15-16 MAY 2025

AVEVA DAY

BRISBANE

The Industrial Intelligence Event 2025

AVEVA DAY

BRISBANE

Acknowledgement of Country

We would like to begin by acknowledging the Traditional Owners and Custodians of the land on which we meet today, the Turrbal and Yuggera people.

"River Dreaming" (inspired by the Brisbane River)
by proud artist Kulkarawa Meeanjinu

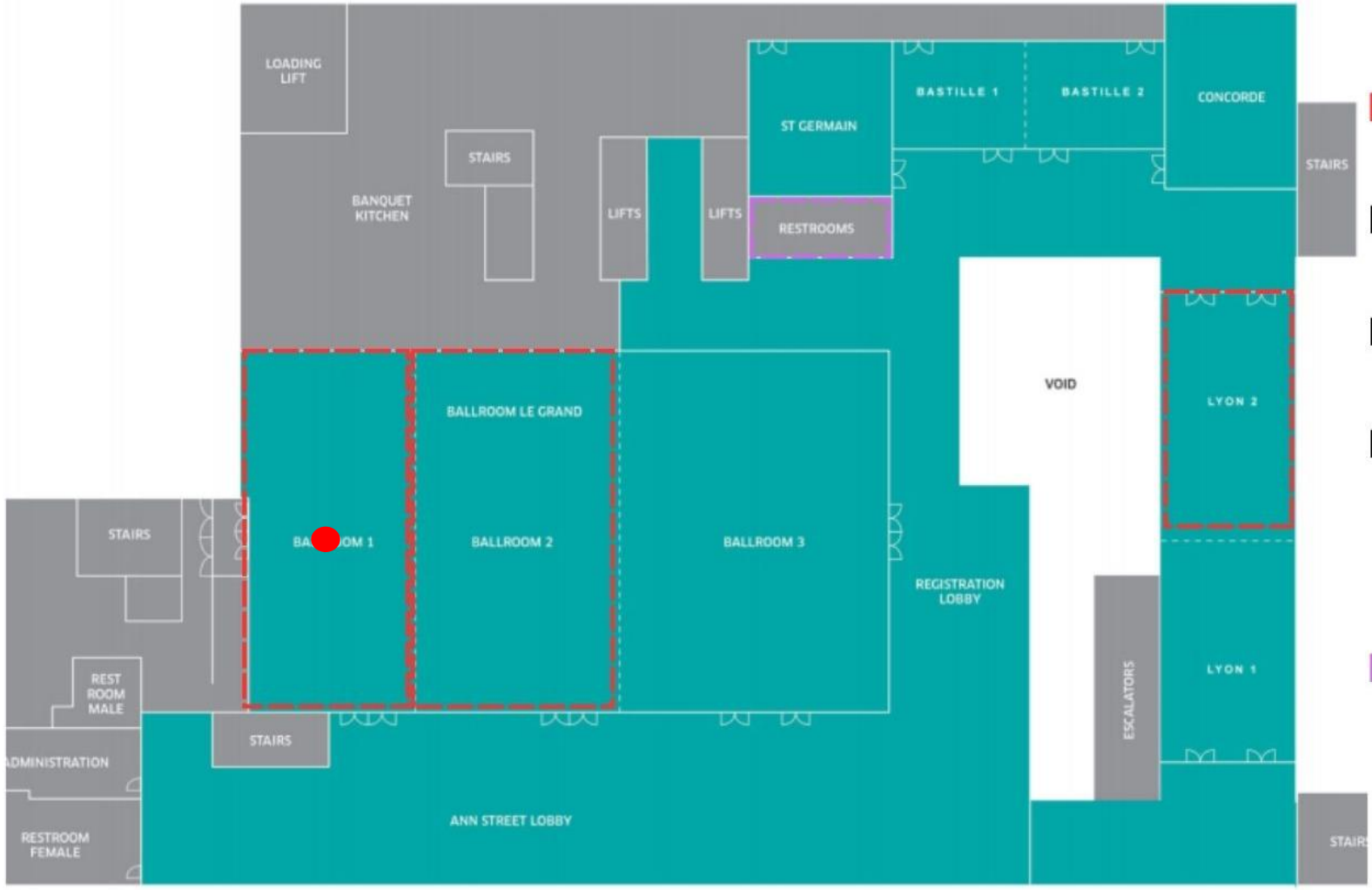
AVEVA

Housekeeping

Wi-Fi
Name: ACCOR
Password: AVEVA25

Parking
$50 reduced rate
On sighting of lanyard

AVEVA DAY



Industry User Group Sessions

Ballroom 1 - Power & Utilities

Ballroom 2 - Mining, Minerals & Metals

Lyon 2 - Energy (Oil & Gas)

Restrooms

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Day 1: User Group – Power & Utilities

Power Lead: Kevin Walsh – 2h30, 9-11:30am Presales: Daniel

Timing	Topic	Speaker	Support Needed
8.30am	Registration / arrival		
9am-9.05am	Introduction to the Power User Group / Welcome	Kevin	
9:05 – 9:45am	**Presentation #1:** What is the latest, Industry Trends and the Future	Kevin	
9:45-10:10am	**Topic #1** AVEVA In Water	KPW/Dan/Shelly	
10:10-10.30am	Morning tea break (in room)		
10.30-11:00am	**Topic #2:** CS Energy – Battery integration	Raju Tiwari	Brisbane – CS Energy
11:00 – 11:05am	Conversation	Kevin	
11.05-11.30am	Q&A – feedback	Kevin	

Connect your

INDUSTRIAL LIFECYCLE

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Digitalization
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The evolution of industrial software is driving a data revolution

Computers
1960s

Programmable

Robotic Process Automation
1980s

Automated

Software and Internet of Everything
2000s

Digitalized

Cloud and Subscription
2010s

Networked

Data Analytics & AI
2020s

Intelligent

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147 zettabytes
of industrial data per year
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How much data created in a day

Connecting people to that data is key to success

40% of global organizations will have an ecosystem platform by 2025

7+% higher growth for companies who advance in their digital transformation journey

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Integrated value chain can be challenging

Information silos

Inconsistent data

Need to predict outcomes

Difficulty understanding multi-site performance

Limited virtual and remote collaboration

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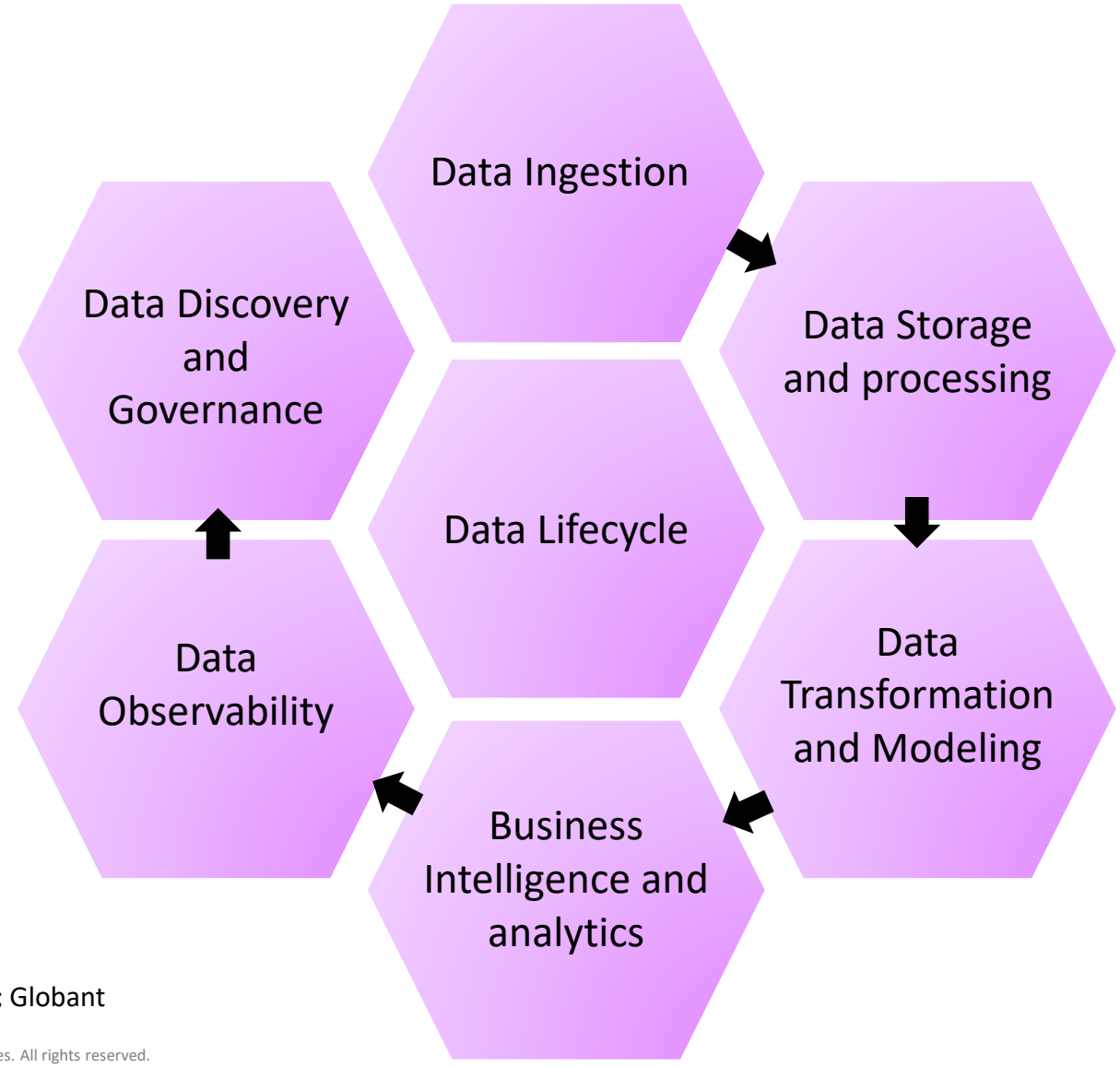
While building a data platform, it’s important to account for six foundational, interconnected layers:



Source: The need for data observability; Globant


Imagine
the next evolution of industry
AVEVA

Design Build Operate Optimize

CONNECT

Intelligence platform for the connected industrial economy

Seamless experience

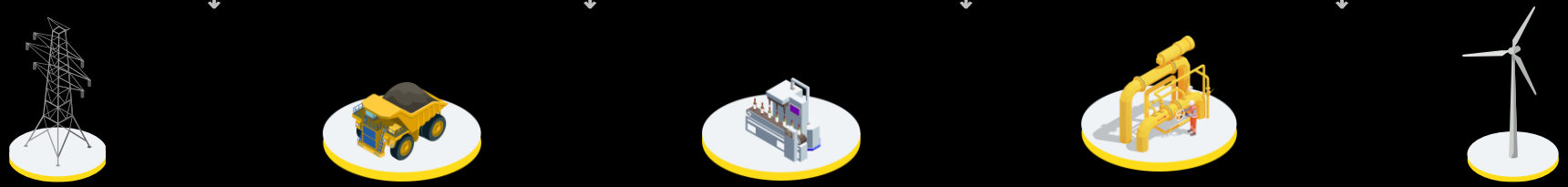
Applications and analytics

Design | Build | Operate | Optimize

Information

Engineering information ⟷ Operations information

Assets and devices



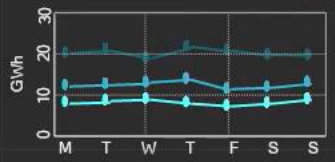
Ecosystem of developers and partners

Total Generation (YTD)

Solar	5 TWh	(17%)
Wind	8 TWh	(27%)
Hydrogen	7 TWh	(23%)
Coal	2 TWh	(7%)
Gas	5 TWh	(1
Nuclear	3 TWh	(1

