

FINDING INNOVATIVE SOLUTIONS FOR WATER SCARCITY IN SOUTHERN EUROPE

2021 - Second year of the European Programme
that is supporting communities and seeking
solutions to reduce and optimise water use





Water scarcity: the greatest challenge

Water is a precondition to life on Earth and essential for a sustainable socioeconomic development, food security and healthy ecosystems. The growing population, the demographic changes, massive urbanisation trends and climate change, among other factors, are increasing pressure over the available water resources. In terms of water usage, agriculture is by far the sector exerting the highest pressure on freshwater resources overall, being responsible for near 59% of total water use in Europe (2017)¹.

Food systems sustainability is constantly threatened by water scarcity, particularly in Southern European regions- Spain, Greece, Cyprus, Italy, Malta and Turkey- where water shortages are expected to increase in the near future. 75% of our jobs depend on water², while water crises rank among the top 5 global risks in terms of impact. The management and protection of water resources, of fresh and saltwater ecosystems, and of the water we drink and bathe in is therefore one of the cornerstones of environmental management, drought-resistant crops and water recycling in factories could save up to 40% in the agricultural and industrial sectors.

¹ European Environment Agency (2021)

² Water Europe Vision Implementation to the European contributions Green Deal and Horizon Europe



A cross-sectoral and pan-european approach

EIT Food, EIT Climate-KIC, EIT Digital, EIT Manufacturing, Athena Research Centre and BioAzul joint forces to face the real challenges around water scarcity.

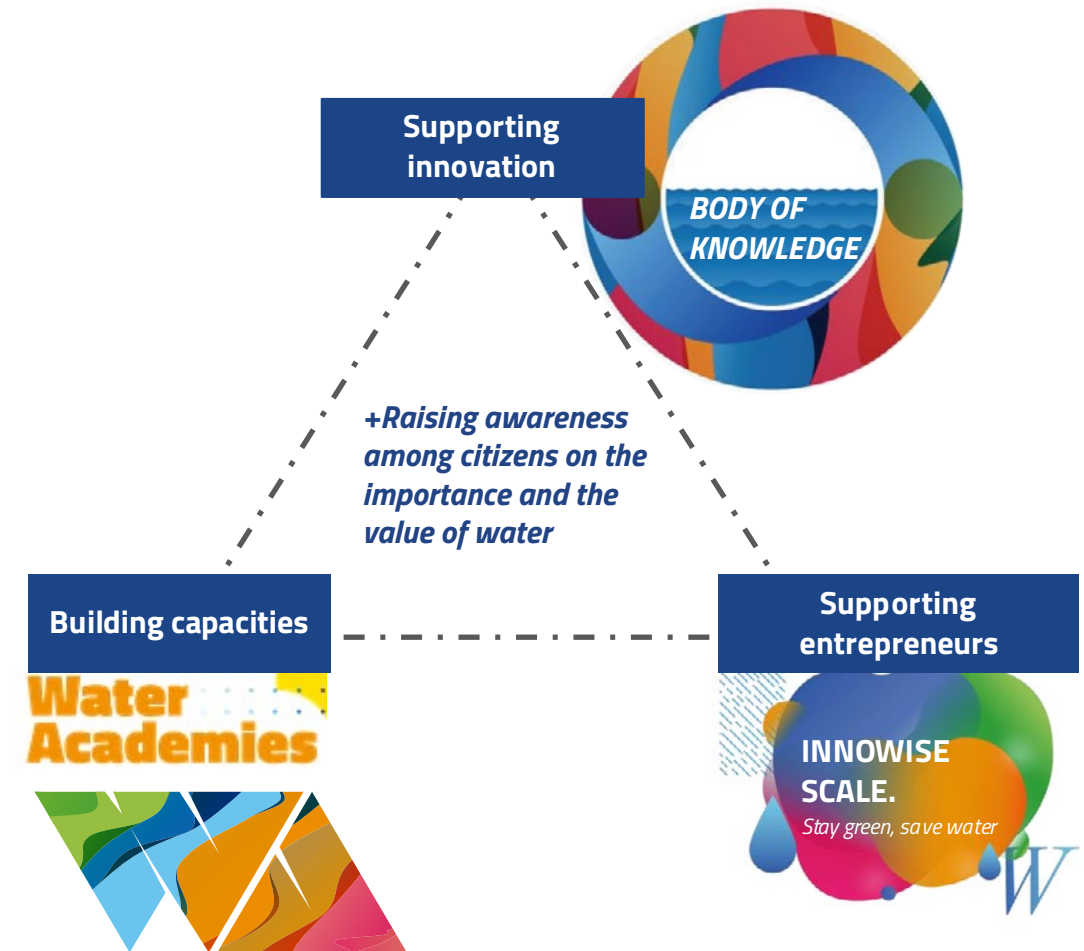
The programme “Finding innovative solutions for water scarcity in Southern Europe” carries out a series of activities, from research to innovation and education, to joint efforts and effectively find innovative solutions for Water Scarcity in Southern regions, for Europe to lead the way towards a more sustainable future and build capability to individuals and business to promote a better use of this pressure resource.

