

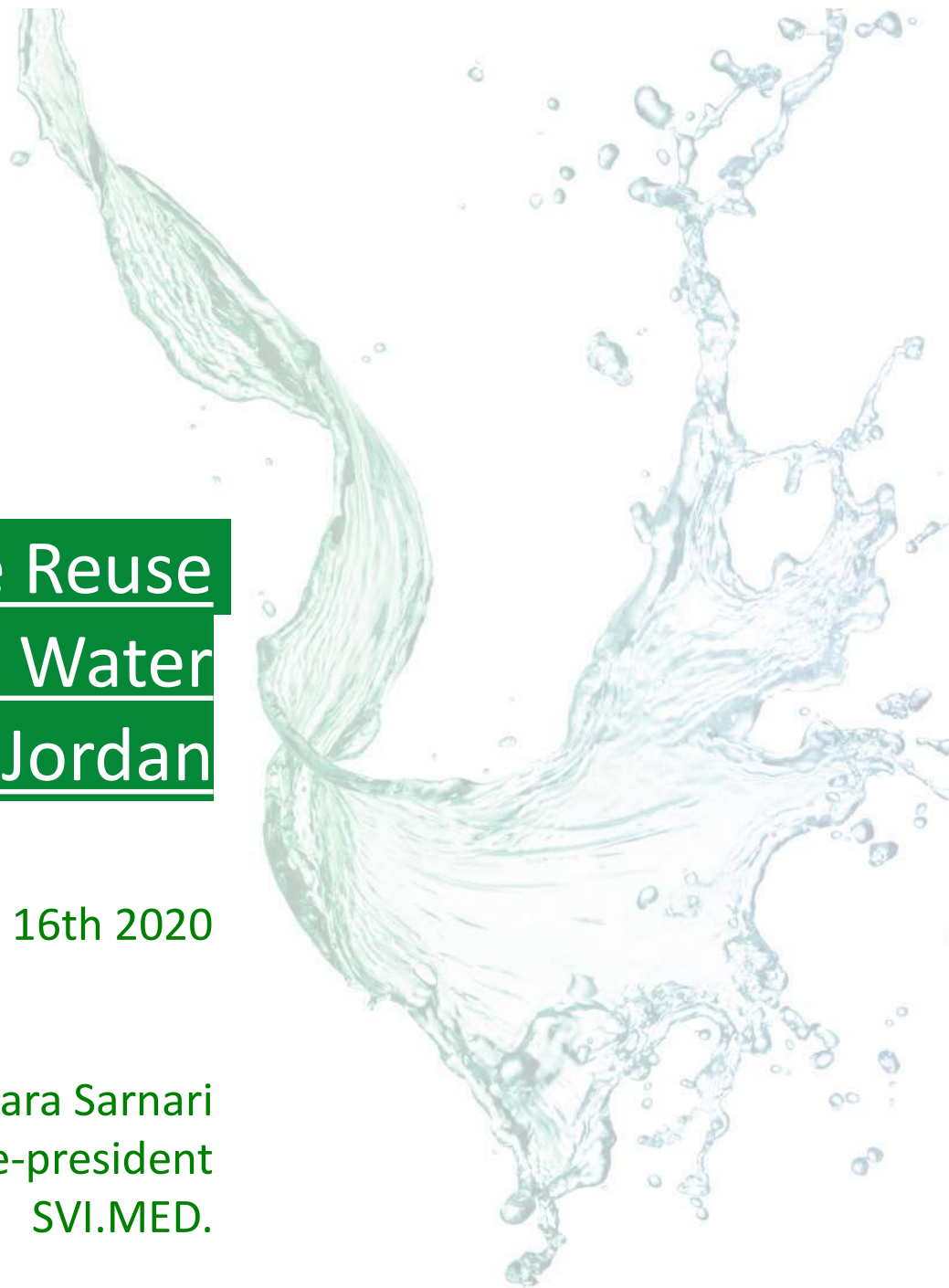


A Green Wall for the Reuse of Grey Water NAWAMED project in Jordan

December 16th 2020



Barbara Sarnari
vice-president
SVI.MED.





