



Press Release

Larnaca, Cyprus, 31 October 2023



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WATER-MINING Coordinators, Partners and Associates stand for a group photograph in Larnaca, Cyprus. Image: REVOLVE.

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WATER-MINING Consortium Meeting 2023: Results and reflections from the European case studies

The WATER-MINING project held its fourth Consortium Meeting in Larnaca, Cyprus between 22-25 October 2023 to review the latest results, progress and lessons learned at its European case studies and living lab sites as well as to define forthcoming actions to be taken as it enters its final year.

The meeting was hosted by project partner, the Larnaca Sewerage and Drainage Board. The choice of location was not only pertinent due to the location of the project's Case Study 4 in the Cypriot city but also due to Cyprus being among the most water scarce nations in Europe.

Proceedings were officially opened on Monday, 23 October, with a welcome from host Angelos Hadjicharalambous, General Manager of the Larnaca Sewage and Drainage Board. This was followed by a welcome and reflections from project coordinators Patricia Osseweijer, Mark van Loosdrecht and Dimitris Xevgenos from the Delft University of Technology.



WATER-MINING Project Coordinator Dimitris Xevgenos speaks at the consortium meeting in Larnaca, Cyprus. Image: REVOLVE.

Case studies & Living Labs

The two-and-a-half-day internal conference revolved around an overview of each of the WATER-MINING project's [six case studies](#) elaborated within their designated sub-sector: Industrial Mining, Sea Mining and Urban Mining. Participants were taken on a tour from Rotterdam (CS6), Lampedusa (CS1), Almería (CS2) and Faro (CS3) to Larnaca (CS4) and La Llagosta (CS5). Each presentation kicked off with a lay recap of the main results of the case study so far, the challenges and solutions encountered on the way, and the outlook for the replication of findings. These were followed by technical and research assessment reports, which served as a basis for discussion.

Business & Market

These contributions were interlaced with topics at the core of the WATER-MINING project, not least circular business, value chain and market opportunities. To foster business, market and cross-industry developments, the WATER-MINING project has launched a [Market Place](#), where users such as wastewater plant owners and reclaimed water companies, can browse and network with potential clients and suppliers. This framework uses information from a company to match relevant collaborators and lead to transactions and deals within the platform.

An important output of the WATER-MINING research is tailored toward policy analysis and

recommended policy packages, which were the subject of several sessions at the Consortium Meeting and touched on a wide range of issues from advocating fluid applications between sectors and governments as well as cross-border cooperation in the industry.



Attendees listen to speeches at the WATER-MINING Consortium Meeting. Image: REVOLVE

Another product that has emerged from the WATER-MINING project, and that was put under the spotlight at the Consortium Meeting, is the new biopolymer Kaumera, which is derived from Nereda® sludge. This material boasts a range of potential applications. It can serve as a binder in composite materials, provide flame retardant utilities and work as a biostimulant and coating in agriculture, reducing the need for irrigation.

A development from the Dutch water sector, there is now a mobile Kaumera facility operating at an urban wastewater treatment plant in Faro, southern Portugal, as part of the EU-funded WATER-MINING project's Case Study 3. A first commercial contract has been made for its use in agriculture. It also has potential use in the textile industry, construction and much more.

For more on Kaumera, watch this video:

https://youtu.be/hLEwXWaYraM?si=KVwJo7pO4FuB_Lb5



Social context & Sustainability

The research and innovation within the WATER-MINING project bears extra significance when contextualised within the larger picture of water scarcity that we face, meaning that social considerations form a core ethos that was also high on the agenda of the Larnaca meeting. This ranged from the local cultural considerations that must be taken when rolling out projects and trials to human rights assessment tools being developed within the project to guide business decisions. The development of Augmented Reality tools in the project shows promise in offering wider access to WATER-MINING and in the sector of education.

Due time was given to another core aim of the project — the creation of sustainable and water-smart society. Participants were shown research into water preservation and business circularity from the case studies and shown a study on biodiversity in marine areas around desalination plants.



Members of the WATER-MINING team take a tour of the Case Study 4 facilities in Larnaca, Cyprus. Images: REVOLVE

The final day of the WATER-MINING Consortium Meeting took place at the Larnaca Waste Water Treatment Plant. Here, partners held a General Assembly meeting and attendees were taken on a tour of the facilities to the WATER-MINING Project's Case Study 4, which is researching how to secure freshwater with a circular approach that also recovers valuable materials, like fertilisers, from the brine produced during the desalination process.

About the host

Cyprus is among the most water-scarce countries in the EU and is dependent on desalination technologies, which some years provide 80% of the island's freshwater. Cyprus's four desalination facilities are responsible for [2% of the nation's overall greenhouse gas emissions](#). Solutions to increase the sustainability of water access are therefore required.

For more information: [WATER-MINING | Value for Society](#).

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About WATER-MINING

WATER-MINING is an EU-funded multidisciplinary research project that creates water management solutions using a circular economy approach. The project's consortium consists of 38 public and private partners and four linked third parties from 12 countries and is led by the Delft University of Technology. WATER-MINING works with pilot sites in Cyprus, Spain, Portugal, Italy and the Netherlands to demonstrate new and efficient ways to reclaim nutrients, minerals, biopolymers, energy and freshwater from desalination, and industrial and urban wastewater. To successfully integrate these value-added products into resource supply chains, the project produces science-based, market-oriented policy recommendations, designs circular business models, and engages stakeholders, leading to sustainable management of water resources.