



AVEVAWORLD

ACCELERATE INDUSTRIAL INTELLIGENCE

AVEVA WORLD MILAN, MAY 2026

Industry Accelerators

Cloud Practice

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AVEVA

AVEVA WORLD MILAN, MAY 2026

Agenda

Industry Accelerators

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Milano

Introduction

Executive Summary

Vision & Mission

Architecture

Key Features

Key Capabilities

Use cases

Visualization

Demo

Presenters



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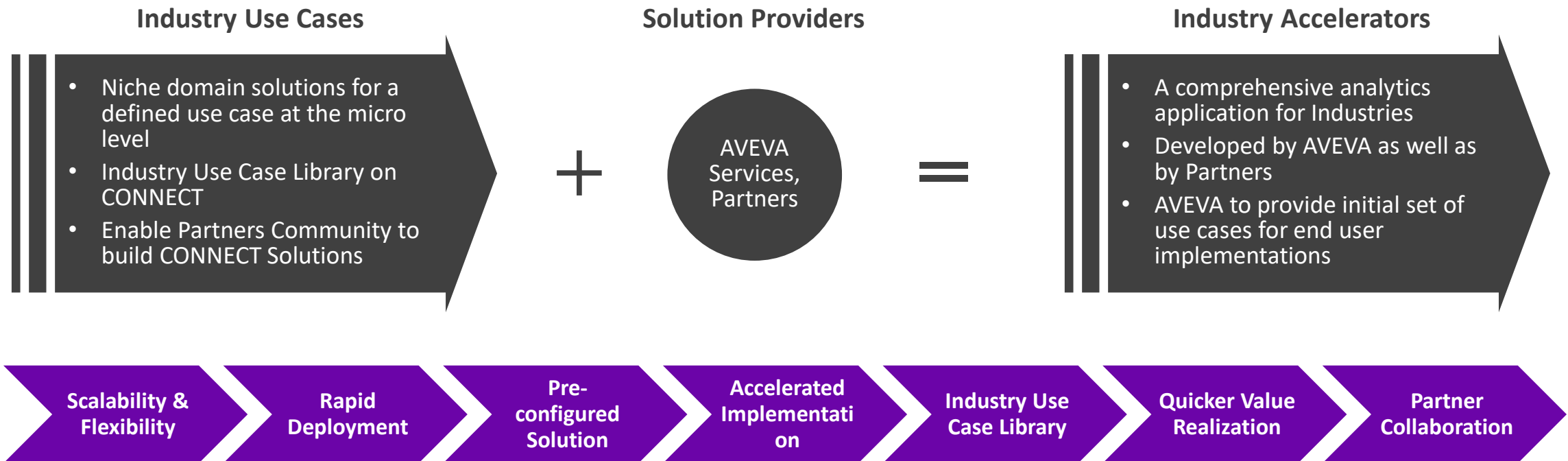
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Industry Accelerators - Executive Summary

Unleash the Power of CONNECT Platform with Value Added Industry Use Cases

Accelerators are pre-configured analytics solutions built on CONNECT platform with industry specific use cases, enabling rapid onboarding & value realization

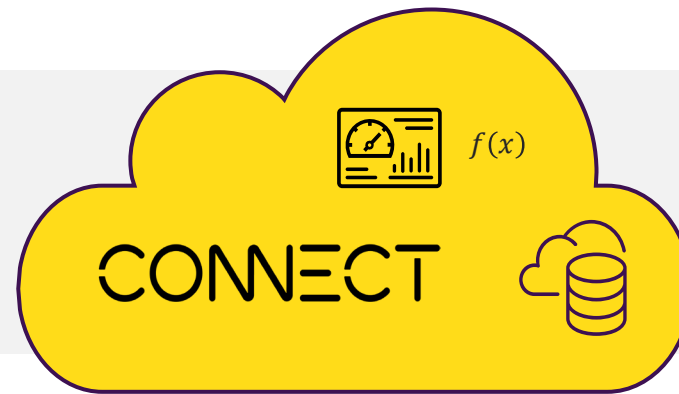


Industry Accelerators - Vision & Mission

Unleash the Power of CONNECT Platform with Value Added Use Cases

Vision

Streamlines digital transformation to accelerate cloud transition and digital maturity, achieve faster business value realization, and minimize startup effort.



