



WATER INNOVATION

A Regional Perspective from Red Aragón 7PM

Red Aragón 7PM (FP7 Aragón Network)
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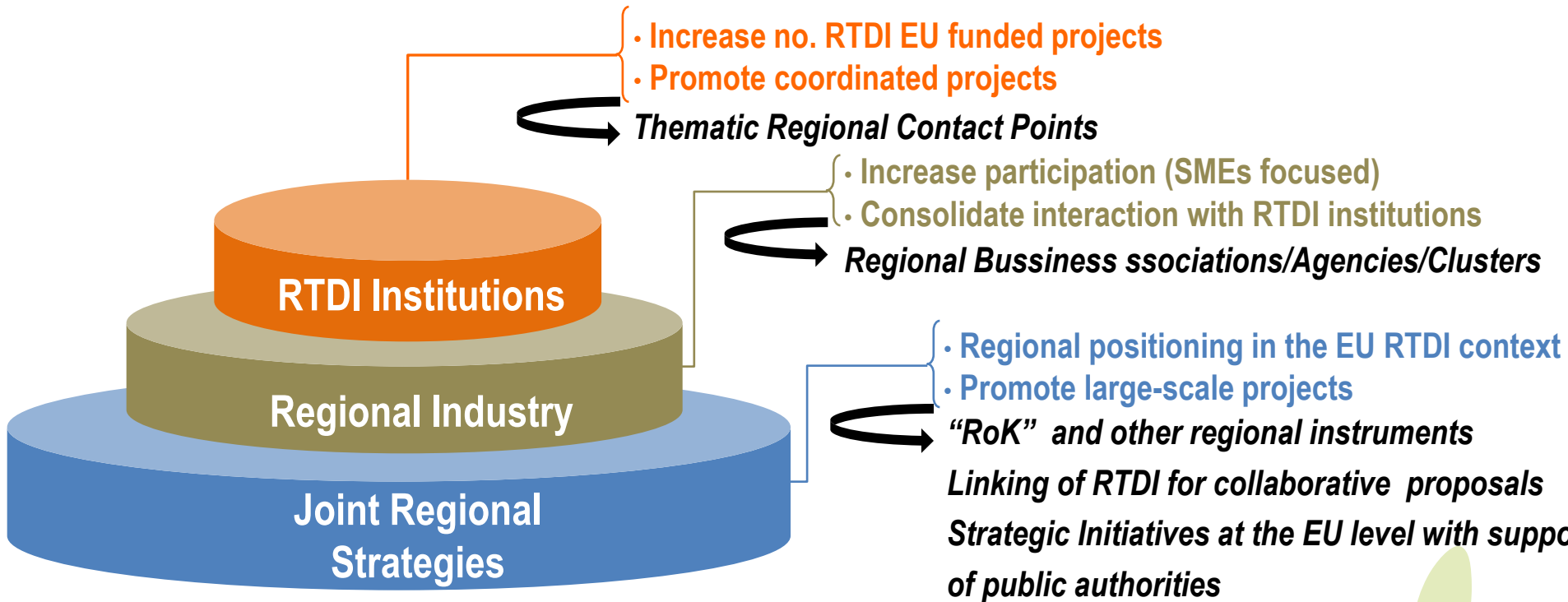
Energy

- ▶ **What is Red Aragón 7PM?**
- ▶ **The water sector in Aragón**
- ▶ **What has been done so far? Few examples**
- ▶ **Our vision on water innovation**
- ▶ **Contribution to water innovation: Few examples**



► What is Red Aragón 7PM?