Coping with water scarcity through a multidisciplinary approach

The long-term objective of the Water Scarcity programme is to ease the transition to a water saving economy across Southern Europe and contribute to reducing Europe's water consumption and wastage by:

- **Creating a strong experts' community** to progress on the key challenges to tackle water scarcity, with a special focus on Water Governance, Financial Schemes and Legal Enforcement and establishing solid partnerships with relevant stakeholders.
- **Fostering Innovation & Entrepreneurship** by supporting scaleups and SMEs offering solutions to tackle specific water-related challenges faced by several stakeholders in their daily operations.
- **Sharing knowledge to build capabilities** to business and individuals to ensure the environmental sustainability of any business and of our daily activities (i.e. industrial players, farmers, citizens), fostering the adoption of a water saving culture among final users in Europe.

MULTISTAKEHOLDER APPROACH



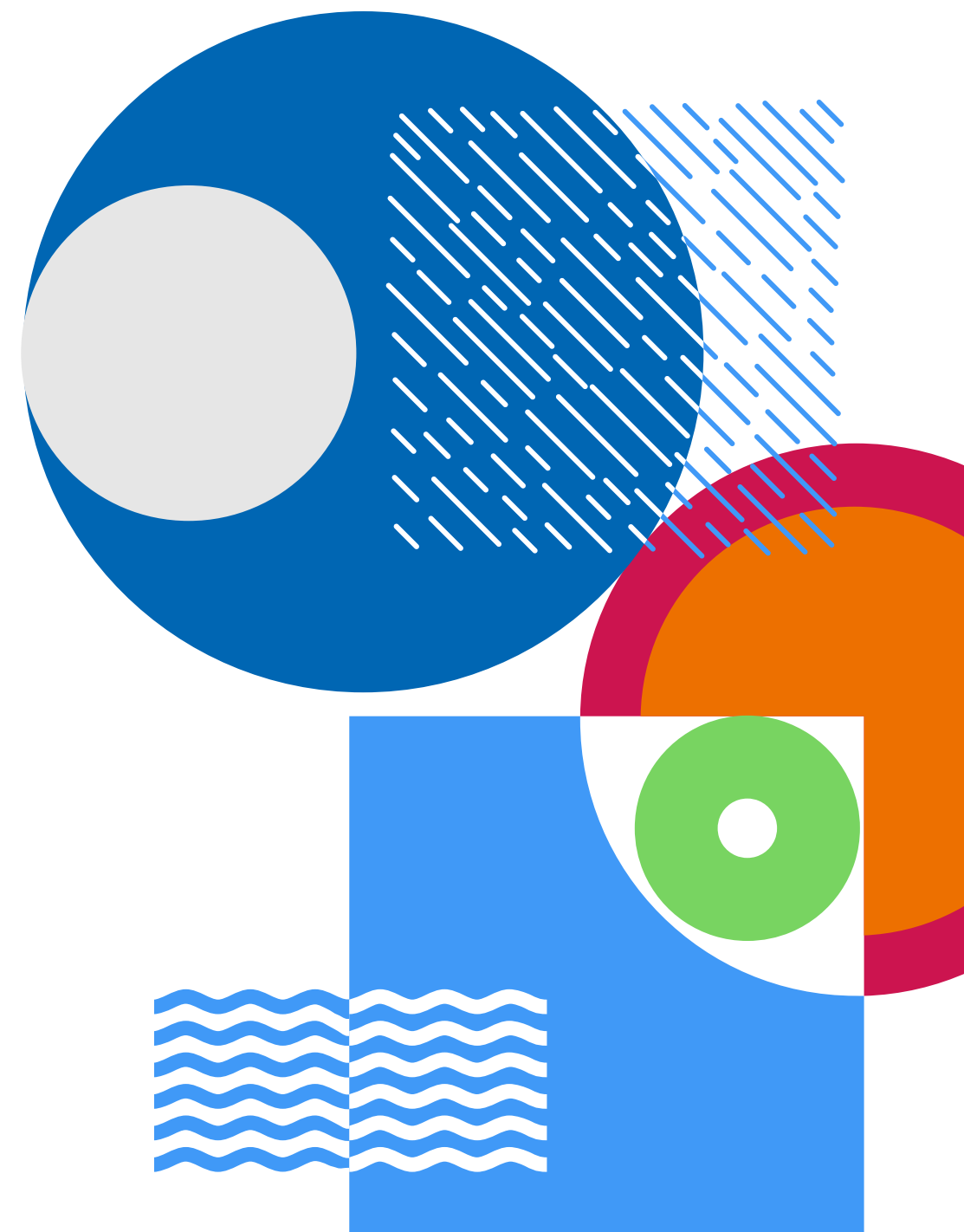
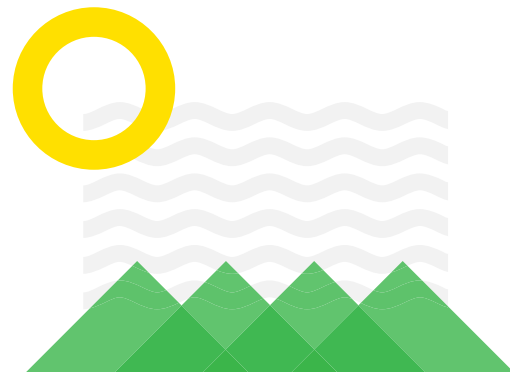


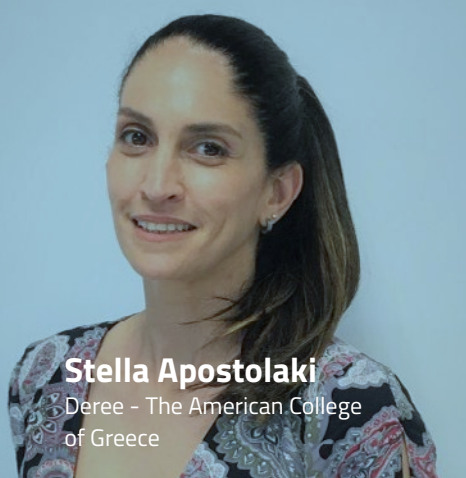
The Body of Knowledge

Gathering expertise

In 2021, a group of 16 top-class experts with different backgrounds worked together to map policies, entities and financing tools available to green-tech companies in Southern Europe. Their work resulted not only on a comprehensive mapping of the current situation, but also in recommendations to exploit synergies and identify the existing gaps and opportunities.

Moreover, we are building a community of water experts to openly share knowledge, experiences and opportunities.





