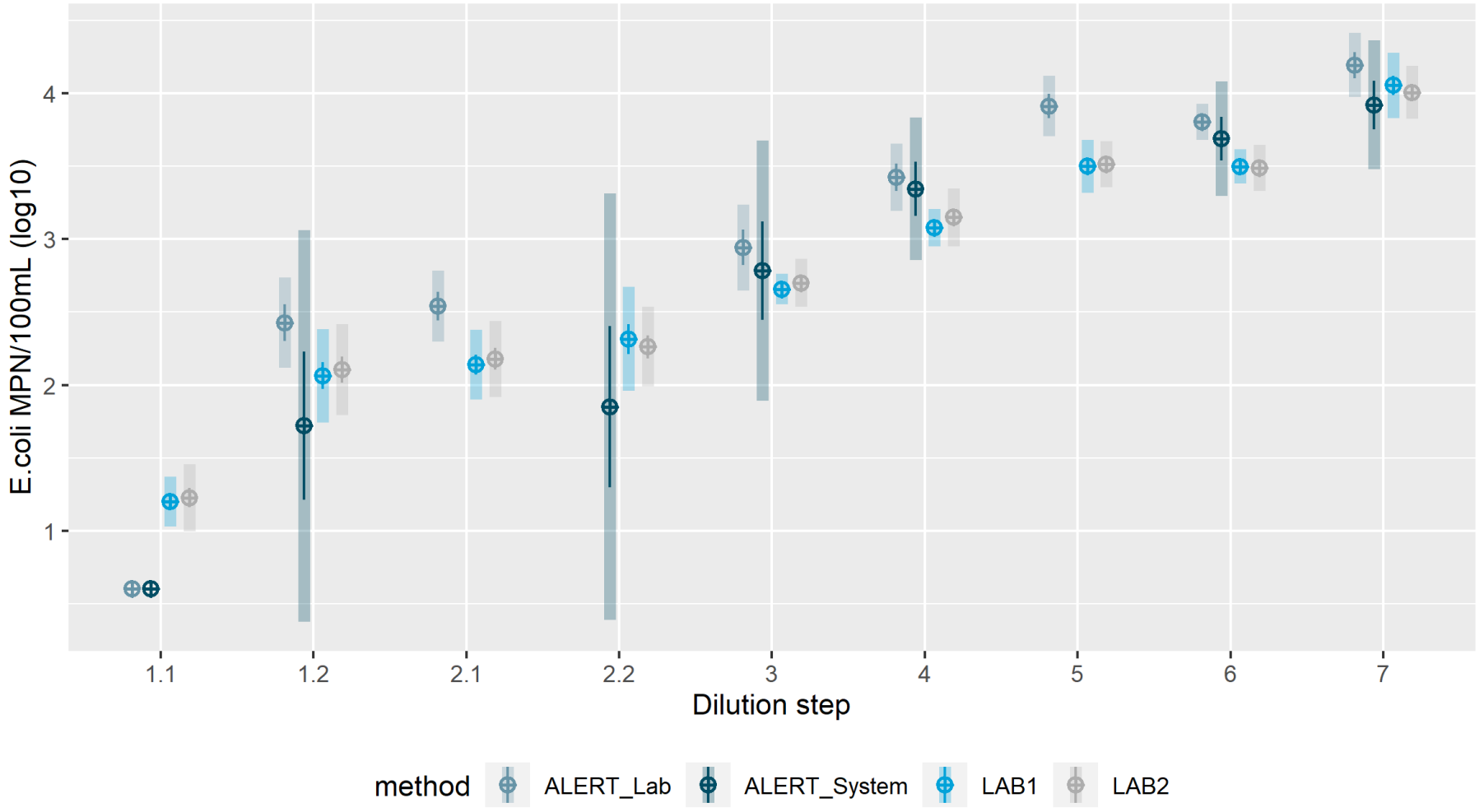
EWS for safe water reuse

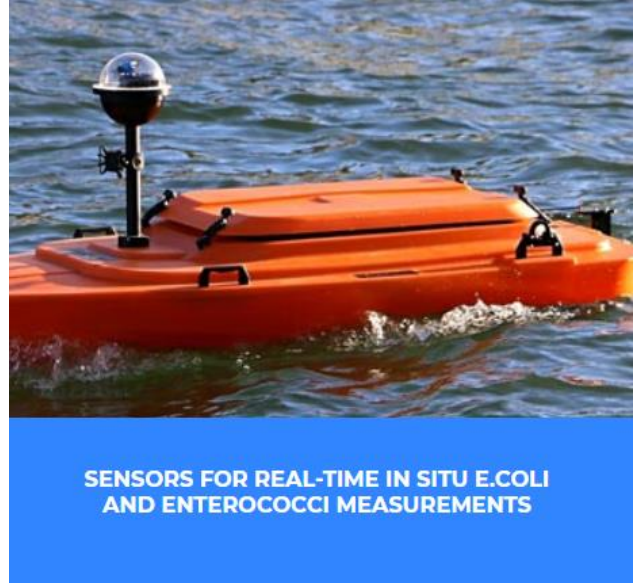
#Paris

Improve bathing water management in the river Seine
for the Olympic games of 2024

Comparison of laboratories and ALERT devices

Errorbars show 95% prediction intervals (shaded thick outer line) and 95% confindence interval (inner solid line)





