

The background of the image is a deep purple with a network of glowing, intersecting lines in shades of cyan and magenta, creating a diamond-like pattern. The text is centered in the middle of the image.

AVEVAWORLD

ACCELERATE INDUSTRIAL INTELLIGENCE

AVEVA WORLD MILAN, MAY 2026

Connected Water

Accelerating sustainability with AI-driven insights

Power and Water Corporation

A2A

AVEVA

Panel

Your Panelists



Norah Thompson

Specialist ICT (SCADA)

Power and Water Corporation

Norah has worked at Power and Water Corporation since early 2000 in several roles focussed on data quality and information management.



Maura Malgaretti

Waste water process engineer

A2A

Maura is an environmental engineer with a PhD from the University of Strathclyde in Glasgow. She's been with A2A since 2017 and in 2026, she was appointed Head of Processes, Development, Safety, and Environmental Permits for the operational functions of sewer networks and wastewater treatment. In this role, she oversees process performance, drives innovation initiatives, and ensures full regulatory compliance across operations.





A Move to PI Data Infrastructure

Exploring PI in the Sky

Norah Thompson, Specialist ICT (SCADA)

powerwater.com.au



Power and Water Corporation – Who we are, 4 service utility

Service area map



What we do

Water and wastewater

We provide water and wastewater services to urban and remote customers across the Northern Territory. We manage ground and surface water supplies, and wastewater treatment plants as well as water and sewerage pipelines.

[Learn more](#)

Power networks and distribution

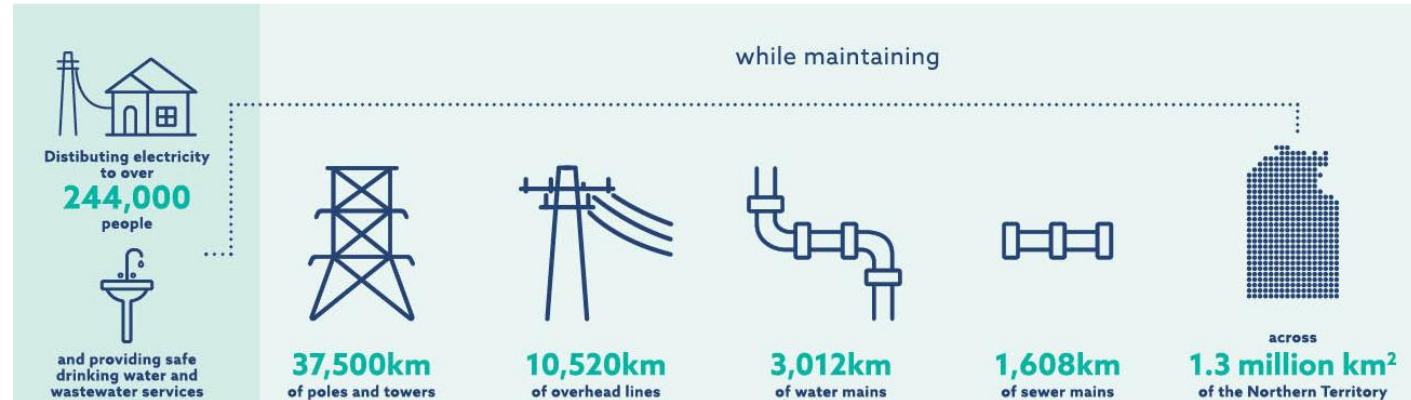
In most major centres, we distribute electricity through the power networks we maintain, from the wires to the meters. This power is then sold to customers by their selected energy retailer.

[Learn more](#)

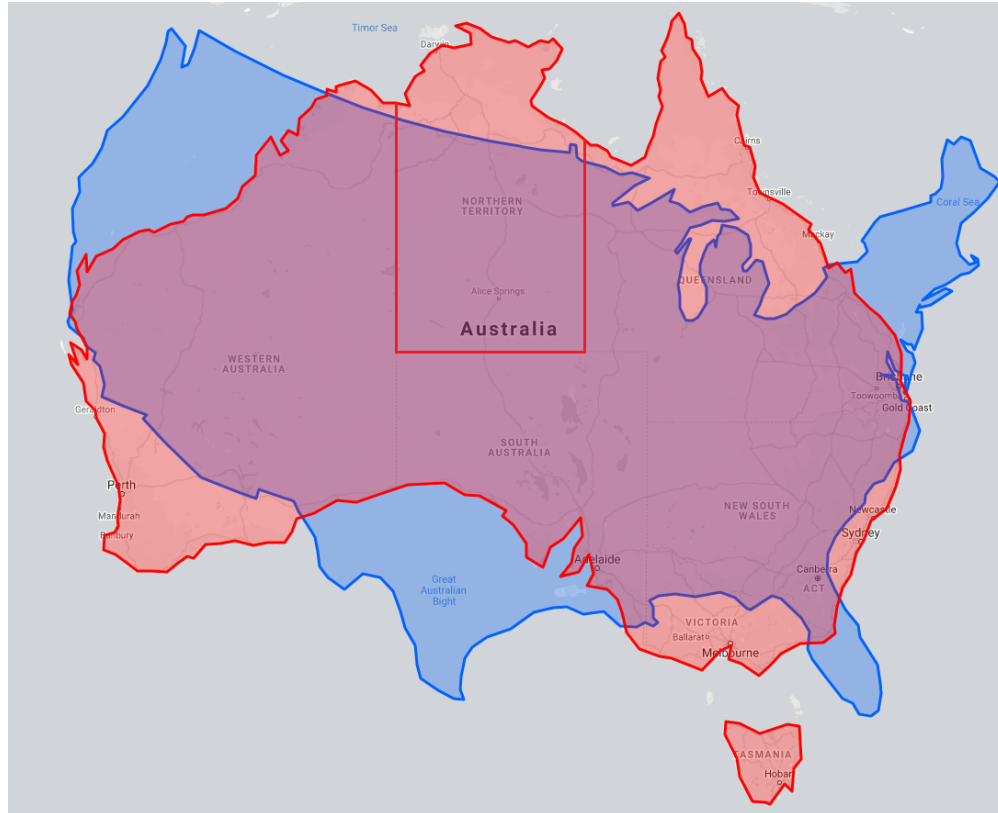
Serving remote customers

Power and Water supplies electricity, water and sewerage services in 72 remote communities. Unlike urban centres, in remote areas we generate, distribute and retail power.