Stella Apostolaki

Deree - The American College of Greece



Julio Berbel

University of Córdoba



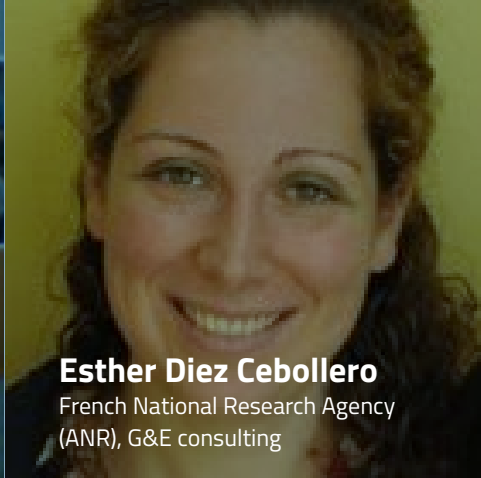
Rafael Casielles

Bioazul



Simona Consoli

University of Catania




Esther Diez Cebollero

French National Research Agency (ANR), G&E consulting



Francesco Fatone

Polytechnic University of Marche



Body of Knowledge
16 International Experts



Diego S. Intrigliolo

Spanish National Research Council (CSIC)



Fabio Masi

IRIDRA S.r.l.



Guido Schmidt

Fresh-Thoughts Consulting GmbH



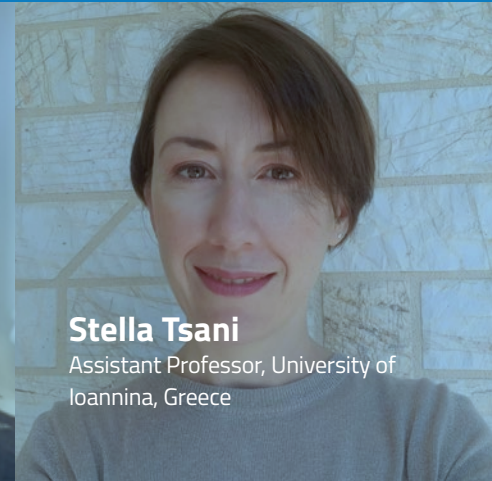
Amparo Sereno Rosado

Lisbon Accounting and Business School (ISCAL / IPL), OBSERVARE – Observatory of Foreign Relations (UAL)