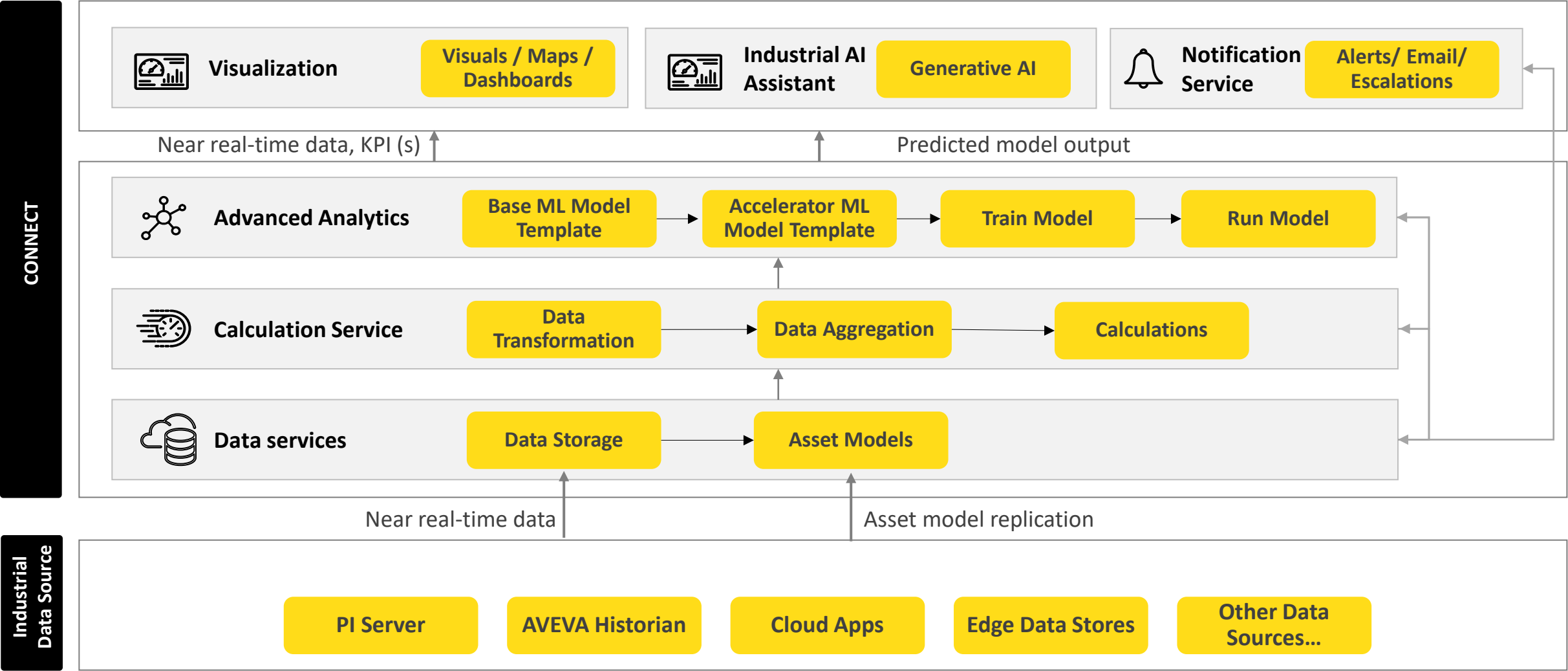
Mission

Simplify and accelerate digital transformation and maturity for industrial businesses by enabling preconfigured solutions tailored to specific industry challenges.