[Learn more](#)



Power and Water Corporation – Where we are



To-Scale Comparison: Northern Territory (Australia) vs. Europe



Remote work hazards





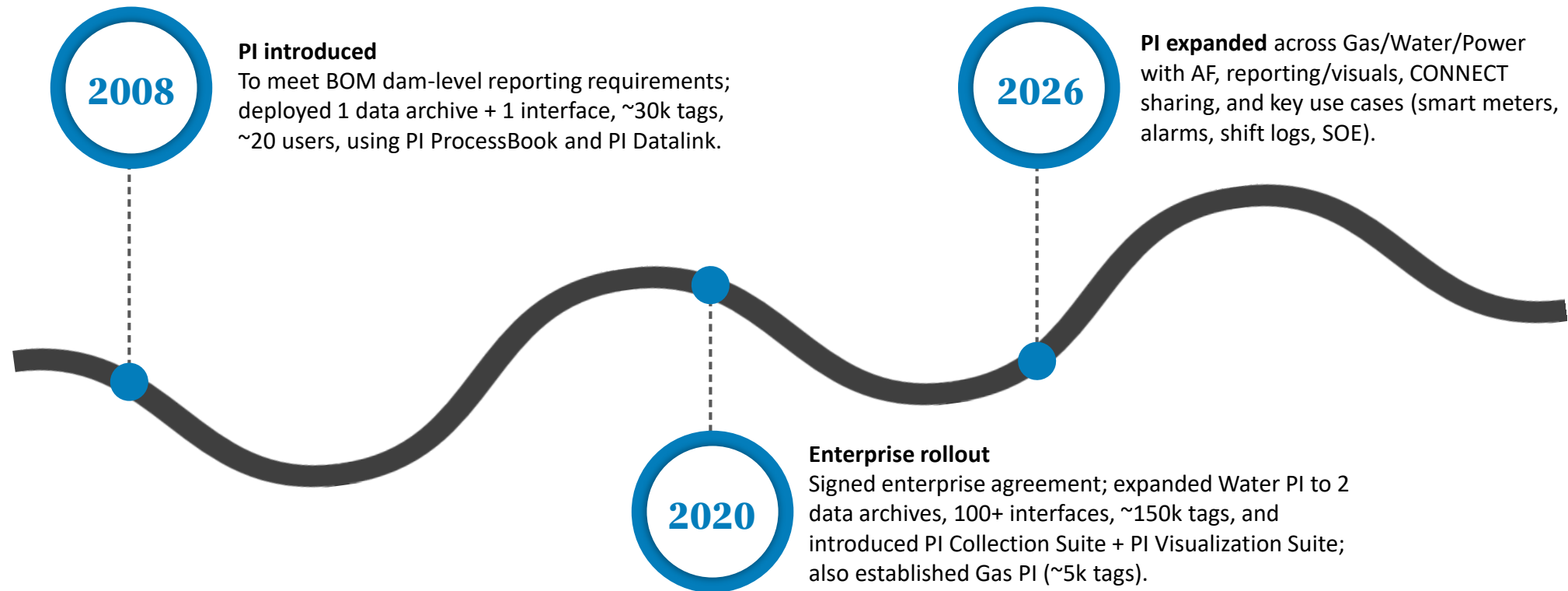


Find the meter

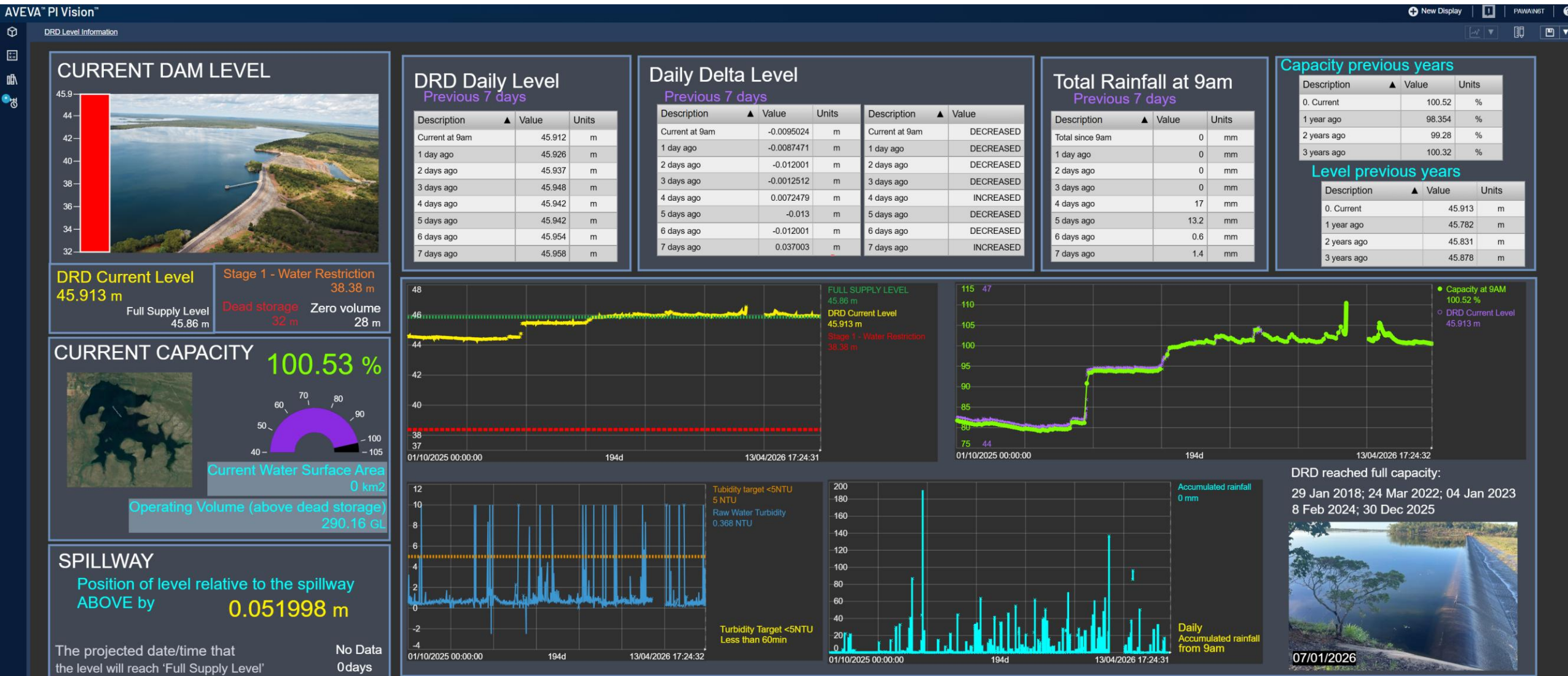


Power and Water PI Journey

“Once you actualize, you will never go back!”



