

Our mission is to make access to clean water cheaper for more people and safer for the environment



Project: Sea Water Desalination Plant (ZLD)

Disruptive water purification opportunity

GlobalAquatech.org

*Certified as Innovative Enterprise
by Deputy Ministry of Research, Innovation and Digital Policy
of the Republic of Cyprus*

Solution: Our disruptive technology solves all 4 main problems of traditional desalination that have reached critical levels of urgency

	<i>Reverse Osmosis Technology</i>	<i>New Technology “GlobalAqua”</i>
1	Highly energy inefficient: spends 3-15 kWh per m3	Net 0.845 – Gross 1.5 kWh/m3
2	Hurts environment: daily 200M m3 of dumped brine lethal for marine life	Zero brine discharge & brine processing
3 	Produces water containing boron, lead, mercury, deuterium	Zero bacteria and hazardous chemicals
4	Requires high capex, complex machinery, expensive and easy-to-clog membranes	Simple capex outlay, no membranes, Lego-type modules

*Today's most widely used technology, holds 70% of the global capacity.

**More detailed comparison of all water tech parameters is available

Solution: Our technology is much more energy and cost effective with Zero Liquid Discharge solution for the global desalination market

**0.9-1.5
kWh/m³**

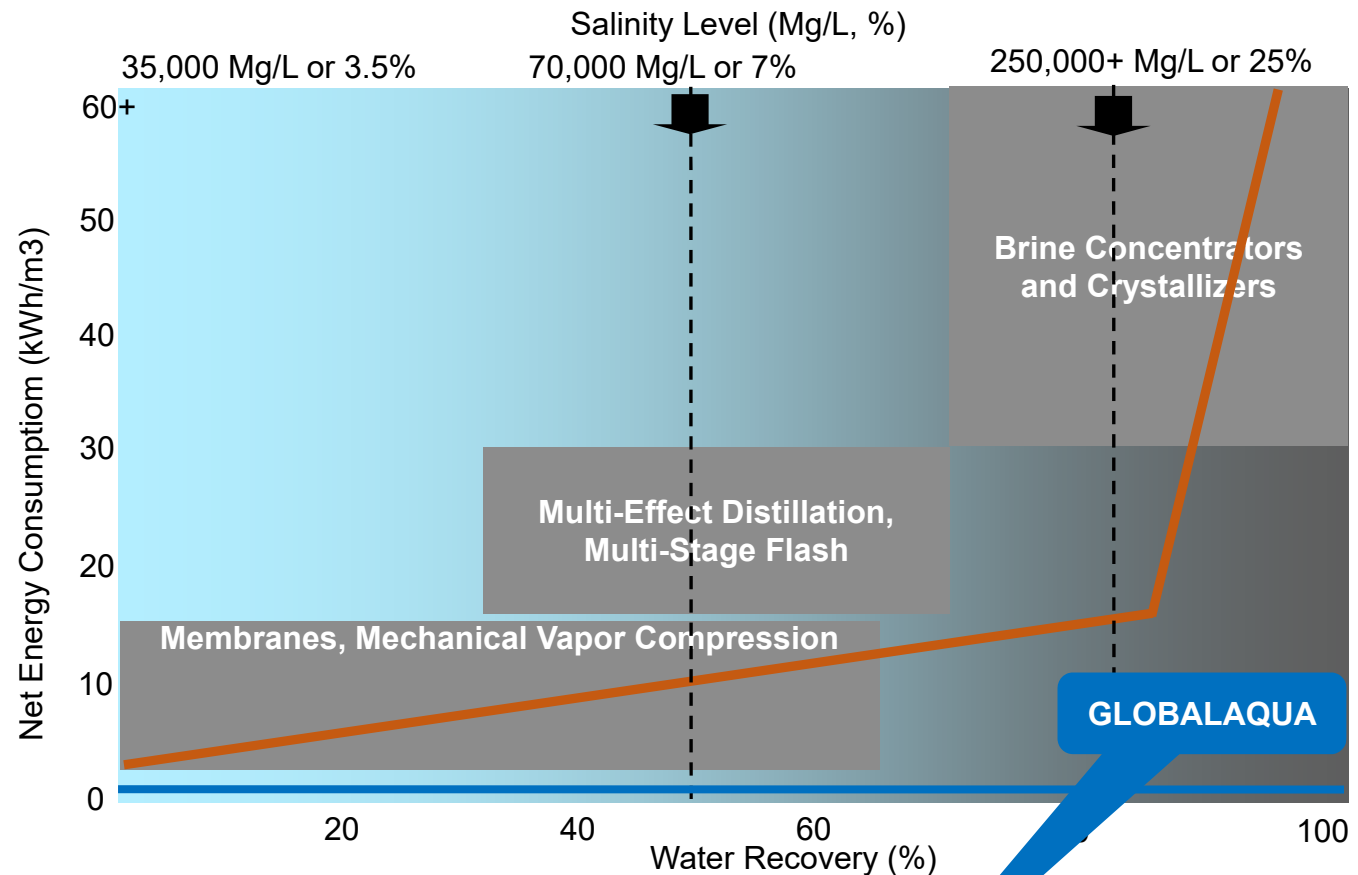
used by our equipment to fully dehydrate brine regardless of its salinity level