Future State

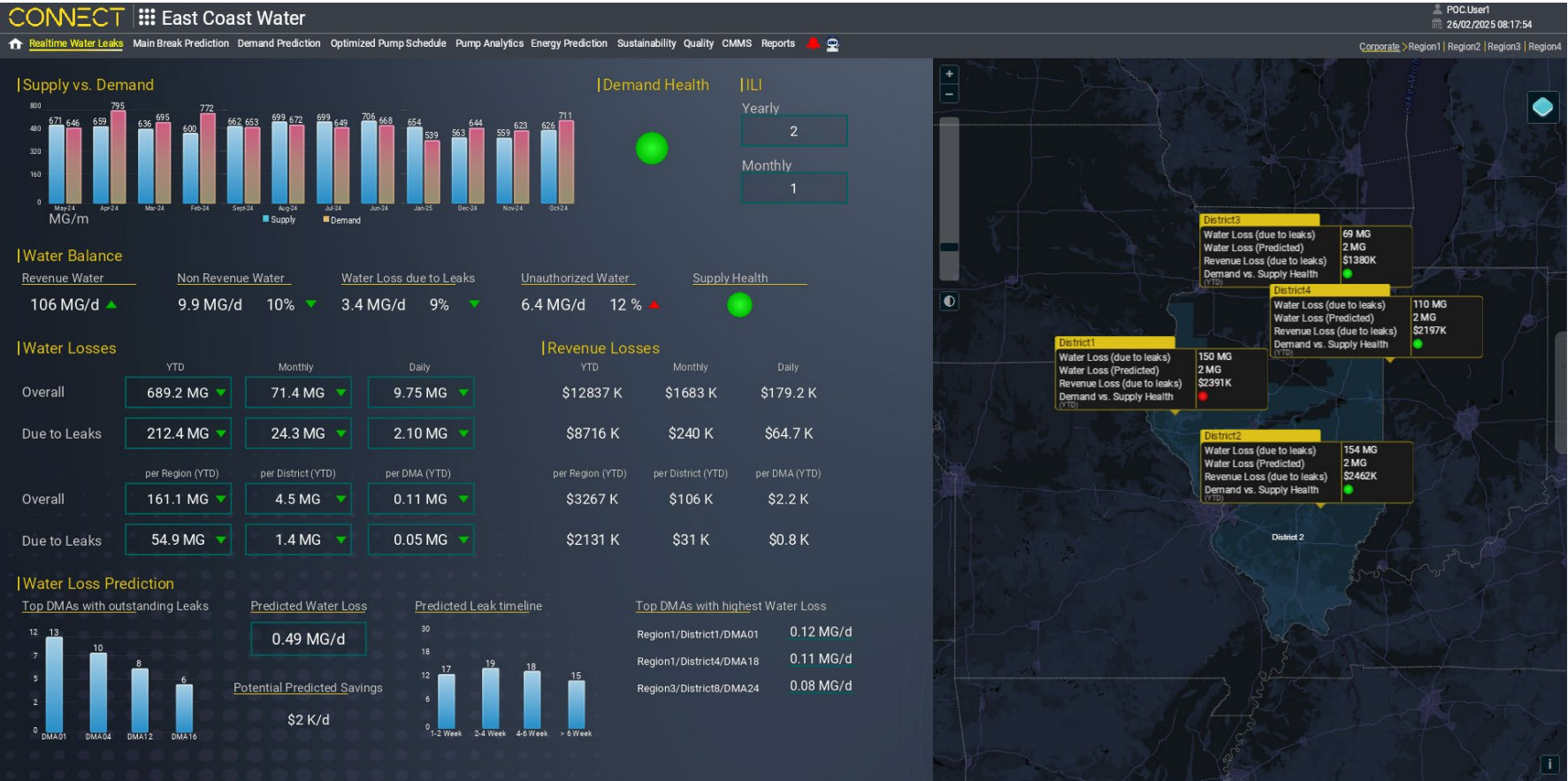
Delivers 70% out-of-the-box functionality with minimal configuration, at 30% of typical implementation costs, within 6-8 weeks (compared to the standard 3-month timeframe), with optional services for additional use cases.

