

An affordable price for water and zero discharges, objectives of the Life Desirows pilot plant

Life Desirows (LIFE19 ENV/ES/000447) is a demonstration project that aims to eliminate brines from water desalination processes, achieving the crystallization of salts and improving the quality of regenerated water for the agricultural sector at an affordable price and achieving zero discharges.

This is expected to reduce the negative impact of pollutants (salinity, nitrates, pathogens) on the ecological balance of the fauna and flora of coastal areas.

Other objectives of **Life Desirows** are:

- Design, development, testing, demonstration and evaluation of an innovative demo plant with an autonomous brine energy treatment system with environmental benefits:
 - Maximization of regenerated water from rejected flows (98% increase).
 - Elimination of contaminants, preventing their discharge into aquatic ecosystems.
 - Minimization of the volume of the brine to achieve its crystallization.
 - Promotion and increase of Renewable Energies, combining solar and biomass.
- Recycling of brine salts: use as fertilizers in agricultural soils and in industry.
- Determination of the potential replicability and transferability of Desirows technology.
- Promotion of brine treatment technology.



The Life Desirows project (LIFE19 ENV/ES/000447) is managed by a consortium led by the company Regenera and in which the Polytechnic University of Cartagena (UPCT), the Arco Sur Irrigation Community and other companies in the Region of Murcia with experience in this type of projects such as Hidrogea and Hidrotec.



Personnel from the Emuasa water company know the advantages of Life Desirows

Staff from **Emuasa**, Aguas de Murcia, led by its manager Inmaculada Serrano, have made a technical visit to see the pilot plant that Life Desirows is installing in ArcoSur and the Hidrogea treatment plant.

Emuasa technicians have shown great interest in the plant designed to reduce first osmosis brine, eliminate nitrates and recover water resources.

The Municipal Water and Sanitation Company of Murcia manages the Urban Water Cycle throughout the municipality of Murcia.

Emuasa, founded in 1989, has 51% of municipal public participation shares (Murcia City Council) and the remaining 49% of private participation through Hidrogea.

The efficient management of the resource in a scenario of structural drought is a daily challenge for the professionals who make up the staff of this company.

The visit to the Life Desirows pilot plant is part of that strategy of looking for economically and environmentally viable alternatives to meet that objective.



PARTNERS

Arco Sur: towards environmentally friendly agriculture

Aware of the need to move towards environmentally friendly, socially responsible and sustainable agriculture, the **Arco Sur Irrigation Community** is studying, designing, testing and implementing different actions, under the advice and supervision of prestigious entities and experts, who will guide its transformation towards a production model updated and coherent with the reality of its environment.

Currently, 100% of our water comes from regenerated flows: from the Mar Menor WWTP and the Escombreras Desalination Plant.

Since its inception, the **Arco Sur Irrigation Community** and its Community Members have carried out their work in a respectful way with the environment. It is true that some mistakes were made in the past, but it is enough to walk through the 3,000 hectares. that make up its scope of action to witness how the agricultural environment and the natural environment coexist and understand the will of the CR Arco Sur.

Arco Sur has the Sustainable Landscape and Agriculture operating group that promotes the uses of natural vegetation and restoration techniques for the agronomic and ecological improvement of growing areas. Likewise, it promotes the sustainability of agricultural operations in the Region of Murcia, minimizing impacts on the environment, as well as all those related to the application of environmental protection in agricultural areas.

The project seeks to implement and optimize the design of hedges (about 70,000 bushes) adapted to different agricultural typologies in the Region of Murcia so that farmers obtain the maximum agronomic and environmental benefit.