Renewable

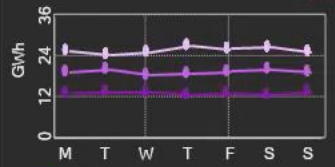
Yesterday
24.7 GWh



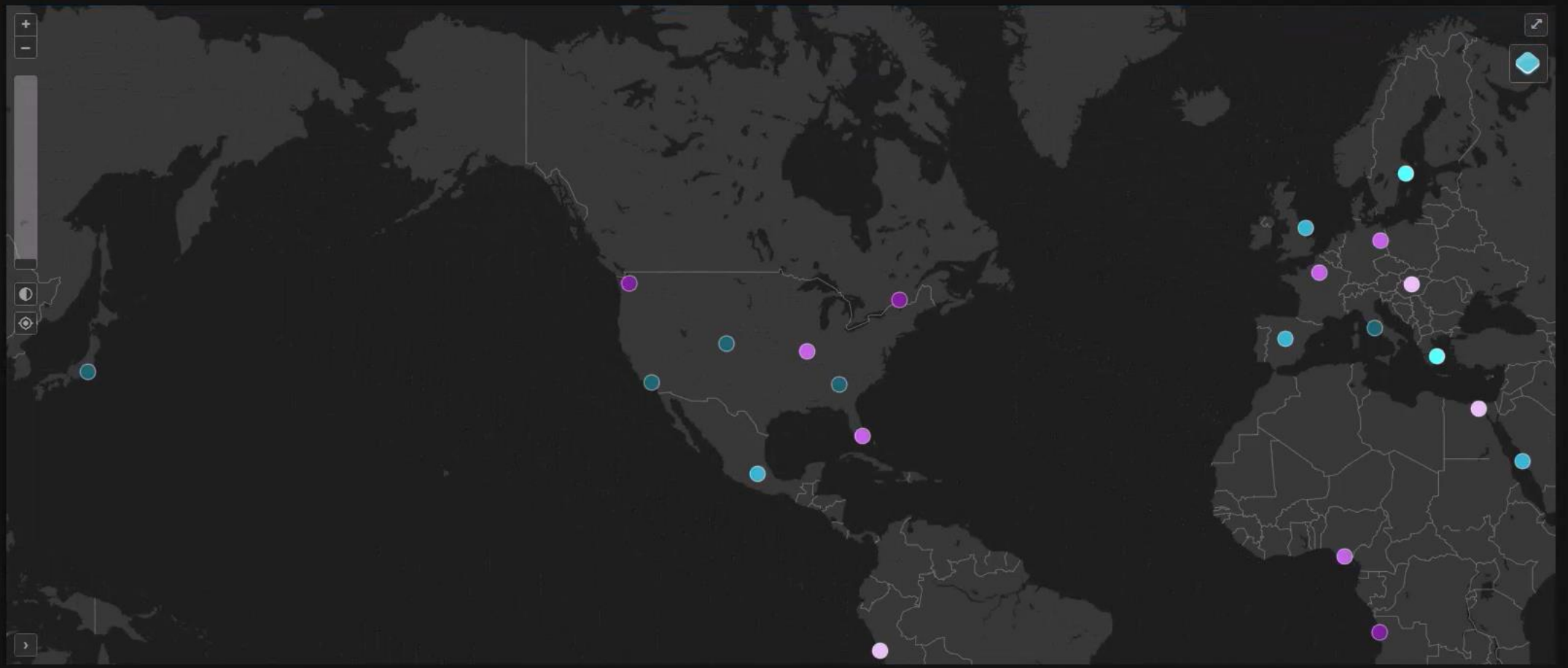
Solar
Wind
Hydrogen

Non Renewable

Yesterday
29 GWh

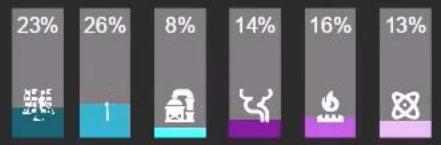


Coal
Gas
Nuclear

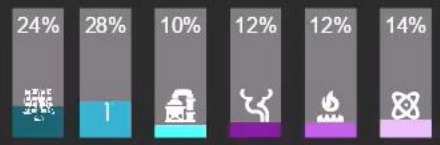


Selected KPI None Clustering (Size based on count) Solar Wind Hydrogen Coal Gas Nuclear

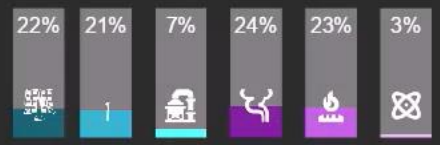
Americas 3.94 TWh



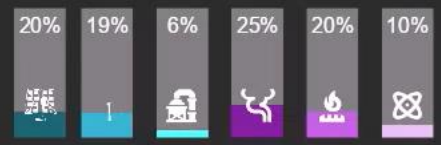
Europe 3.16 TWh



Asia Pacific 2.87 TWh



Middle East and Africa 2.1 TWh



Home | Operations | Maintenance | Forecasting | Revenue | Collaboration

AVEVA

Home
Assets
Lists
Content
Dashboards
Applications
Settings
Recently Viewed

COLLAPSE

Hornsea Performance

Edit

Actual vs Expected Power

10/12/2023 12:00:00 am - 10/12/2023 10:00:34 am

Turbine Summary

10/12/2023 12:00:00 am - 10/12/2023 10:00:34 am

	CURRENT VALUE
Turbines in Normal Operation	9
Turbines in Low Wind	0
Turbines in Auto Stop	12
Turbines in Curtailment	0

Wind Speed

Utilization TIme Line

10/12/2023 12:00:00 am - 10/12/2023 10:00:34 am

Utilization Summary

10/12/2023 12:00:00 am - 10/12/2023 10:00:34 am

Equivalent Availability MTD

43.96
%

30D 7D 3D YESTERDAY TODAY 12H 1H CUSTOM


Imagine
the next evolution of industry
AVEVA

Deep customer relationships drive our innovations

CHEMICALS

49
of top 50 chemicals producers

FOOD, BEVERAGE AND CPG

All 25
of the top 25 F&B and CPG companies

INFRASTRUCTURE

3,500+
customers

MARINE

The world's
10
largest shipyards

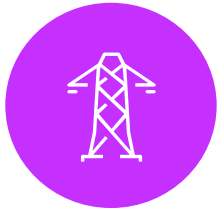
MINING & METALS

10
of the top ten leading mining & metals companies

ENERGY

75%
of daily oil, natural gas & liquids throughput

POWER



1,000+
power plants

MANUFACTURING

16,000+
manufacturing sites and smart factories

WATER AND WASTEWATER

1,400+
water customers

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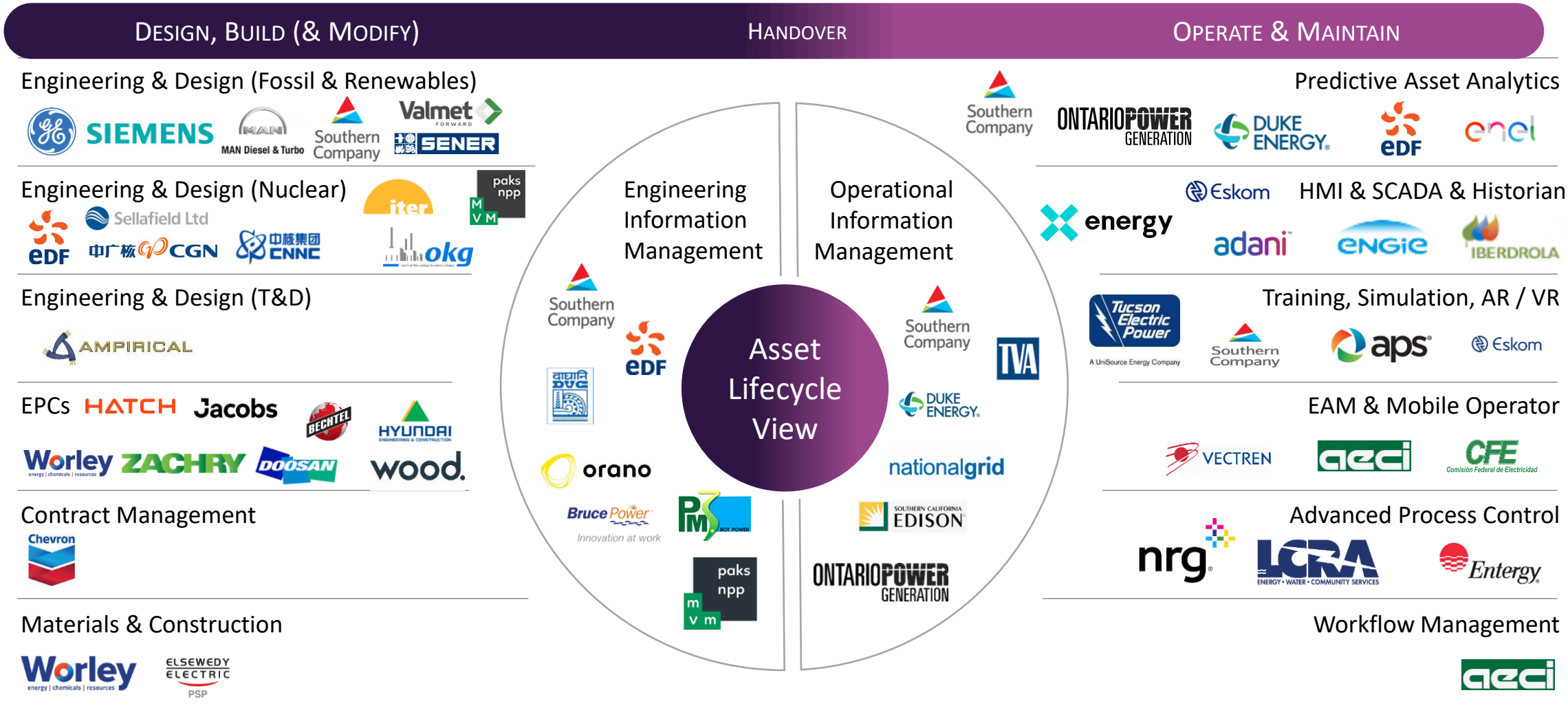
Power & Utilities & Infrastructure

Industry Commonalities

- Reliability, Stability and Resilience
- Capital and O&M Cost Reduction
- Regulation and Compliance
- Balancing Affordability /Profitability and Sustainability/Net-Zero Goal

- Vulnerability to cyberattacks and physical threats
- Aging Infrastructure, Supply Chain and Workforce Challenges
- Innovative Technology Integration

Power & Utilities Industry Presence



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Data Sources – AVEVA breaks down the Industry Vertical/Data Silos

Communities, Enterprise, Sites, Plants, Assets, Points (Tags) – Various Vendors, Various Assets, Various protocols

- Energy Sources
  - Grid Tied/Utility
  - On Site gen
  - Central Plants
  - Solar
  - Fly Wheel
  - Wind
  - Battery
  - UPS
  - Others
- Utilities
  - Water/WW
  - Electricity
  - Gas
  - Steam
  - MicroGrids
  - Others
- Protocols
  - DNP
  - Modbus
  - OPC
  - IEC61850
  - Legacy
  - C37.118
  - DCS/DMS/EMS
  - Others
- Equipment
  - Substations
    - Txmers
    - Switch gear
    - RTU
  - Pumping stations
  - SCADA Systems
  - Inverters
  - DCS Systems
  - Battery packs
  - Meters
  - Weather Stations
  - Others