ZLD

our equipment produces NO brine. The only outputs are drinkable water and dehydrated “salt”

US\$27Bn

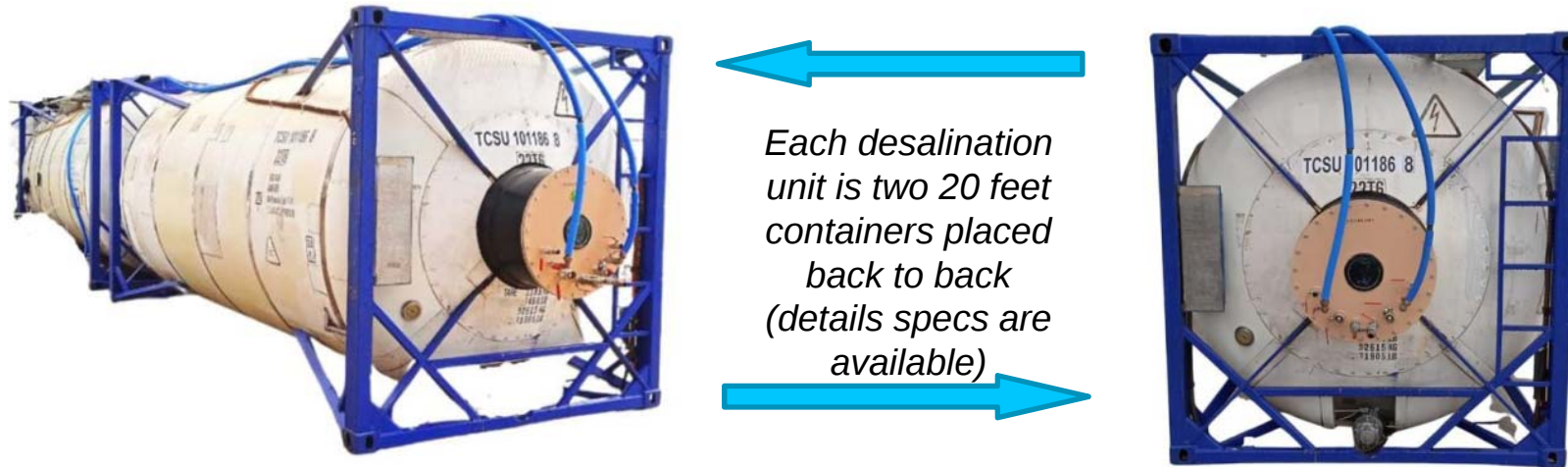
is the estimated total global addressable market of brine concentration and crystallization



