

A photograph of the Fundació CTM building, a modern structure with a dark, perforated facade and a large 'ctm' logo. The building is situated in a landscape with low vegetation under a cloudy sky. The ground in the foreground is a light-colored, paved area.

ctm

Fundació CTM Centre Tecnològic
Technology for Competitiveness



Quiénes somos

Un **Centro Tecnológico Avanzado** altamente cualificado, **referente mundial en las tecnologías propias del centro**, reconocido en los ámbitos científico e industrial.

Qué hacemos

I+D+i Investigación Aplicada, Desarrollo Tecnológico e Innovación, **propia y con la empresa.**

Nuestra misión

Mejorar e incrementar la competitividad, el progreso y la capacitación tecnológica de las empresas y de otros organismos, mediante proyectos conjuntos, servicios tecnológicos avanzados y la transferencia de tecnología.



aspectos diferenciales



I+D+i orientada a mercado. La tecnología para incrementar la competitividad de la empresa.



Proyectos conjuntos [Empresa+CTM] de I+D+i



Posicionamiento de referencia en Cataluña:
único Centro Tecnológico Avanzado, de los 6 de la
Red TECNIO, especializado en Tecnología de
Materiales y Tecnologías Medioambientales.



Fuerte vínculo con la Universidad Politécnica de
Cataluña en materia de I+D+i.



Uno de los tres centros integrados en ARTIC,
Catalan Institute for Applied Research Technology
Innovation and Creativity





àmbitos de excelencia del Centro



**Tecnología de Materiales y
fabricación avanzada**



Tecnología Ambiental



Energía



BioInginiería



Simulación y diseño Innovador



- Tecnologías del ciclo integral del agua.
- Sistemas de recuperación de suelos y aguas subterráneas contaminadas
- Gestión y minimización de residuos.
- Evaluación de riesgos e impactos sobre el medio
- Servicios avanzados de laboratorio



Innovation Demonstration for a Competitive and Innovative European Water Reuse Sector

DEMOWARE

(FP7-ENV-2013-WATER-INNO-DEMO)

Keywords:

Water reuse, innovation, demonstration, urban side, barriers to implementation, technology, monitoring, environmental and human health risk, access to financing, public and political engagement

PROJECT DATA & CONSORTIUM

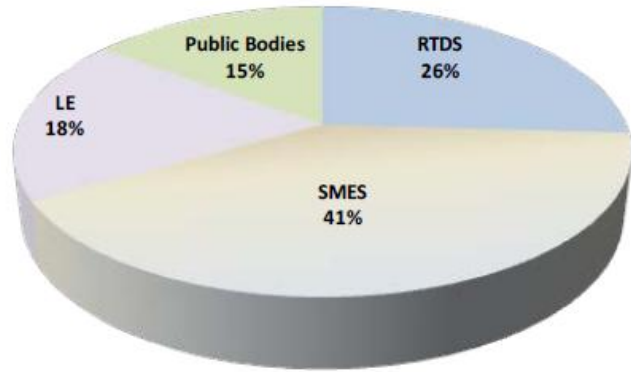
Partners: 27
Demo-sites: 10
Budget: 10.504.470 €
Requested UE contribution: 5.999.566 €
Duration: 3 years

Work Packages: 9
Person-months: 961.8
Deliverables: 42
Milestones: 28
External Stakeholders: 12

Country	No. Partners
Spain	8
France	3
Israel	3
Italy	3
United Kingdom	3
Belgium	2
Germany	2
Czech Republic	1
Switzerland	1
Netherlands	1

Country	No. Demo Sites
Spain	4
France	1
Israel	1
Italy	1
United Kingdom	1
Belgium	1
Germany	1