SVI.MED. Presentation



SVI.MED.- EuroMediterranean Center for the Sustainable Development- is a no profit Organization providing for the respect and the safeguard of cultural and environmental heritage. SVI.MED. aims at supporting the processes of sustainable development of the territory, through the active collaboration with the quadruple helix within the European Mediterranean space.

Since 2003, SVI.MED. has created national and international networks, by implementing good practices, producing decisional support tools, transferring know-how and elaborating and sharing strategies and models toward a sustainable development.





NAWAMED Identity card



Nature Based Solutions for Domestic Water Reuse in Mediterranean Countries

ITALY

- Latina Province, Lead Partner, Lazio
- Iridra , Tuscany
- Euro-Mediterranean Centre for the Sustainable Development (SVIMED), Sicily

MALTA

- Energy Water Agency (EWA)

TUNISIA

- CERTE - Centre for Water Research and Technologies

JORDAN

- University of Jordan, Amman

LEBANON

- American University of Beirut

ASSOCIATED Partners:

Municipality of Tunis (TUNISIA)
Municipality of Ferla (ITALY)
Municipality of Jerash (JORDAN)
Polytechnic of Turin (ITALY)

Budget: 3.2 Million total budget
(90% ENI CBC MED Programme
EU- contribution)

Duration in months: 36 months
10/09/2019 – 9/09/2022





THE ENI CBC MED PROGRAMME

The NAWAMED project has been funded under the **2014-2020 ENI CBC Mediterranean Sea Basin Programme**.

ENI CBC Med is the largest **Cross-Border Cooperation initiative** implemented by the EU under the **European Neighbourhood Instrument**.

The Programme brings together the coastal territories of **14 EU and partner countries** in view of fostering **fair, equitable and sustainable development** on both sides of the EU's external borders.

The strategic framework of the Programme is based on **4 Thematic Objectives** and **11 Priorities** as a contribution to the main socio-economic and environmental challenges of the Mediterranean region.

THE ENI CBC MED PROGRAMME THEMATIC OBJECTIVES AND PRIORITIES

NAWAMED



- A.1** - Business and SMEs development
- A.2** - Support to education, research, technological development & innovation
- A.3** - Promotion of social inclusion and the fight against poverty
- B.4** - Environmental protection, climate change adaptation and mitigation