Industry Accelerator for water - Architecture



Industry Accelerator for water

Key Solution Features



Cockpit view of the Entire Water Distribution Network

Interactive Visualization Layer with GIS information

Drill Down Capability to Asset Levels

Integrated Diverse IT/OT Data Sources

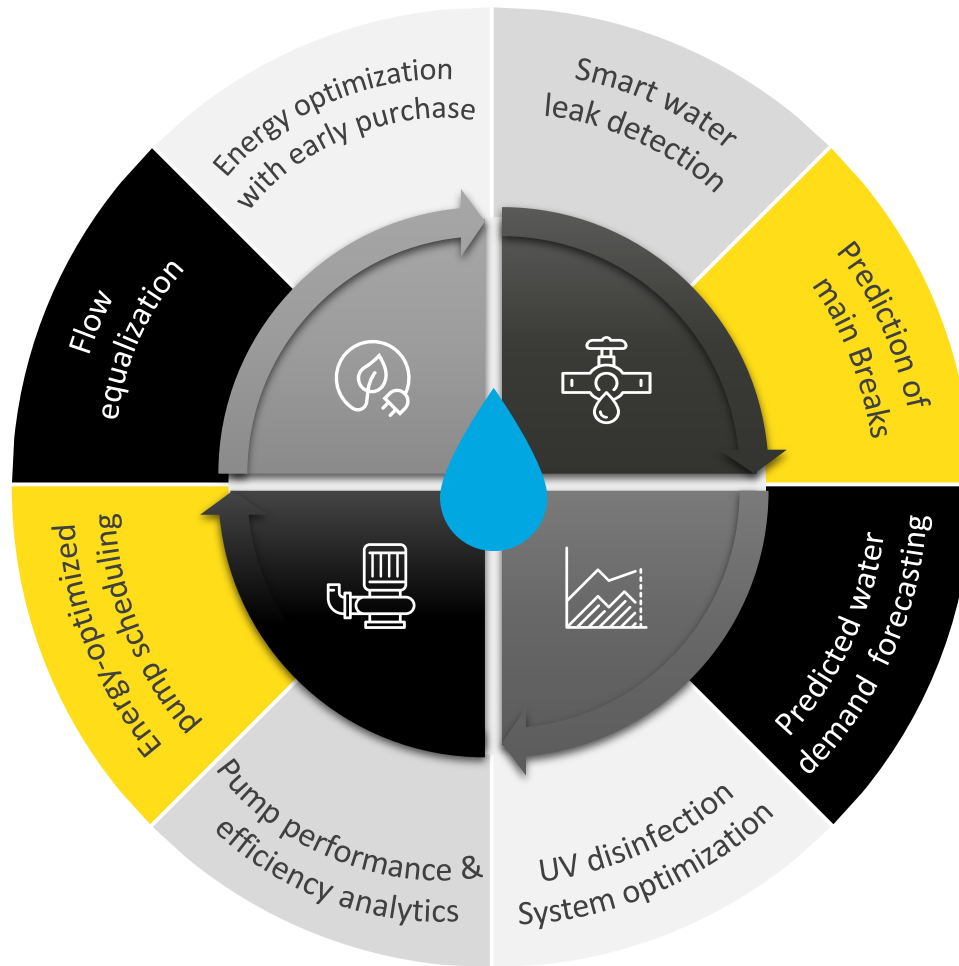
Self-Learning Advanced Analytics (AI) Models

Operational Intelligence and Foster Collaboration

Pre-built Smart Water and Smart Energy Use Cases

Industry Accelerator for water

Efficient water supply and demand, while optimizing energy consumption



Key capabilities

- In the distribution system, detect active water leaks, including leak volumes over time
- Proactively identify and mitigate potential pipeline failures due to corrosion and pressure fluctuations
- Forecast water demand based on historical data and enable demand profile visualization
- Ensure that the most efficient pumps are utilized first, reducing overall operational costs
- Optimize power consumption for operating pumps during off-peak electricity hours
- Optimize pumping schedules by leveraging real-time and historical data
- Predict UV dosage set points during feed flow variations in quality and quantity
- Stabilize flow rates of biological treatment processes during diurnal, seasonal fluctuations, or storm conditions

Industry Accelerator for water

Use cases for smarter water use

Smart water leak detection

1

- Leverage historical and real-time data
- Near real-time infrastructure leakage index (ILI) indicator
- Early leak detection (location & volume)
- Enable corrective maintenance
- Reduce non-revenue water losses
- Minimize supply disruptions
- Improve system reliability
- Focused on distribution meters / DMAs

