



SPIRE and Catalysing the Circular Economy BROKERAGE EVENT

3-4 October 2017

***SMALL SCALE CIRCULAR SOLUTIONS
FOR WATER TREATMENT***

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IRIS srl - ITALY



- Innovative SME born in 2012 in Turin, Italy
- 11 members of staff of which 7 engineers (including a PhD), 2 scientists and an architect
- Background in plasma technology, industrial laser, CNC machining, materials, energy, waste and water management.
- Main field of specialisation relevant to SPIRE: development of small scale innovative solutions for treatment of liquids (water, foodstuff) and solid waste (residual municipal, urban and marine litter, hazardous) with recovery of energy and materials.



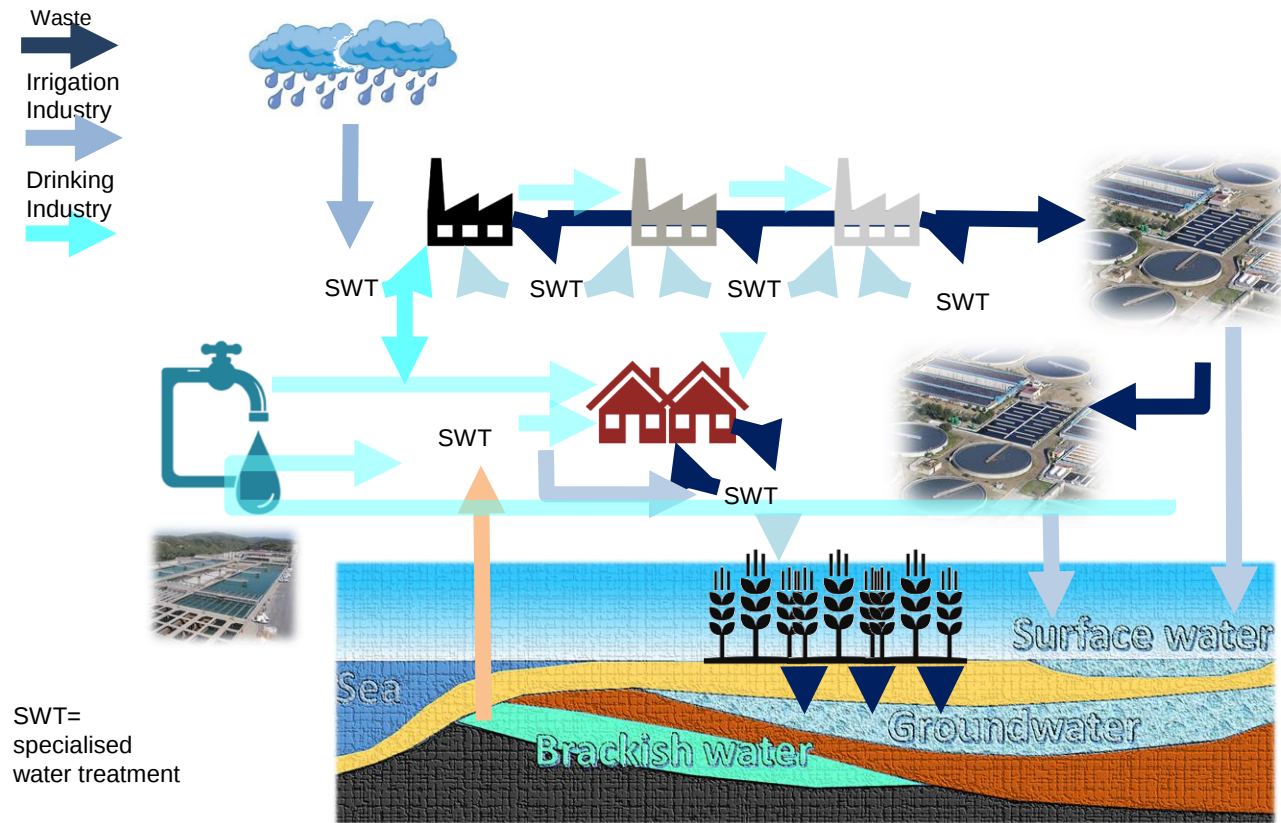
H2020 activity:

- partner in 2 FoF projects (Borealis and Symbionica) and coordinator of a NMBP project (FreeWheel, started 1st October)
- partner in a BG project and a FCH JU project (both in GA preparation phase)
- SME Instrument Phase 1 champion (SeaLitterCrittters feasibility study)
- Winner of an SME Innovation Associate grant (FormulaGP, started Sept 2017)
- Coordinator of a successful Stage 1 of CIRC02b call; Stage 2 proposal just submitted with 22 other partners including 2 WssTP members (PoliMI and Puglia region)



