

From water challenge to running plant.

CONFIDENTIAL

THE TARGET

Days, not months.

Traditional engineering takes weeks to months. HydroQ delivers in days to weeks, with expert validation.

\$94B to \$165B

industrial water infrastructure, 2025-2035, 5.8% CAGR
Global Market Insights, 2026

50+

deterministic engineering engines and screens in the platform
HydroQ repository, 2026

1-2

optimized routes selected from every set of viable trains
HydroQ workflow

THE CHALLENGE

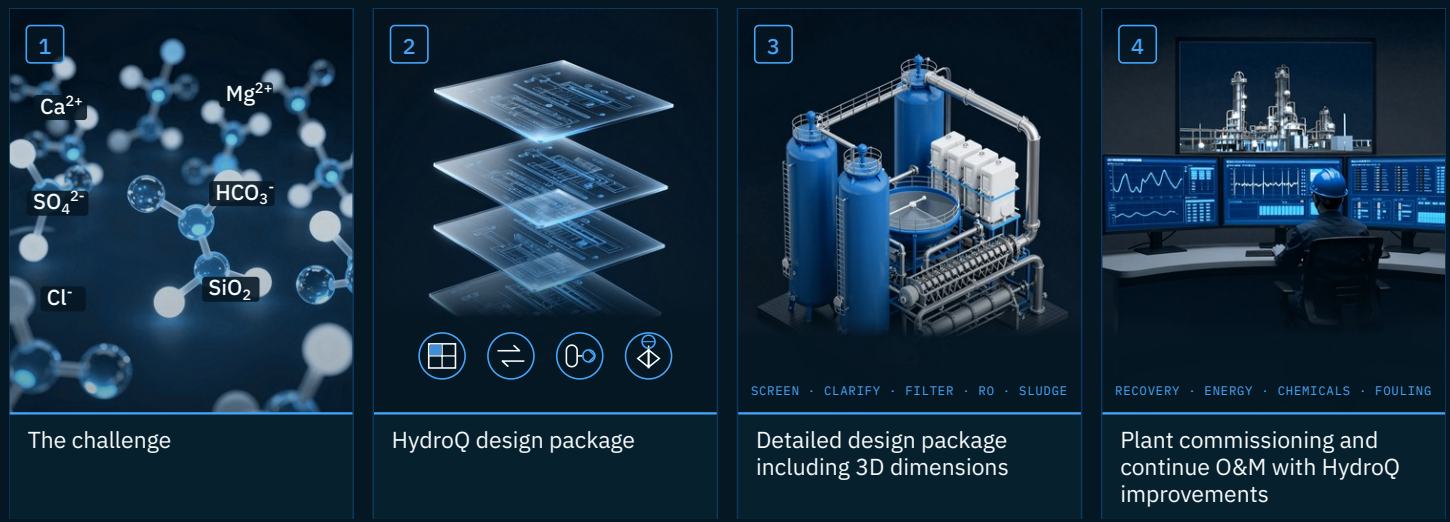
- Selecting a treatment route spans chemistry, process, economics, regulation and risk. Every discipline has to resolve into **one integrated process**, and few teams can hold all of them at once.
- Vendor tools optimize a single manufacturer's equipment. None of them compares a complete, neutral treatment train.

THE HYDROQ SOLUTION

- Agentic AI synthesizes **complete treatment trains** from the client's real water chemistry and constraints, instead of forcing a predetermined technology.
- Specialized chemical, membrane, hydraulic, costing and regulatory engines validate every route. Then senior engineers with decades of plant experience challenge it, and no package leaves without their signature. **The AI proposes, the engines calculate, our experts give the final word.**

WHAT A HYDROQ PROJECT LOOKS LIKE, END TO END

FOUR STEPS · ONE EVIDENCE CHAIN · ONE TEAM



HUMAN IN THE LOOP · AI GENERATES · ENGINEERS CHALLENGE · EXPERTS VALIDATE · CLIENT DECIDES

PHREEQC · HYDROQ'S OWN PITZER ENGINE · REAKTORO · ELEMENT-LEVEL RO AND UF · EPANET VIA WNTR · DEXPI AND DXF

SEVEN STAGES, ONE CONTINUOUS ENGINEERING WORKFLOW

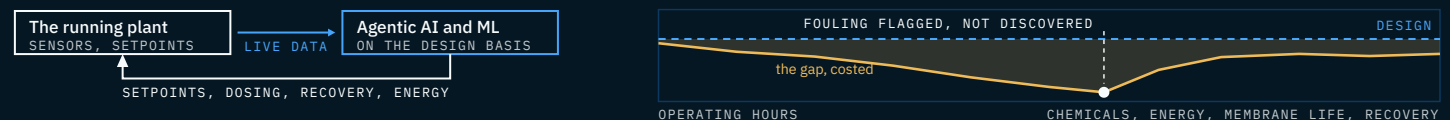
EVERY STAGE INHERITS THE EVIDENCE OF THE ONE BEFORE IT



LAYER TWO, OPERATION: AFTER COMMISSIONING

OPERATION AND MAINTENANCE · EFFICIENCY · COST REDUCTION · FAILURE PREDICTION

A customized agentic AI and ML layer runs at the client facility and sends the improvement actions to the plant's own operations team.



WHO IT IS FOR

MINING AND METALS · INDUSTRIAL PROCESS WATER · MUNICIPAL SUPPLY · BRINE AND ZLD · RESOURCE RECOVERY

The chemistry changes from site to site; the decision does not. Which route meets the target at the lowest whole-life cost, and what it risks. Recovery, residuals and disposal usually settle the economics long before the equipment list does, and HydroQ works at any project size, from a single problem stream to a full plant.

MINING and metals

Mine and process water, tailings and leachate. CN, As, U, Co, Ni, Zn. Discharge limits and recovery of the metal are decided together.

INDUSTRY process water

Concentrate, brine and effluent. PFAS, hardness, ZLD. A permit, a reuse target or the cost of disposal sets the constraint.

MUNICIPAL supply and reuse

Drinking water and reuse schemes, where the compliance margin and the whole-life cost have to hold for twenty years.

BUSINESS MODEL

Engineering fees · Field proof · Proprietary know-how · Licensing



Two intelligence layers, one engineering solution.



Agentic AI · Engineering · Lab & Pilot · Licensing

Dr. Ronny Banker CEO AND CHIEF SCIENTIST

PhD chemistry, MBA; 25+ years in water, cleantech, mining and environmental technology; registered US patents.

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Idor Ovitz CMO AND CTO

AI and agentic-systems architect; leads the platform build, data engineering and go-to-market.

Prof. Yitzhak Mastai ADVISORY BOARD

Professor of Chemistry and Nanotechnology, Bar-Ilan University; advises on chemical strategy and reviews lab validation.

Decision support and engineering development for the engineer of record