

Enabling Sustainable Solutions with AVEVA Data Hub

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ECOLAB | **NALCO** Water





Our purpose is to:

Partner to make the world cleaner, safer and healthier – helping customers succeed while **protecting people and the resources vital to life.**

The value we deliver is:

Enabling the best outcomes for **people, planet and business health** at the highest return.

PEOPLE HEALTH:

Help people thrive by protecting their individual health, the food they eat and the space where they live and work.



PLANET HEALTH:

Help the planet thrive by protecting the earth's climate and its most valuable resource: water.



BUSINESS HEALTH:

Help businesses thrive by protecting their reputation and their bottom line.

We make a difference when we positively impact what's vital:



Water



Food



Health



Climate



ECOLAB® Delivering Value Across Industries

SERVING 90K+ INDUSTRIAL CUSTOMERS ACROSS 170+ COUNTRIES WITH DIGITALLY-ENABLED, END-TO-END WATER MANAGEMENT & HYGIENE SOLUTIONS



ON-SITE EXPERTISE + CONNECTED CHEMISTRY + DIGITAL TECHNOLOGY + PREDICTIVE ANALYTICS

MAXIMIZE OUTCOMES | MINIMIZE IMPACT | OPTIMIZE COST

HIGHEST RETURN **eROI**SM
by Ecolab

Understanding True Cost of Water

Water is often far more expensive than your municipal water bill suggests, due to costs associated with:

INCOMING WATER RISKS:	The impacts of water use on human health and ecosystems and the future costs of incoming water treatment
OUTGOING WATER RISKS:	The impacts of outgoing water pollution on human health and ecosystems, regulatory restrictions, and the future costs of wastewater treatment
OPERATIONAL COSTS:	The energy required to pump, cool, heat, treat, filter and move water to meet operational needs
POTENTIAL REVENUE RISKS:	The impacts of water use versus availability, based on water required to do business
ENTERPRISE RISKS:	Facility risks regarding projected business growth and location-specific water stress, plus impact to brand reputation

VISIBLE COSTS

Water Bill
Sewer Bill

HIDDEN COSTS

Operational: Regulatory Risk
Related Energy Costs
Effluent Water Quality
Labor Costs
Operational disruption
Strategic: Reputational Risk

Customer data ingestion made easy with AVEVA



Challenge

Disparate systems create lag in real-time monitoring, analytics capabilities and alarming. Industrial customers need the ability to see critical data within the control room to make faster decisions.



Solution

Leveraged the latest AVEVA PI Cloud Connect technology to integrate process data with valuable Ecolab3D™ insights to improve collaboration and increase speed to decisions.



Benefit

Eliminated equipment failure, reduced downtime and improved operational efficiency by increasing asset performance through quick identification of process upsets resulting in significant \$\$ savings.

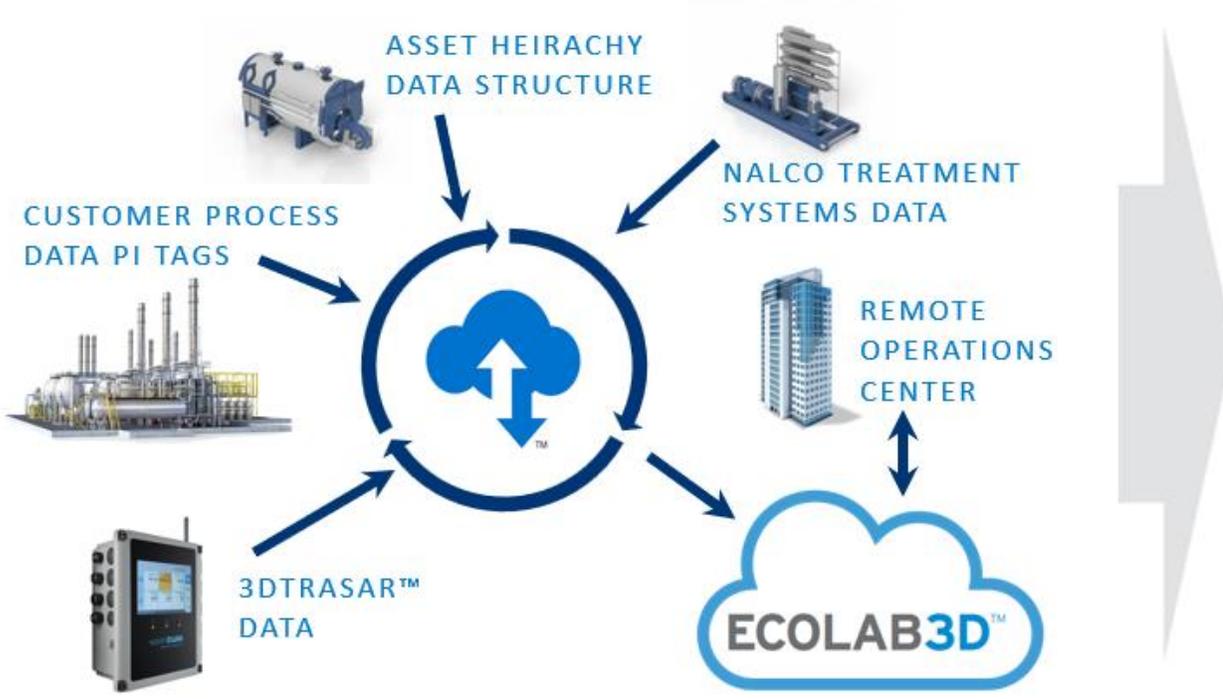
Customer Solutions Powered by ECOLAB3D™

Bringing together multiple sources of data provides a more comprehensive picture of asset health.

CUSTOMER AUTOMATION



- System Optimization
- Re-use, Re-cycle
- System Assurance



PERFORMANCE CONTROL



RISK MANAGEMENT



VALUE MONITORING



Powered by ECOLAB3D™

CASE IN POINT: Pinpoint Root Cause of Issues

DATA VISUALIZATION



➔ **Data Visualization** enables users to trend and analyze multiple key performance indicators and benchmark performance across sites and assets.



Powered by ECOLAB3D™

- **Insight:** Excessive boiler blowdowns resulting in water loss
- **Action:** Use Data Visualization charts to identify the root cause: chemical surges result in boiler conductivity spikes, triggering failsafe alarms. Take action to regulate boiler feedwater consistency.
- **Impact:** Save 245K gallons of water and \$2,640 in energy annually

**Sustainability is core to
our purpose to make the
world cleaner, safer and
healthier - protecting
people and vital resources.**

Visit us online at ecolab3d.com

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