PROJECT DATA & CONSORTIUM



Fachhochschule
Nordwestschweiz



JOINT RESEARCH CENTRE

The European Commission's in-house science service





Water Reuse

*Research and Technology
Development Needs for
Water Reuse*

**Publication
June 2013**

www.wsstp.eu

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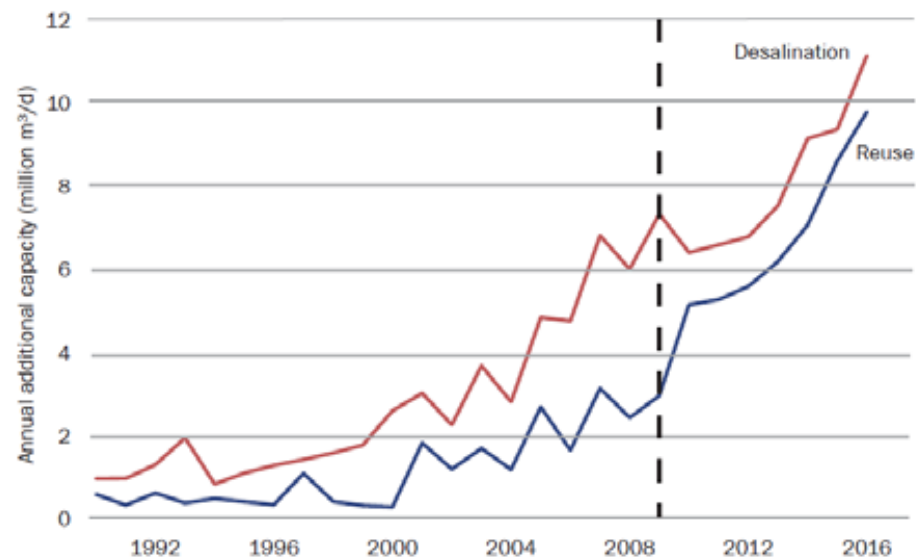
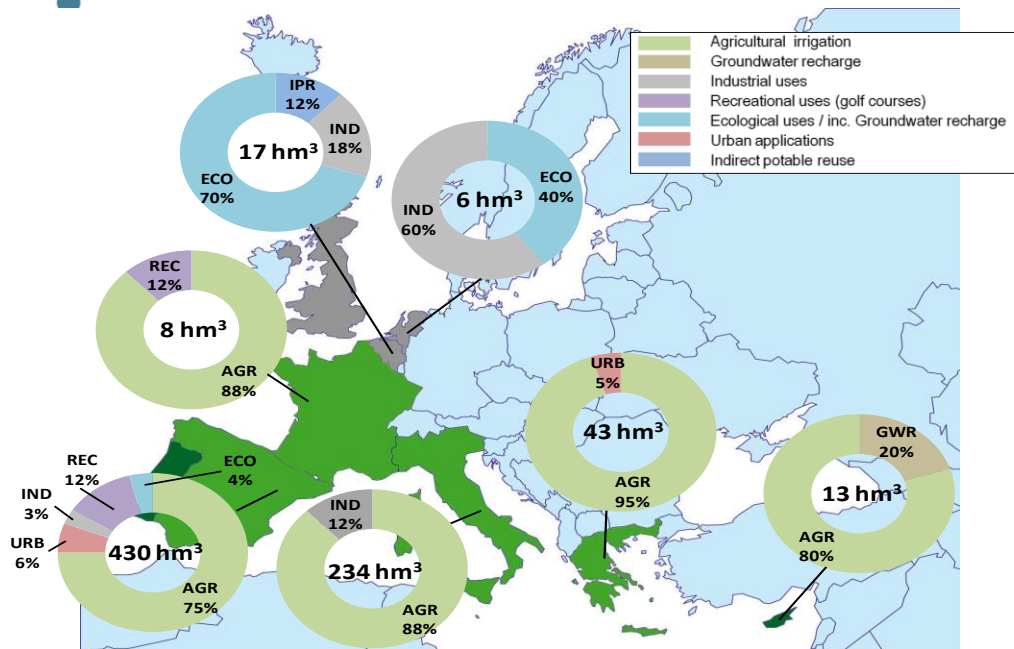
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Europe has plenty of water resources compared to other regions of the world, and as a whole it has not been traditionally considered as exposed to scarcity... this position has been changed in the last years by growing water stress (water scarcity and quality deterioration).

Half of the European countries representing almost 70% of the population are facing stress issues.

Directive 91/272/CEE in Article 12
"Treated wastewater shall be reused whenever appropriate"

However, no uniform guidelines, regulations or management practices yet exist at the European level to define the term "appropriateness" considering criteria such as human health and environmental risk as well as public acceptance and financial viability.



WATER REUSE

Low Public Confidence

Inconsistent evaluation of costs and benefits

Poor sector coordination

Demonstrate the technical feasibility of innovative technologies for wastewater reclamation and reuse

Demonstrate advanced monitoring and control of water constituents (pathogens, contaminants and nutrients) in various water recycling schemes.