<https://www.cr-arcosur.com/>

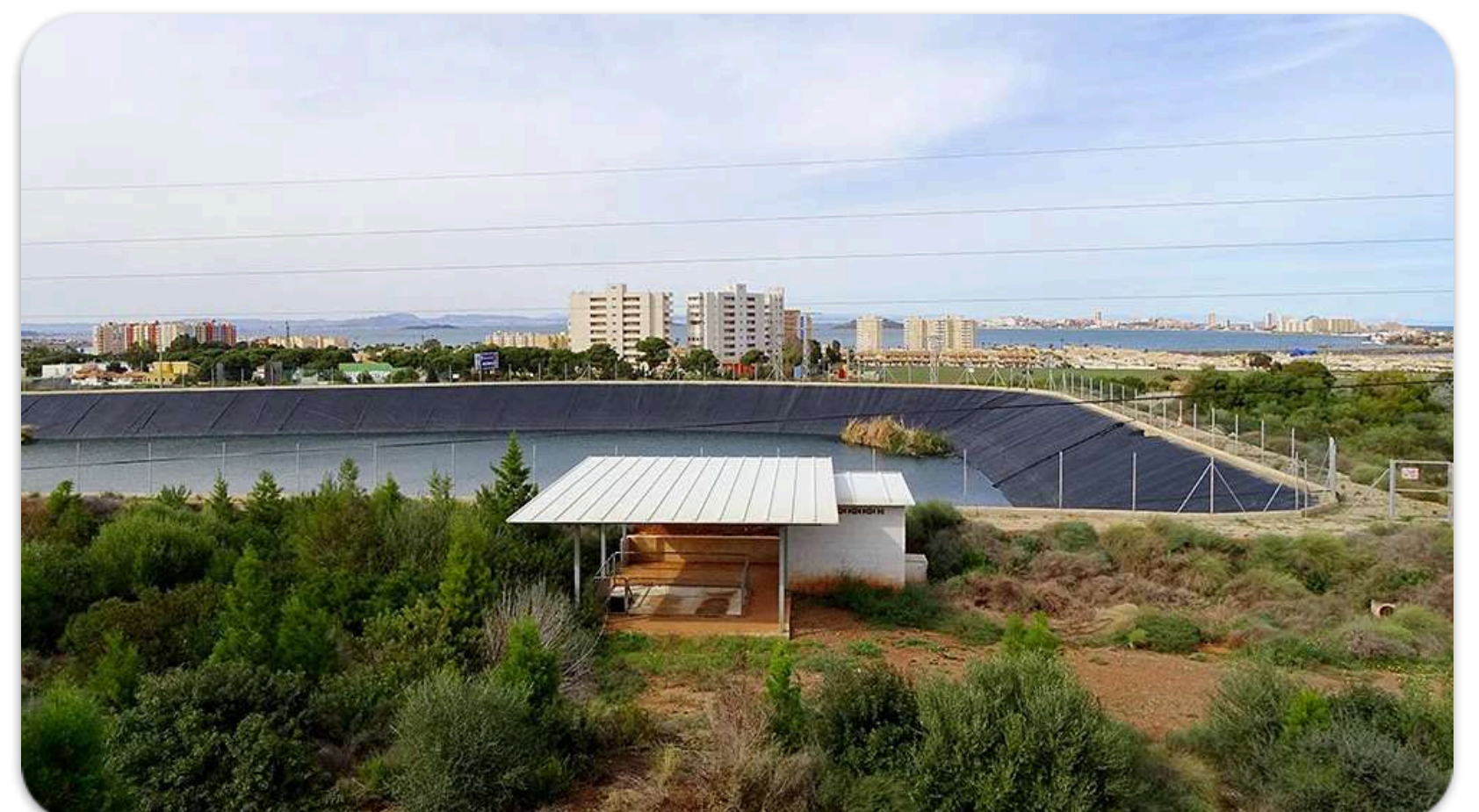
The Arco Sur Mar Menor Irrigation Community was legally constituted by Resolution of the CHS Presidency of 09/29/2003 (Exp.: FCR 2/2003). It is the concessionaire of the WWTP's treated waters. Mar Menor Sur, according to the concession granted.

The territorial scope of the CR Arco Sur is made up of 6 differentiated irrigation sectors called:

- Sector 1 "El Sabinar-Cabo de Palos"
- Sector 2 "Los Nietos-Playa Honda"
- Sector 3 "Los Urrutias"
- Sector 4 "El Beal"
- Sector 5 "La Union"
- Sector 6 "El Hondón-Roche"

Gross Area: 3,030 Has.

Net Area: 1,528 Has.