Main Break Prediction

2

- Leverage historical, real-time data and maintenance data
- AI-driven water main break prediction
- Enable preventive maintenance
- Anomaly detection and identification
- Assist maintenance prioritization
- Improve system reliability

Demand Forecasting

3

- Leverage historical water consumption data
- Generate 7-day demand forecast (AI-powered)
- Support water supply planning
- Enable informed decision making
- Promote efficient water usage

Industry Accelerator for water

Use cases for smarter energy use

Pump Efficiency

4

- Leverage pump design data
- Near real-time pump efficiency metrics such as pump head, flow and pressure data
- Near real-time pump performance monitoring
- Enable predictive maintenance
- Reduce operational costs

Optimized Pump Schedule

5

- Leverage water demand forecast data, predicted energy demand data, near real-time pump efficiency data
- Generate optimized pump schedule
- Enable predictive energy management
- Promote efficient operations and contributes to long-term sustainability

Optimized Early Energy Purchase

6

- Leverage water demand forecast data
- Prediction of energy demand
- Consider various energy tariff rates (peak and off-peak)
- Enable early energy purchase
- Reduce operational cost

Industry Accelerator for water

Use cases for smarter water treatment

Flow Equalization

7

- Leverage historical influent flow, weather data and flow equalization tank levels
- Predicts influent flow rate
- Predicts desired set points and equalization basin levels to maintain steady levels.
- Enhanced Biological process efficiency by maintaining steady flow.
- Cost Saving by energy optimization.

UV disinfection system optimization

8

- Leverage historical Chlorine dose, Coliform its, lab and UV data.
- Enhances better control of the dosage set points during feed flow variations in quality and quantity
- Provides optimum ratio between chlorine and UV dose
- Reduces operational cost through optimum energy consumption and meeting the quality standards