Dubravka Skunca

Union-Nikola Tesla University/MB University



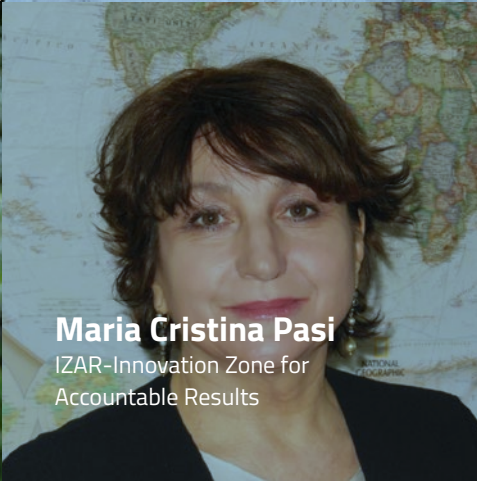
Stella Tsani

Assistant Professor, University of Ioannina, Greece



Paulina Janiak

Innovation and Development Aid Consultant



Maria Cristina Pasi

IZAR-Innovation Zone for Accountable Results



Mark Scicluna Bartoli

EU Financing Expert



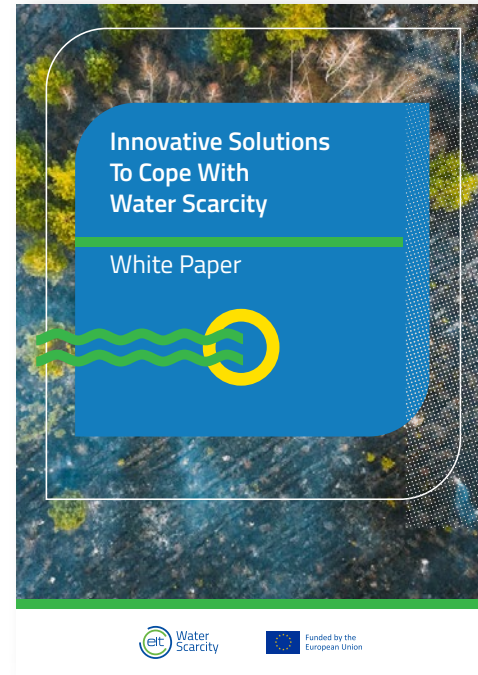
Gaëtane Suzenet

International Impact Partners

White Paper

Finding innovative solutions to tackle water scarcity

This paper aims at unlocking water governance in Europe. Innovative and effective water-related solutions are available to foster climate change readiness, including relevant services that can enable a more integrated water management planning across Europe. But their adoption must be on many occasions coupled with new and disruptive water governance schemes.



Financial Tools

A review of financial instruments available for scaleups, startups and SMEs to tackle water scarcity

"Water is a precondition to life on Earth and essential for a sustainable socioeconomic development, food security and healthy ecosystems. The growing population, the demographic changes, massive urbanization trends and climate change, among other factors, are increasing pressure on the available water resources."

EIT Food, 2021

The needs of Southern European countries remain enormous: according to the World Water Council, "financial investment into water infrastructure needs to triple to EUR 255 billion annually to combat climate change" (World Water Council, 2017). This is confirmed by the Climate Policy Initiative, which states that water is still one of "underfunded" sectors, globally.



INNOWISE SCALE.

The Competition

EIT's contribution to the creation of a water-smart economy.

Innowise Scale

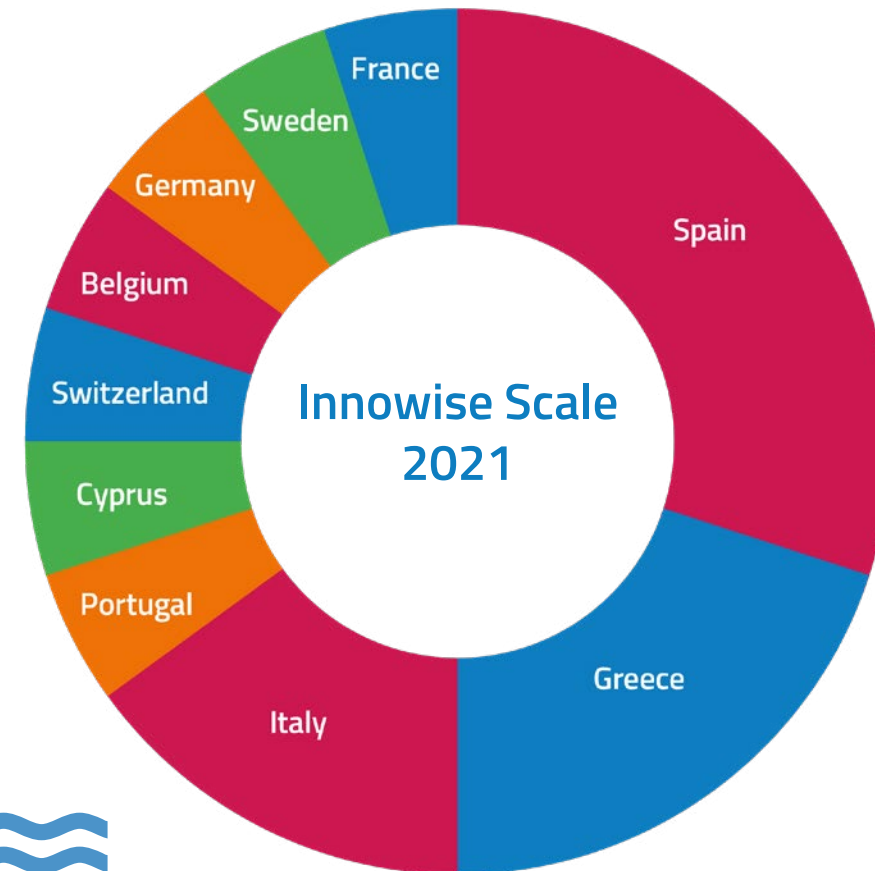
Fostering innovation and entrepreneurship

The programme supports scaleups and SMEs working on innovative products or services enabling a better water management, optimising water supply and demand, and fostering climate change readiness of the European economy.

