



WATER SMART INDUSTRIAL SYMBIOSIS

What is the secret of successful water smart industrial symbioses?

A. Kleyböcker and A. Perkis

March 23rd 2022





Ultimate (June 2020 – May 2024):

- Promotion, establishment and extension of **Water Smart Industrial Symbioses**
- Development and demonstration of **innovative technologies** for symbioses
- **Assessment** of the technologies and development of **digital „support tools“**
- **Engagement of stakeholders** to discuss and enhance our Ultimate solutions
- Development of **new business models** towards marketability

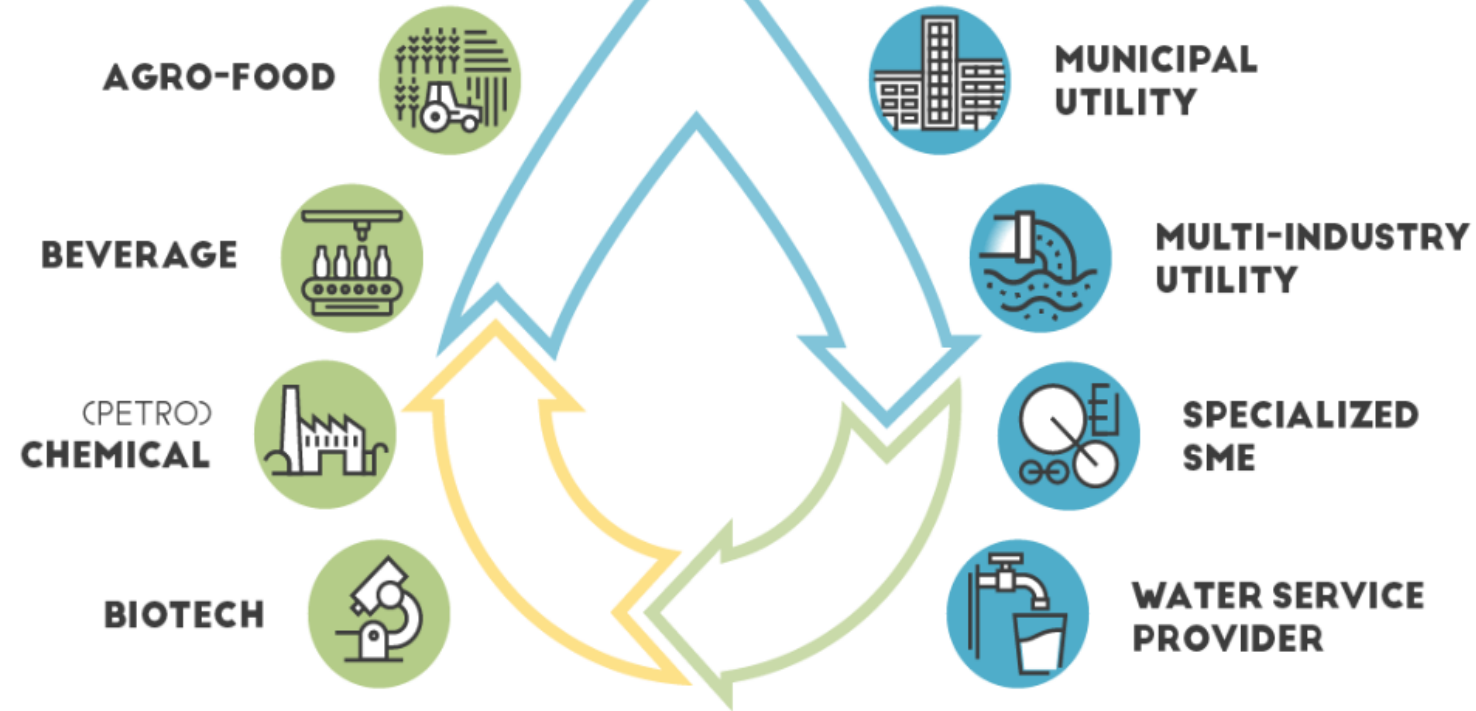




SYMBIOSES BETWEEN:

INDUSTRIAL SECTORS

SERVICE PROVIDERS



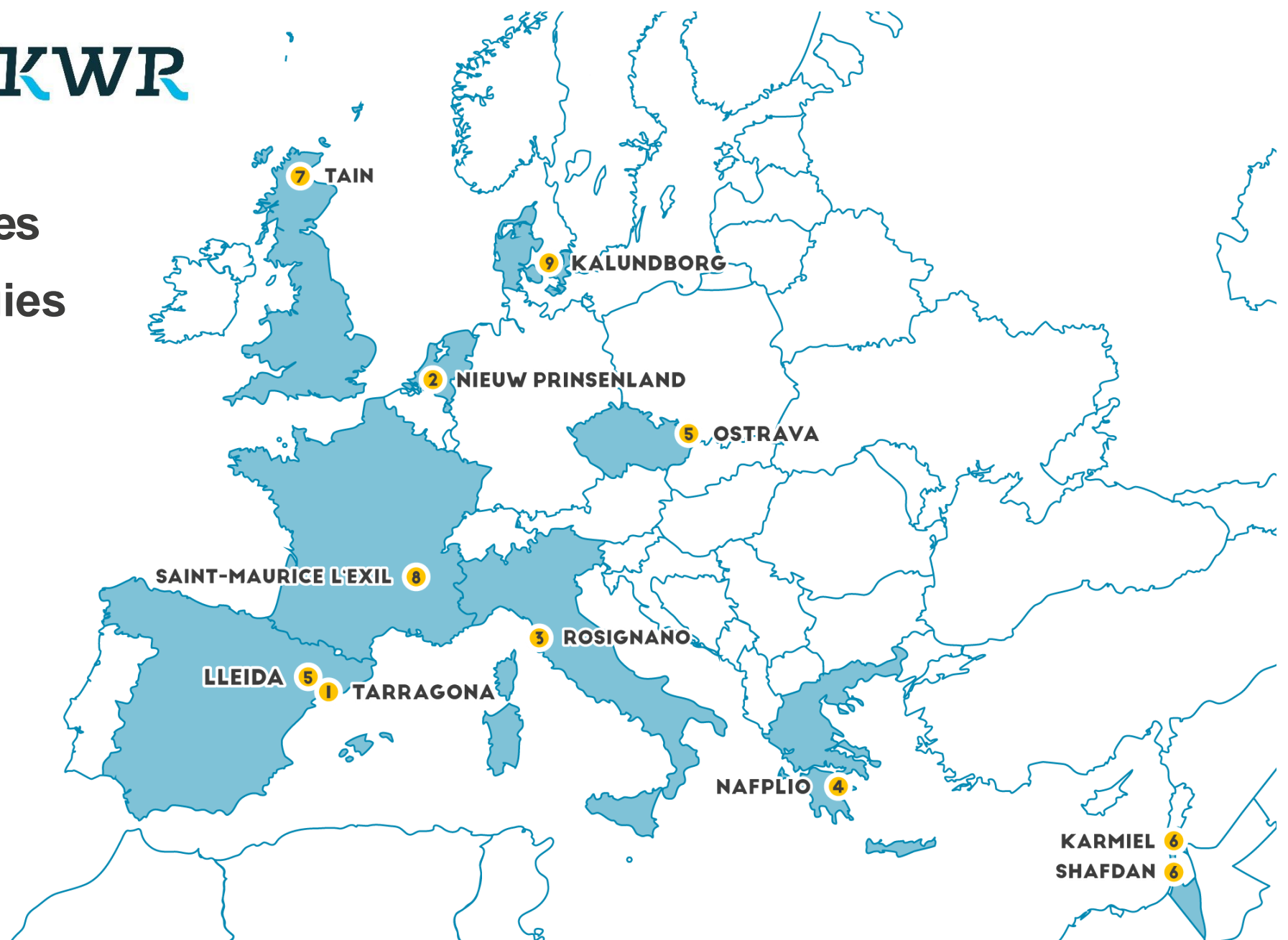
ULTIMATE





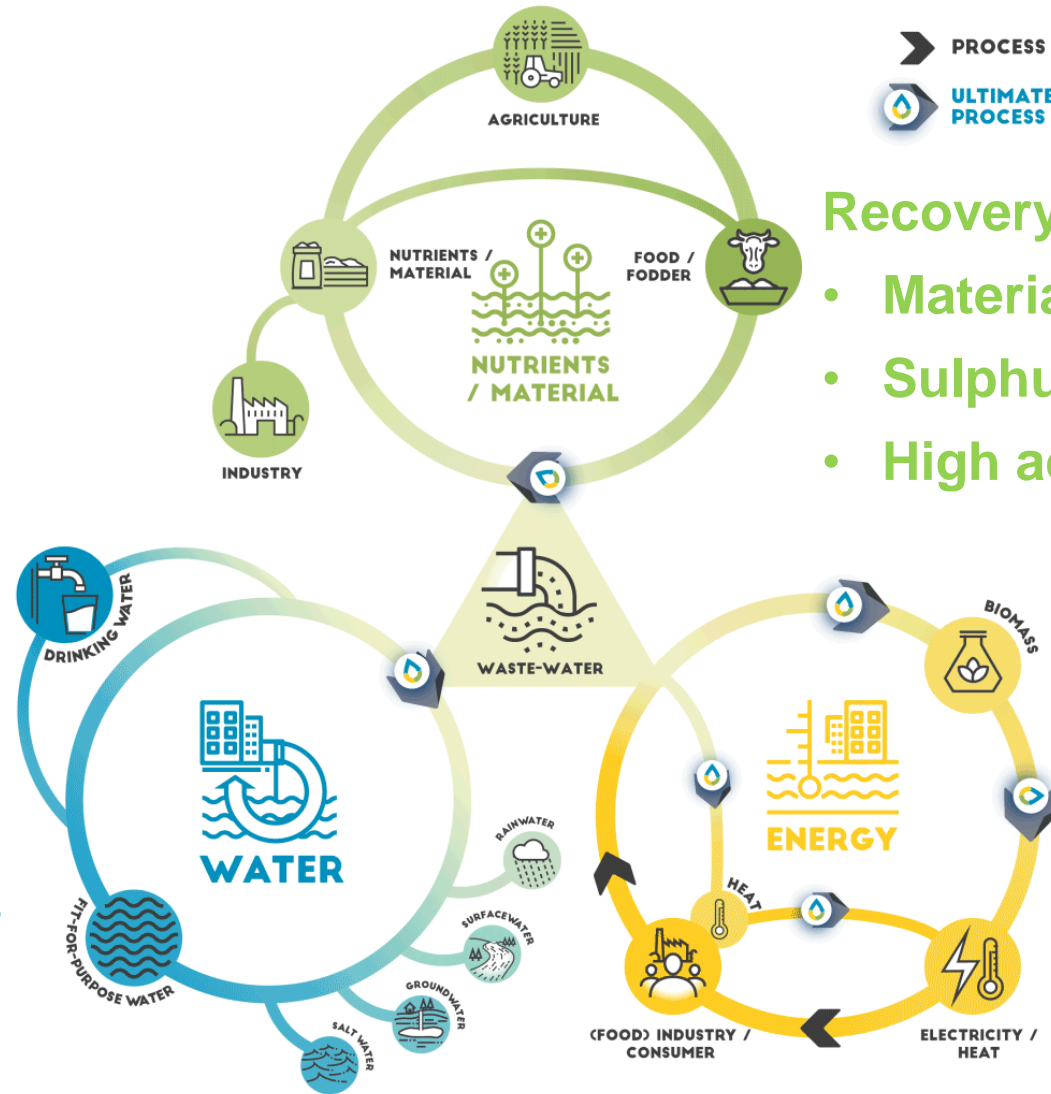
Coordinator: **KWR**

9 Case Studies
37 Technologies





Ultimate solutions involve circular economy technologies



Recovery and reuse of:

- Materials
- Nutrients
- Sulphur
- Metals
- High added value products

- Membrane technologies
- Adsorption technologies
- Electrostimulated systems

- Biogas technologies
- Heat recovery
- Digitalization



The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869318



Tools to engage stakeholders



The main vision is to design and promote active stakeholder engagement and innovation co-creation by transdisciplinary knowledge and capacities from Art, Technology and Digital Humanities.

In this way, we will produce knowledge capable of addressing the complexities inherent in symbiotic arrangements engaging industry, water utilities and the general public





Coordinator: **KWR**

9 Case Studies
37 Technologies



The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869318



What is the secret of successful WSIS?

- 10:05 **CS9: Kalundborg Symbiosis and the secret behind a resilient partnership**
Lisbeth Randers (Kalundborg Symbiosis)
- 10:20 **Strategy and role of multi-utilities to deliver territorial symbioses and circular economy**
Enrico Pochettino (IREN)
- 10:35 **CS3: The ARETUSA symbiosis for local and regional water-smart sustainability**
Gianluca Pettinello (Solvay) & Lorenzo Bagnoni (ARETUSA)
- 10:50 **Break**
- 11:00 **CS1: Success of the Tarragona Symbiosis and strategy of the Water-Smart Industry Vision Leadership**
Miquel Rovira Boixaderas (Eurecat)
- 11:15 **AquaSPICE: Capitalising the experience of others to achieve a successful symbiosis**
Athanasios Angelis-Dimakis (Huddersfield University)
- 11:30 **Discussion**
(Moderation: Stefania Munaretto)
- 12:15 **End**





Please mute your microphone and use the chat to ask questions!

Please note: we will record the workshop

The recording starts at the beginning of the meeting.





Presentations will be available on our webpage: ultimatewater.eu