Water PI Journey



Darwin River Dam March 9 2026



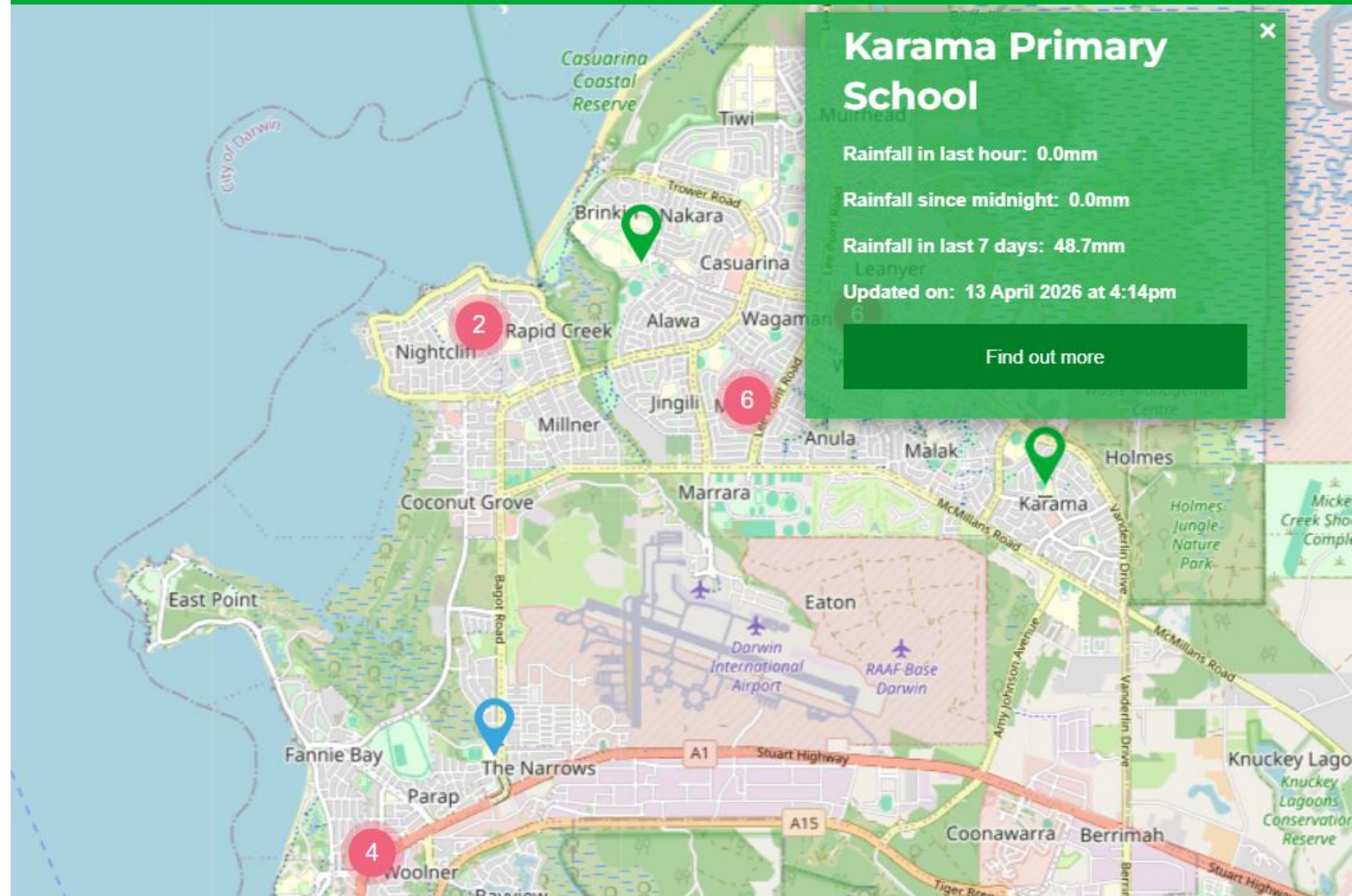
Lighthouse

Challenge

Luxury of Time

Culture

your suburb has had more than 30 mm of rain in the last week and you can turn your irrigation off for a co



Weather Web Integration

CONNECT Use Case

Challenge

The internally developed weather application operates in isolation from operational systems, limiting timely access to weather data and reducing the ability to generate actionable insights for irrigation decisions.