In 2021, the InnoWise Scale activities were held on 3 case studies on water management in the agricultural, infrastructure and utilities sector, gathering up to 20 scaleups and SMEs and 3 potential end users. Support is given in the form of mentoring, training, and networking opportunities for the implementation of demos, to accelerate the market uptake of these green solutions in Europe.

At the end of the mentoring and training period, a sectoral competition was held. Winners of the final competitions - one per case study- have been granted with 12,000 euros, 10,000 euros and a special prize of up to 30,000 euros for testing purposes.

Entrepreneurs across Europe



Case Studies 2021

Utilities



The Municipal Water Supply and Sewerage Company of Pylaia - Hortiati (greatest Thessaloniki area) is responsible for water supply, wastewater treatment and sewerage services.

Key challenges: Standardization and digitization of the processes concerning water supply (production, transfer, distribution), water quality and safety, pollutant traceability, asset management

Competition: 27th September 2021 Watch it online

Solution Providers

 shayp 1st winner	 ENGING 2nd winner	 fibsens Special Price
 droople	 nanoplasmas	 EMBIO DIAGNOSTICS Detect Everywhere

Infrastructure



Public Owned water utility managing the water and wastewater services in central Italy.

Key challenges: Water availability & seasonal shortages, reclamation activities of non-conventional water resources

Competition: 29th September 2021 Watch it online

Solution Providers

 bluephage® 1st winner and Special Price	 WATERJADE 1st in water data 2nd winner
--	--

 LATITUDO 40	 alchemia nova
 PHAREM BIOTECH	 Clera One


Agriculture



SanLucar (Spain)

International company producing and supplying fruits and vegetables all around the world.

Key challenges: Water availability & Shortages, Salt concentrations, Crop water efficiency, Water Savings

Competition: 4th October 2021  Watch it online

Solution Providers



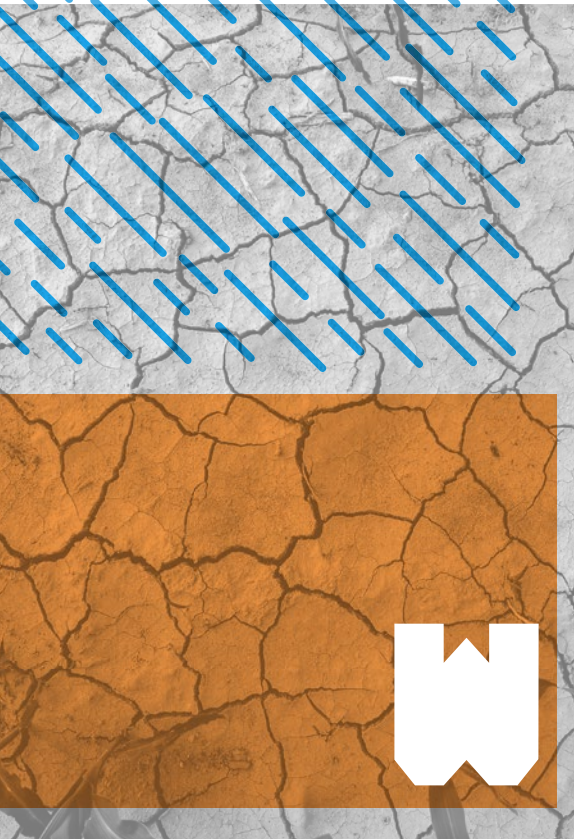
1st winner



2nd winner



Special Price





Water Academies 2021

Learning about water scarcity and emerging innovations for water saving is key for our society and is the objective of the Water Academies. Our sessions have been delivered by the Water Experts with the recent technology insights, and hands-on experience in Water Management. We aim at creating a dialog with the industries addressing cost-effective, disruptive technologies, and educate innovation startups together with the University students, about emerging innovation opportunities in the water management segment emphasizing the 3R concept: Reduce-Reuse-Recycle.

