

European Regional Development Fund

# TWIST project

## Transnational Water Innovation STrategy

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- 1. WHY TWIST project?
- 2. WHAT? TWIST approach
- 3. WHICH are the expected results?
- 4. HOW? TWIST in a nutshell
- 5. WHOM is TWIST for?
- 6. WHO makes TWIST possible?
- 7. WHERE you can find more information on TWIST?



# WHY TWIST project?

### Weaknesses

- Asymmetry between different TWIST regions in terms of indicators of innovation. Murcia and Alentejo have R&D intensity below 0.5 % of Gross Domestic Product (GDP). Occitanie has 2-3% of GDP; Andalusia, Nouvelle- Aquitaine, have between 1-2% of GDP, while only Lisbon has a level of more than 3% of GDP on R&D&I.
- Scarce experience of the authorities of participating regions in implementing Public Procurement of Innovation (PPI) in the water sector.
- Delay in the accomplishment of some of the WFD 2015 environmental objectives, while an increasing pressure on natural resources.
- Complexity of the network of competency in water aspects, leads to a lack of mechanisms for coordination and transfer of R&D&I capacities among the society-science-policy-industry interface (JPI vision document 2011).
- Wastewater management responsible entities in the regions refer to a lack of knowledge of the potential benefits of innovation and emphasize shortage of technical/scientific means (human resources and equipment), to applyR&D&I processes.

### Strengths

- Participation of some research-intensive regions, particularly the region of Lisbon and the region of Languedoc-Roussillon, close to exceed the 3 % target for 2020 for the EU.
- Existence of a significant number of Small and Medium Enterprises (SMEs) which, by its nature, give the productive network adaptability to new macroeconomic scenarios at a time of increasing innovation needs.
- The tendency in all involved regions towards Integrated Water Resources Management (IWRM) at a basin level encourages the Quadruple Helix model used by TWIST project, offering an ideal scenario to support instruments for innovation, such as PPI.



# WHY TWIST project?

### Threats

- Current skill mismatches are a threat to the region's innovation capacity at a time of increasing technological needs.
- The level of recognition of research in general, and research in water aspects in particular, by the business system is still low. This influences the political process and the process for market uptake of innovations.
- Environmental risks associated to climate change, such as increases in the frequency and severity of extreme events (droughts and floods), exacerbation of water scarcity impacts and degradation of water quality.

### **Opportunities**

- R&D&I contribute to a well-functioning, knowledge-based economy. Having innovation-leading regions in the project, will contribute to pave the way towards increased industrial competitiveness, labour productivity and efficient use of resources. The aim is to reduce the asymmetry between regions with different levels of innovation and technology development.
- The project offers the opportunity to strengthen the role of public authorities in driving business innovation and to establish durable links along the knowledge value chain.
- The European 2020 strategy generates a favorable environment to encourage private investment in R&D&I, to attract and retain qualified human capital to the regions.
- The existence of a strong presence of SMEs in the region's productive sectors is an opportunity to speed up market uptake and economic growth in all regions. The European water sector is of key economic importance, as it offers jobs for hundreds of thousands of citizens across Europe.
- The TWIST project provides an opportunity to support society groups such as women and youth students under 30, by enhancing employment opportunities in the water sector.
- The strategic importance of issues related to IWRM (RIS3, WFD, RDP, Operational Programmes, etc.) make regional and EU investments related to research and innovation relatively safe in all regions.



## WHY TWIST project?

- Common challenges:
  - To facilitate the alignment of regional indicators of innovation.
  - To improve the skills of all the stakeholders in the water sector on regards innovation processes, mainly, in the following topics: wastewater treatment and reuse and nutrients recovery (circular economy in the water sector).
  - To boost the use of the untapped PPI tools, through specific training actions addressed to the regional authorities.
  - To improve the coordination of the actors of the quadruple helix in the innovation chain through an open innovation model.





## WHAT? TWIST approach

### • Main objective:

Creation of new trans-national and trans-regional associations between stakeholders of the water sector with a high capability for mobilizing existing RTD projects and creation new ones, in order to meet the WFD and the public procurement of innovation (PPI).

TWIST project creates an innovative model of organization →
Living Labs for the co-creation, experimentation and evaluation of innovative products in the field of water management and circular economy.