Objective

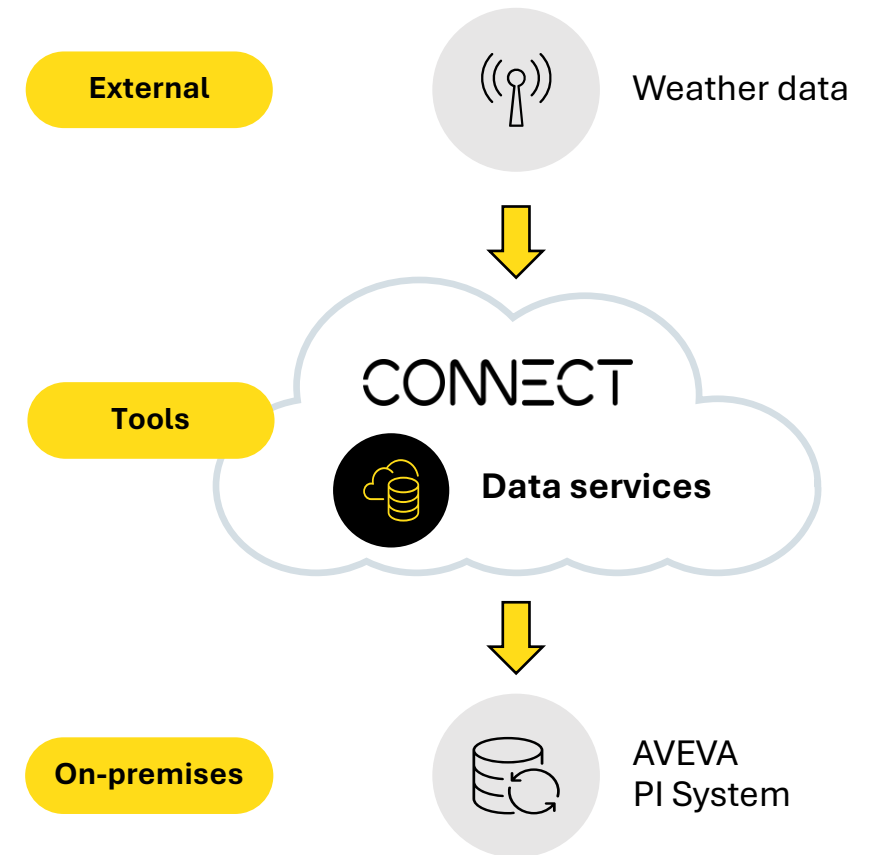
Bring externally hosted weather data into P&W's enterprise platform to enable timely, data-driven irrigation notifications to improve customer engagement and water conservation outcomes.

Proposed Solution

Leverage CONNECT to integrate externally hosted Weather Web data and use the PI to CONNECT adaptor to securely bring data into the on-premises PI System in near real-time, enabling centralized data access and downstream analytics.

Future Plan

Extend the platform to include a broader network of residential weather stations, increasing data density and improving accuracy



Water Demand Forecasting

Industry Accelerator for water Lighthouse

Challenge

Unreliable smart metering and telemetry limit consumption visibility, while event-driven population surges complicate demand planning in remote communities.

Objective

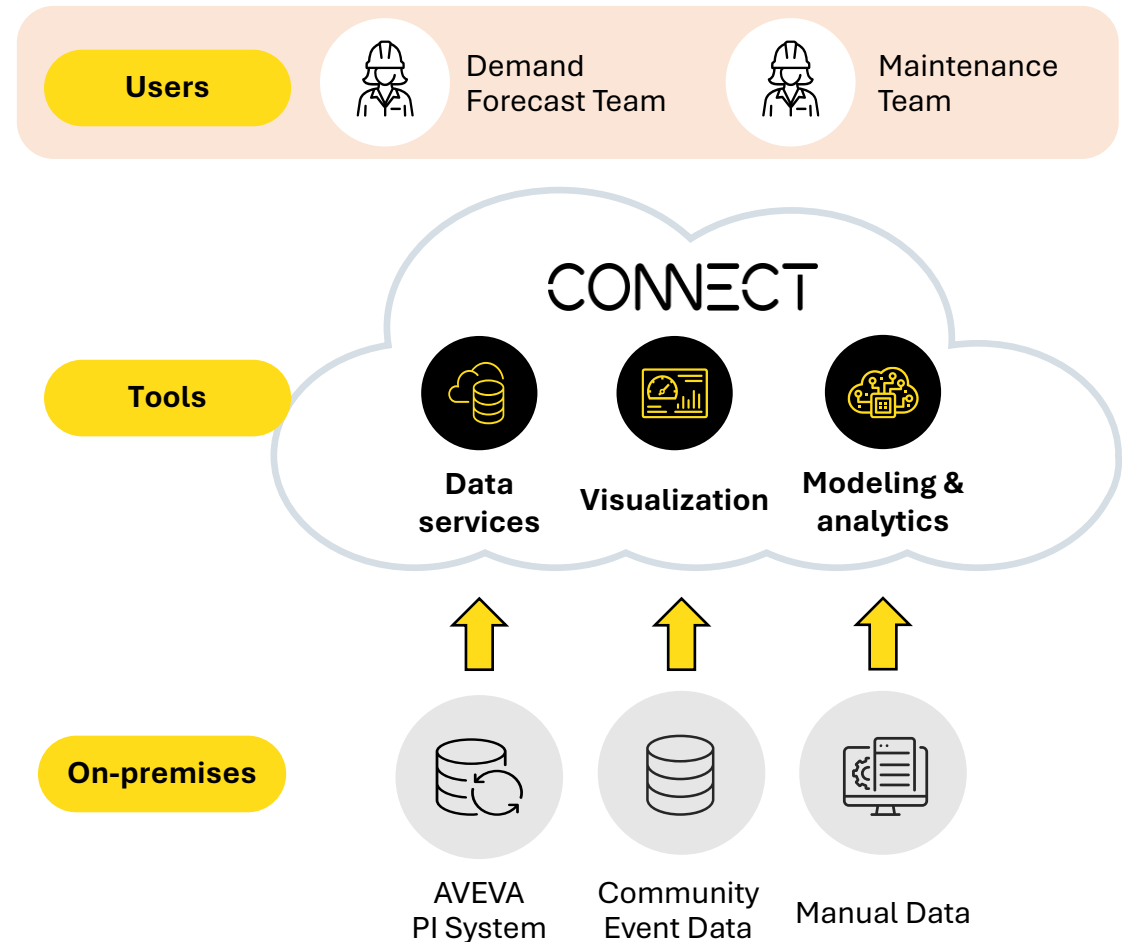
Use AI/ML to combine real-time and manual data to improve forecasting, planning, and operational efficiency.

Solution

Integrate smart meter, event, and bulk flow data into CONNECT using AVEVA's *Industry Accelerator for Water*, enabling data validation, predictive modelling, and near real-time monitoring.

Progress & Findings

Initial analysis has begun to quantify meter data quality, with statistical deviations and dataset behaviors explored and grouped into events, enabling data visibility and supporting early-stage modelling. This would also help identify more reliable meters for reporting when extended across remote communities.



Meter Health Monitoring

Industry Accelerator for water Lighthouse

Challenge

Smart meter data can be unreliable (zeros, abnormal flow, or missing data), limiting confidence in consumption visibility and requiring manual investigation across a large meter fleet.