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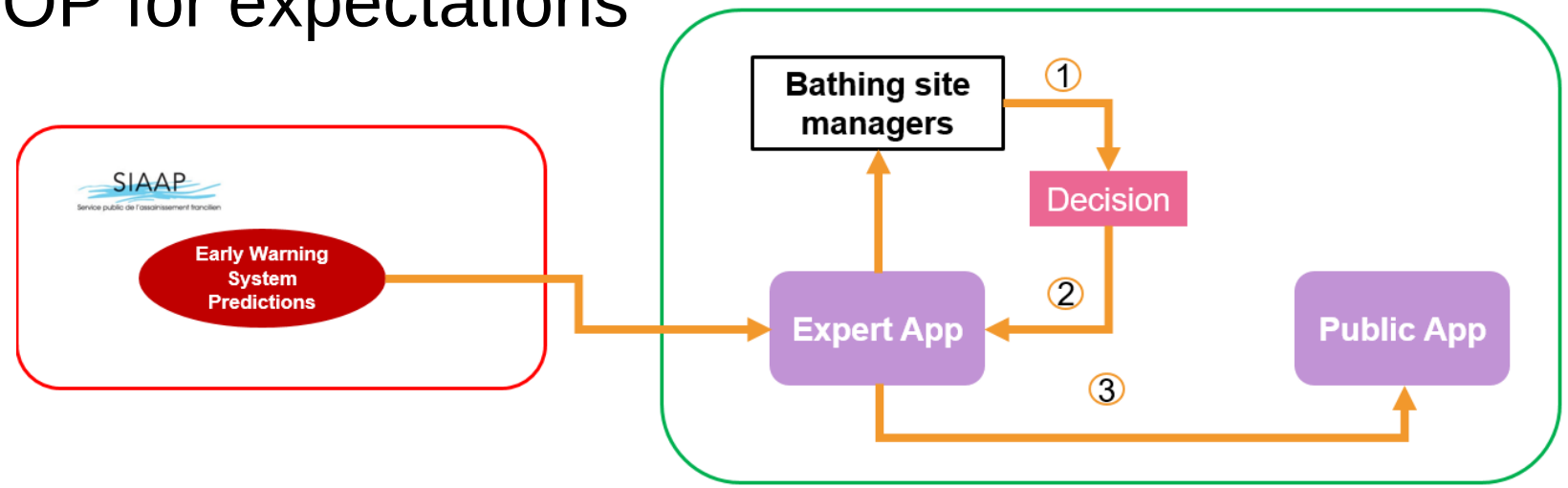
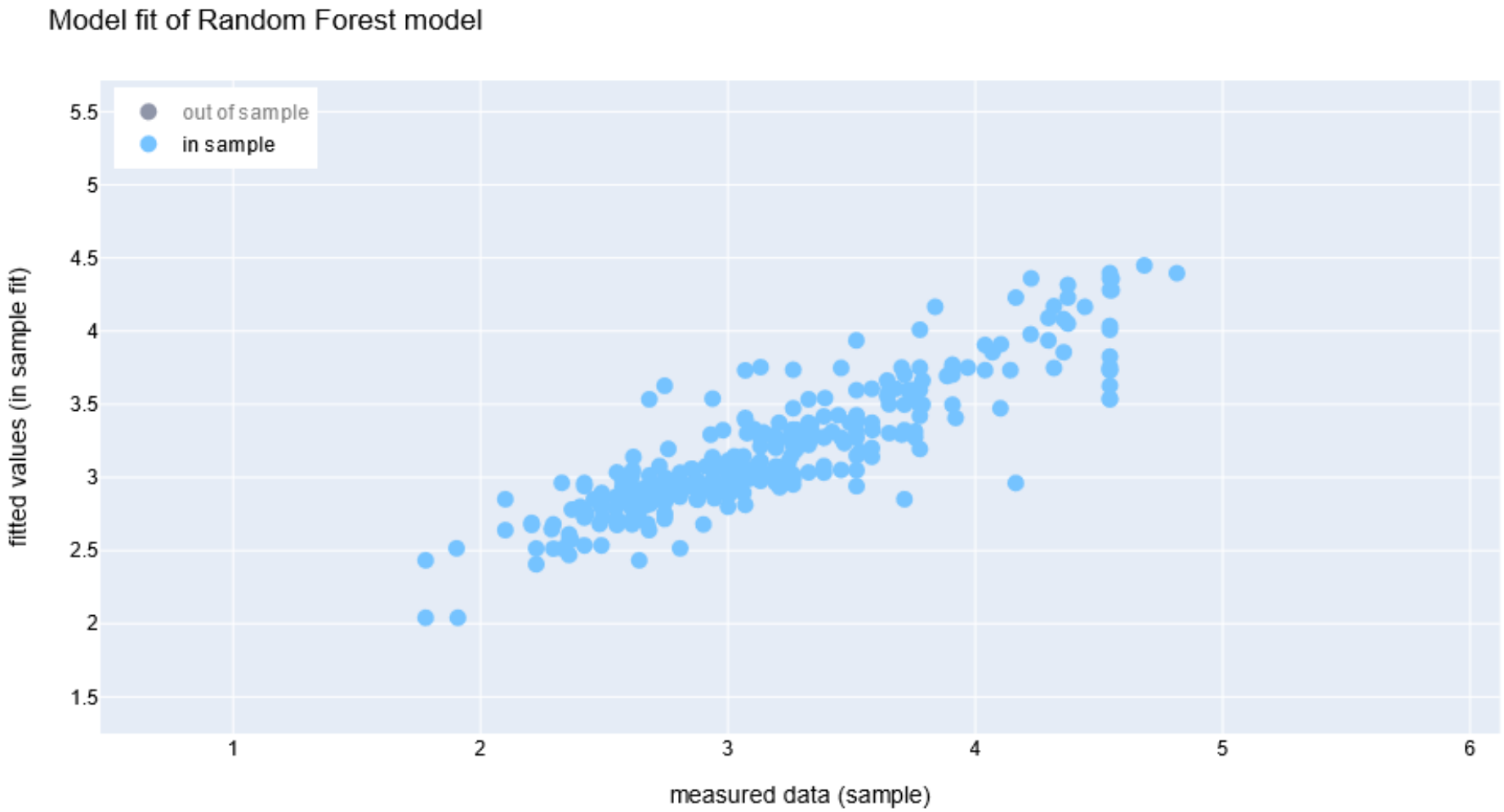
Early warning system for bathing water quality

- → The EWS is composed of a statistical and deterministic model of the rivers in Paris
- → Developments are based on the FIWARE architecture
- → Current activity: validation of the models performance + COP for expectations



First model runs (24h-Random Forest)