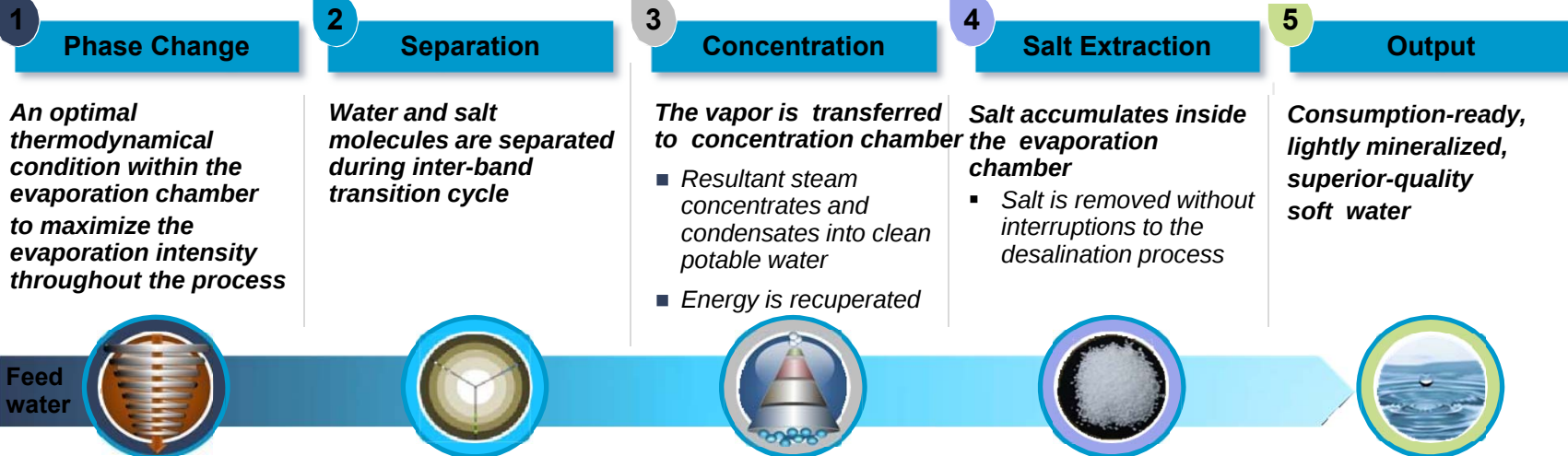
GlobalAqua's technology is the “last mile” ZLD solution and complements any other technology at any stage of desalination process

Underlying technology in a nutshell

The equipment consists of components available on the market, enabling fast and efficient production of large capacities.



Each desalination unit is two 20 feet containers placed back to back (details specs are available)



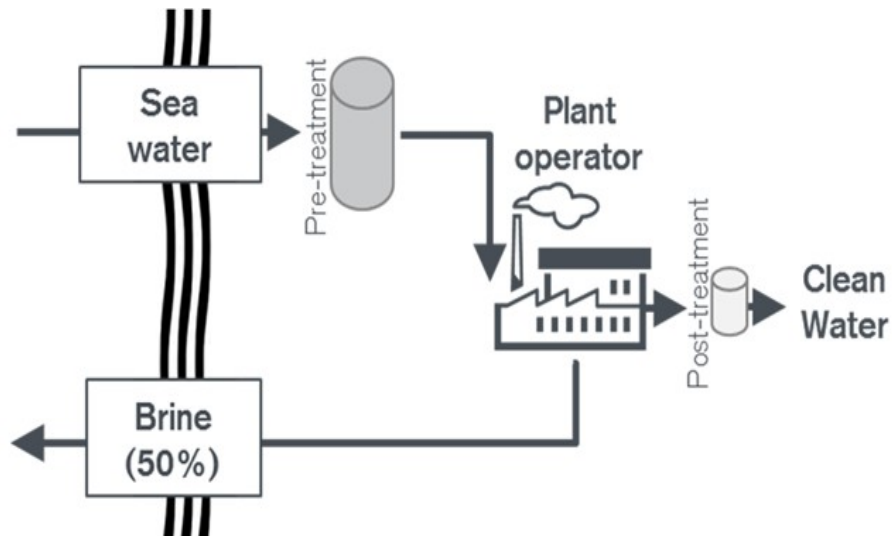
All technical claims of our technology inspected and verified by the world's leading engineering firm SGS in March 2021



In June 2024 our technology successfully passed 1st level of European Innovation Council Accelerator program