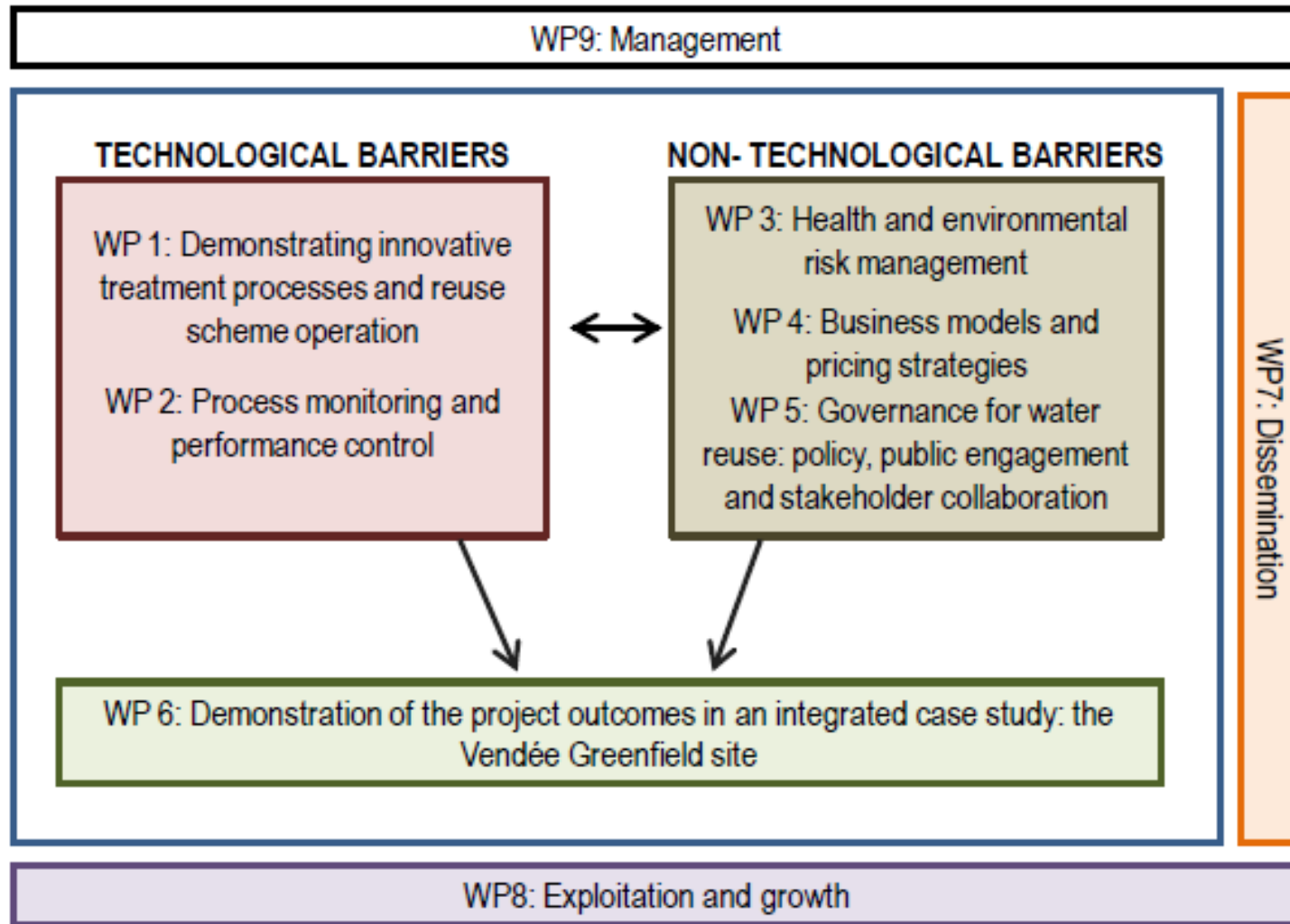
Demonstrate how through the assessment and management of risks the socio-economic and environmental benefits of water reuse can be maximized, while negative impacts are kept to a minimum

