SOL-BRINE

Nothing more than salt and water

TINOS
THE AEGEAN MUSE

OUR STORY

We emerged as a start-up in 2015 to commercialise an innovation pioneered by the LIFE-funded Sol-Brine project. Our company SEALEAU B.V. now produces energy autonomous desalination units that eliminate environmentally harmful brine effluents, separating them into high quality water and salt that is fit for use in industry.
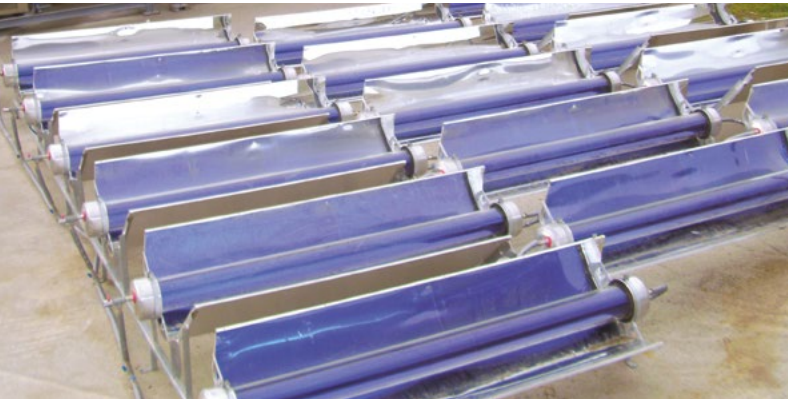
Energy-autonomous systems from SEALEAU in Delft, the Netherlands, treat brine from desalination plants and industry.

💧 Water scarcity   🚰 Desalination   💡 Innovation

Larger with Life

From 2013-2016, the EU LIFE Programme invested €600 000 in the €1.2 million SOL-BRINE project to make seawater desalination more environmentally friendly. The project demonstrated that distilling water can boost the efficiency of desalination units, eliminating brine effluents entirely. The process runs on renewable energy and recovers demineralised water and salt as secondary materials.

EU added value

- **Halt brine contamination of ecosystems**
- **Energy cost of desalination down 33%**
- **Save 90 tonnes CO$_2$ per desalination unit**

Prospects

- **Global market over €100 million a year**
- **Meet water needs along arid coastlines**
- **Cut utility bills for seaside dwellings**

Achievements

- Eliminated **desalination by-products**, separating effluents into dry salt and demineralised water
- Treated **200 tonnes of brine**, producing 180 tonnes of water and 12 tonnes of salt
- Increased the rate of water recovery from sea water from **30% to 90%**
- Claimed the **Green Award** for the best LIFE environment project in 25 years
- Secured €10 million of Horizon 2020 funding to scale up the technology in the **Zero-Brine** project

Policy support

- Reduce marine impact of **brine disposal** in line with the EU water blueprint
- Address resource shortages detailed in the EU communication "*Addressing the challenge of water scarcity and droughts*"
- **Recover wastewater** effluents as outlined in the EU action plan for the circular economy

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Environment & Climate Action

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