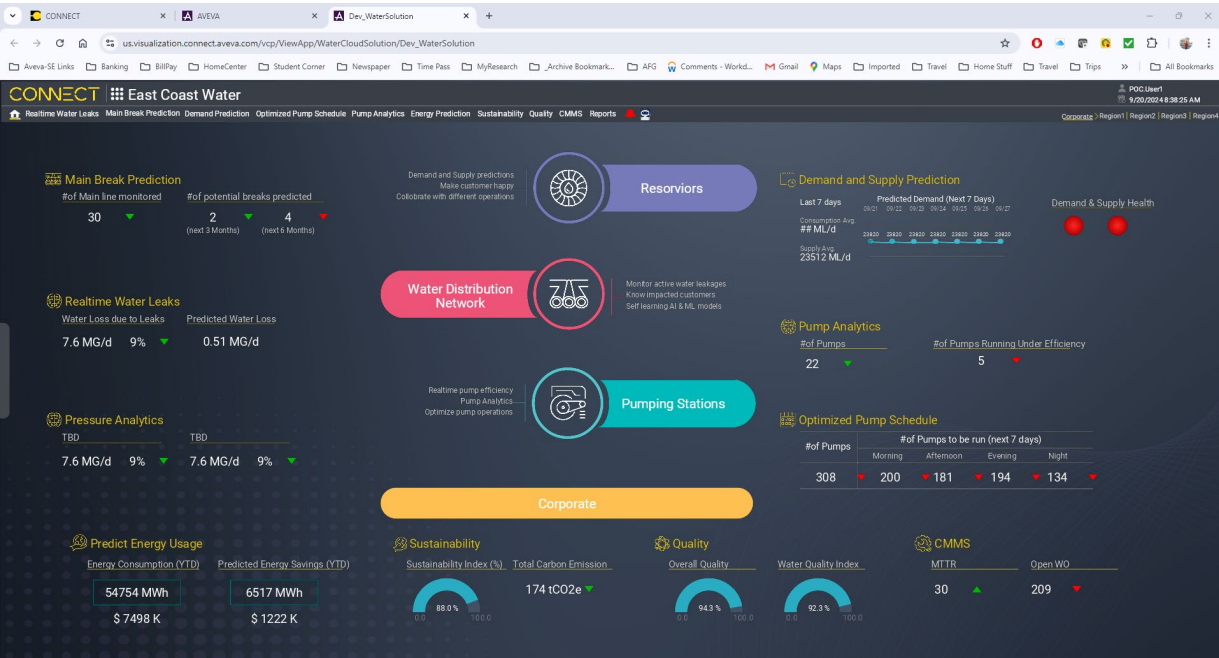
Visualization & Demo

Pre-built Analytics Platform with Industry specific Use Cases

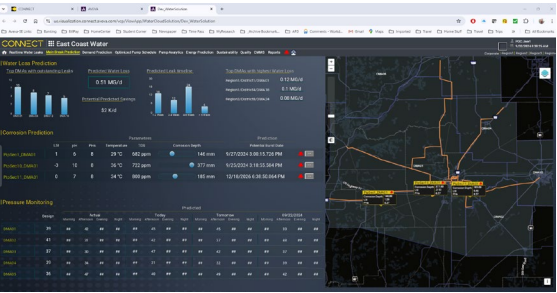


Industry Accelerator for water

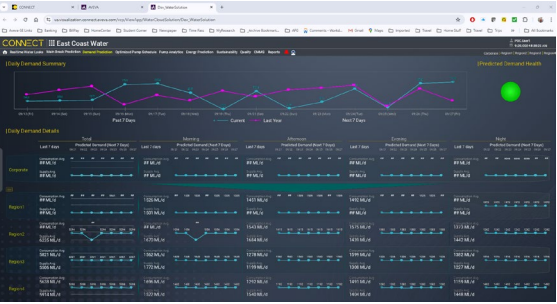
Cockpit View : Summary Analytics View



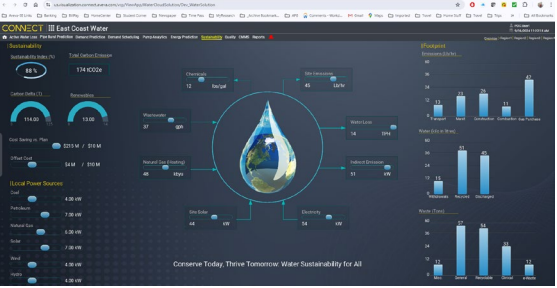
Predicted Main Breaks



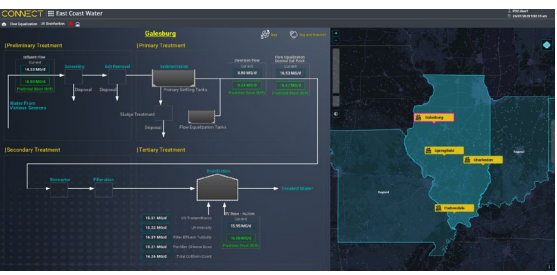
Demand Prediction



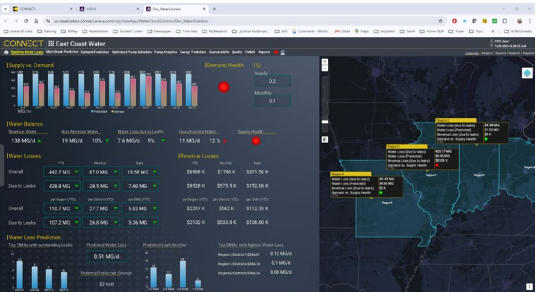
Sustainability



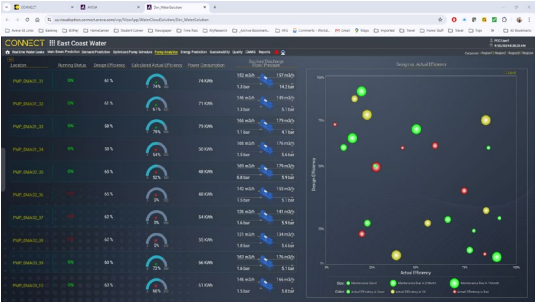
Flow Equalization



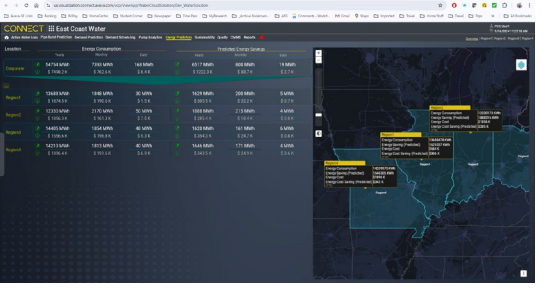
Real-time Water Leaks



Pump Analytics



Energy Prediction



UV dose Prediction



Smart water leak detection

Identify and mitigate leaks early. AI/ML-driven insights pinpoint leak location, volume, and size in near real-time. Aggregated analytics support proactive water loss control and financial accountability.

