



B-WaterSmart

Living lab Bodø

Accelerating Water Smartness in Coastal Europe and beyond

Horizon 2020 project

Call: H2020-SC5-2018-2019-2020

*Greening the economy in line with the
Sustainable Development Goals (SDGs)*

B-WaterSmart accelerates the transformation to water-smart economies and societies in coastal Europe and beyond

The project is:

- Grounded on **6 coastal European cities and regions** as 6 interconnected **Living Labs (LLs)**
- Supported by Communities of Practice (**CoPs**) and **a European Innovation Alliance (INALL)**
- Promoted by the Aqua Research Collaboration **ARC** – A Network of European Water Research Institutes

Duration: **Sep 2020 – Aug 2024**
Total Budget: **17.3 M€**
Total EC contribution: **15.0 M€**



1 Alicante

Challenges
Water scarcity, limited reuse due to high seasonal limitations to water acceptance.

Innovation & Demonstration
Improve water-smart municipality of Alicante, testing water reuse and economy opportunities.

5 Lisbon

Challenges
Growing population depend on distant resources with increasing pressures (e.g. droughts and demand must be balanced, need to increase urban ensure the quality of and the sustainability of urban life.

Innovation & Demonstration
Development of tools & processes to facilitate safe water reuse, improvement of water-energy-phosphorous efficiency in municipal non-potable water uses, improvement of households and buildings' climate readiness regarding water and energy with an assessment/certification tool developed locally but with an ambition for national/European adoption.

2 Bodø

Challenges

Growing resident population and economy, increased pollution, untapped efficiency potential.

Innovation & Demonstration

Zero emission urban development, improved management of the wastewater stream, improved air quality.

Enable and complete the water reuse (industrial, agricultural and urban) goal of a regional/national plan for lagoon protection, apply nutrient recovery technologies to waste water treatment plants (WWTPs) and develop shared evaluation model-tools for the sustainability of WWTP effluents and sludge valorisation.