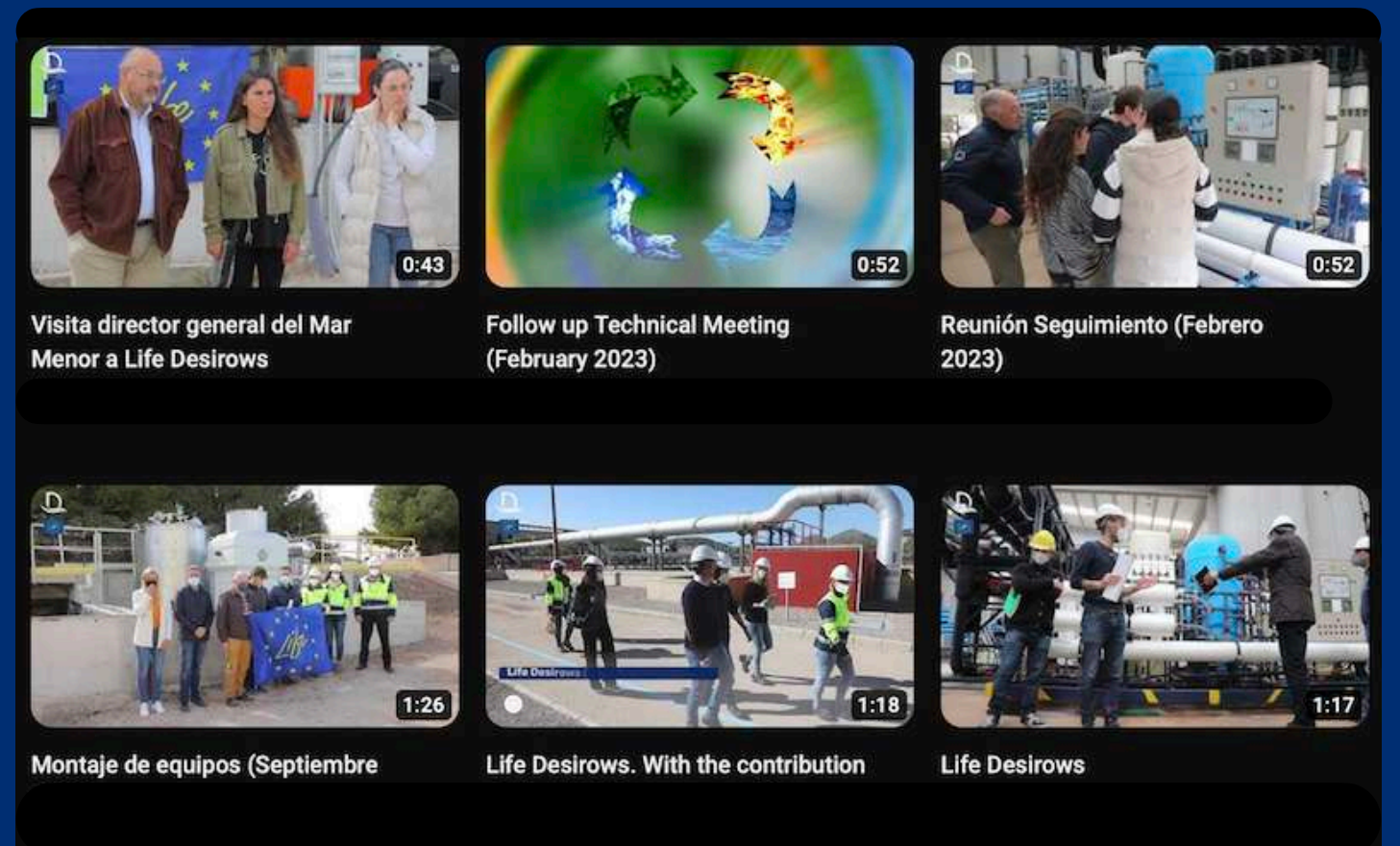
The engineer and researcher Pablo Calleja presented the objectives of Life Desires at the Pints of Science, an event held in collaboration with CtPiensa, the Association of Young Researchers of Cartagena and the Spanish Foundation for Science and Technology. Science and innovation for all audiences.
Origin: X (antes Twitter) @pablocalleja96

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If you want to be up-to-date with the project, you can follow us on our website:

<https://lifedesirows.eu/>

As well as on X and Youtube:



LIFE PROJECTS

Life Desirows was present at the XIII International AEDyR Congress in Granada

The Life Desirows project was present at the XIII International AEDyR Congress in Granada that took place on June 13, 14 and 15.

This outstanding forum presents the latest innovations, research and developments in desalination, reuse and water treatment.

This is the most important and influential periodic event at European level on desalination and water reuse and, therefore, an unmissable event for all people and companies involved in these sectors, both nationally and internationally.