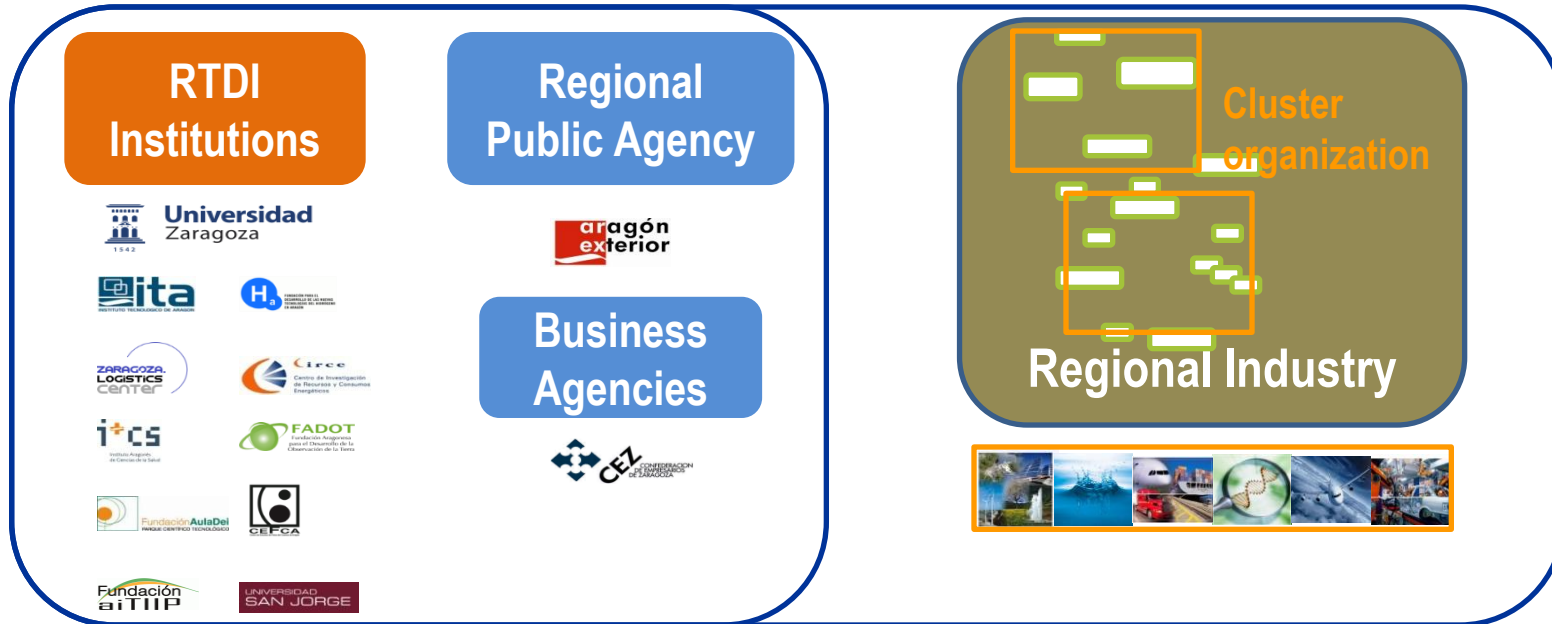
Regional initiative born in 2009 to design and implement a common strategy:



Strengthening of regional capacities + Contributing at EU level



► Red Aragón 7PM's Vision



[2009-2011] = "Research Strategy" → [2012-2014] = "Innovation Strategy"

Regional Dimension → Collaborations from a "Quadruple" Helix approach
 Red Aragón 7PM is a member of





European Commission



► The water sector in Aragón



- Convergence Regions
- Phasing-out Regions
- Phasing-in Regions
- Competitiveness and Employment Regions

- Ebro river: one of the major watersheds in Southern Europe
- Water availability is affected by summer droughts and a high water demand.
- The hydrologic balance in Aragón is negative in a 92% of the territory.
- Extreme water conditions in Aragón region:
 - * 28% of the Aragonese territory under a high level of risk desertification and 50% under a medium risk.

► Aragón an expert on water scarcity & drought management
 ► Aragón an expert on Urban Water Management

WATER TECHNOLOGIES: KEY PILLAR FOR REGIONAL GROWTH

- Approx. 900 firms on the water field
- Approx. 8.000 direct jobs
- Overall income: Approx. 7.65% regional GDP
- Building and high-tech companies in the ICT sector, water products suppliers and the renewal energy sector: 5,600 companies and nearly 38.500 jobs.