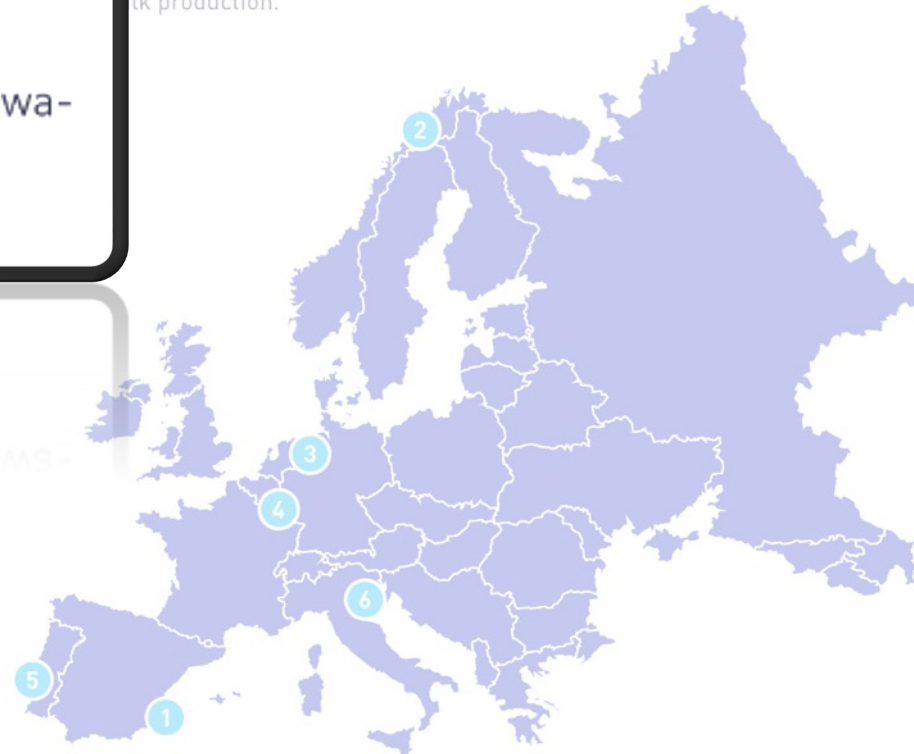
4 Flanders

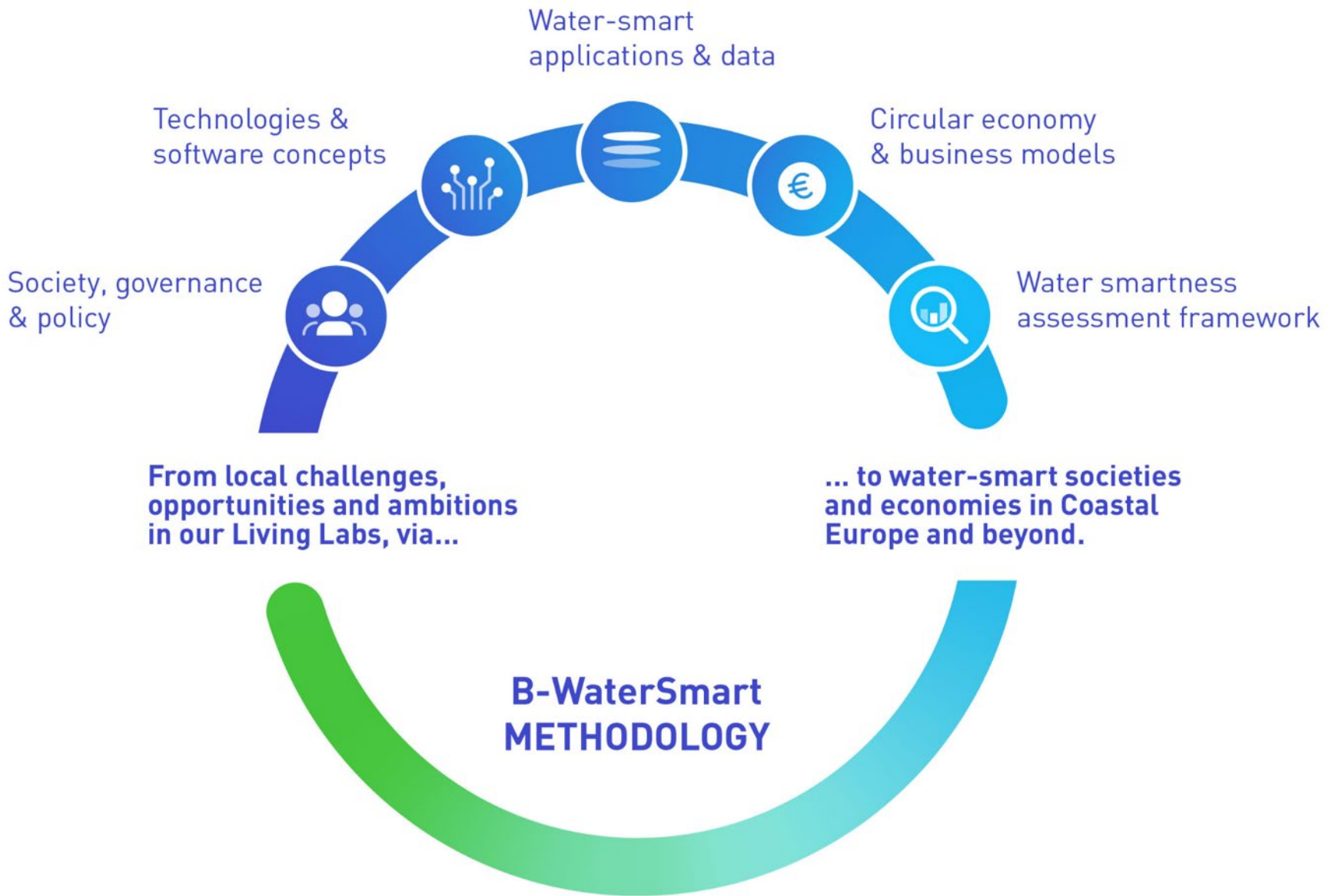
Challenges
High drinking water demand due to dense population, high water demand for agriculture, groundwater overexploitation, water quality deterioration, water scarcity due to droughts, climate change and urbanisation.

Innovation & Demonstration
Development of regional concept for improving and monitoring water-smartness and a more robust water system, with a focus on safe water reuse.