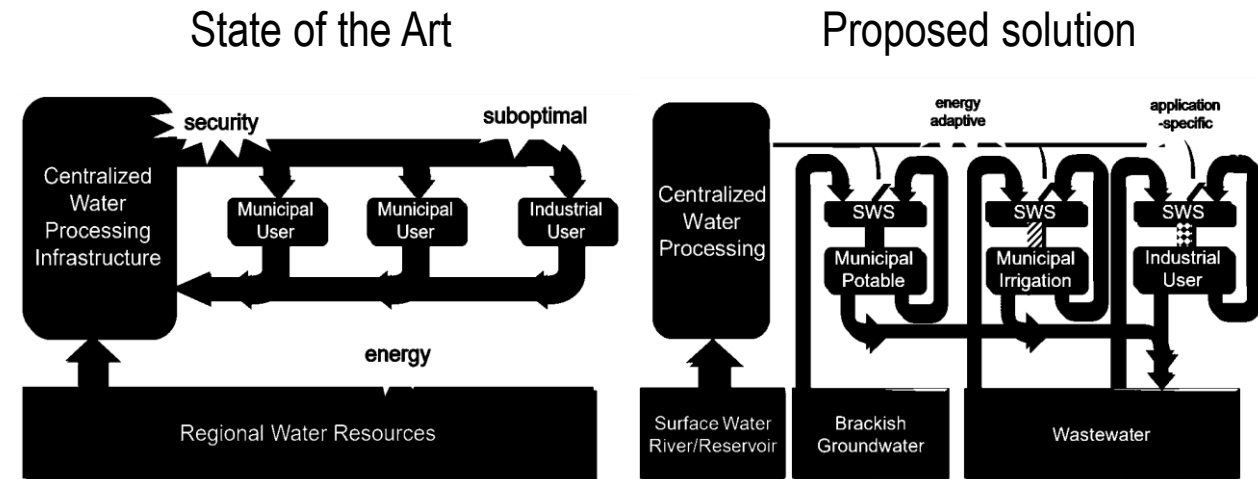
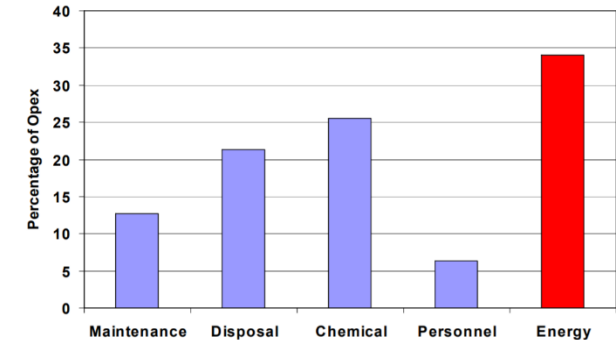
PROJECT IDEA: small scale circular solutions for water treatment

- Main concepts: demonstration of technological and management solutions for allowing on site high value **(re)use of water whatever its provenance**, i.e. collected rainwater, greywaters, industrial and civil wastewater with recovery of energy and nutrients, **interfacing industrial, civil and agricultural activities**.
- Opportunity: small management cycles for treating water ad hoc, with modular and flexible solutions replicable by any small outfit (including SMEs, small factories, mixed-use districts).
- Calls: Industry in Circular Economy
- **IRIS is a stakeholder in the redevelopment of a mountain hamlet at 1600m of altitude in the Italian Alps, an ideal setting for experimenting off grid and circular solutions for treatment and services that deliver self sufficiency with a mix of civil, commercial and food processing activities.**



EXPECTED IMPACT

- Providing solutions for small scale, specialist applications to reduce water footprint up to 30% with energy requirements halved wrt traditional WWTP
- Modular and flexible, hence affordable also to SMEs with prospect of quick recovery of the investment
- Enlarging the application to civil society, with opportunities for better territorial and community integration of the solution
- Bringing novel technologies for specialised water treatment to TRL7 and beyond, with very good market prospects



LOOKING FOR PARTNERS/ CONSORTIUM

- IRIS offers:
 - A novel, patent pending technology able to deal with dyes, pollutants of emerging concerns including pesticides and pharmaceuticals
 - An isolated site with housing, restaurant /hotel, a farm and dairy, a biomass energy plant ideal for testing out
 - A network of contacts amongst developers of innovative water treatment technologies, water utilities, experts in sustainability assessment and social innovation



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