

Retos futuros en la regeneración de aguas

Sandra Casas

Cetaqua is a technology centre and a link between the scientific and academic world and business which generates and manages knowledge and detects strategic R&D opportunities, aimed at the development and validation of technologies and solutions in the integrated water cycle through and open innovation model.



L1

Alternative
resources



L2

An impact
on global change



L3

Efficient infrastructure
management



L4

Environment
and health



L5

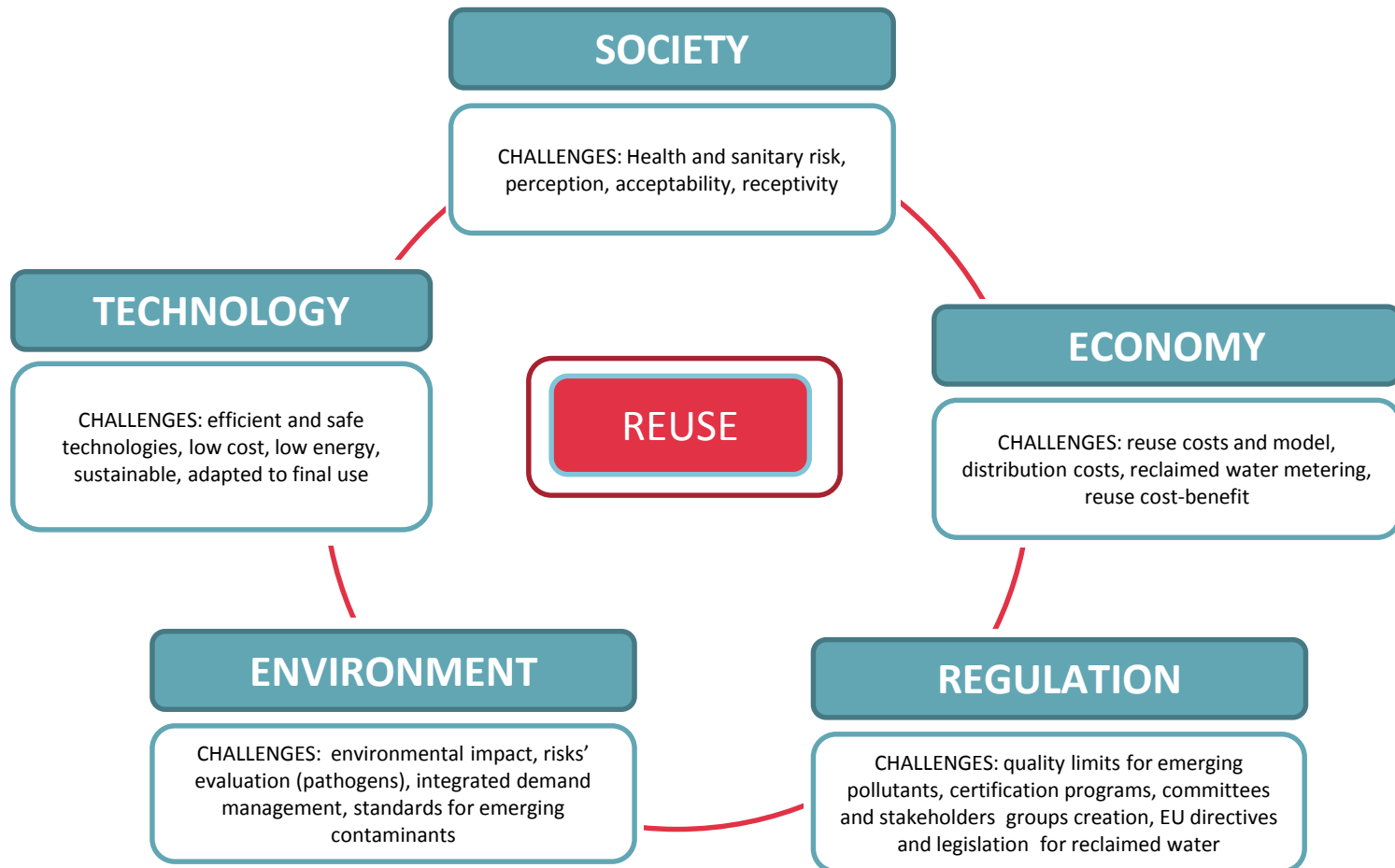
Water
and energy