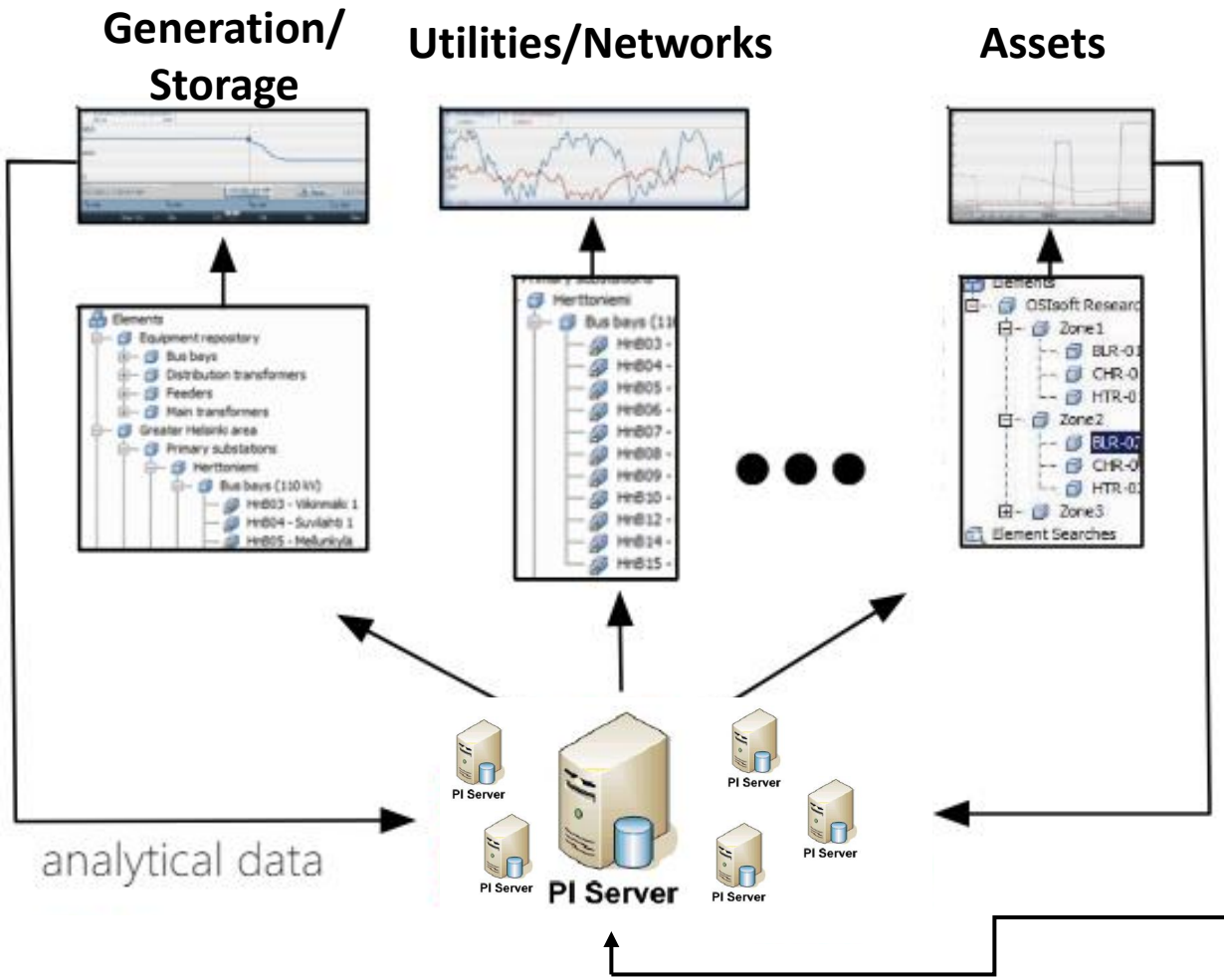
Do we need to discuss Intelligent Data Pipelines???

But each Industry Vertical/System/equipment brings it unique data protocol requirements

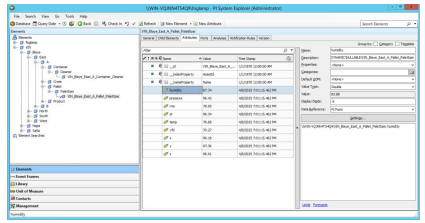
AVEVA

PI Asset Framework (AF) – Where the Rubber hits the Road

Various protocols, Various tags, Various assets, Various vendors, Many Plants, Many Sites, One Enterprise

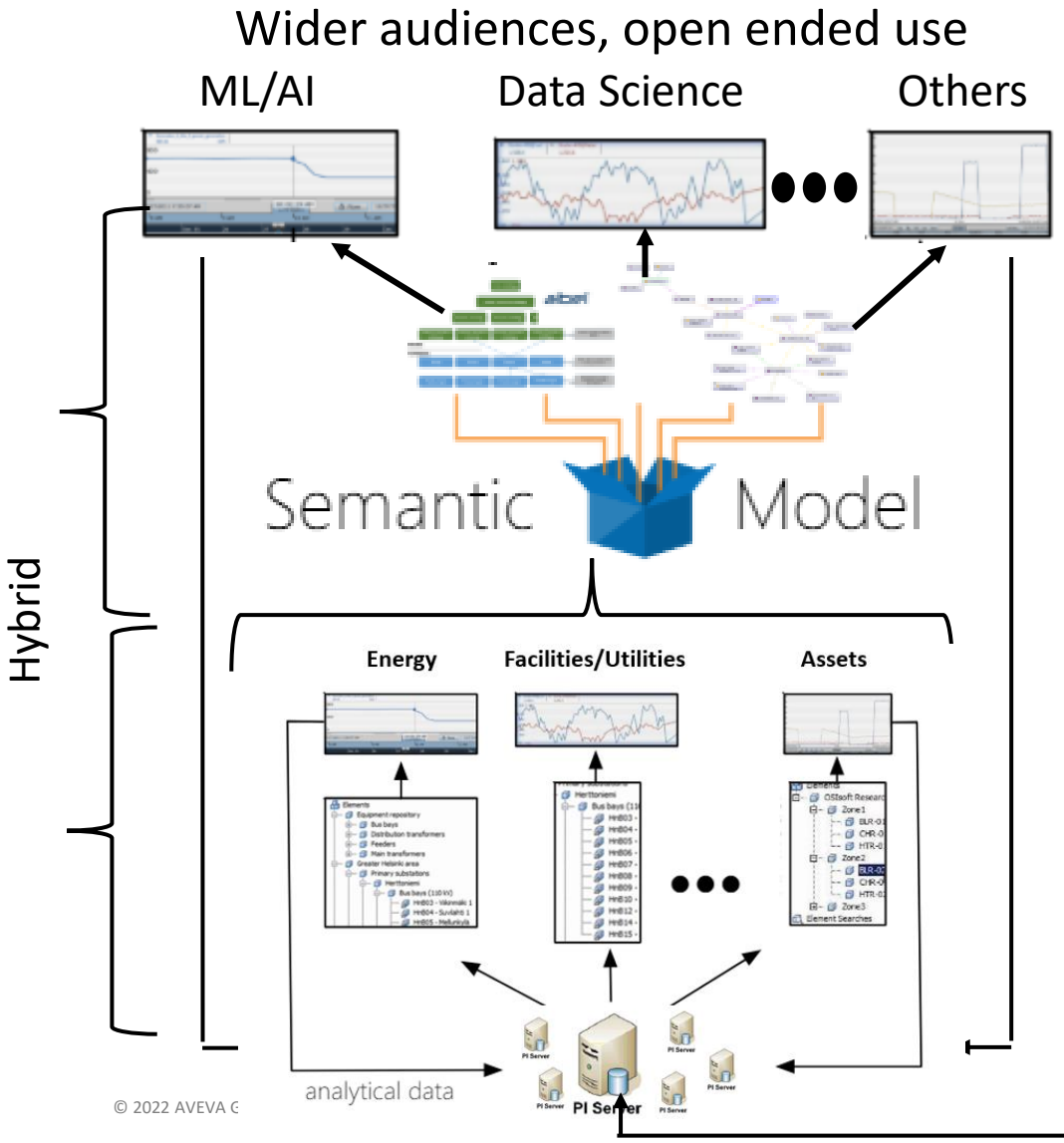


- Support Many Industry Verticals, asset models
  - Target audiences and goals
  - Reduce the cost of curiosity
  - Builds bridges across data sources and across sites

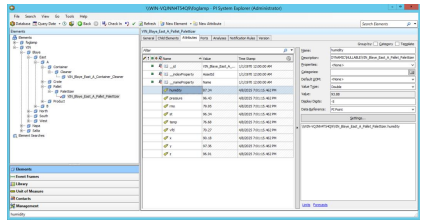


Field Devices

PI Asset Framework (AF) – The Expansion of AF to a Higher Level



- To support Digital Twins
  - Span audiences and goals
  - Reduce the cost of integrating new applications
  - Builds bridges across organizations and supply chains



Plant floor/Field Devices

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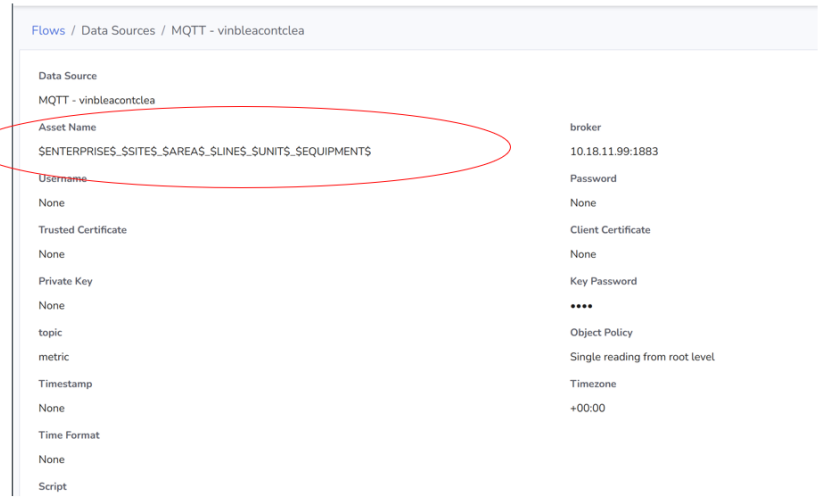
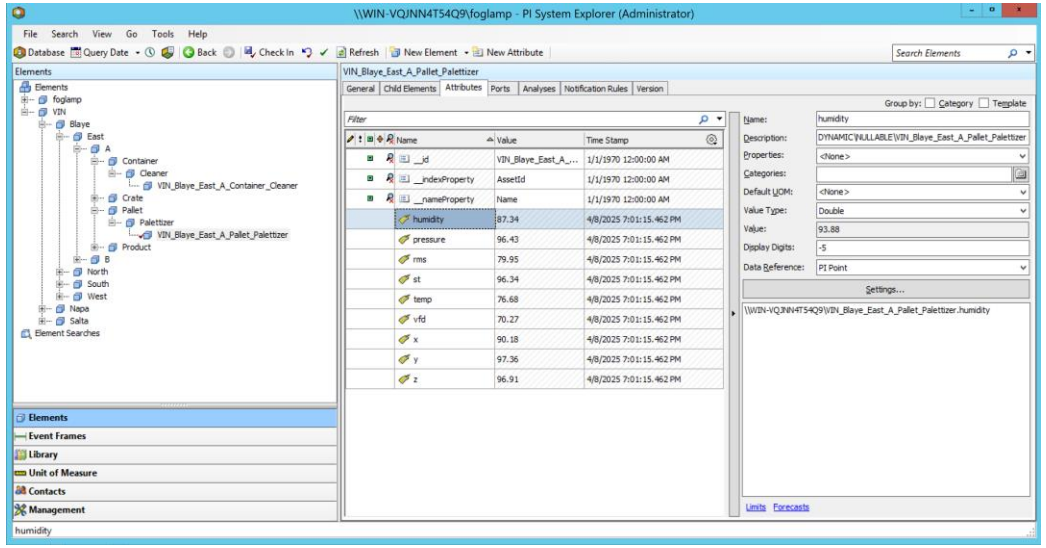
IIoT – Data collection - fogLAMP

Automate/Enforce Unified Namespace & Seamless and automatic integration w/AVEVA's PI and Connect



