

ZELDA

Zero ● Liquid 💧 Discharge ► Desalination

Project Coordinator



Partners

FUJIFILM

ABENGOA WATER



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 @zelda_project  Zelda Project

Pictures provided by CTM, Fujifilm and Abengoa



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What does ZELDA stand for?

Zelda means Zero Liquid Discharge desalination: brine treatment based on a combination of electro-separation processes and valuable compound recovery.

Background of the ZELDA project

Water scarcity problems have been a growing concern for the European Union. Currently, the seawater and brackish water desalination are considered to be one of the best options to face up the water scarcity problem. However, this technology generates high amounts of brine that must be managed. In coastal desalination plants, brine is discharged to the sea while in the inland desalination plants deep well injection and surface water or groundwater discharge are the most common options. Brine management has a high environmental impact, especially in the case of inland desalination plants hampering the implementation of desalination technologies.



This is where ZELDA project comes in

Responding to the need of a brine management strategy that makes desalination a sustainable technology at environmental, economical and social level, ZELDA project proposes an innovative brine treatment system that has low environmental cost and a favourable social effect in the communities!

ZELDA project aspires to demonstrate the sustainability at all levels of a new brine treatment system decreasing the environmental impact associated to desalination processes.

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In particular, ZELDA project is expected to have a huge positive socio-economic impact not only at the south of Spain region where it is going to be implemented, but also in other parts of Europe facing the same problems related to water scarcity.



After achieving its objectives, ZELDA project will offer a clear benefit in whole European territory and especially to those zones, as the Mediterranean region, with severe water stress, without being a threat to the environment but also being in agreement with the current and future European, national and regional water legislation.

Which are the benefits of ZELDA to society?

- Freshwater at lower costs and lower environmental impact.
- Reducing water scarcity.
- New productive activities based on recovery of valuable compounds.
- A better quality of the water bodies.
- Educating and making citizens aware of the technology.