



WATER SMART INDUSTRIAL SYMBIOSIS

Online seminar

Material recovery and safe reuse

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June, 23rd 2021





Ultimate (June 2020 – May 2024)

Industry water-utility symbiosis for a smarter water society

- 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»**
- Development of **new business models** towards marketability

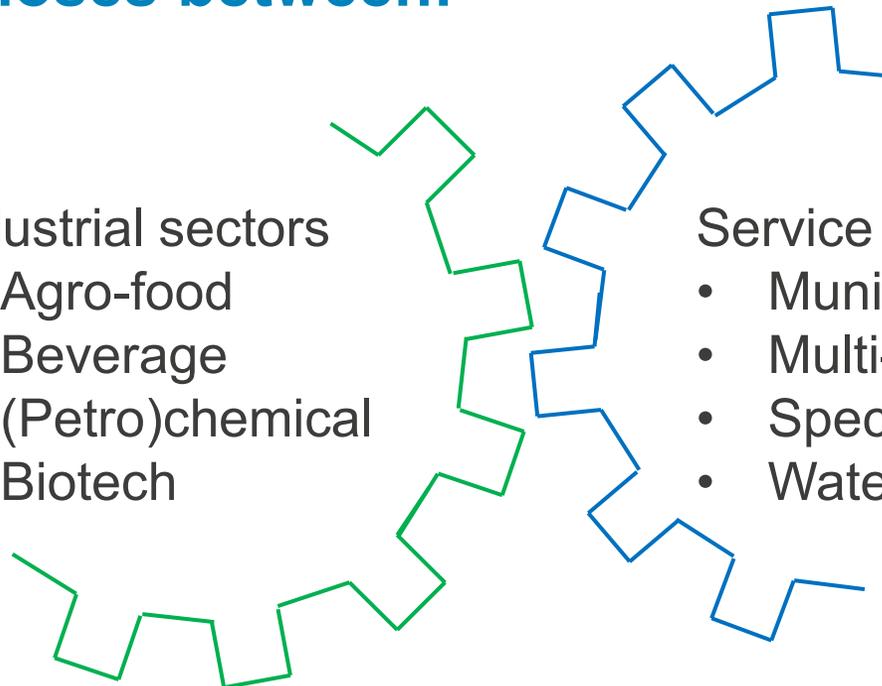
9 Symbioses between:

Industrial sectors

- Agro-food
- Beverage
- (Petro)chemical
- Biotech

Service providers

- Municipal utility
- Multi-industry utility
- Specialized SME
- Water services provider