Objective

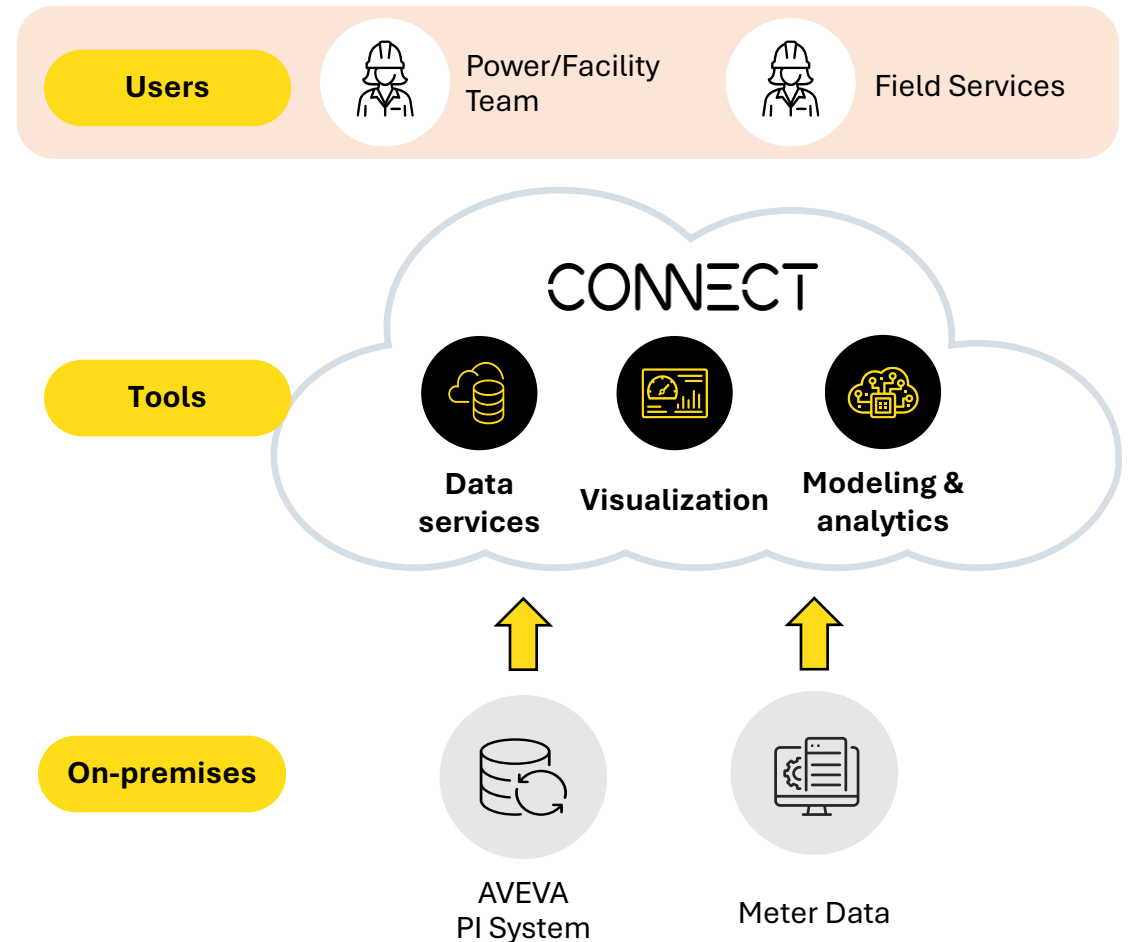
Provide a consistent meter-health view and history so teams can quickly detect, triage, and track leak/no-flow/no-data conditions and improve reporting reliability.

Solution

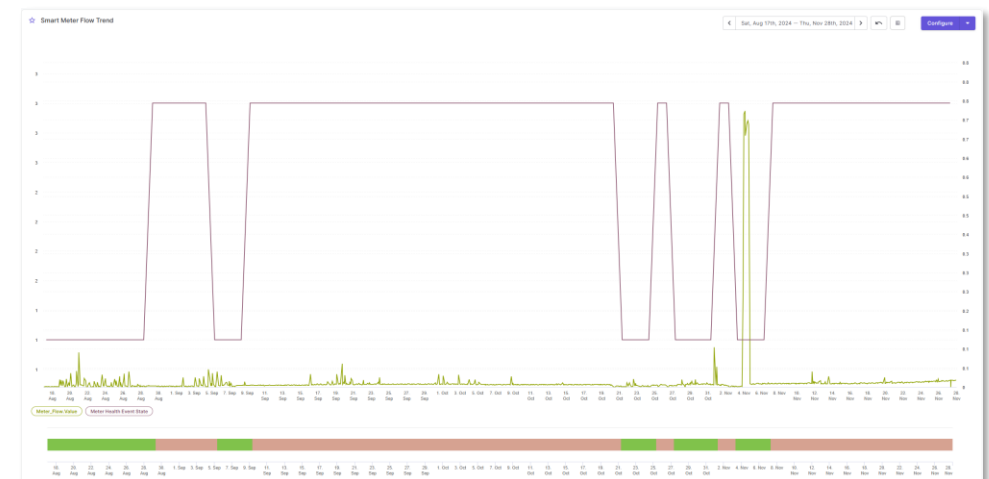
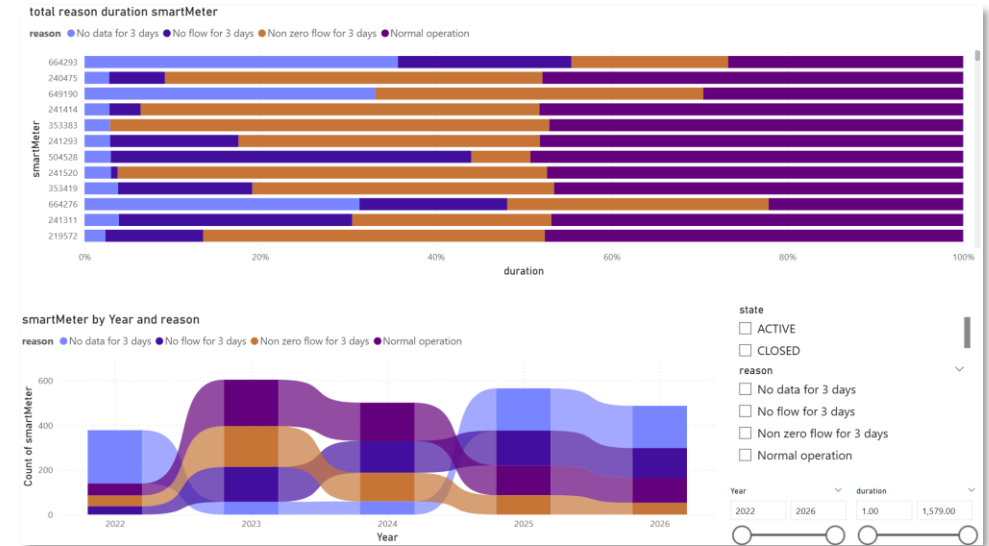
With AVEVA's *Industry Accelerator for Water*, creating smart meter twins from a shared class and run a single class-level health thread that assigns standard health states and triggers priority-based alerts.