## WHAT? TWIST approach

Synergies between the stakeholders of the quadruple helix both to reinforce the current networks and to impulse the activity of the promoters of innovation in SUDOE regions.



Promotion of RDI in the water sector, exploring new market opportunities for the innovations, through the experimentation in a semi-industrial scale and training.

Strengthening the connection and cooperation between the SUDOE regions for boosting the capitalization of the Research Innovation Strategy RIS3



Main products

**Research and innovation** 

## WHICH are the expected results?

Common strategy for the mutual learning and capitalization of RIS3 (1)

TWIST Living- Labs (3)

Innovation Public Procurement (3 pilot actions)

TWIST Market Place (1)

Transnational Business School (1)

## Interreg Sudoe TWIST ©

## HOW? TWIST in a nutshell

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# TWIST

### T1 👘

#### STAKEHOLDER ANALYSIS AND CHARACTERIZATION OF INNOVATION PROCESSES AT REGIONAL LEVEL

- Identification of stakeholders involved in innovation processes at regional level
- Analysis of regional innovation opportunities in Smart Specialization

Т3

**OPPORTUNITIES** 

 TWIST common strategy for capitalization of opportunities in Smart Specialization

#### T2 CREATION OF THREE LIVING LABORATORIES FOR THE MANAGEMENT, TREATMENT, RECYCLING AND RECOVERY OF PRODUCTS IN WASTE WATER

ANALYSIS OF RESULTS OBTAINED IN THE LIVING LABORATORIES AND EXPLOITATION OF MARKET

Analysis of market opportunities for tested solutions in the three Living Labs

- Common methodology for the creation, implementation and management of three Living Labs Workshops for the co-creation of the Living Labs Research and experimentation in the three Living Labs - L-Lab Spain - Open Water Lab 2 - OWL2 Wastewater treatment and reuse - L-Lab France - LaVISO Wastewater treatment and infrastructure management - L-Lab Portugal - Urban Living Living in Lisbon, uL3
  - -Lab Portugal Orban Living Living in Lisbon, uL3 Reuse of waste water and recovery of resources (water, nutrients and energ

### T5

### CAPITALIZATION AND TRANSFER OF RESULTS TO OTHER SUDOE REGIONS

National seminars to develop synergies with other regions

- Creation of "External Institutes and Utilities Interest Group";

Roadmap for TWIST future projects
Development of TWIST Market Place,

a virtual catalog with the innovative solutions tested in the Living Lab

### CAPACITY BUILDING FOR REGIONAL DEVELOPMENT AND JOB CREATION

Т4

Development of training materials on Innovative Public Procurement

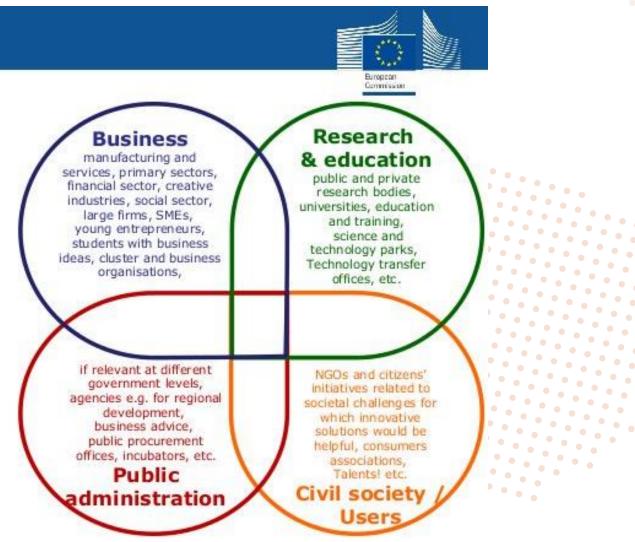
Organization of national events for the development of innovatio capacities in the water sector

 Creation of a Transnational Business School for capacity building in innovation



## WHOM is TWIST for?

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## WHO makes TWIST possible?





# WHERE you can find more information on TWIST?





THE TWIST PROJECT IS CO-FINANCED BY THE INTERREG SUDOE PROGRAM THROUGH THE EUROPEAN



## Muchas gracias

### Mercie beaucoup

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## Muito obrigado