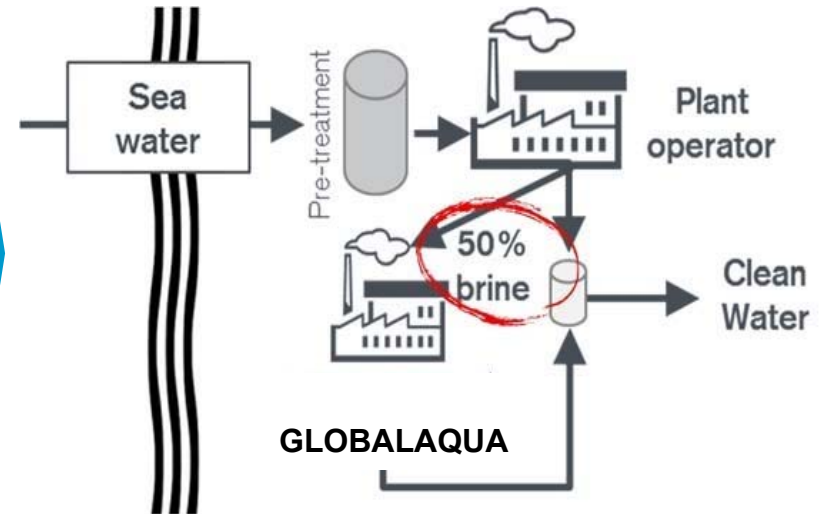
Brine Management – Operational Example

Current RO plant model



- 50% on average of water intake sea water in RO plants is discharged as brine
- Older Plants may discharge up to 70% of intake sea water
- There is no economically viable technology to justify increasing the share of potable water produced in the desalination process and minimise environmentally harmful brine discharge

RO model with AQUABRINE



- ☐ GlobalAqua will treat brine, nearly **doubling freshwater output** of the client RO plants
- ☐ The market potential for brine management, which is hugely under-served today due to absence of an effective technology, is estimated at **36.5 billion tons pa**
- ☐ GlobalAqua will supply equipment directly to a RO plant operator or it will operate the equipment by itself

Mini Desalination Plant - Cyprus



**Consumption-ready,
slightly mineralized,
superior-quality
soft potable water**



**Salt is removed without interruptions
to the desalination process**

PROJECT BRIEF DESCRIPTION

INNOVATIVE DEEP VACUUM WATER TREATMENT TECHNOLOGY



TRUE ZERO
LIQUID DISCHARGE



ULTRA LOW
ENERGY



MODULAR &
SCALABLE



RELIABLE &
DURABLE



ABOUT **200** TECHNOLOGY

200 is a next-generation, deep vacuum, closed-loop technology that delivers true zero liquid discharge with ultra-low energy consumption. Our modular **200** Series units integrate evaporation, condensation, and crystallization in a single compact module for reliable, scalable, and cost-efficient water treatment.



DEEP VACUUM TECHNOLOGY
Operates at near ambient temperature for maximum efficiency



200 SERIES
200 m³/day per unit
Higher capacity, smaller footprint, lower OPEX



MODULAR BY-DESIGN
Built for large-scale implementation with built-in redundancy

7

SINGLE MODULAR UNIT

Q6 – Process Configuration

The GLOBALAQUA system integrates all process steps within a **single modular unit**, operating as a closed-loop thermodynamic separation system.



The illustrated configuration represents the current GAT system design, evolved from previously installed GAT 75 units and validated operating performance

The internal process configuration includes:

- Vacuum-driven phase change (evaporation)
- Vapor containment and controlled internal routing
- Condensation to produce high-purity freshwater
- Progressive concentration of dissolved constituents
- Controlled crystallization
- Continuous extraction of solid by-product

The process is fully integrated and does not require:

- External evaporators
- Standalone crystallizers
- Brine recirculation or concentration loops

This integrated configuration enables continuous operation with full separation of water and dissolved solids, supporting **Zero Liquid Discharge (ZLD)**.

SALT HANDLING INTERGRATION

Utilities and Interfaces

- **Process Connections**
 - Feed water inlet: **DN50**
 - Product water outlet: **DN50**
 - Concentrate / solids discharge: **DN80**
- **Electrical**
 - 1 or 3 phase (220 / 380 V)
 - Low power demand (~6–7 kW per unit)
- **Other Requirements**
 - No high-pressure pumping required (under standard installation conditions)
 - No instrument air or auxiliary utilities required
 - Internet connection for monitoring



Salt Handling Integration

The system supports multiple discharge configurations:

- Direct gravity discharge to container
- Screw auger system
- Conveyor-based automated handling

This allows **flexible integration from simple to fully automated systems.**



SITE DESCRIPTION

Site Readiness

- Civil foundation and site preparation
- Interconnecting piping
- Electrical supply and connectivity
- Freshwater storage
- Salt handling and storage systems

What is NOT Required

Compared to conventional desalination plants, GAT eliminates the need for:

- Large pretreatment structures
- High-pressure pumping infrastructure
- Thermal systems
- Brine outfall systems

Engineering Interpretation

- Civil works are **light, modular, and repetitive**
- Installation is **fast and scalable**
- Site preparation is significantly simplified
- Suitable for both **greenfield and retrofit (brownfield)** projects





GLOBALAQUATECH™