Progress & Findings

Scaled from a single-meter demo to ~246 meters, with active alerts and trended health states improving visibility into problematic meters and supporting identification of reliable meters for reporting.



Role based data and visualization access



How do we find leaks?



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**



Thank you

Questions and Croc stories

A2A. Life Company



We are a **Life Company**: we put life at the heart of everything that we do, for us and future generations.

Our technology and our infrastructures are at the service of **people** and of the protection of **nature**, so we work every day to **regenerate** the potential of every resource.

We promote energy from renewable sources, and we accelerate **decarbonisation**, promoting **electrification of consumption**.

We build a virtuous water cycle to save every drop.

We turn waste into resources so that all waste can become new **material**, **energy** and **heat**.

Our vision looks forward.

We build our **future today**, acting, **consciously**.

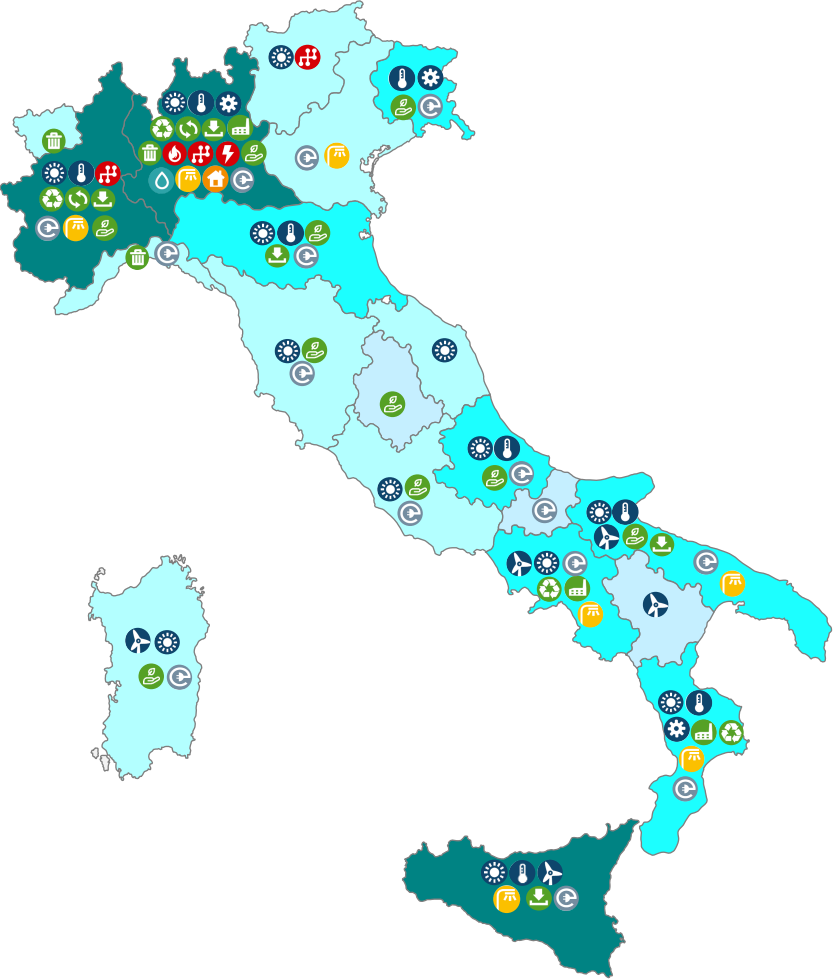
Where A2A is and what it does

Plants

- | | | |
|---|---|---|
|  Wind |  Waste treatment |  Bioenergy |
|  Solar |  Material recovery | |
|  Thermoelectric |  Waste-to-Energy | |
|  Hydroelectric |  Landfill | |

Services

- | | |
|---|--|
|  Gas transport |  Public lighting |
|  Electricity distribution |  Integrated water services |
|  Gas distribution |  Recharge stations E-mobility |
|  Waste collection |  District Heating |



This is me

BSc Environmental Engineering

“Testing a filter of animal bones ashes for fluoride removal from groundwater in **SENEGAL**”.

Polytechnic University of
Madrid
Exchange Erasmus
program

MSc Environmental Engineering

“Contamination of Ayurvedic products: heavy metals in water and medicines in Chhattisgarh-**INDIA**”.