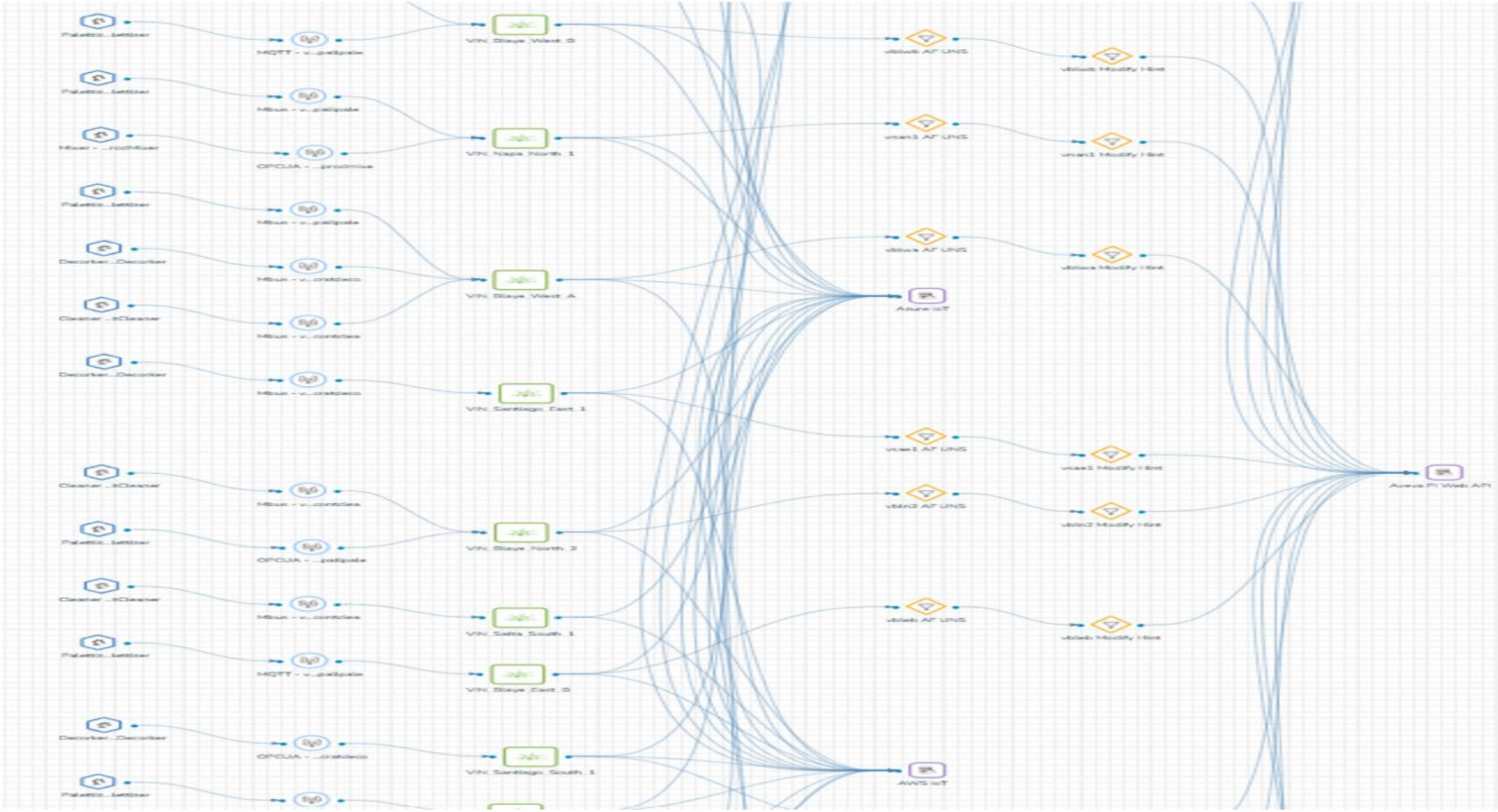

```
{
    "name": "Cleaner - vinbleacontCleaner",
    "version": "1.0.165",
    "template": "Container Cleaner",
    "description": "Asset Cleaner - vinbleacontCleaner",
    "macros": {
        "AREA": "East",
        "ENTERPRISE": "VIN",
        "EQUIPMENT": "Cleaner",
        "LINE": "A",
        "SITE": "Blaye",
        "UNIT": "Container"
    }
}
```



From field to AF with proper naming convention

fogLAMP

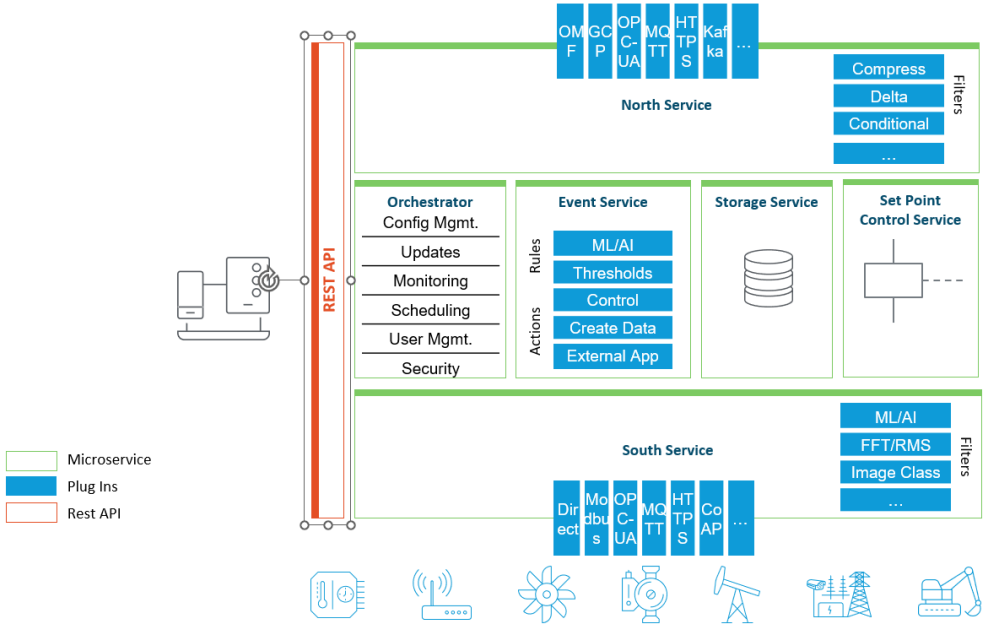
Enterprise-Wide: Manage, Secure, Clean & Monitor All streaming Data



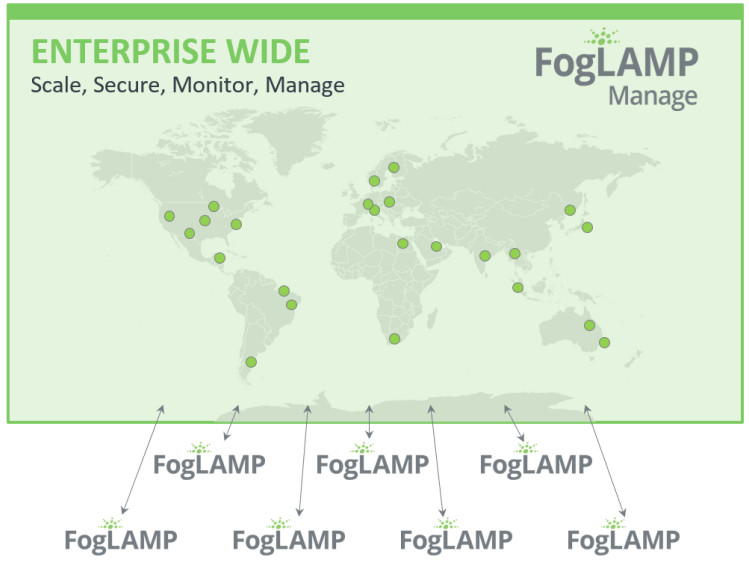
fogLAMP

Imagine starting the data integrity at the point of collection? Manage all field protocols from one place?

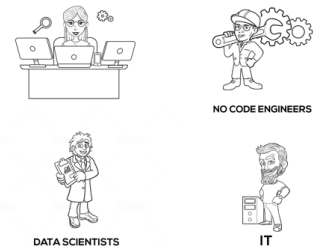
Over 150 Plugins and Growing



FogLAMP Manage



- Central Configuration Management
- Pipeline Monitoring /Alerting
- Application Update, Delete, Rollback
- Audit
- Templating
- Security - Device to Destination
- Role Based Access Control
- Runs Anywhere



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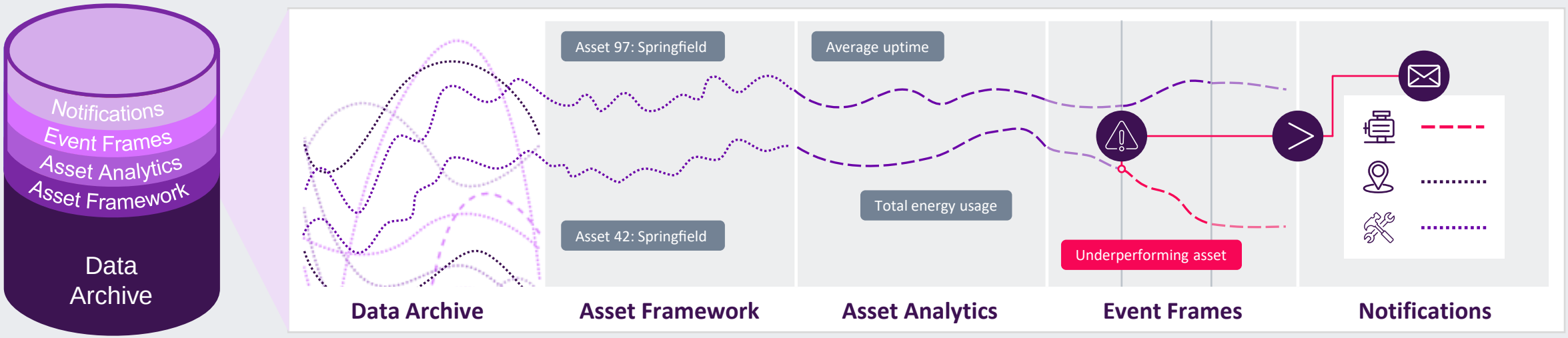
AVEVA PI -Turn your raw data into decision-ready, actionable information

PI Server components

2. Add structure and meaningful context to your data to allow you to facilitate templatized Analytics roll-outs

4. Automatically **pinpoint and historize important events** that are detected by your Analytics triggers



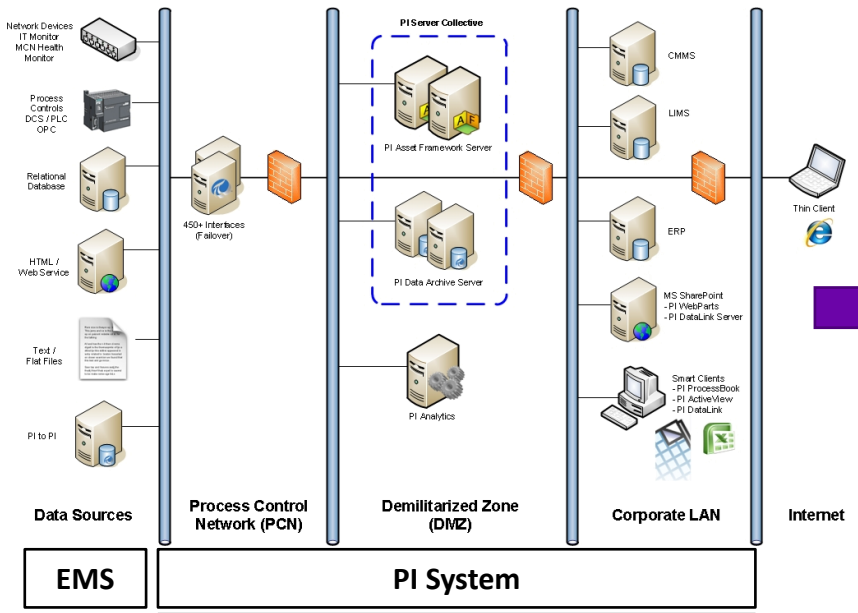
1. Provide immediate, optimized storage and access to the operational data needed for your Analytics

3. Transform your raw tag data into actionable information using specific Asset Analytics expressions

5. Send automatic alerts to the right people, at the right time, with the right information

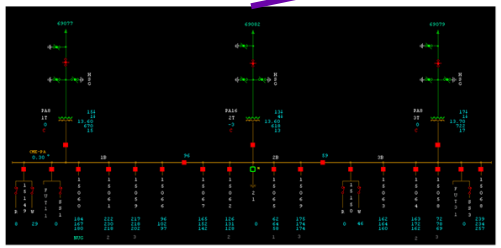
AVEVA

PI Vision – SCADA / ADMS - Visualization/Situational Awareness



PI Vision Dashboard

PI Vision Dashboards/Situational Awareness



AVEVA

What Operators say about PI Vision supporting the Control Room

*"EMS/ADMS is critical for **active control and decision-making**, but*

*PI Vision complements it by **enhancing visibility, integrating additional data, and supporting analysis**.*

*Having both in the control room ensures that operators are equipped with **the best possible tools** for real-time operations and long-term system reliability and safety. " Chris Traber – City of Burbank*

Multi-System Data Integration

Alarm & Event Monitoring

Solution – From Generation to behind the meter technology


Enterprise Level Monitoring
Engineering & Planning

Reporting Applications
KPIs, Dashboards
Benchmarking, Mobility

CONNECT

CONNECT – Industrial Intelligence platform
Connect Visualization, Connect Data services
Connect Modeling and analytics

Business Applications
ERP, Outage Management, GIS,
Work & Asset Management

PowerRunner
AMI Data at Scale

Distribution Grid Analytics
AMI Grid Analytics

Enterprise Operations Infrastructure – AVEVA PI

Power Plant Control Room / Center
Generation

Control Center
Transmission EMS

New Low Voltage Distribution Infrastructure

Control Center
Distribution
ADMS/SCADA
DMS

Substation
Data Integration
(non SCADA)

ICCP

Distribution
Automation
Devices
(non SCADA)

Grid Application	Advanced Sensing and Measurement Technology
Protection and Control	Line Protection Relay, Transformer Protection Relay, Bus Protection Relay, Circuit Breaker Protection Relay, Feeder Protection Relay
Monitoring & Control	Smart Recloser, Recloser Control, Voltage Regulator Control, Capacitor Bank Control, PQ Monitor, Smart Switch
Asset Condition Monitoring	Dissolved Gas Monitor, Moisture Monitor, Circuit Breaker Condition Monitor, Load Tap Changer Monitor
Fault Indicators and Sensors	Overhead Fault Indicator, Underground Fault Indicator
Metering	Smart Meter, Power Quality Meter, Revenue Meter

New Data Sources

Distributed Energy Resources

Distributed Energy
- Solar
- Wind

Energy Storage
- Batteries
- EV

Microgrids
Grid sensors

AMI Meter Data

At-the-meter
- Load
- Generation
- Voltage
- Etc.