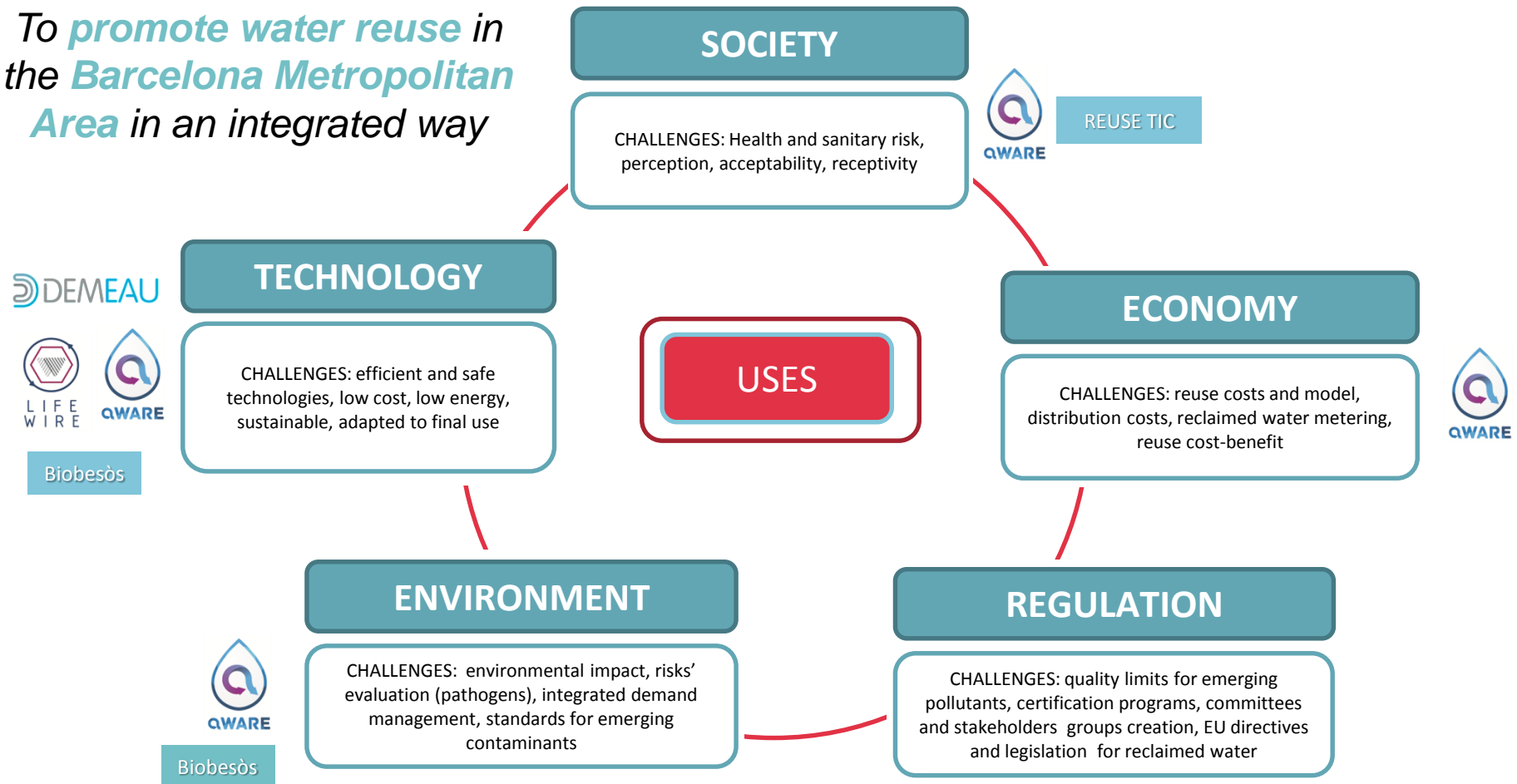
L6

Water demand
management

Contribute to **circular economy**
through 6 research lines

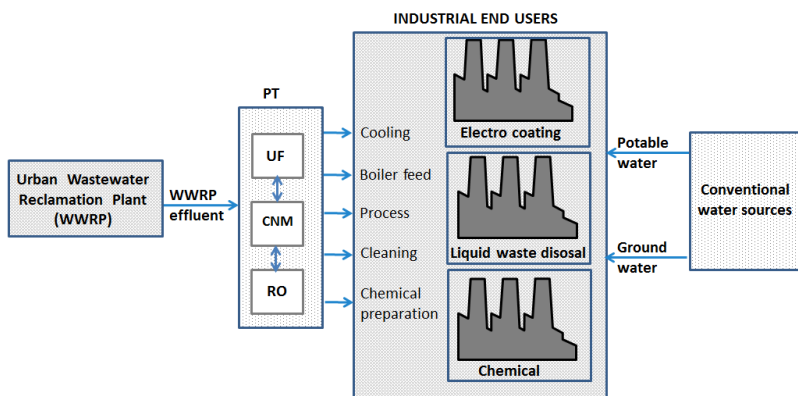


To promote water reuse in the Barcelona Metropolitan Area in an integrated way





www.life-wire.eu



Description: Design and operate a prototype based on the combination of leading-edge technologies (ultrafiltration (UF), carbon nanostructured material (CNM) filtration and reverse osmosis (RO)) to polish and reuse reclaimed municipal wastewater in the chemical, liquid waste disposal and electro-coating industries.