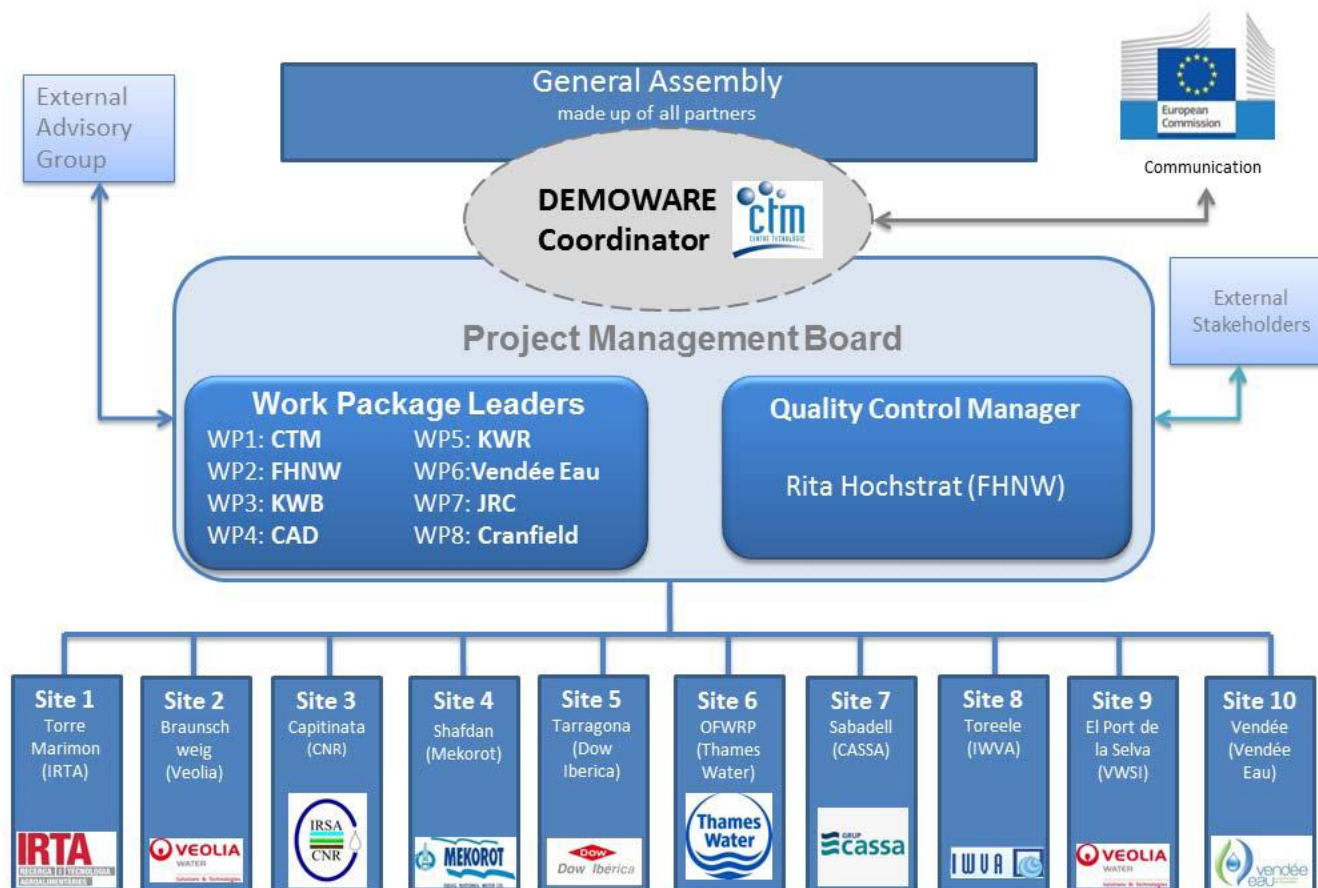
Increase and promote the marketability of water reuse schemes.

Improve the ability of reuse scheme operators to deliver socially acceptable projects within collaborative and effective governance regimes.

Promote a wider understanding and awareness of water reuse practices among public administrations and end-users.