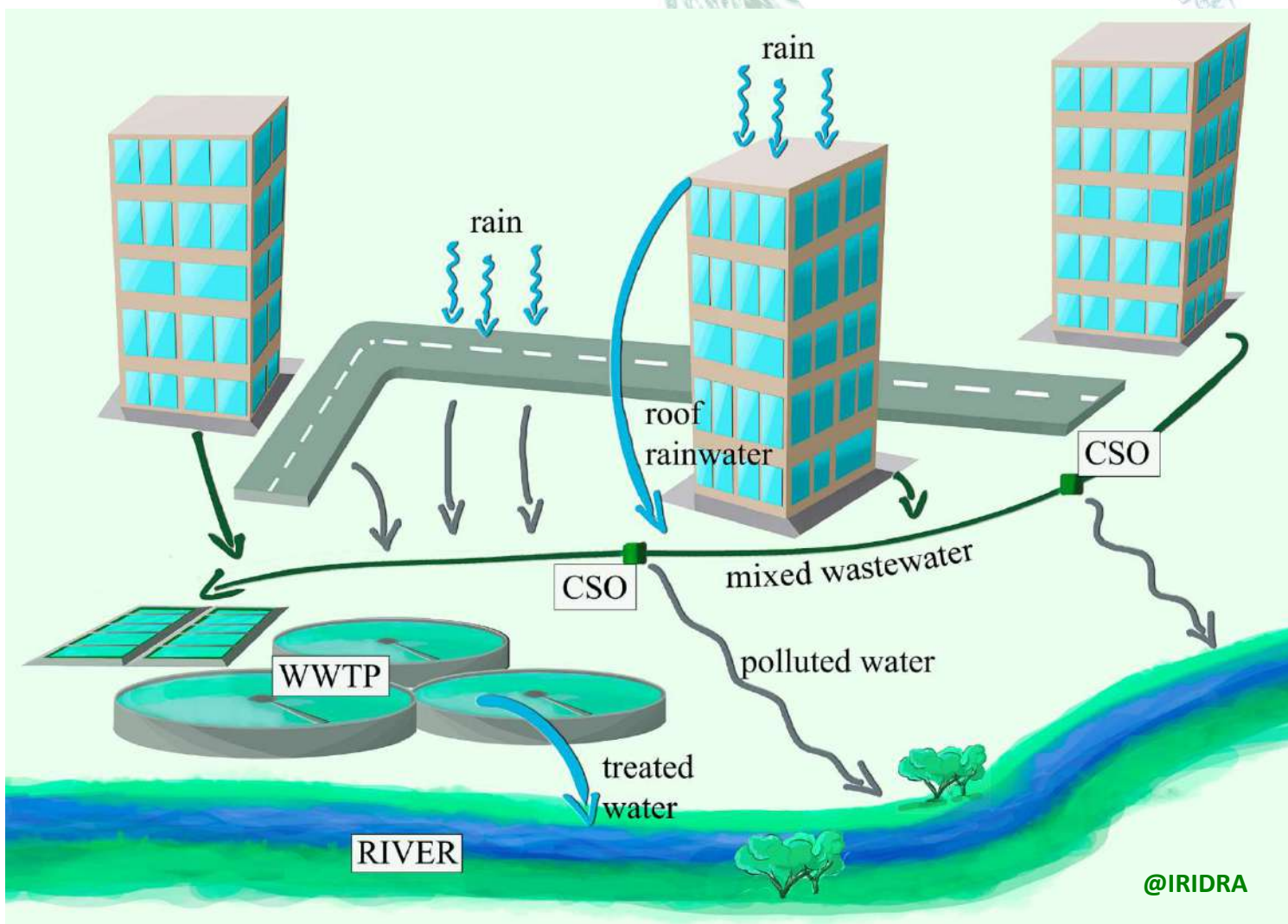
NAWAMED general objective



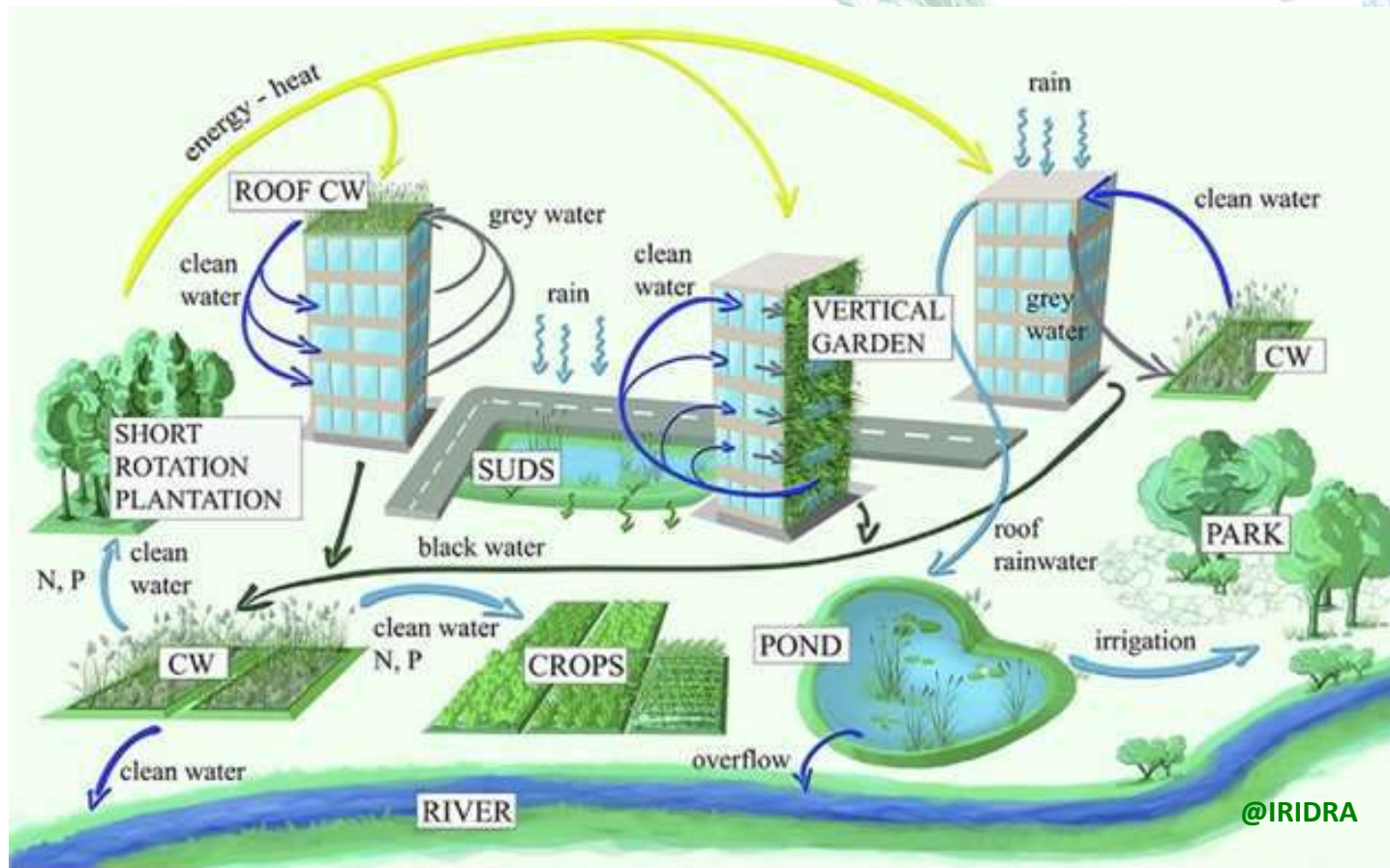
NAWAMED aims at **changing the urban water management practice** by mean of innovative, sustainable, and low-cost treatment technologies – **nature-based solutions** applicable in a **decentralized way**, to replace the use of potable water with good quality of NCW.

Standard water management system

NAWAMED



Building urban resilience with nature-based solutions





Estimate reduction on potable water
consumption: 30% at pilot sites level



**MULTIFUNCTIONAL GREEN
FOR THE URBAN REGENERATION**

Aiming to use 9,000 m³/year of non-conventional water at urban/domestic level



NAWAMED specific objective



The project will demonstrate the **technical and economic feasibility of nature-based and low-cost solutions**, such as living green walls or rooftop wetlands, **to treat and use non-conventional water resources** in schools, universities, public facilities and in a refugee camp.



Recovered wastewater or storm water will be reused for different purposes, including **toilet flushing** and irrigation and therefore **consumption of potable water for domestic uses will be decreased.**

Main steps and expected achievements

NAWAMED



Who will benefit?

- ❖ Owners/managers of the 8 pilot sites
- ❖ 450 practitioners (e.g. engineers, architects, etc.), construction companies, university students
- ❖ 50 staff of local and regional authorities

- ✓ **8 real scale pilot installation** for greywater/rainwater treatment and reuse including living green walls (vertical vegetation set up on building façades), rooftop wetlands
- ✓ **15 technical visits** to pilot sites
- ✓ **5 training workshops** organised for technical staff
- ✓ **5 Decision Makers workshops**
- ✓ **'Water tables'** involving key water stakeholders in participatory processes aimed at boosting new policies for more sustainable water management

Capitalization and Mainstreaming intergrated process



6 Local and Regional
Strategic Documents

1 Mediterranean
Policy Document

to foster the inclusion of
water demand
management and non-
conventional water
resources measures in
regional and national
policy frameworks



CAPITALIZATION

ENPI CBC MED: SWMED



SIRIDRA

svimed

MRA

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Tavolo dell'Acqua e Workshop