The Water Academies are sectorial and technical seminars that have been organised to stimulate a learning environment based on the latest findings, solutions and alternatives related to water scarcity. The technical seminars promote the implementation of water-saving technologies and good practices in different sectors.



3 Workshops

The workshops were held online in English, with simultaneous interpretation from English to Greek, Italian and Spanish. Participation in these technical seminars was free. On top of that, the participants were granted certificates with no additional charge when taking a short online test from at least two sessions after the workshop/s.



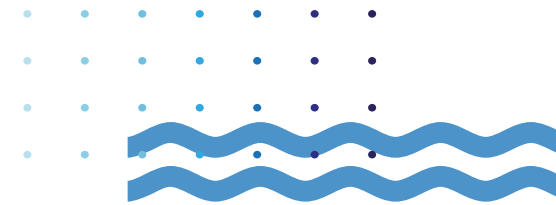
12 Water Experts

Our Water Academy Learning paths are delivered by the Water Experts with the recent technology insights, and hands-on experience in Water Management.



389 Actual participants

The Water Academy brought together Water Experts and stakeholders from different areas of activity, included senior business/industry representatives, to interact and mitigate emerging Water Scarcity challenge in Southern Europe. The Water Academies workshops targeted the Agrifood sector, Water Utilities, Municipalities, Tourism sector, Manufacturing industries, SMEs, RTOs, University Students, Journalists and Political Stakeholders, among others.



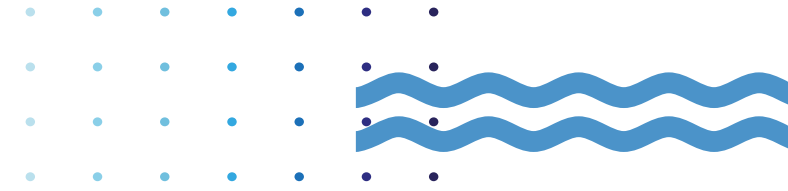
Finding innovative solutions for water scarcity in Southern Europe.



Workshops

October 27th, 2021

Workshop for Agrifood Sector



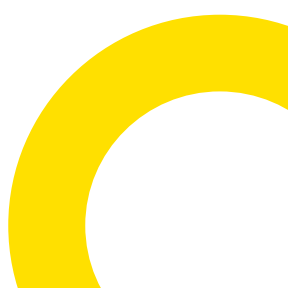
November 4th, 2021

Workshop for Manufacturing Industries

November 3rd, 2021

Workshop for Water Utilities, Municipalities & Tourism sector



All the material is available at:
www.skillsmove.eu



Telling new stories




We engaged with people through digital channels and social media, using vibrant design and content, video and visuals, interviews, podcast, talks and events, so that they became agents of change walking toward a water-saving economy.

Videos


-  [Calling for water, Litany](#) Greek, English
-  [Water Scarcity, Take care of water for a more sustainable future](#) English

Articles Spanish, English, Greek

Blog stories **ethic**

-  [¿Comería una ensalada cultivada con agua del váter?](#)
-  [Los datos \(y el ahorro\) pueden salvar al agua](#)
-  [Eleftheria contra el dragón: la escasez de agua en el sur de europa](#)

Publication **FuturENV RO**

-  [Smart agriculture potential: the need for more efficient agricultural planning in the face of increasing water scarcity events](#)

Audio Story

-  [Electrofishing, Water quality sampling in Greek rivers](#) Greek

Next steps

The Finding innovative solutions for water scarcity in Southern Europe will continue delivering impact in 2022.