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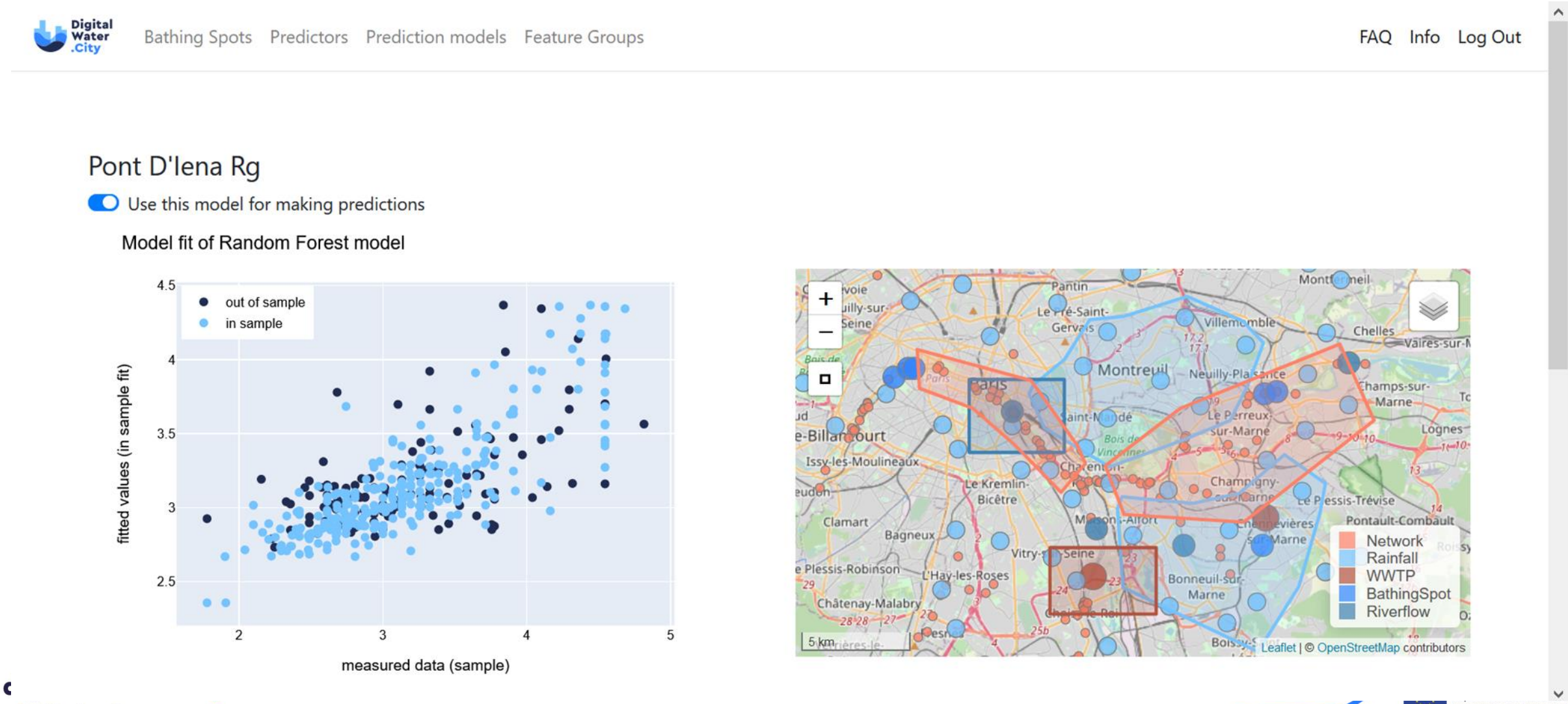
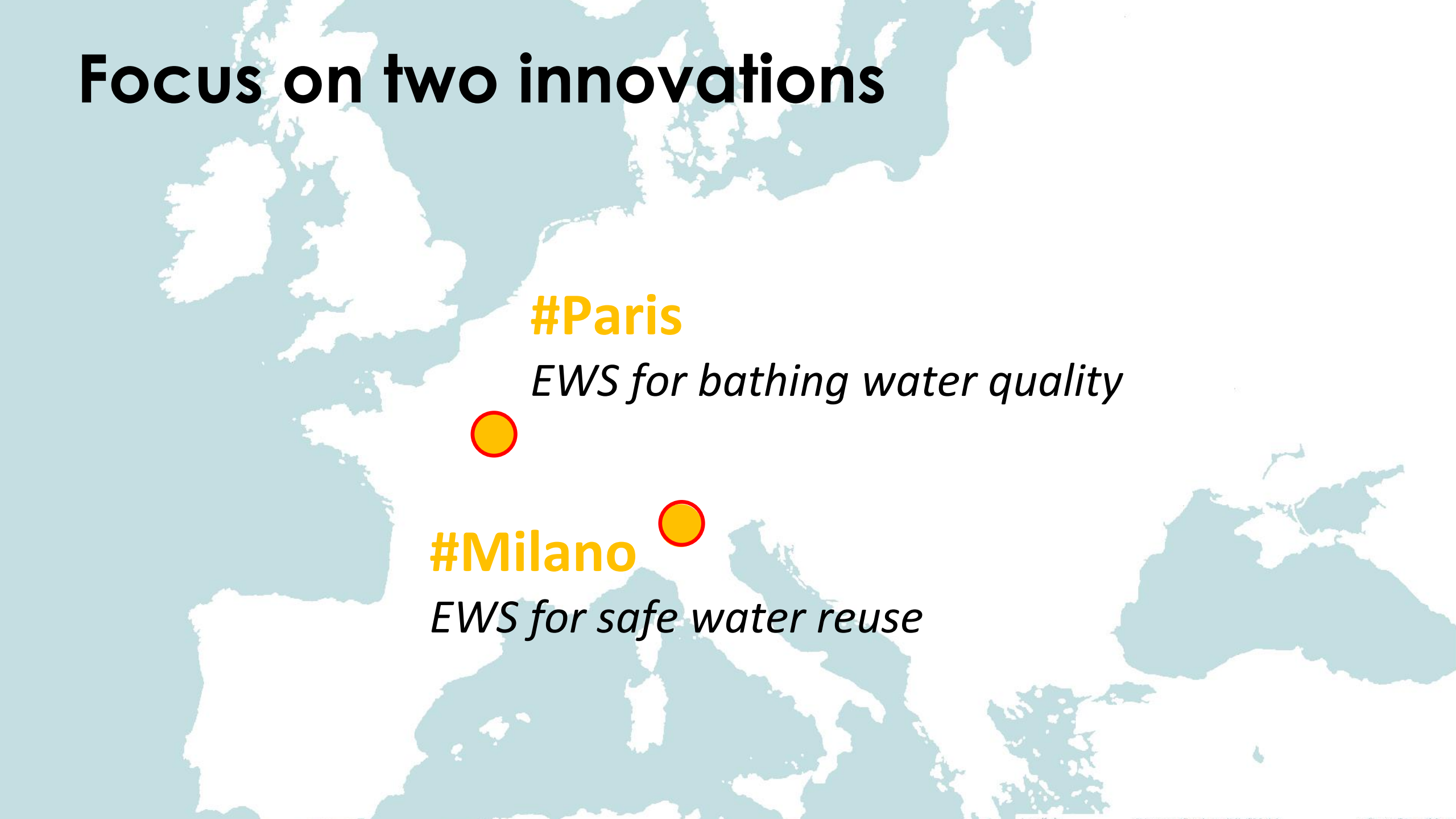
First software architecture



Programme under Grant Agreement No. 820954.

Focus on two innovations



#Paris

EWS for bathing water quality

#Milano

EWS for safe water reuse

DWC in few words

→Leverage the **potential of data and digital** technologies

→**Boost the water management** in 5 EU cities

→**Promote the value** of the digital solutions for the tech providers

→Achieve a **new step in the integration** of digital solutions in EU, in particular regarding cybersecurity, interoperability and governance

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