Behind-the-meter
- Load
- Generation
- Sensor data

Prosumer

Behind-the-meter
- Solar
- Storage
- Sensor data
- EV
- Thermostats

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Operational Data Infrastructure

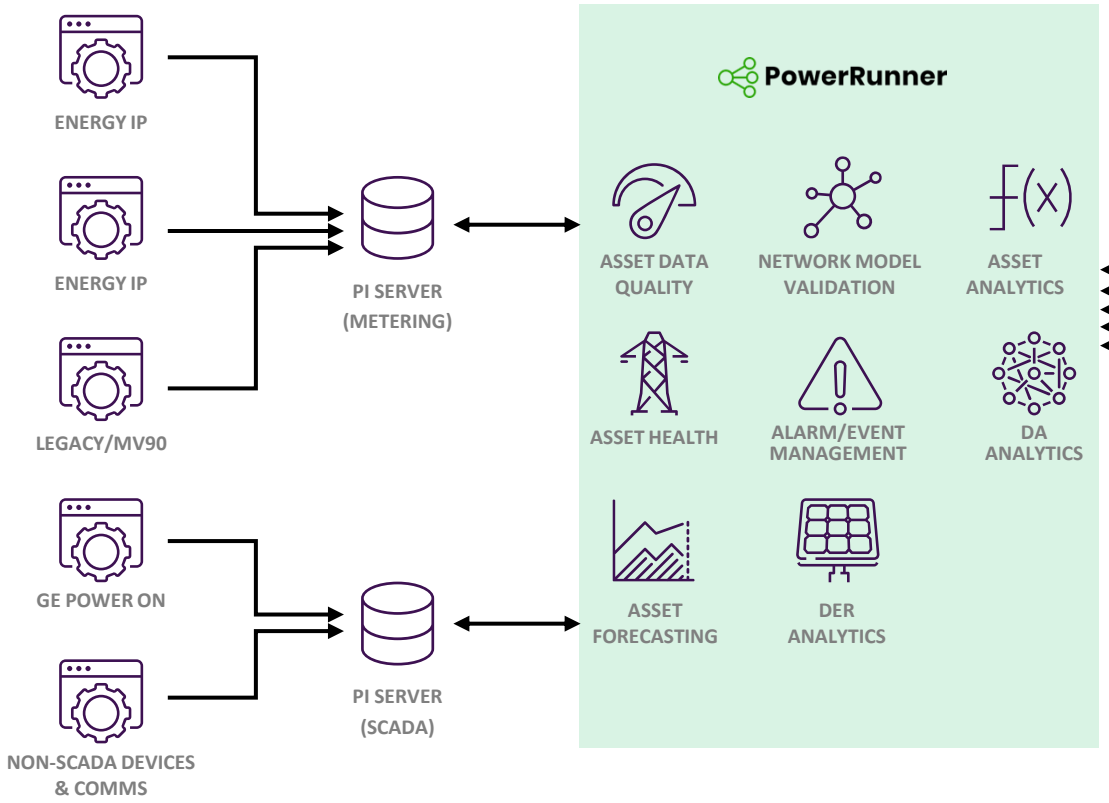
8,300,000 Meters → 10 Interval, Registers, Alarms → 30 Minute Data →
40,000 SCADA & RTUs/Sensors → 10 Digital States & Analog Values → 5 Minute Average →

4,176,000,000 Daily Measurements

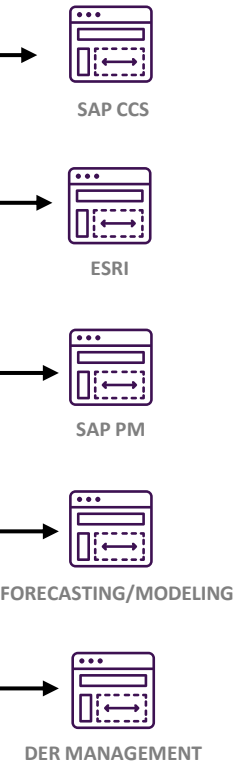
OPERATIONAL TECHNOLOGY (OT) DATA

AMI interval data
- kWh (delivered)
- kWh (received)
- kVAh
- Voltage
- Alarms

SCADA data
- kW per phase
- Amps per phase
- Volts per phase
- Breaker status
- Alarms



INFORMATIONAL TECHNOLOGY (IT) DATA



- Customer data (attributes)
- Substation
- Feeder
- Rate Category
- City, County, Zip

- Asset Attribute Data
- Asset Parameters
- Geo Codes
- Limit Ratings

- Planning Data
- Forecast v Actuals

- DER Asset Data
- DER Type (solar, wind, etc.)
- DER Output (Nameplate kW)
- DER Voltage

PowerRunner AVEVA

Data Intelligence – Consecutive Day kWh received

DTE

Challenge

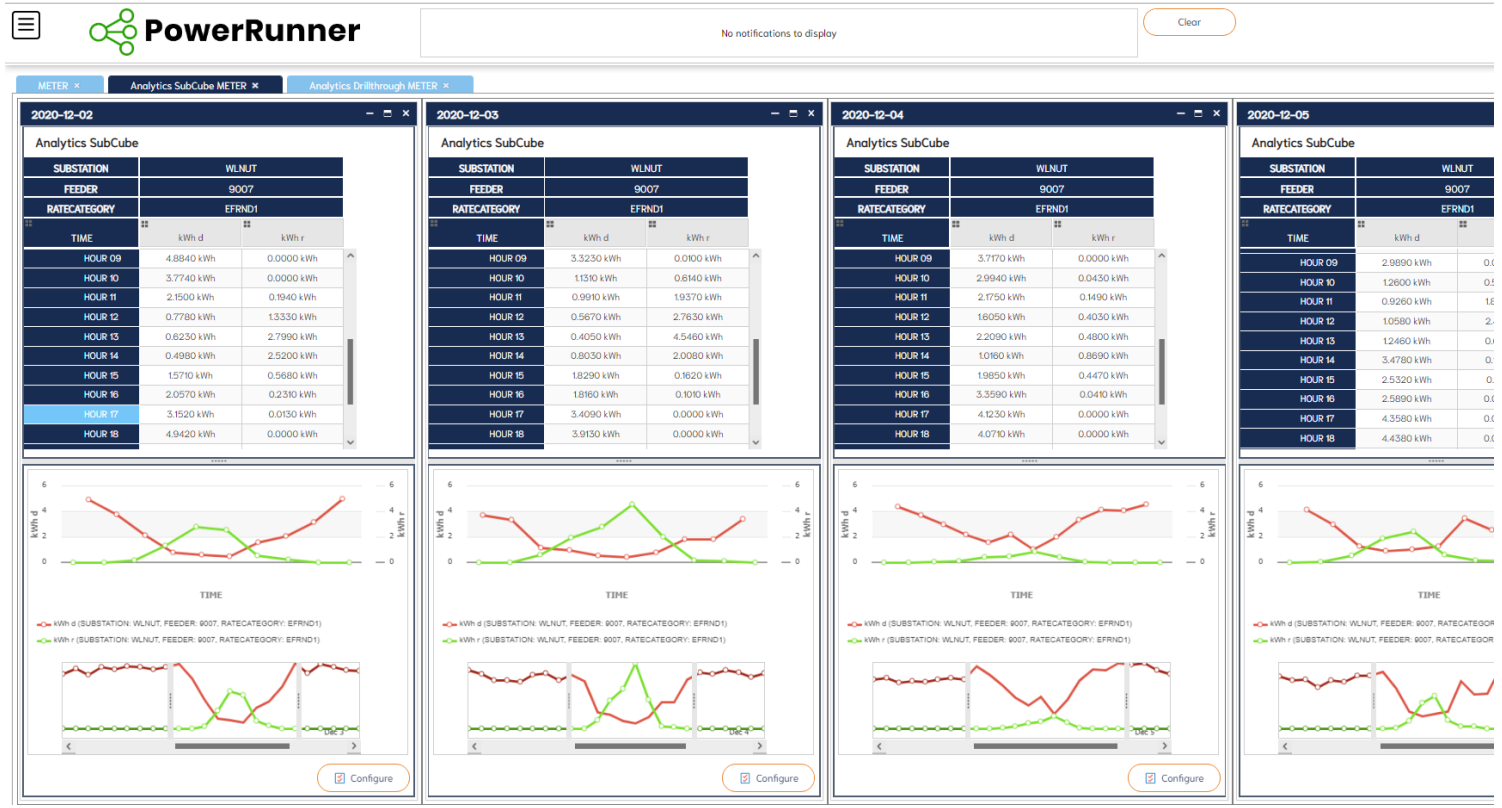
- What impact is DER having on the Grid?
- Are Contract Demand response delivering on the contract?

Solution

- Group meter aggregation by any number of customer attributes
- Analyze the baseline and aggregate asset performance of these customer segments to grid value

Benefits

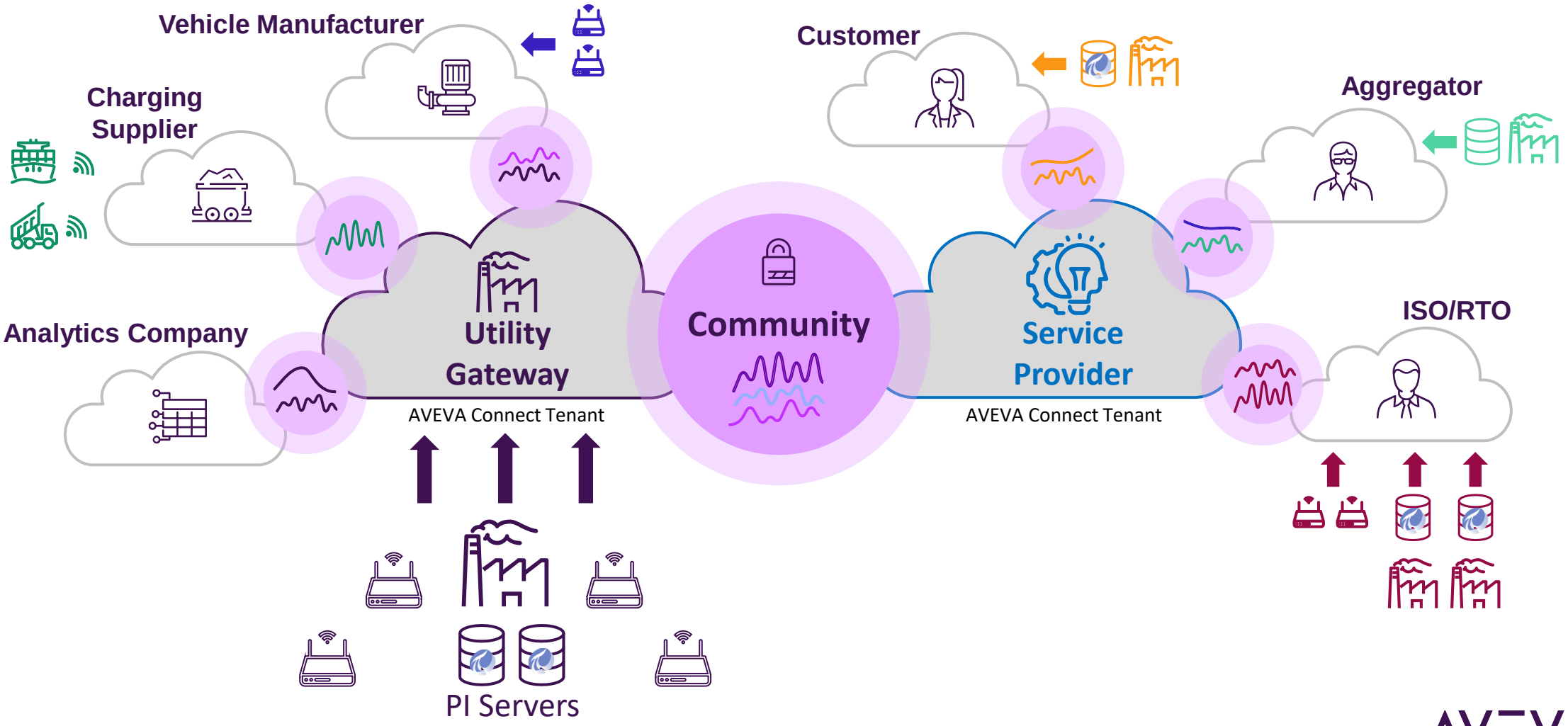
- Monitor and calculate the performance of programs over time and locationally
- Aggregate meter data by customer segmentations to determine each segmentations contribution to peak load or grid value