- New opportunities for entrepreneurs contributing to reduce, reclaim and reuse water across different economic sectors. 40 scaleups and SMEs will be selected to participate in the tailored mentoring and training programme. Stay tuned to our channels!
- Companies with particular needs to be solved will be invited to participate in the programme. The project partners are designing unique networking and piloting opportunities.
- Are you a water expert willing to join our vibrant network? Are you passionate about coaching and supporting entrepreneurs to their next level? A call for experts and mentors will be soon launched to join our network.
- 5 seminars will be delivered by Water Experts to discuss the main challenges and solutions to cope with water scarcity across Southern European countries.
- If you want to deepen your knowledge on water management, join the technical workshops to be held as part of the Water Academies on Nature based solutions, use of reclaim water in agriculture, and industrial waters.

...and much more will come.

Impacts

In the long term, this project will contribute the creation of a **water saving economy** across Southern Europe, where water scarcity is of major concern.

40%

Savings of up to 40% in the agricultural and industrial sectors, by supporting and promoting smart solutions

50%

Savings of up to 50% in cities by monitoring and repairing leaks in public supply networks

19%

Reduction of about 19% of the public water consumption by extending the Eco-design Directive to domestic water-saving devices

Contacts



info@eitfood.eu

Carmen Galindo Rodriguez
Project Manager

✉ carmen.galindo@eitfood.eu

Elvira Domingo
RIS Programme Manager

✉ elvira.domingo@eitfood.eu



Blanca Chocarro
Cross-KIC Project Manager Water Scarcity &
Circular Economy

✉ blanca.chocarro@eitmanufacturing.eu

Illustration by

LaBase



Eva Enyedi
Water Scarcity Project Manager/
Future Funding

✉ Eva.Enyedi@climate-kic.org



Elena Contioso-Fleming
Co-Location Centre Manager

✉ elena.contioso@eitdigital.eu

Book design and editing

Eleni Kentepozidou

Acknowledgements

Members of the leading team:

- Elvira Domingo - EIT Food
- Carmen Galindo Rodriguez - EIT Food
- Miriam Sastre - EIT Food
- Eva Enyedi - EIT Climate KIC
- Blanca Chocarro - EIT Manufacturing
- Ivana Lukacova - EIT Manufacturing
- Jesús Contreras - EIT Digital
- Elena Contioso-Fleming - EIT Digital
- Phoebe Kountouri - ATHENA Research Centre
- Lydia Papadaki - ATHENA Research Centre
- Antonia Lorenzo - BioAzul
- Rafael Casielles - BioAzul

The leading team would like to thank the **European Institute of Innovation and Technology (EIT)** for making this programme possible.

In addition, for their work and contribution to this programme the leading team would like to thank:

Communication:

- Javier de la Rocha, Isabel Aljama
- Aracnofobia
- Evgenia Tsianou, Eleni Kentepozidou
- DISSCO
- Eduardo Ortiz de Arri - Gabinete 6
- George Paterakis, Lara Kalliri
- Media Dell'arte
- Marianella Kloka - Pressenza
- Cristina Monteiro, Cristina Arbues
- ZEVENTOS

Water Experts:

- Stella Apostolaki
- Mark Scicluna Bartoli
- Julio Berbel
- Rafael Casielles
- Esther Diez Cebollero
- Simona Consoli
- Francesco Fatone
- Diego S. Intrigliolo
- Paulina Janiak
- Fabio Masi
- Maria Cristina Pasi
- Amparo Sereno Rosado
- Guido Schmidt
- Dubravka Skunca
- Gaëtane Suzenet
- Stella Tsani

Mentors:

- Cristian Carboni
- Andrea Cruciani
- Zita Dibácsi
- Alfonso Expósito
- Marco de la Feld
- Sara Giordani
- Clyde Hutchinson
- Paulina Janiak
- Pieter De Jong
- Efthymios Kaliampakas
- Georgios Karakatsanis
- Totti Könnölä
- Didem Mahsunlar
- Maria Cristina Pasi
- José Antonio Rodríguez de la Cruz
- David Smith
- Paolo De Stefanis
- George Suciu
- Antonio Touriño
- Antonio Vicente

Educate Innovate Transform

Because Water is a Human Right

#InnoWiseScale #waterscarcity #CLCSouth

@EITFood @EITClimateKIC @EITManufactur @EITDigital

