Promoting Energy-Water Nexus resource efficiency through Renewable Energy and Energy Efficiency

EERES4WATER

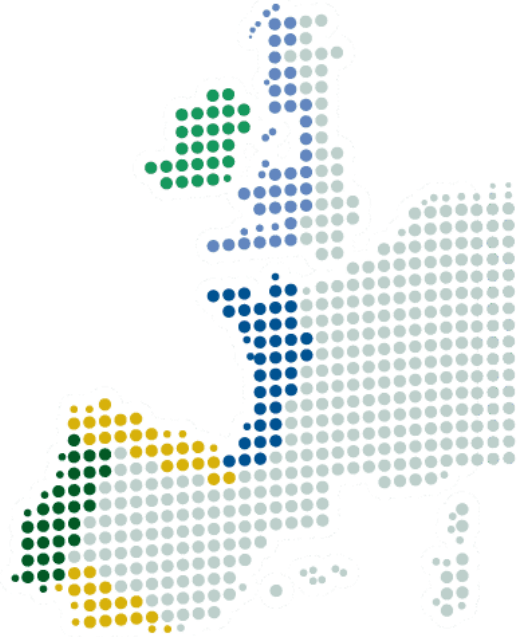
This project is co-financed by the Interreg Atlantic Area
Programme through the European Regional Development Fund

THE CONSORTIUM

5 Atlantic countries

11 Project partners

7 Associated partners



ASSOCIATED PARTNERS

ABENGOA

Atlansun
Filière solaire du Grand Ouest

Dŵr Cymru
Welsh Water

Gobierno de Canarias

IPES
INSTITUTO PORTUGUÊS DE ENERGIA SOLAR

rnae
Associação das Agências de Energia e Ambiente
Rede Nacional

UISCE ÉIREANN : IRISH WATER

EERES4WATER PROJECT

- **Programme priority:** Fostering resource efficiency
- **Programme specific objective:** Fostering renewable energies and energy efficiency
- **Budget**
  - Total costs: 3.130.993,08€
  - ERDF: 2.348.244,81€
  - National match-funding: 782.748,27€
- **3 years**

SUMMARY

EERES4WATER will enhance the institutional, technical and social framework to promote the direct use of **renewable energy sources (RES) and energy efficiency** in the water cycle by influencing related policies and introduction of new processes and technologies.

These improvements expect to bring the Atlantic Area to the forefront of strategies, policies and utilization of RES and energy efficiency as well as sustainability.

EERES4WATER GOAL

The challenge:
The Energy-Water nexus have been on a regional or technology-by-technology basis

A **holistic approach** where deep knowledge of the nexus and the development of local policies, strategies and tools **to reduce energy needs and/or promote RES in the nexus** should be profoundly addressed

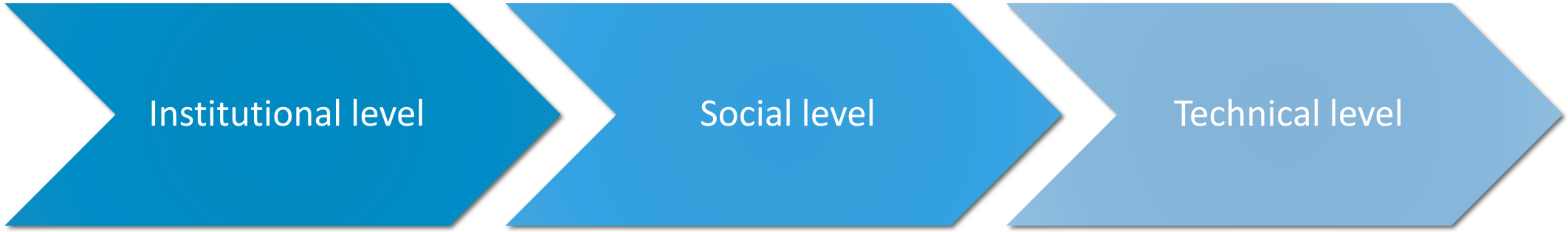
To provide Atlantic Area target stakeholders with the tools and instruments needed to overcome the Energy-Water nexus challenges and increase its utilization

SPECIFIC OBJECTIVES

- Providing policy recommendations and legal framework for policy makers and public administrators
- Developing innovative technological solutions
- Developing supporting tools (ICT tool for decision making and support services)
- Establishing cooperation agreements between the academia and the private sector
- Providing information and awareness about resource efficiency

WHAT'S NEW?

First holistic, systemic approach built upon 3 pillars



WHAT'S NEW?

- **At institutional level:**
  - Quantitative Story-Telling based-policy making
  - ICT tool for decision making at industrial level
  - AAA+ label as an advancement vs. current regulation
  - Transnational Service on Innovative Energy and Water technologies (SIEW)

- **At social level:**
  - Open innovation strategies will join academia and private sector, pursuing joint R&D and cooperation agreements. SMEs, start-ups and entrepreneurs will be targeted, tackling local unemployment.