Substation, Feeder, rate category, hour, energy delivered, energy received

PowerRunner AVEVA

Connected community: Powering the Energy Resource Ecosystem



AVEVA in Transmission and Distribution

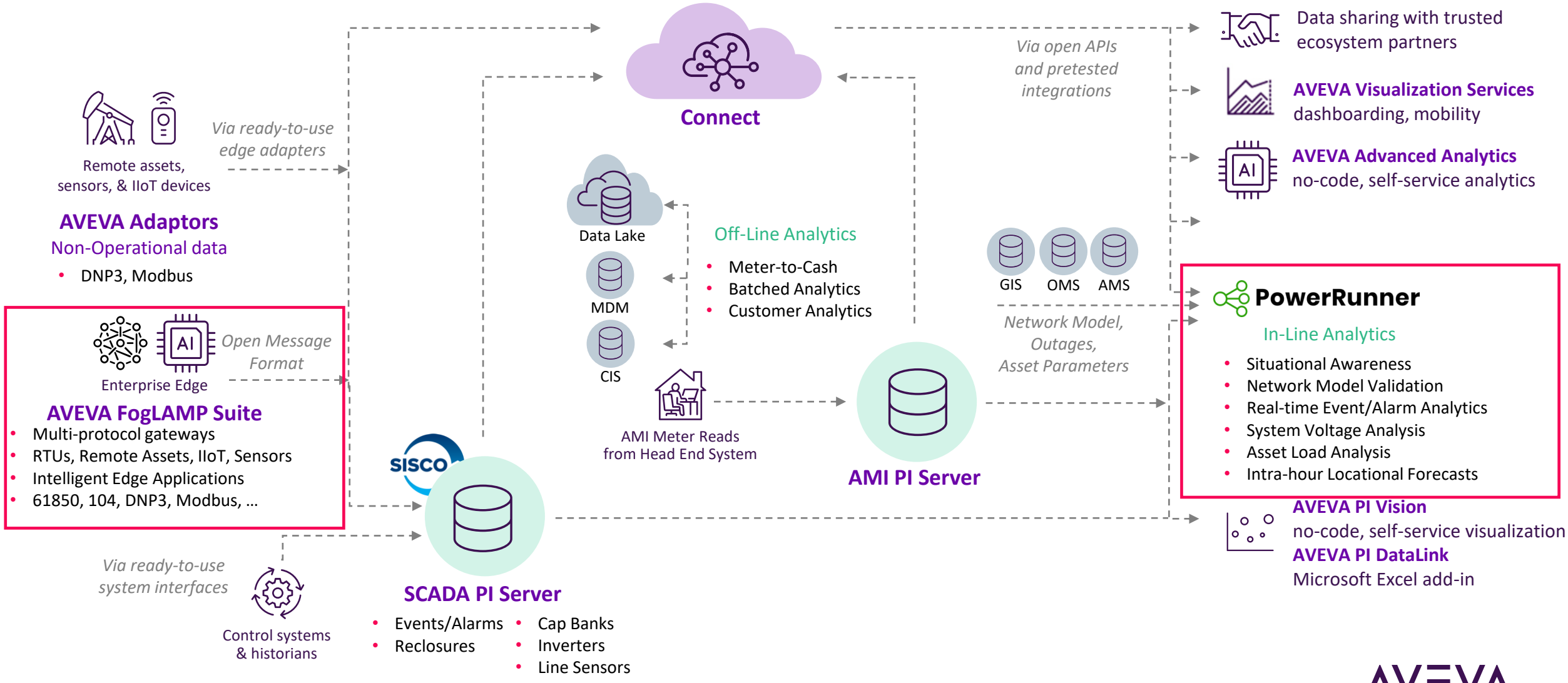
Top Topics in the Power and T&D sectors

T&D

- **Grid Resilience:**
  - Utilities and grid operators are facing increasing threats from climate change, cyberattacks, and physical damage, necessitating enhanced grid resilience measures
- **Artificial Intelligence:**
  - AI is transforming power generation by optimizing operations, enhancing efficiency, and improving grid reliability.
- **Distributed Generation:**
  - Decentralized power generation, including rooftop solar and microgrids, is gaining importance, offering greater flexibility and resilience.
- **Electric Vehicles:**
  - The growing adoption of electric vehicles will increase electricity demand, requiring grid upgrades and increased renewable energy capacity.
- **FERC Order No. 2222/Government Mandates:**
  - Facilitating Participation in Electricity Markets by Distributed Energy Resources

AVEVA

Proven components accelerate time-to-value in the Power and Utility Space



Business Benefits of the AVEVA PI infrastructure for Utilities

Standardizing Utility data infrastructure on AVEVA's PI System provides value in many areas:

01 Increase situational awareness

02 Lengthen equipment lifespans

03 Optimize operations

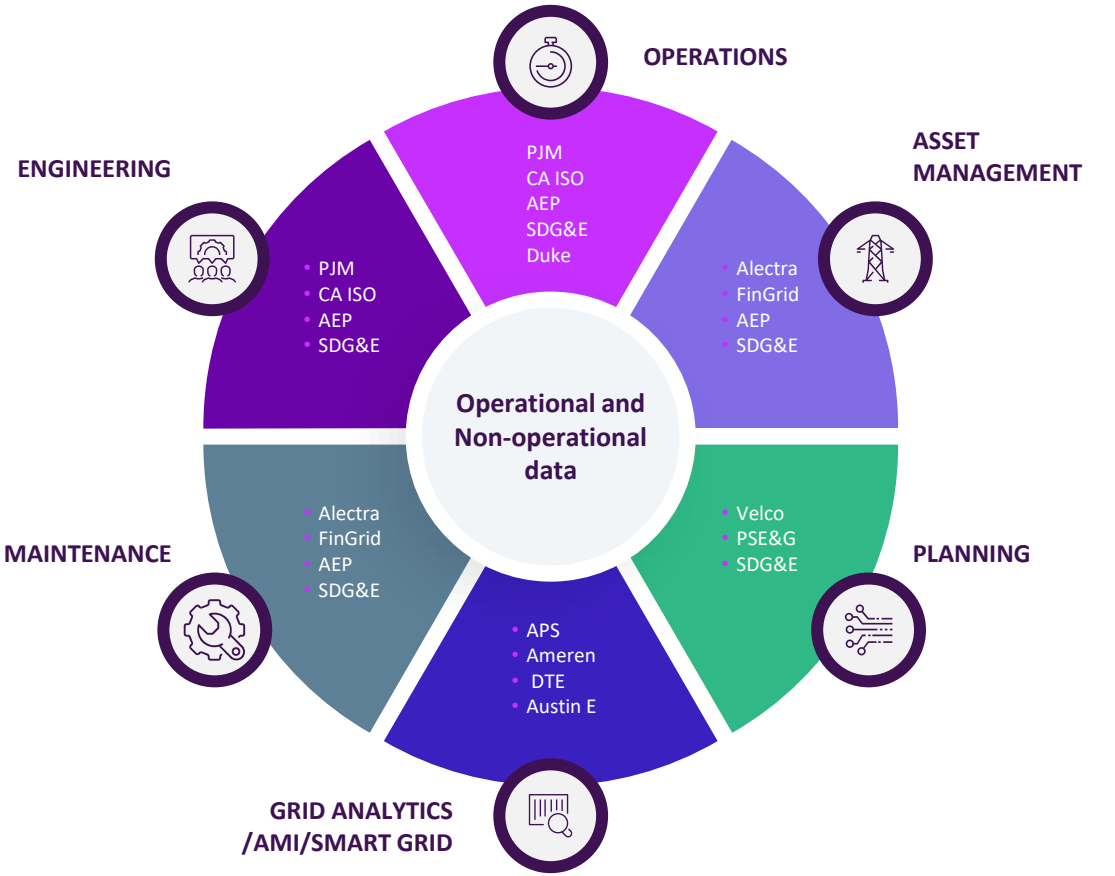
04 Reduce CapEx and O&M spending

05 Broaden access to a common source for all OT data

06 Improve staff decision-making capabilities

07 Expand end-to-end visibility to drive innovation

08 Decrease total-cost-of-ownership



Station Transformer Detail Report

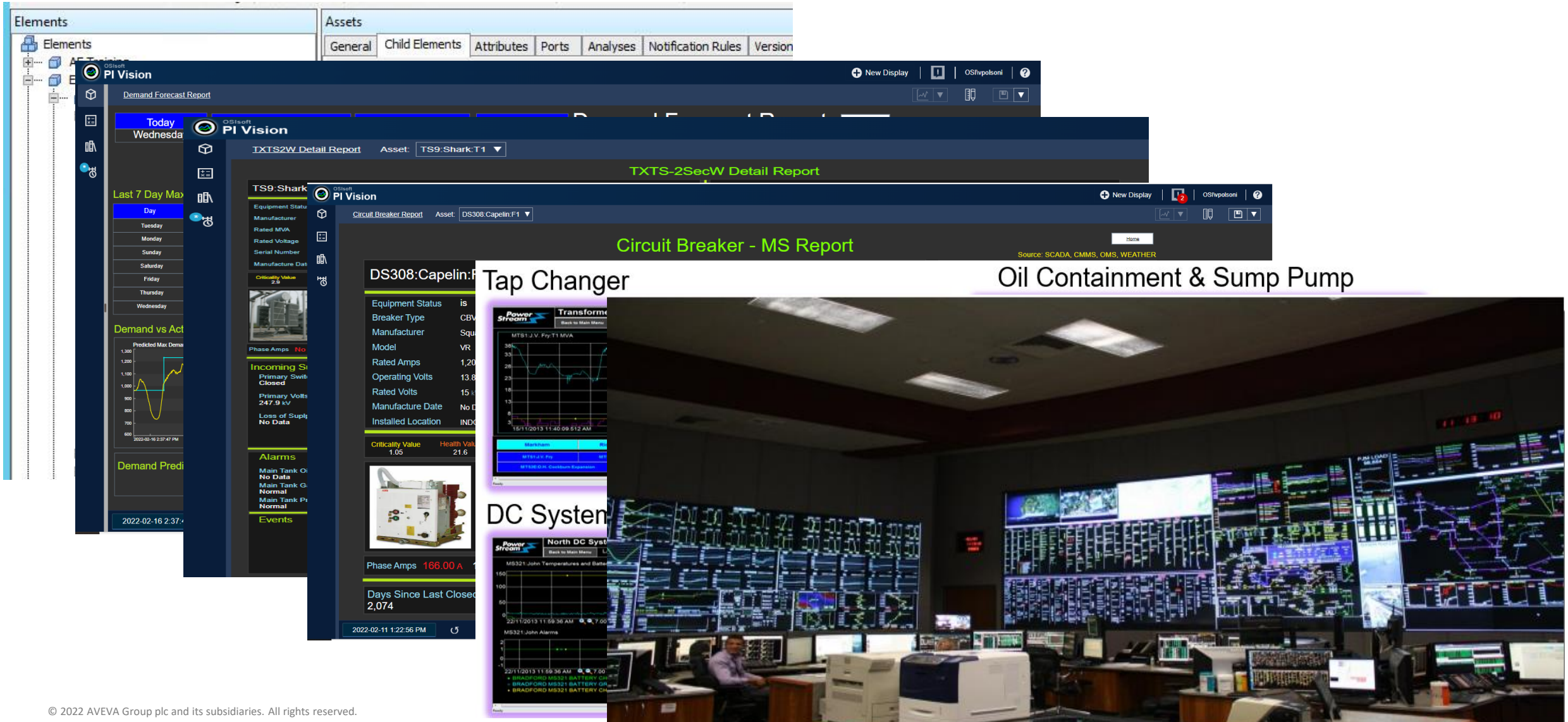
Readily Available Critical Info

- At your fingertips

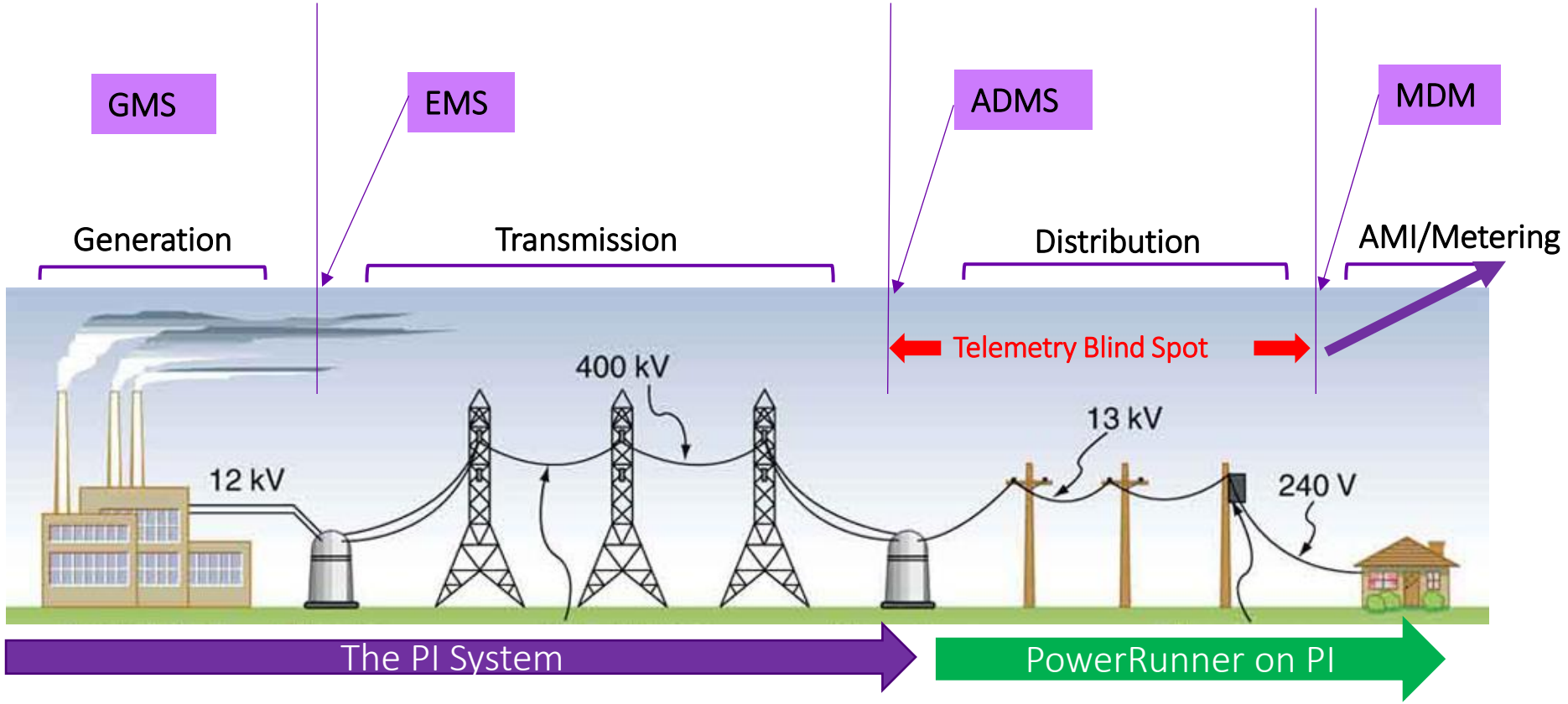
Equipment Status
Station Load Transformer Load Transformer Availability
Incoming Supply Tap Changer Secondary Temperatures
Alarms Protection Oil Monitoring
Work Orders Maintenance – Last Performed
Events

AVEVA

T&D



Where PowerRunner on PI Creates Value



The PI System is the leading operational data store in the Power and Transmission markets

PowerRunner on PI extends Virtual SCADA to Distribution Assets

PowerRunner on PI

Low Voltage Analytics

Situational Awareness from the substation to the meter and behind-the-meter.

- Asset Data Quality
- Network Model Management
- Aggregate Load Analytics
- Asset Limit Analysis
- Event/Alarm Analytics
- System Voltage Analysis
- Asset Health Dashboard
- FLISR Performance Reporting
- System Reliability Reporting
- Intra-hour Asset Forecasts
- Virtual SCADA Asset Forecasts

AVEVA

Distribution system assets – can be analyzed using LV grid analytics (PowerRunner)

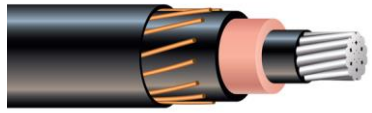
Monitored and Unmonitored

✓ OH Pole Transformer

✓ OH Recloser

✓ OH Load Break Switch

✓ OH Capacitor Bank



✓ MV UG Primary Distribution Cable

✓ Padmount Transformer

✓ Submersible Transformer

✓ Network Transformer

✓ Padmount Switchgear

✓ OH Fault Indicator

✓ Smart Meter

Behind the Meter assets – can be analyzed using LV grid analytics (PowerRunner)

Monitored and Unmonitored

✓ Electric Vehicles

✓ Rooftop solar

✓ Residential storage

✓ Electric Vehicles

✓ Controllable thermostats

AVEVA

PowerRunner

PowerRunner on PI Analytics

Voltage Analytics - Analysis of 15-minute voltage meter data vs. transformer and SCADA voltage data

- Network Model Manager
- Transformer Failure Prediction

Aggregate/Segmentation Load Analysis - AMI and SCADA to create a bottom-up vs. top-down view of load across critical syste

- Transformer Load Management
- LV load and generation aggregation and segmentation by system assets or customer program

Event and Exception Analysis - Finding the signal through the noise

- Multi Asset Smart Alarming
- Enhanced System Reliability

Predictive Analytics - Sub-hourly net-load forecasts on all system assets to support LV Congestion Management, SE and CA

- ML/AI Self-tuning Forecast Models
- Hosting Capacity Analysis
- DER Valuation & Integration

AVEVA

T&D – Customer Success Stories

Latest Use Cases

DTE Power & Elec Distr. - USA

Challenge

- Data lake cannot support real-time grid analytics
- Regulatory pressure to extract operational value from AMI data
- Lack of confidence in data joined from disparate systems
- Resource intensive data wrangling

Solution

- Integration with disparate data sources through PI and direct to PowerRunner
- Back-end Data Management & Governance
- Highly configurable real-time analytics platform
- LV load & generation aggregation & segmentation by system assets or customer program

Result

- Single source of truth for OT/IT data & analytics
- Data integrity and user confidence
- Business User Configured Analytics
  - Transformer Load Mgmt.
  - Asset Load Analysis
  - Exception Analytics

UK Power Networks Elec Distribution - UK

Challenge

- Be the best performing UK DNO and DSO
- Allow for more flexibility on the grid for more DERs to be connected without impacting safety and network reliability
- The requirements for DNOs to support DSOs need to develop and use their network more efficiently
- Resource intensive data wrangling – too much data for skilled operatives to process in real-time

Solution

Deploy AVEVA's PowerRunner on PI solution to streamline data collection, access and advance analytics focused on grid modernization

Result

- Single source of truth for OT/IT data & analytics
- Advanced Analytics for RTU health, transformer load management, network connectivity, predictive failure
- Improve planning data
- Improve proactive maintenance of assets

California ISO Transmission ISO - USA

Challenge

- Various complex data sources and systems
- Hundreds to thousands connecting entities
- Supporting large numbers on internal/external users
- Reliability for complex grid and management of dynamic market system

Solution

- Customer of PI for 20+ years
- Continual innovative development and system improvement via PI tools
- Visualization and asset-based models for situational awareness

Result

- Improving visibility of the grid for both internal and external users
- Reduced maintenance – improving standards lead to fewer, more relevant and concise displays
- Thin client benefits – easier to build and share displays

AVEVA

AVEVA Product and Services Feedback Portal and Process

AVEVA Product and Services Feedback Portal

We created this site to hear your enhancement ideas, suggestions and feedback about AVEVA products and services. All of the feedback you share here is monitored and reviewed by the AVEVA product managers.

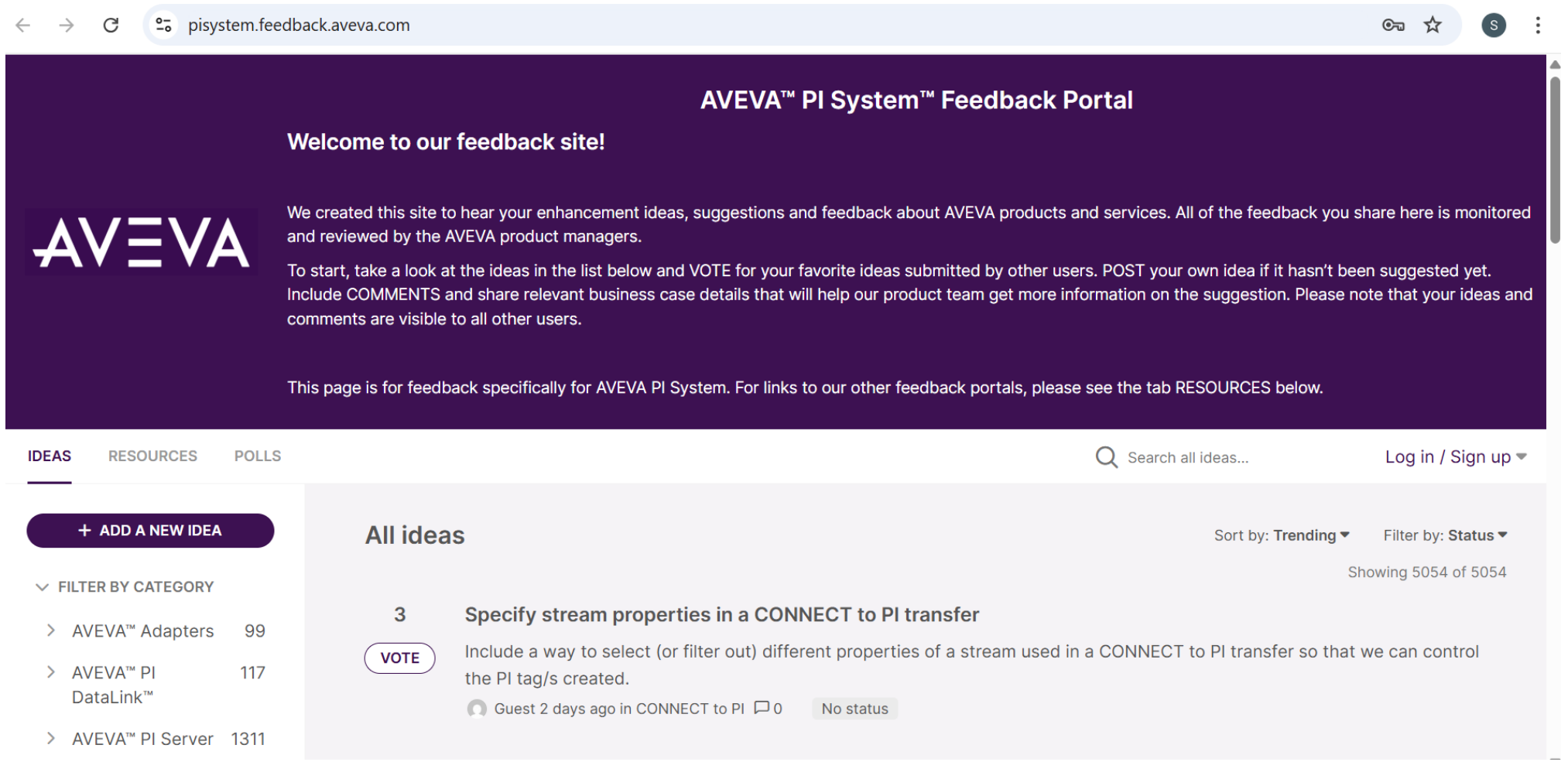
Please add new ideas, comment on ideas to share your use case, and vote for the ideas that you would like to see happen!