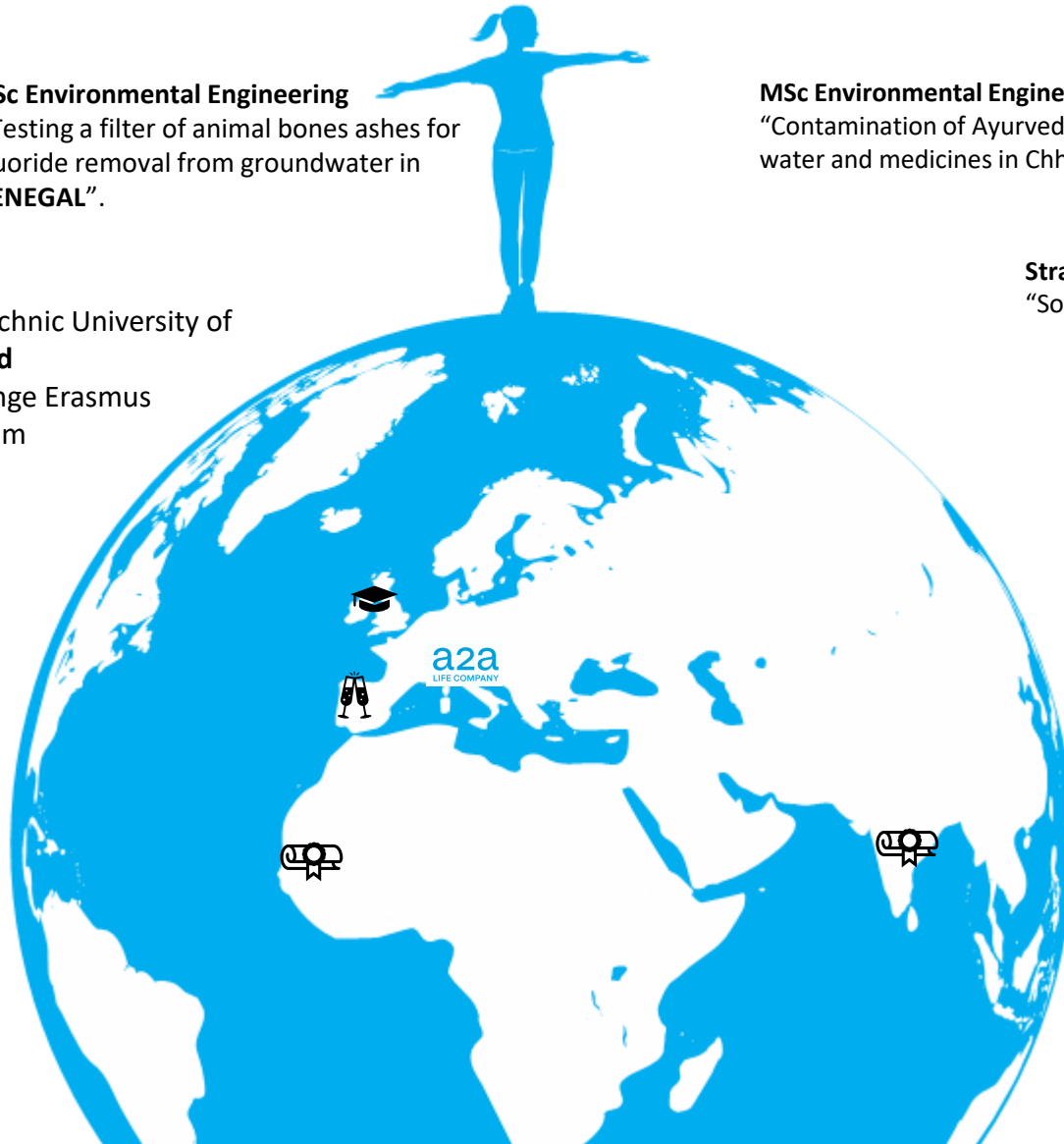
Strathclyde University – PhD degree

“Sorption and mobility of brominated flame retardant in soil»

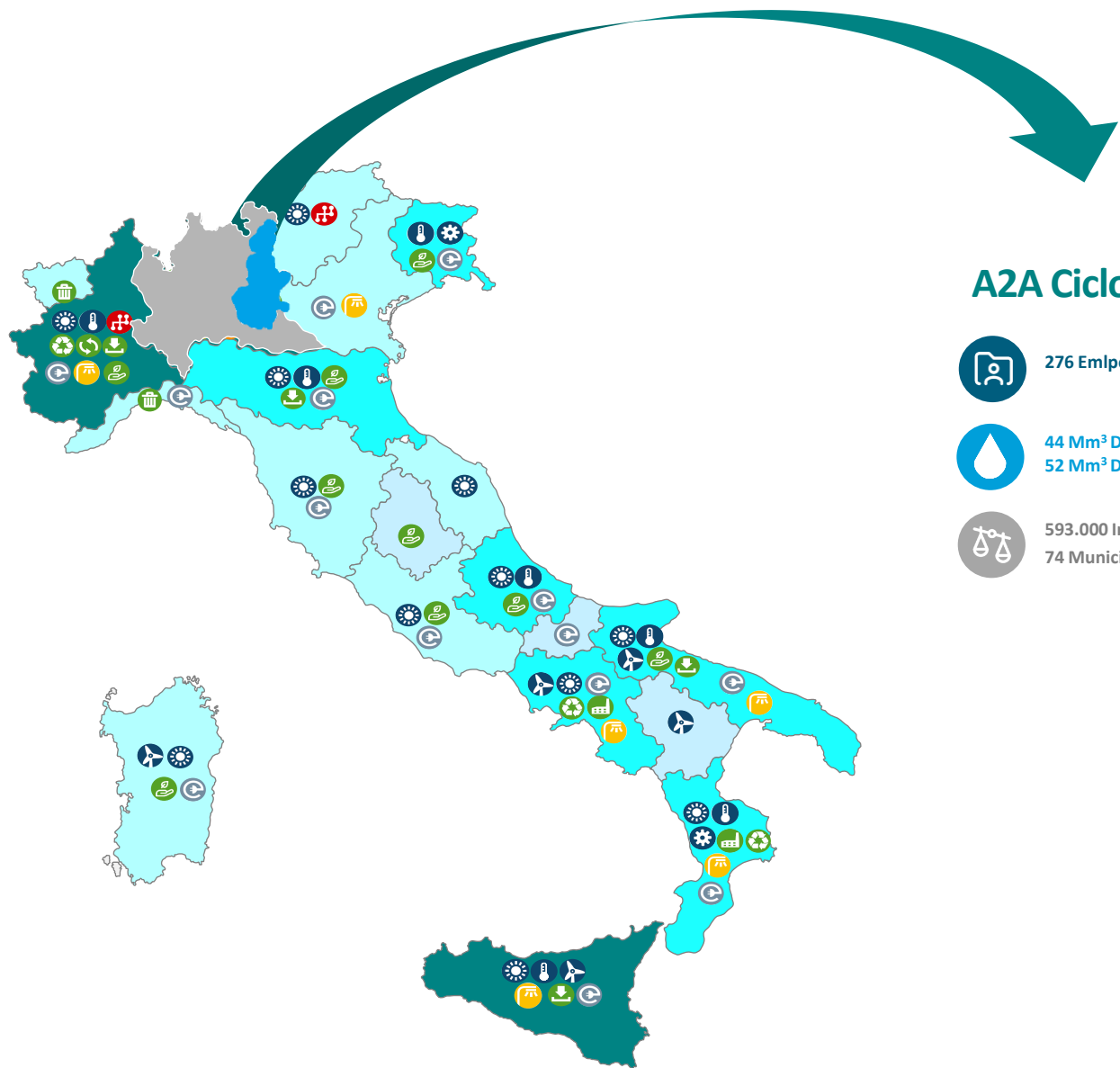
A2A Ciclo Idrico – Senior process engineer