- Substantial number of institution working on water
 - 6 Education & RTDI institutions
 - 5 public companies (regional government)
 - 6 relevant regional stakeholders
 - Urban cluster for efficient use of water (ZINNAE)
- Solid participation in EU RTDI funding programmes
- Advanced water-related policy framework (local & regional)



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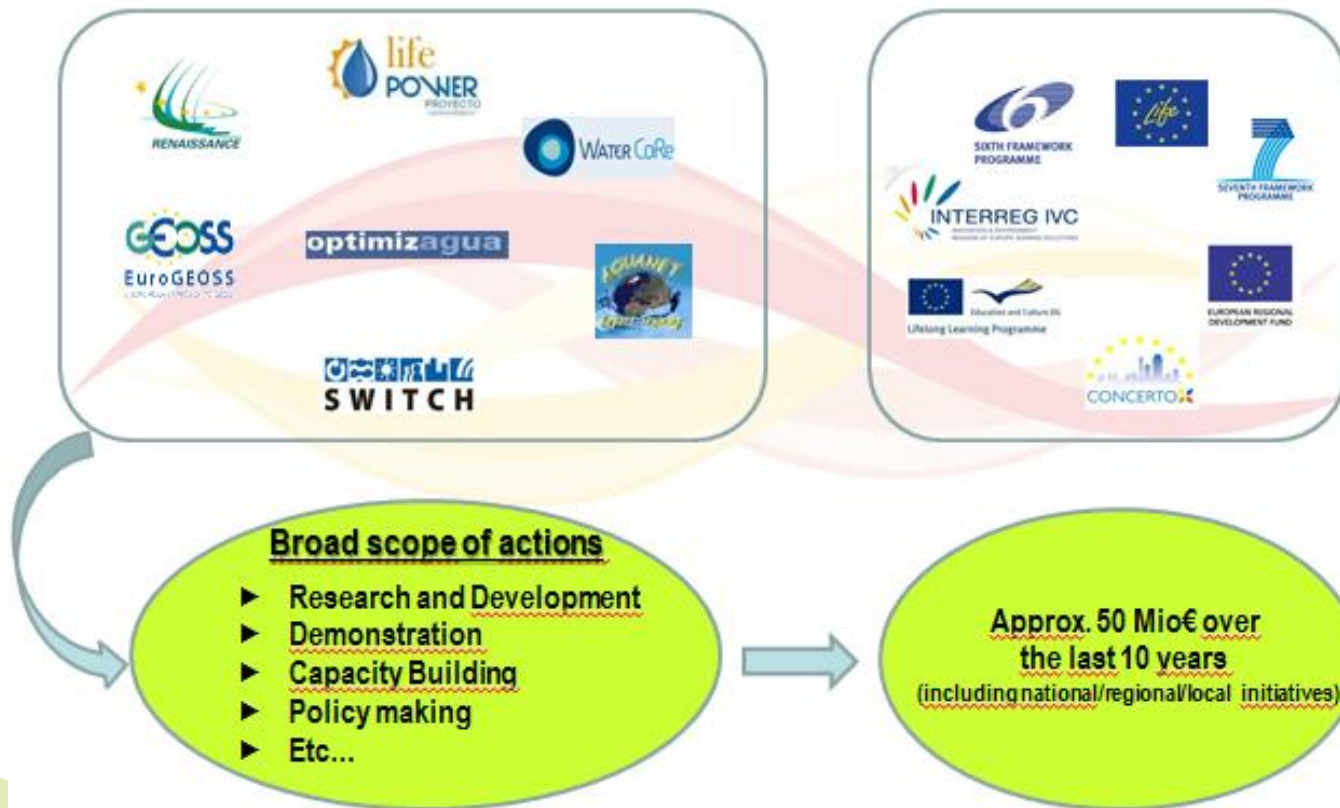


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► What has been done so far?: Few examples (I)

What has been done so far? Water-related projects portfolio





► What has been done so far?: Few examples (II)

What has been done so far? Water-related projects portfolio

► RURAL SECTOR

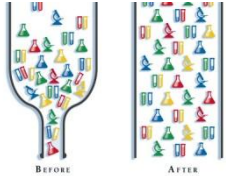
- LIFE+ “OPTIMIZAGUA - Demonstration of water saving for watering uses through the experimentation of artificial intelligence integrated in traditional systems of water control” (LIFE03 ENV/E/000164, 01/10/2003-30/09/2006)
- LIFE+ “POWER - Project for Optimisation of Water and Emissions Reduction” (LIFE08 ENV/E/000114, Ongoing)
- “WATER CoRe: Water scarcity and droughts; coordinated actions in European regions” (INTERREG IVC, Ongoing)