Prediction of main breaks

Detect potential pipeline failures early. It uses real-time data and predictive analytics to assess asset health and end-of-life risks. This enables a shift to preventive maintenance, improving reliability and safety.

Predicted water demand forecasting

Accurate short-term demand prediction. Advanced analytics forecast daily demand using historical data for up to seven days. Supports proactive supply planning, sustainable water management, and pump scheduling.

Energy-optimized pump scheduling

Enable optimized pump scheduling using demand forecasts, pump efficiency, and energy tariffs. Prioritize pumps and align operations with off-peak hours. Achieve energy savings, supply continuity, and improved reliability.

Pump performance and efficiency analytics

To cut energy and maintenance costs. It calculates real-time pump efficiency using key operational parameters. Helps prioritize efficient pumps, flag underperformers, and support optimized pump scheduling.

Energy optimization with early purchase

It forecasts energy needs using water demand and pump efficiency analytics. Enables early energy purchasing and optimized pump scheduling for better cost and performance.

Water Distribution



Water Treatment



Flow equalization

Enable stable flow to treatment plants by predicting influent with AI/ML. It considers diurnal, seasonal, and storm variations to optimize treatment. Predicts setpoints, reducing manual intervention and enhancing process stability.

UV disinfection system optimization

Enable UV dosage prediction in treatment plants using AI/ML to meet regulatory standards. It optimizes dosage based on changing flow quantity and quality. Reduces manual intervention and ensures consistent water quality.

Conserve Today, Thrive Tomorrow: Sustainability for All



Energy Savings



Corporate

CMMS

Provides insights on maintenance costs, asset performance, and resource use, enabling organizations to spot inefficiencies, optimize strategies, and make decisions that extend equipment life and cut expenses.

Water Quality

Water quality parameter monitoring delivers real-time insights into quality parameters while analyzing long-term trends, enabling compliance, optimized treatment processes, and smarter resource allocation.

Sustainability

Monitoring sustainability parameters in the water industry provides insights on chemical dosing, sludge, and emissions, consolidating metrics for transparent ESG compliance and environmental responsibility.

Resources

CONNECT

EXPERIENCE THE CONNECT EFFECT

Industry Accelerator for water

Domain-specific solutions tailored for specific industrial use cases by our services team

Industry Accelerators are partially configured analytics solutions with visualizations built on CONNECT platform services. They combine several industry use cases to accelerate time to value using CONNECT.

The solution populates analytics models, visualizations, and asset hierarchies with domain-specific asset data and customization options.

The Industry Accelerator for water solution aims to enhance overall business efficiency by monitoring and predicting water supply and demand within the water distribution network, while optimizing energy consumption within available resources and business constraints.

CONNECT III East Coast Water

Supply vs Demand

Water Balance

Revenue Water	138 MGd
Non Revenue Water	19 MGd
Water Losses	7.6 MGd
Unaccounted for Water	11 MGd
Supply Shortfall	12 %

Water Losses

Category	Value	Unit
Overall	442.7 MG	MG
Due to Leaks	426.8 MG	MG
Due to Leaks	28.5 MG	MG
Due to Leaks	116.7 MG	MG
Due to Leaks	107.2 MG	MG

Water Loss Prediction

Top 10 Meters with outstanding leaks	0.51 MGd
Predicted Water Loss	0.51 MGd
Predicted Leaks to be Fixed	0.51 MGd

Map

Industry Accelerator for water use cases

1. **Smart water leak detection:** Actively detect water leaks within the water distribution network, by analyzing historical and real-time flow and pressure data, enabling timely repairs and minimizing water loss. By detecting leaks in real time and providing actionable insights, such as leak location and size, the accelerator helps water utilities proactively address issues before they escalate.