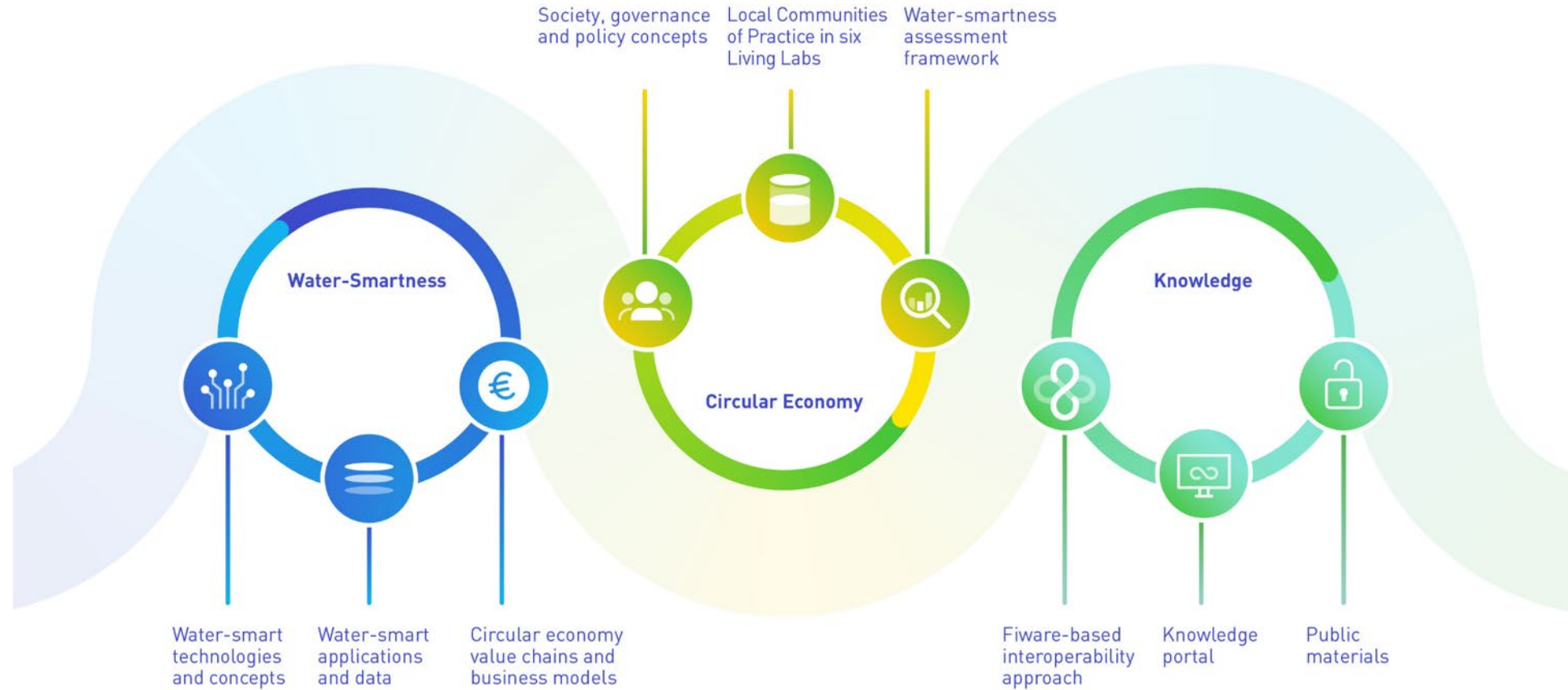
Higher demand in supply sectors (households, agriculture), limited groundwaters, locally untapped potential.

Demonstration
Increasing carrying capacity of identification of alternative intelligent protection groundwater bodies and management of process water (alk production).





B-WaterSmart MAIN RESULTS



B-WaterSmart project partners



Forskningsmålene i B-WaterSmart (NTNU)

Concepts for water-smartness & their technological indicators

- Leakage detection and localization in Water Distribution Networks (WDNs)
- Infiltration in Wastewater Collection System
- Smarter stormwater management

Partners:

Living Lab: Bodø Kommune

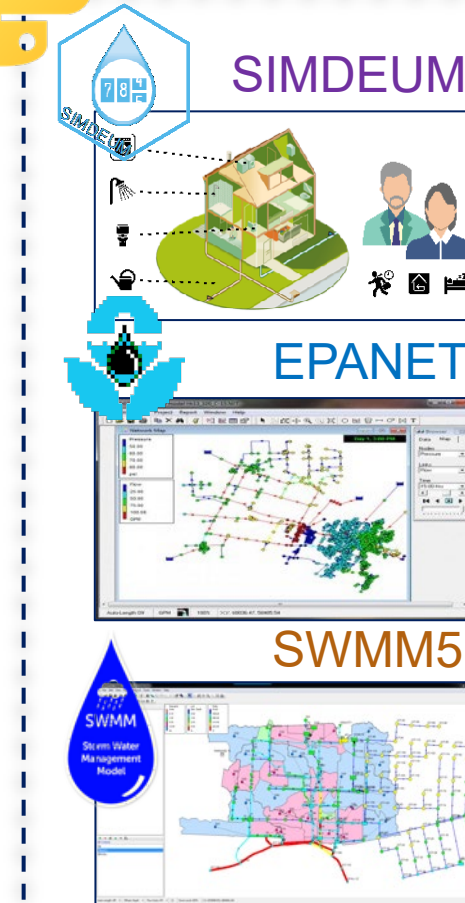
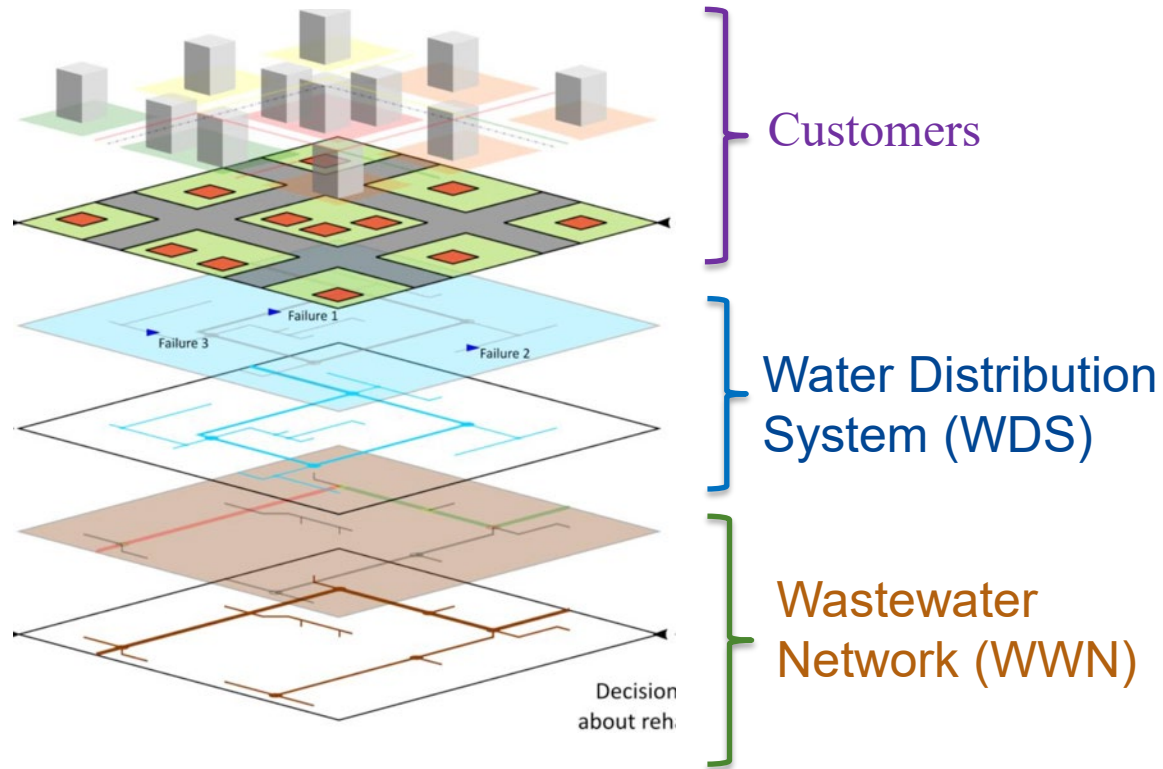
Industry Partners:

1. Nordkontakt – Data collection and Analysis (IT & Communication)
2. TECHNI – Leakage & infiltration detection sensors (IIoT – LPWAN / nb-IoT)

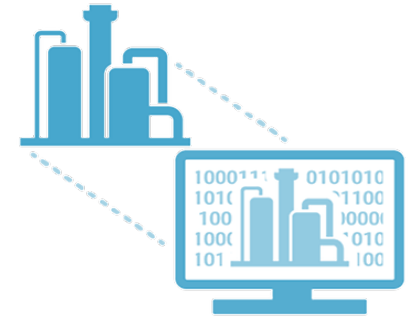
Research Partner: SINTEF (Water-smartness assessment framework)

First steps

- Model building phase



Digital Twin



Hva kan forskningen brukes til

- Data input til digital tvilling (internbruk) - CityLoops
- Data input til Dashbaordet i B-Watersmart
- Bydrift - lekkasjesøk