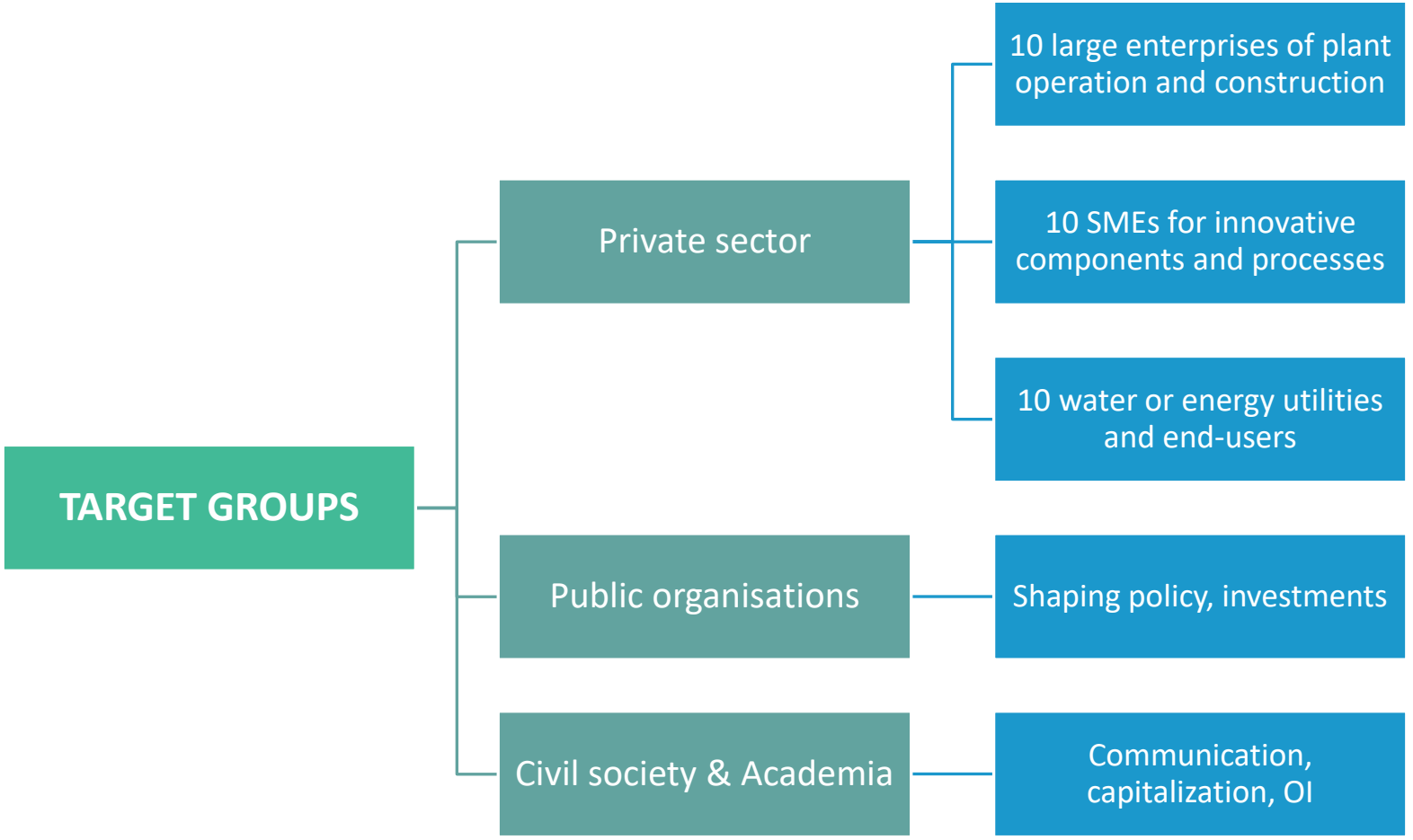
WHAT'S NEW?

- **At technical level:**
  - Low-cost wave-driven desalination
  - Low-cost reflector designs for CPC-type solar collectors in photochemical/photocatalytic reactors
  - Novel storage technologies with photovoltaic generation
  - RES driven pumping system
  - Efficient wastewater facilities operation based on modelling water quality processes in the marine environment
  - Cost and resource efficient reverse osmosis water treatment and desalination;
  - Retrofitting guidelines for desalination plants
  - Energy recovered vs. energy dissipated

IMPACT

- Atlantic Area **domestic resources unlocking** and **an improved sustainability of processes and policies** related to the water cycle.
- +5% of renewable energy installed capacity and the adoption of energy efficiency patterns **through the delivery of new products**.
- More favorable conditions for the local renewable energy and energy-efficiency sectors, leading to a **better positioning of the Atlantic Area in creation of new value-chains, strategies, jobs and regional growth**.

TARGET GROUPS TO BE INVOLVED



KEY ASPECTS

Cost reduction in RES

Advances in digital technologies

Increasing use of electricity

Policy Instruments

Significant potential to reduce GHG emmissions

Multistakeholder approach to help nascent technologies

Innovation alliances

Thanks for your attention!

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