Coordinator: **KWR**

9 Case Studies

27 Partners

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



3 Cross-cutting Technology Groups: 9 Topics



UNIVERSITÀ
POLITECNICA
DELLE MARCHE



F. Fatone



C. Bruni

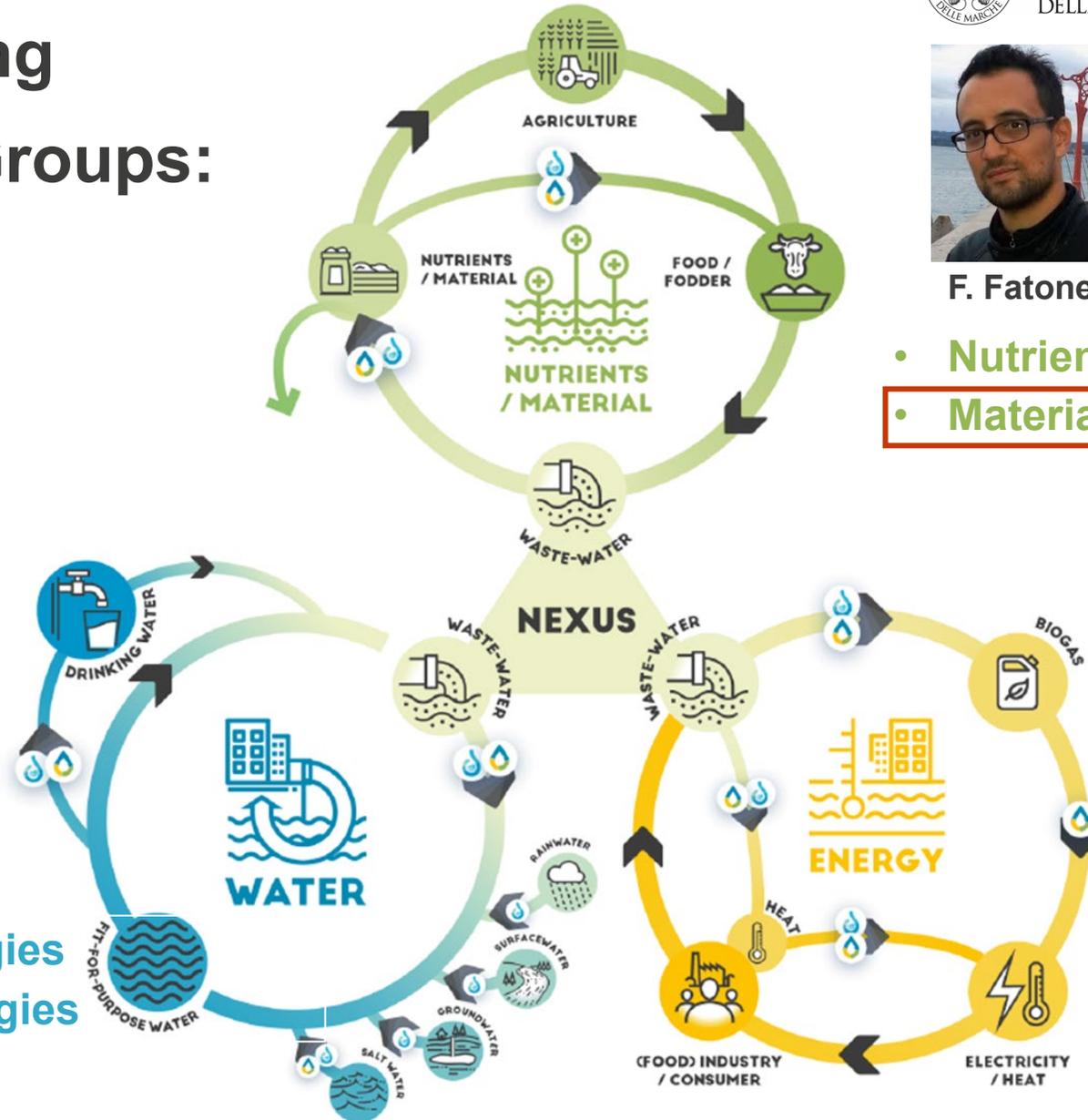
- Nutrient recovery
- Material recovery



S. Casas

eurecat
Centre Tecnològic de Catalunya

- Membrane technologies
- Adsorption technologies



A. Kleyböcker

KOMPETENZZENTRUM
Wasser Berlin

- Biogas technologies
- Heat Recovery
- Digitalization

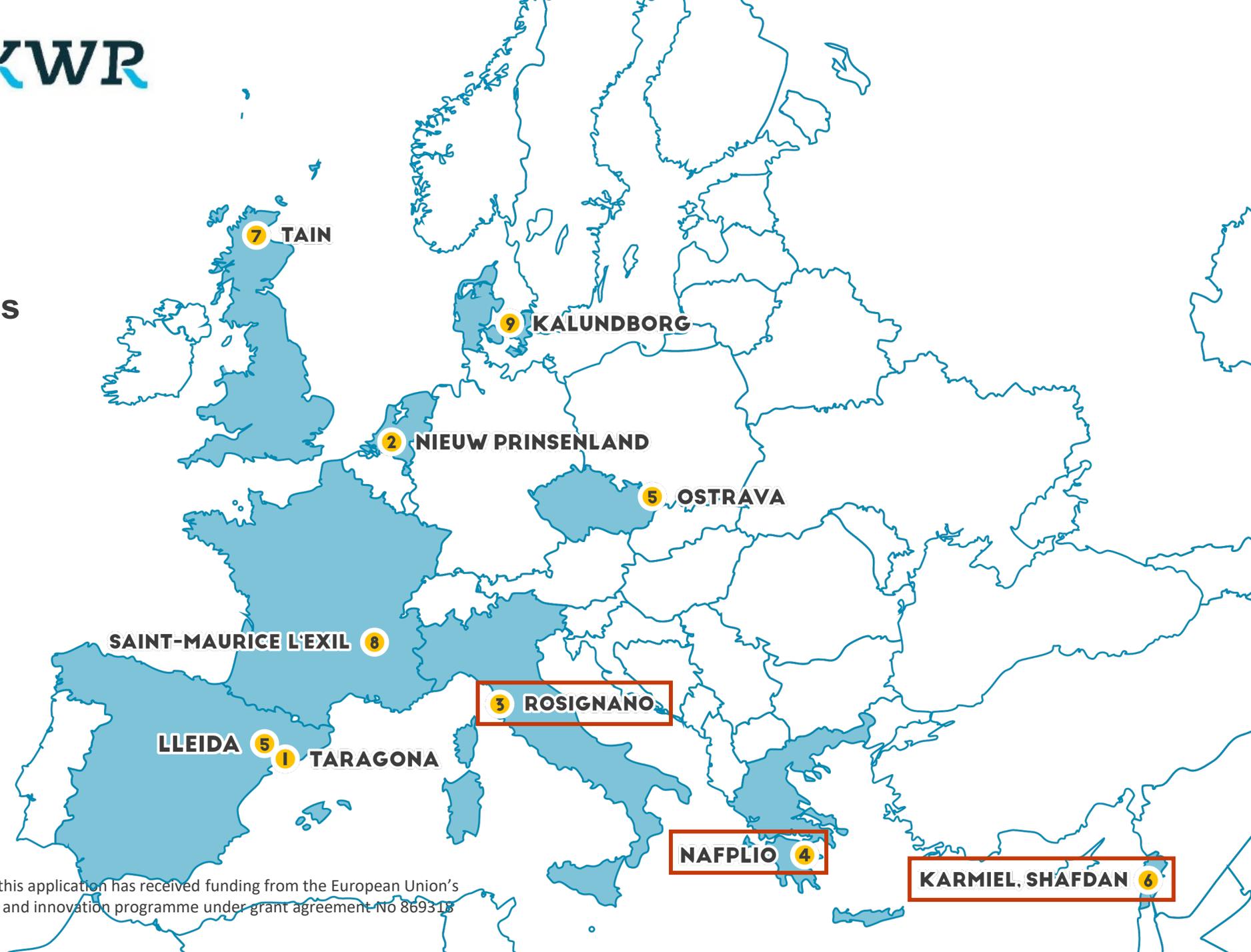


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Agenda

- 16:10** **SLUDGE 4.0:** Thermochemical treatment and down-stream strategies for materials recovery from sewage sludge
Riccardo Gori (UNIFI)
- 16:25** **CASE STUDY 4 & 6:** Recovery of antioxidants and polyphenols from fruit processing and olive mill wastewater
Dimitri Iossifidis (GTG)
- 16:45** **CASE STUDY 3:** Use of by-products of local industries for wastewater treatment in Rosignano
Francesco Fatone (UNIVPM) & Francesco Rossi (CPTM)
- 17:00** **SMART PLANT:** Cellulose recovery from municipal wastewater and safe reuse
Marit van Veen (CirTec)
- 17:20** **ROUTES; SMART-Plant; RES-URBIS:** Polyhydroxyalkanoate (PHA) recovery from sewage sludge and foodwaste
Mauro Majone (UniRoma)
- 17:40** **Water2REturn:** Microalgal Biomass recovery and reuse
Robert Reinhardt (ALGEN)
- 18:00** **End**



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