2. **Prediction of main breaks:** Leverage historical maintenance data and real-time flow data, perform predictive analytics (AI) to forecast potential pipeline main breaks, enabling proactive maintenance and minimizing service disruptions for water utilities to reduce water losses and enhance network reliability.

3. **Predicted water demand forecasting:** Using advanced analytics (AI), predict water demand for the next seven days (or any specified period) by leveraging historical data and external factors, ensuring optimal resource allocation and supporting real-time decision-making.

4. **Pump performance and efficiency analytics:** Analyze pump performance data to identify inefficiencies and optimize pump operations. By optimizing pump operations, the accelerator helps water utilities enhance energy optimization and maximize energy savings. Leveraging real-time efficiency data ensures the use of the most efficient pumps first, thereby reducing overall operational costs.

5. **Energy optimization with early purchase:** Using advanced analytics (AI) to predict energy demand enables early energy purchases for assets, ensuring cost savings from off-peak operation and efficient energy management.

6. **Energy-optimized pump scheduling:** Create an optimized pumping schedule by leveraging real-time and historical data to prioritize required high-efficiency pumps and perform early energy purchases for predicted demand.

7. **UV optimization:** Utilize AI/ML technology and historical data to predict the optimal UV dosage needed for water disinfection. This reduces operational costs through increased energy efficiency and reduced manual adjustments while still ensuring regulatory compliance.

8. **Flow equalization:** Leverage historical weather data to help water treatment plants maintain consistent flow rates, regardless of weather conditions. This enhances biological process efficiency, predicts and manages peak flows during storms, and allows for significant energy and cost savings.

Learn more about CONNECT, visit:
aveva.com/connect

Resources Available:

Overview : [Link](#)

Brochure : [Link](#)

Additional resources available on request:

- Service Profile Document
- Presentation Overview Slides

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Success Stories

LACSD, Power and Water



LACSD utilizes CONNECT to leverage data and optimize treatment at their Valencia Water Reclamation Plant

Challenge

- Find relationships in existing historical data from AVEVA PI System to model and optimize treatment processes at the Valencia Water Reclamation Plant.
 - Use case #1:** Flow Equalization Basins (FEB) help maintain a stable flow going into the secondary treatment (biological) process and store excess flow during storm conditions. Currently, Operators manually calculate a flow setpoint.
 - Use case #2:** Ultraviolet Light Disinfection (UV) treats plant effluent before river discharge. Currently, UV dose is based on daily coliform lab results that are received the next day.

Solution

- Leverage data from on-premises AVEVA PI System as inputs to the CONNECT industrial intelligence platform, applying the Industry Accelerator for Water and Advanced Analytics to find correlations and create AI/ML models to provide setpoint recommendations for each use case.
- The solutions are managed from the cloud, separate from on-site SCADA and the plant's treatment processes. The AI/ML models provide recommendations to help Operators with decision-making.

Results

- Employing semi-automated and repeatable methodologies, CONNECT identifies data patterns to formulate suggested recommendations for Operators to determine the best courses of action.
- The FEB model recommends a flow setpoint based on diurnal and seasonal/weather fluctuations to maintain steady flow and loading into the aeration tanks.
- The UV model predicts coliform hit events based on process and water quality relationships, acting as an early warning sign, and recommends a UV dose to preemptively avoid the hit altogether.



Power and Water Corporation turns operational visibility into resilience for remote water services

Challenge

- Limited real-time visibility across widely distributed water and wastewater assets serving remote communities
- Delays in detecting issues and assessing asset and smart meter health at scale
- Heavy reliance on field inspections and individual expertise in geographically dispersed operations

Solution

- Power and Water Corporation extended its existing AVEVA™ PI System™ with AVEVA™ PI Data Infrastructure and CONNECT to scale governed water and smart meter insight beyond site boundaries and support reliable remote operations.

Results

- **Improved visibility into water assets and smart meter health across remote networks**
- **Enabled faster issue identification and more targeted maintenance decisions**
- **Reduced reliance on individual expertise by embedding operational knowledge in shared, trusted and governed data available centrally and in near real time**
- **Established scalable foundation for future predictive and advanced use cases**



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ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

Learn more at www.aveva.com