Objective: Boost industrial water reuse by developing a system for waste water treatment that allows flexible and efficient recycling of urban waste water of different qualities and its use in the chemical industry, the liquid waste management and galvanizing.

Duration: Oct / 2013 – March / 2017

Total budget: 1.7 M€

Partners:



Ecoimsa S.A.





www.life-aware.eu



Description: The **aWARE** project deals with the issues of wastewater scarcity and the removal of priority and emerging pollutants within the urban water cycle as well as the management of reclaimed water production and distribution in centralized reclamation plants.

Objective: The **aWARE** project is to promote water reuse through the demonstration and optimization of innovative and state of the art water reclamation technologies as well as identifying key issues regarding the production, demand and distribution of reclaimed water. The innovative treatments considered include the combination of adsorbents with biological and membrane systems as well as the application of Advanced Oxidation Processes that combine ozonation, hydrogen peroxide and/or UV disinfection.

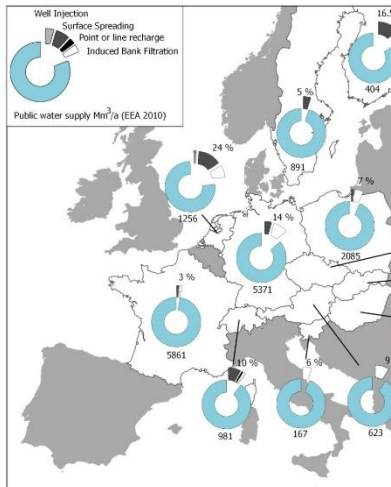
Duration Jan / 2013 – Nov / 2016

Budget 2,6 M€

Partners



www.demeau-fp7.eu



Description: The water and waste water sector is facing tremendous challenges to assure safe, cost-effective and sustainable water supply and sanitation services. DEMEAU project involves validation of promising technologies that tackle emerging pollutants in water and waste water in 4 relevant areas: Managed Aquifer Recharge (MAR), Hybrid Ceramic Membrane Filtration, Hybrid Advanced Oxidation Processes and Bioassays.

Objective: DEMEAU promotes the uptake of knowledge, prototypes and practices from previous EU research enabling the water cycle sector to face emerging pollutants and thus securing water and waste water services and public health

Duration: Sep / 2012 - Sep / 2015

Total budget: 4,6 M€

Partners:

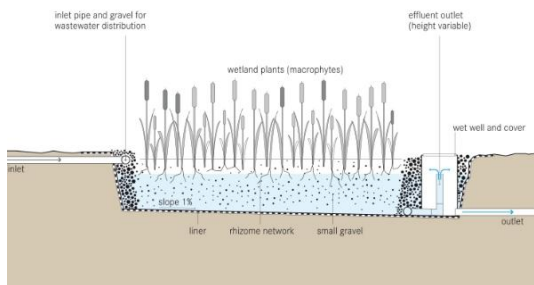




Description: Aigües de Barcelona operate the WWTP of Moncada where one third of outlet flows goes to a wetland tertiary treatment that are managed by the public entity Diputació de Barcelona. Both entities are interested in evaluate the positive impact of the wetlands in the Besòs river quality and in the zone biodiversity

Objective:

- 1- Physico-chemical characterization of the operation of the wetlands and its capacity of emerging pollutants removal
- 2- Determination of the wetlands improvement of zone biodiversity
- 3- Management improvements proposals based on the project conclusions



Duration: June / 2016 – June / 2017

Total budget: 194 k€

Partners:



Description: Development of a serious game for secondary school students based on the management of the urban water cycle. The user will take decisions which will improve the sustainability of the urban water cycle, taking into account water availability and including water reuse solutions.

Objective: To increase the social awareness regarding the use of water reuse technologies by means of a serious game, and to gather information on the existing social perception of water reuse

Duration: Aug / 2012 – Dec / 2014

Total budget: 1.2 M €

Partners:



- Reuse of water is a **suitable option** to deal with the current water scarcity situation.
- Technical, environmental and economic demonstration of water reuse is need so to **increase the social acceptance**.
- **Social aspects** of water reuse need to be specifically addressed.
- To **boost the implementation** of water **reuse at EU level** it is necessary to tackle the technical, economic, environmental, social and regulatory barriers under an **integrated approach**.
- The **area of Barcelona** is being used as **demonstration site** in different research projects, aiming at demonstrating the feasibility of water reuse under an integrated approach.
- Demonstration in the area of Barcelona **moves forward the implementation of water reuse** at European level, providing a showroom on the different benefits.

THANK YOU!

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**Area Manager,
Water Resources, Production and Reclamation**