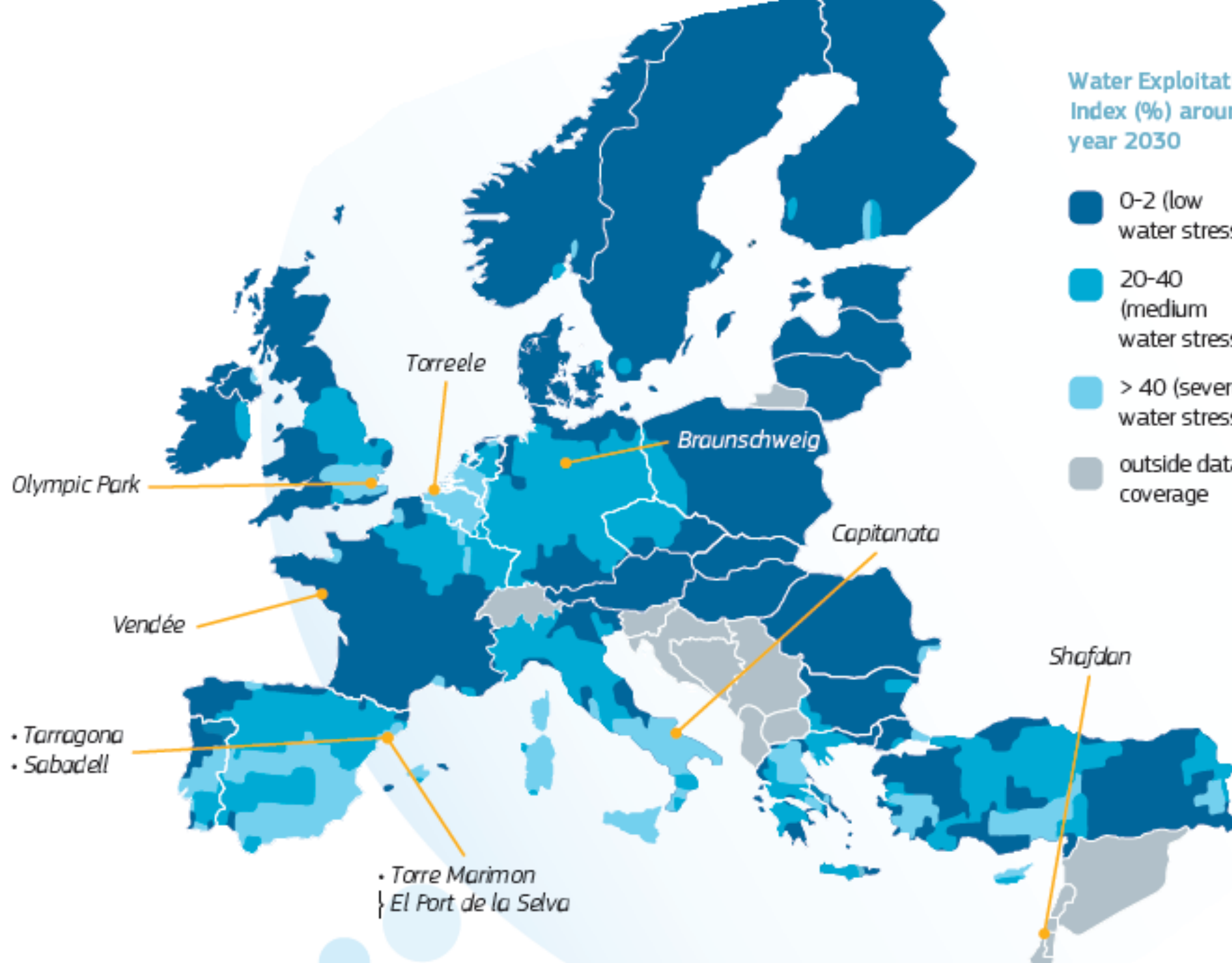
To create and nurture an identity and knowledge base for the nascent European water reuse sector.





Water Exploitation
Index (%) around
year 2030

- 0-2 (low
water stress)
- 20-40
(medium
water stress)
- > 40 (severe
water stress)
- outside data
coverage



Reuse application	Applied technology					
	Biological treatment	Disinfection / filtration	Advanced Oxidation Processes (AOP)	Microfiltration (MF)	Ultrafiltration (UF) membrane	Reverse Osmosis (RO) membrane
Restricted irrigation	Braunschweig				Capitanata	
Unrestricted irrigation	Torre Marimon	Shafdan			Shafdan	
Industrial use						Tarragona
Urban reuse (recreational, household use)				Sabadell	Olympic Park	
Nutrient recycling	Braunschweig Torreele					
Indirect potable reuse	Vendée (Greenfield)					
		El Port de la Selva				Torreele
Salt water intrusion barrier						

Ranges of water reuse technologies and applications in the DEMOWARE demonstration sites.

- Small scale < 100 m³/d
- Medium scale
- Large scale > 1000 m³/d
- Soil-Aquifer Treatment (SAT)
- Reuse of industrial effluent

- Nuevas tecnologías y esquemas para la reutilización
- Nuevas opciones para el monitoreo y control de esquemas de reutilización
- Quantificación del beneficio ambiental y el riesgo para la salud
- Identificación de oportunidades y nuevos modelos de negocio
- Herramientas para la gobernanza y la involucración de stakeholders
- Creación de Water Reuse Europe
- Diseminación de los resultados
- Implementación de resultados en un Greenfield





Preguntas?

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