► URBAN SECTOR

- “SWITCH – Sustainable Water management Improves Tomorrow's Cities'Health” (FP6, 2006-2011)
- RENAISSANCE - Renewable energy acting in sustainable and novel community enterprises a concerto coordinated initiative (FP7, 2005-2012)



► Our vision on water innovation



► To address water innovation barriers

- Regional State of Play: Identification of difficulties and bottlenecks , Identification of opportunities, definition of priorities, multi-stakeholders engagement



► To Innovate

- Capitalizing know-how and best practices
- Proposing innovative solutions and cooperation frameworks



► To share and assure EU added value

- Disseminate know-how, best practices and innovative solutions
- Trans-regional approach: networks to address innovation bottlenecks



► Accelerate market uptake

- Innovative “market frameworks”: leveraging the demand-side across the whole value system



▶ Contributing to Water Innovation: Some examples

Example 1. WE@EU – “Water Efficiency in European Urban Areas”

- ▶ **ACTION:** “Regions of Knowledge” project submitted (Call 2012-2013)
- ▶ **GOAL:** To create an open European platform for innovation in the urban-applied water efficiency market of products and services to boost competitiveness in the sector at the regional, national and EU level.
- ▶ **ACTORS:** Five “Reserch-Driven Clusters” (Spain, France, UK, Malta & Israel)

Boosting Resource Efficiency for a sustainable and greener economy

Goals

- Higher water savings
- Better water management
- Energy consumption optimization (nexus water/energy) & reduction of GHG emissions
- Water-saving culture
- Higher Competitiveness
- Faster Market uptake
- Etc.

Segments of application

Distribution Networks & Infrastructures
Housing (domestic) & Services Sector
Green Areas Sector
Urbanization Sector
Institutional Sector

Tools

- Eco-Innovative approach
- ICT-supported tools
- Organizational, policy, social and financial innovations
- **Strong internationalization component**
- Etc.

Education and RTD institutions

Business sector (SMEs)

Public Authorities

Other actors (end-users, soc.)

GLOBAL PARTNERING: Trans-national, multisectorial & multistakeholders approach



▶ Contributing to Water Innovation: Some examples

Example 2. Water Innovation in the City

▶ WaterLabs

Zaragoza city as a place for experimentation: **water/energy efficiency** and sustainability

- Testing of existing good practices, solutions and technologies
- Promotion of entrepreneurial innovation: the Living Labs approach
- **Real users in real environments: DOMESTIC USERS, LARGE CONSUMERS & GREENAREAS**



▶ Parque Zero

GREEN URBAN AREAS as a place to experiment

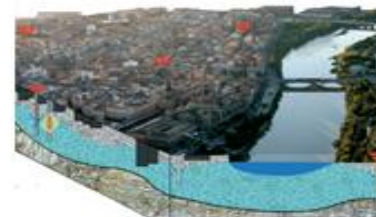
- Real platform to measure/test **resource/ environmental efficiency** (**water, energy, nutrients**)
- Assessment of resource/ environmental efficiency of urban green areas (ICT & GIS supported)
- Design of new "urban green spaces" under resource efficiency criteria



Zaragoza Urban Aquifer Information System

Integrated efficient and intelligent management of URBAN GROUND WATER RESOURCES

- All hydrogeological information available in the urban environment of Zaragoza put together and integrated in an advanced and intelligent spatial platform.



- Information manager
- Document and image search engine
- Modelling of the physical environment
- Real Time Monitoring Network
- Decision Making



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RED ARAGÓN



Universidad Zaragoza



INSTITUTO TECNOLÓGICO DE ARAGÓN

UNIVERSIDAD
SAN JORGE



CENTRO DE INVESTIGACIÓN DE RECURSOS Y CONSUMOS ENERGÉTICOS



FUNDACIÓN PARA EL DESARROLLO DE LAS NUEVAS TECNOLOGÍAS DEL HIDRÓGENO EN ARAGÓN

THANK YOU VERY MUCH!

"Ideas don't last long, something has to be done with them"

Santiago Ramón y Cajal, Nobel Prize in Medicine 1906



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CONFEDERACION DE EMPRESARIOS DE ZARAGOZA



Fundación **AulaDei**
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