

Region of Crete

Water sufficiency is a major issue in the region of Crete due to a variety of reasons such as the diversification into annual precipitation levels which have been affected by climate change, the overexploitation of underground water due to irrigation and a well established tourism industry, the high levels of water losses in the aged water pump network etc.

Business initiatives for the development, introduction and exploitation of innovative water loss reduction technologies, optimal water services management, systems for tracking and recording networks and infrastructures for rational use and reuse, are expected to facilitate adaptation to climate change and reduce the risk of serious economic damage locally. For this reason, it is very important to promote innovation in these areas and the first and most important step toward this direction is the strengthening of the innovation ecosystem.

It is acknowledged that innovation ecosystem in relation to water is limited in the Region of Crete. Innovation is mostly related to programs supported by academic and research institutes of Crete but there is limited focus on water cycle. In general, in Greece there is quite limited correlation with the market needs and the training offered in academia. There is also a shortage of staff training that could connect academic and business space as there are no organized actions in this direction. Training and reskilling seminars should be developed in this direction and academic institutions could play a major role.

The existence of high-level academic and research potential ensures the thorough and documented information to Regional Administration for designing and implementing targeted regional policies. The Regional Research and Innovation Council (RRIC) is setting up the Strategic Innovation Agenda, describing the priority areas, the RRIC initiatives supporting research, technological development, innovation, education and cooperation between private and public sector actors.

Businesses often complain that the language spoken in academia is not the same. At the same time, communication between academic institutions and government, is more fluent. Region of Crete incorporates in various levels with academic institutions and promotes related synergies.

The administrative procedures required to implement policies and actions remain complex and time consuming resulting in slowing down the establishment and operation of enterprises.

Through RIS3Crete Smart Specialization Strategy and the Regional Operational Program 2014-2020, Business Partnerships are being promoted among Research and Knowledge Institutions, which is consistent with the triple helix innovation model. The RIS3Crete consultation is intended to highlight specific weaknesses and opportunities guide into a more targeted regional strategy. Public opinion seems to add pressure as the expected risks due to climate change worry a large part of society.

In the Region of Crete, industry sector, that can support innovation in water technology, is not developed. The majority of the business sector consists of small and medium-sized enterprises that do not develop synergies with the research area and neither invest nor have an interest in innovation. Although there is enough information in public bodies about water, it is scattered and there is no easy access to it.

The region of Crete increased its participation to the program HORIZON2020 from 184 participants in 2017 to 284 in 2019 and a total net EU contribution of 99,2M€. These data constitute a reliable indicator of the strong externalization of the national research and technology system, as well as a potential indicator of scientific excellence and innovation. Indicative calls starting on May 2019 are on «Self-employment of Tertiary Education Graduates», «Strengthening entrepreneurship and start-ups», «Upgrading of established SMEs to new markets and supporting tourism SMEs». However, no new RIS related calls are foreseen for this period.

Two very important mechanisms for the Region of Crete that we will try to activate in the direction of lifelong learning in the water field are both the Regional Labor Market Monitoring Mechanism and the Center for Training and Lifelong Learning of the University of Crete.

- *[The Regional Labor Market Observation Mechanism of Crete is an innovative large-scale research project. Its object is to monitor the trends and to diagnose the needs of the local*

labor market at the level of the Region of Crete. It is a project funded by the Region of Crete from the OP CRETE 2014-2020, started in March 2016 and will be completed in March 2022.

- *The Center for Training and Lifelong Learning (KEDI.VI.M.) of the University of Crete was established on the basis of a very recent Law (4485/2017) aiming at the organization and implementation of lifelong learning actions at the University of Crete.*

In Crete, both the Regional Research and Innovation Council (RRIC) and the training and lifelong learning centers (KE.DI.VI.M.) of local academic institutions aim, inter alia, to interconnect with the international environment.

Region of Crete participates in many projects of different EU programmes as Interregional Collaboration is already an integral part of the regional policies. Region of Crete has their own INFO office in Brussels where municipalities, universities and companies can be informed about European projects and communicate and meet with other European regions.

Region of Crete joins more than 20 consortiums for competitive European projects of major financial frameworks (H2020, Interreg MED, Interreg EU, ADRION, LIFE, Interreg Gr-Cy.) and also participates in dynamic European Networks focusing on transregional cooperation and interregional synergies among which S3P thematic area Water Smart Territories (WST). WST is also involved in the development of the European Partnership Water4All, which is expected to be launched in the coming months and become one of the funded Horizon Europe co-funding programmes. This will offer more opportunities for transregional cooperation and interregional collaboration for Crete.

The Chamber of Commerce and Industry of Region Unit of Heraklion in Crete participates in the Enterprise Europe Network (EEN) with 600 member organizations, that offers consultation to businesses and also has the capacity to organize B2B meetings. The countries that are asking information on the water cycle are mainly from South Europe. This is a clear indication of the need for cooperation emerging from similar environmental challenges.

Concluding, Crete would like to include the following actions into the action plan of iWATERMAP:

- **Critical Mass Development:**

Development of synergies among public/private sector and academic institutes such as:

1. Irrigation Network Management: Monitoring of irrigation water supply

Region of Crete/Local Land Improvement Organizations (non-profit private law legal entities responsible for management of irrigation water)/ Foundation for Research and Technology (FORTH), Institute of Computer Sciences (ICS), Signal Processing Lab (SPL)

2. ERASMUS funding possibilities-tips on developing an ERASMUS proposal: Short Workshop for Municipal Water and Sewage Companies executives

Heraklion Chamber of Commerce and Industry/ Municipal Water and Sewage Companies/ Region of Crete – Rethymnon Vocational Training Center

- **Human Capital:**

Lifelong learning actions such as:

1. Adults and Lifelong learning program “Water: Safety, Quality and Hygiene”

Target groups:

(a) university graduates in related fields and

(b) adults of professional specialties related to water resources management (water supply network technicians, conservators, etc.)

Center for Training and Lifelong Learning (KEDI.VI.M.) of the University of Crete (School of Medicine)

2. Seminar “Environmental protection, water and wastewater management issues”

Target group: employees in water-wastewater management systems (in hotels, factories, settlements in bodies of the wider Public Sector (DEYA-OTA) but also all those interested in experience, specialization and certification in the management of water-wastewater systems

Technical Institute of Heraklion Chamber of Commerce and Industry

3. Short Seminar “Basic knowledge of water safety and water quality networks”

Target group: employees, owners or managers of hotel units - apartments for rent, Hospitals, municipal water and sewage companies, etc

Technical Institute of Heraklion Chamber of Commerce and Industry

4. Training of pupils on Water Safety Plans

Regional Directorate of Primary & Secondary Education of Crete/ Regional Education Planning Center of Crete (PE.K.ES.)/ Region of Crete

5. EDU4Clima: Learning and Teaching about Climate Change Establishment of a Research and Innovation Hub for the transfer of knowledge produced from research on climate change and gas pollution at the University of Crete focusing on the Environmental Station of ECPL, to the schools of secondary education.

National Observatory of Athens (NOA)/ Region of Crete/ Regional Directorate of Primary & Secondary Education of Crete /Municipality of Agios Nikolaos University of Crete, Department of Chemistry, Environmental Chemical Processes Laboratory (ECPL).

- **Interregional Collaboration:**