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Tavolo dell'Acqua e Workshop
L'uso sostenibile delle risorse idriche
nell'edilizia residenziale urbana,
rurale e stagionale:
casi studio e proposte regolamentari

Giovedì 10 Aprile 2014
Sala convegni - ex cinema Ideal
Società Italiana del BR/CD/AA di Ragusa

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ENPI
CBCMED



swmed



svimed



Gestione Sostenibile dell'acqua per uso domestico
nelle regioni del Mediterraneo
Studio di fattibilità
CASI STUDIO A RAGUSA

SWMED – Sustainable domestic water use in Mediterranean Regions

Tavolo dell'Acqua e Workshop
Giovedì 10 Aprile 2014

L'uso sostenibile delle risorse idriche
nell'edilizia residenziale urbana, rurale e stagionale
casi studio e proposte regolamentari

Multicriteria
analysis
Cases studies
workshops
Mainstreaming
process

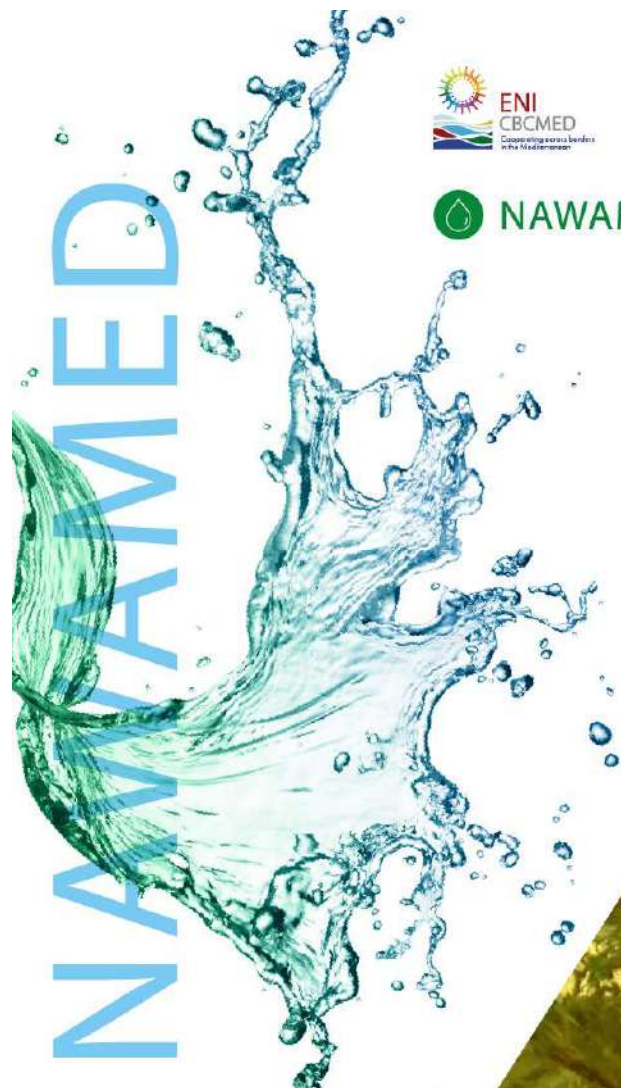


CAPITALIZATION

INTERREG MED: CONSUMELESS



FROM THEORY TO PRACTICE



A GREEN WALL
IMPROVES AESTHETICS,
REGULATES TEMPERATURE,
AND ENHANCES BIODIVERSITY
AND AIR QUALITY

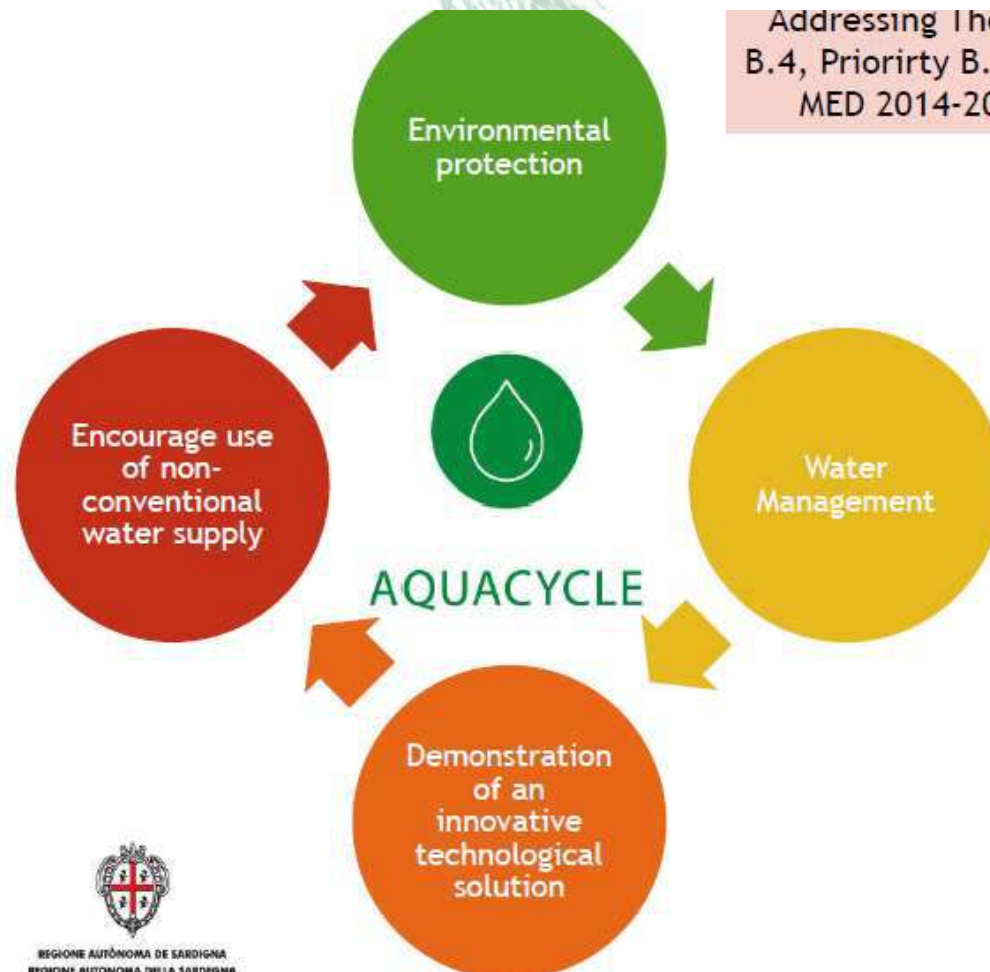
Green Wall installed in a beach resort in Marina di Ragusa (Sicily) during an Interreg Med project on tourism management - CONSUMELESS (SVI.MED. Partner) – designed by IRIDRA

Clustering

NAWAMED



- ↳ Pilot and testing actions
- ↳ Involvement of relevant stakeholders/key actors
- ↳ Networking



Addressing Thematic Objective
B.4, Priority B.4.1 of the ENI CBC
MED 2014-2020 programme



Clustering



AQUACYCLE

Project Goals

General Objective

Provide R&D support for sustainable non conventional water resources (NCWR) management through low-cost eco-innovative technology and participatory governance

Specific Objectives

- To improve water governance and economic, social and environmental sustainability through the active involvement of the local communities in the development of waste water treatment and reuse action plans
- To test and validate the efficiency and cost-effectiveness of a new eco-innovative water treatment system through the installation of demonstration units in Tunisia, Lebanon and Spain
- To prepare the ground for investment in the new technology, increase employment opportunities and stimulate the long-term endogenous economic growth through a series of measures that include Networking and exploring synergies, capacity building (training), and establishing a MedAPOC Alliance

Your role....



LET'S JOIN OUR FORCES TO BOOST THE USE OF NON-CONVENTIONAL WATER



INVEST IN NATURE-BASED SOLUTIONS

partners





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**Demonstration green walls to treat and reuse grey water:
from theory to practice**