8 process engineer and innovation for WWTPs.

A2A Ciclo Idrico – Head of division in support to WWTP and sewage network system management.



A2A and me. Where we met



A2A Ciclo Idrico



276 Employees



44 Mm³ Distributed Water
52 Mm³ Distributed Water



593.000 Inhabitants served
74 Municipalities

3600 km of drinking water network

354 water sources

50 drinking water plants

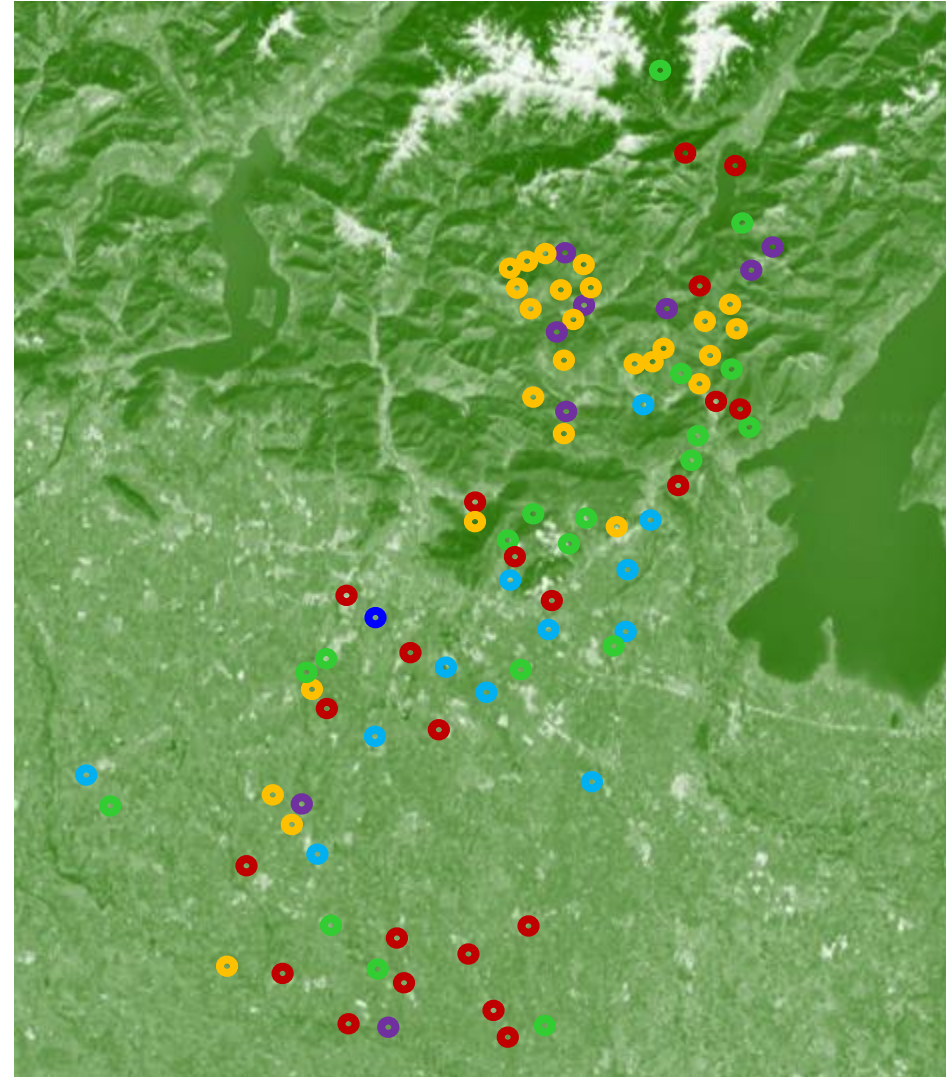
2300 km of sewage network

200 Sewage Pumping stations

53 WWTPs

About WWTP

- 53 WWTP plants
- Biological process
- Laboratory data = discrete data
- On line data = continuous data
- Daily-weekly-seasonly variations



About WWTP



PI DA Data to acquire data from multiple data sources (SCADA, Oracle, etc)



Asset Framework and Analytics:

- Digital shadow plant
- Calculate KPI
- Generating Events



PI Vision Real Time Visualization



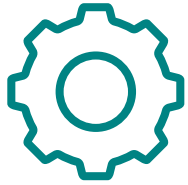
Custom APP for data acquisition



Data elaboration and report



Strategy for improving our operations



Challenge

- Collect and historize information from different sources
- Improved manual data acquisition
- Create automatic data analysis & e-mail alerts



Solution

- DBs connection and organic AF
- Mobile app @Work
- Customised PI Vision Widgets and PI datalink files



Benefits

TIME SAVED: 20 hours per month

Gain in **MONITORING QUALITY**

Next steps

- Synthetic KPI
- Energy balance and specific consumption calculation
- Mass balance and emission of climate-changing gas associated

This presentation may include predictions, estimates, intentions, beliefs and other statements that are or may be construed as being forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could result in actual outcomes differing materially from those projected in these statements. No statement contained herein constitutes a commitment by AVEVA to perform any particular action or to deliver any particular product or product features. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation.

The Company shall not be obliged to disclose any revision to these forward-looking statements to reflect events or circumstances occurring after the date on which they are made or to reflect the occurrence of future events.

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 [@avevagroup](https://twitter.com/avevagroup)

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