For access to our feedback portals, please use the links below:

- AVEVA™ PI System™ Feedback Portal
- AVEVA™ Products Feedback Portal
- CONNECT data services feedback portal

AVEVA wants to receive your product and services feedback & ideas

https://feedback.aveva.com/

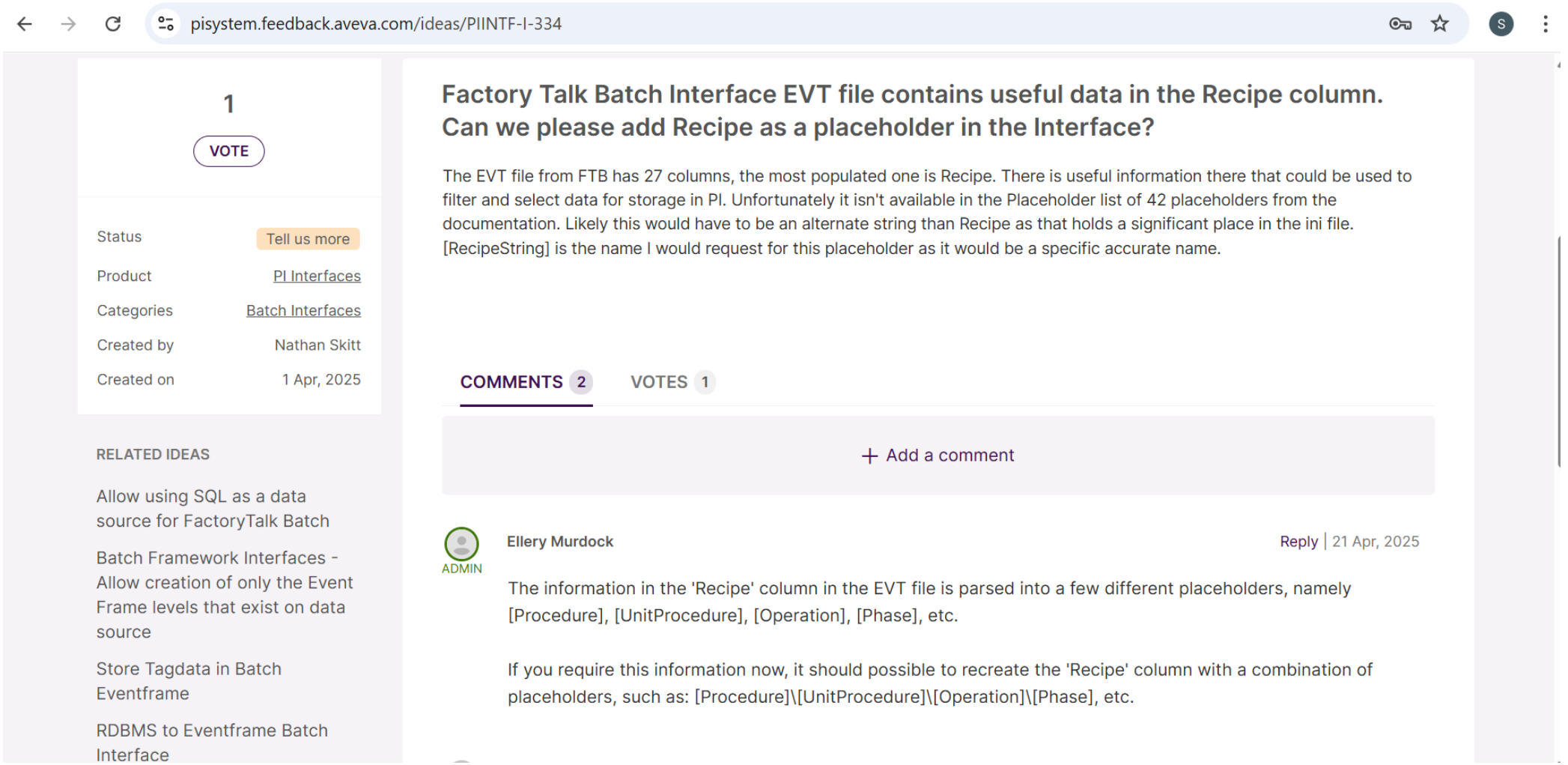


Idea Status

💡 Idea statuses

- No Status This idea has been received by AVEVA product managers. Supporters of this idea will be notified of future status changes.
- Tell us more More details from users are needed to understand the scope of the idea.
- Evaluating The idea is under review by AVEVA to determine its impact and feasibility.
- Planned The idea has been included on the backlog for future development.
- In development The idea is in development and is actively being worked on.
- Completed The idea has been implemented based on the feedback received.
- Declined The idea has been declined due to reason of, including but not limited to, priority, product fit, scope, or implementation.
- Future Consideration The idea is not considered now but may be in the future, due to reasons of, including but not limited to, priority, product fit, scope or implementation.
- Already Exists This idea refers to an existing function in our solution. Please refer to the comments for further information.

Idea Example



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ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including mining & metals, oil & 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

AVEVA World 2025 Power/Utilities/Infrastructure Presentations

Highlights from AVEVA World 2025

Solution Roadmaps

- AVEVA Unified Engineering Roadmap
  - https://www.aveva.com/en/perspectives/presentations/2025/aveva-unified-engineering-roadmap/
- AVEVA Operations Control Roadmap
  - https://www.aveva.com/en/perspectives/presentations/2025/roadmap--aveva-operations-control--an-evolution-in-hmi-scada/
- SCADA and Supervisory Control Roadmap
  - https://www.aveva.com/en/perspectives/presentations/2025/roadmap--scada-and-supervisory-level-operations-control/
- AVEVA System Platform – Latest Enhancements
  - https://www.aveva.com/en/perspectives/presentations/2025/aveva-system-platform--deep-dive-into-latest-enhancements/
- AVEVA PI System and PI Data Infrastructure Roadmap
  - https://www.aveva.com/en/perspectives/presentations/2025/aveva--pi-system--and-aveva--pi-data-infrastructure-roadmap/
- CONNECT Industrial Intelligence Platform Vision and Roadmap
  - https://www.aveva.com/en/perspectives/presentations/2025/connect-industrial-intelligence-platform-vision-and-roadmap/

AW25 Power & Utilities presentations

CAISO: Navigating the Energy Transition - CAISO's Challenges and Solutions

As the energy landscape rapidly evolves, the California Independent System Operator (CAISO) plays a pivotal role in ensuring a reliable and efficient transition to a cleaner, more sustainable grid. This presentation examines the key challenges CAISO faces, including the integration of rapidly expanding renewable energy, maintaining grid reliability amid increasing electrification, and managing market complexities driven by Distributed Energy Resources (DERs). It also explores innovative solutions such as advanced forecasting, energy storage optimization, and enhanced market operations designed to sustain grid stability and efficiency in this dynamic environment.

https://www.aveva.com/en/perspectives/presentations/2025/caiso--navigating-the-energy-transition---caiso-s-challenges-and-solutions/

Salt River Project (SRP): Optimizing energy trading with AVEVA PI System. Our journey in the Western Energy Imbalance Market (WEIM)

Discover how Salt River Project (SRP) are using AVEVA PI System data within their energy trading operations to improve efficiency and optimize performance. Nick Jacobs, Market Operations Instructor at SRP will provide an overview of SRP's service territory, fleet size, and diversity, followed by an explanation of the types of data collected and the structure of SRP's PI System. Nick will highlight the critical role of PI System in optimizing dispatch and bidding strategies, tracking natural gas consumption, and ensuring efficient operations within the Western Energy Imbalance Market (EIM). The presentation aims to demonstrate the significant impact of PI System on SRP's ability to operate effectively in the EIM, emphasizing the importance of data-driven decision-making in energy trading. Attendees will gain insights into the practical applications of PI System data and the benefits of leveraging advanced data systems in the power and utilities sector.

https://www.aveva.com/en/perspectives/presentations/2025/salt-river-project--srp---optimizing-energy-trading-with-aveva-pi-system--our-journey-in-the-western-energy-imbalance-market--weim-/

AW25 Power & Utilities presentations

Tennessee Valley Authority: Building a Digital Core for Operational Technology Data in Power Generation

In the ever-evolving landscape of power generation, companies face significant challenges in modernizing their technology infrastructure to enhance asset reliability, maximize production efficiency, and ensure sustainable operations. This presentation will delve into a comprehensive project aimed at building a Digital Core for Operational Technology (OT) Data for the Tennessee Valley Authority, which operates across Nuclear, Coal, Gas, and Hydro energy verticals and manages the transmission grid for the Tennessee Valley.

The project addressed critical issues with existing historian systems, which were limited in functionality, lacked modern cybersecurity capabilities, and incurred high total costs of ownership. By leveraging Agile methodologies, radical business collaboration, and Accenture's technical depth, the project successfully delivered a robust digital platform within the AWS GovCloud environment and powered by AVEVA PI System.

Join us to explore the innovative approaches and best practices that led to this successful deployment.

https://www.aveva.com/en/perspectives/presentations/2025/tennessee-valley-authority--building-a-digital-core-for-operational-technology-data-in-power-generation/

PGE: Empowering Operational Excellence - Our Journey with PI System-Driven Insights

Join PGE on a transformative journey as we share how we leveraged AVEVA PI System to drive operational excellence. By growing our PI System architecture to scale our operations, we established a robust foundation with a PI System Governance Group and implemented advanced cybersecurity measures like zero trust. Our innovations span predictive models for thermal assets, condition-based maintenance integrated with Maximo, enhancing wind farm reliability, improving situational awareness for wildfire mitigation to name a few. Additionally, we've streamlined operations with eRounds for mobile data collection and developed hot weather dashboards for transformer monitoring. Compliant with GADS and NERC standards, our efforts pave the way for a resilient, data-driven future, redefining asset management and grid reliability.

https://www.aveva.com/en/perspectives/presentations/2025/pge--empowering-operational-excellence---our-journey-with-aveva-pi-system/

AW25 Power & Utilities presentations

TAQA Morocco: On-line steam network balance in Taqa Morocco with CONNECT and SIGMAFINE

TAQA Morocco has already implemented an AVEVA PI System infrastructure feeding the TAQA e-Monitoring Center for the six power generation units of Jorf Lasfar power plant. A proof of concept has been launched, joining CONNECT technology and Pimsoft Sigmafine to create a cloud based solution providing an on-line monitoring of the energy distribution of the steam network of one coal fired unit of 312 MW net, providing accurate KPIs and insights for non-measured streams, both accessible to all organization and on a secured infrastructure.

https://www.aveva.com/en/perspectives/presentations/2025/taqa-morocco--on-line-steam-network-balance-in-taqa-morocco-with-connect-and-sigmafine/

NREL: AVEVA PI System and AI. Advances in future grid control rooms.

Join NREL's experts as they unveil the cutting-edge capabilities of eGridGPT, a fine-tuned Generative AI model designed for on-premise use. This presentation will demonstrate how eGridGPT can seamlessly integrate with AVEVA PI System to offer operators, engineers, and corporate users enhanced guidance and decision support. Discover how this innovative AI solution can improve state estimation, boost variable energy forecasting, and optimize grid operations. By leveraging eGridGPT's unique features, attendees will learn to unlock new levels of automation, predictive analytics, and reliability within their power systems, ultimately leading to reduced downtime and improved operational efficiency.

https://www.aveva.com/en/perspectives/presentations/2025/nrel--aveva-pi-system-and-ai--advances-in-future-grid-control-rooms-/

AW25 Power & Utilities presentations

AVISTA

Avista, an electric and gas utility in the beautiful Pacific Northwest, will present on utility wildfire prevention. The presentation will discuss how leveraging AVEVA PI System has enabled Avista to be more aware of the ever-changing fire risks in its service territory, from a high-level overview down to the detail of individual feeders. The presentation will include how AVEVA PI System enables Avista to look back at how the fire risk forecast metrics change over time. Avista will supplement this presentation with a brief overview of how the data import process is monitored, given that acting on up-to-date data is critically important for safety and efficiency.

https://www.aveva.com/en/perspectives/presentations/2025/avista--utility-fire-risk-awareness/

PowerRunner

In this presentation, I will share my experiences as the project manager for two major utility projects with EMACSA and UK Power Networks. Through these projects, we have navigated numerous challenges, leveraged AVEVA's suite of products, and learned valuable lessons about delivering smart solutions effectively. EMACSA Project: EMACSA, a Spanish water utility serving 100,000 meters, is implementing two key use cases for Smart Water Meters. The first use case involves replacing legacy software with the PowerRunner on AVEVA PI System solution, creating a common data set for operational use cases and billing support. The second use case focuses on System Balance, determining water in and out to identify total volume, potential water loss, and planning processes. Lessons Learned: Customer-Defined Requirements: It's critical to have the customer define requirements and ensure vendors do not change business processes. Collaborative Solutions: A successful project requires collaboration to understand existing processes and find a solution together. Platform Versatility: Choosing an industry-aware platform that maps to processes and remains agile provides more value than purpose-built SaaS solutions or generic large data solutions that require extensive customization. UK Power Networks Project: UK Power Networks, an 8-million-meter utility around London, is implementing four use cases: Data Harmonization: Integrating all time series data into a single platform. Alarm Management and Predictive Fault Detection: For Remote Terminal Units asset health and planning. Customer Mapping: Validating and identifying phases to secondary transformers. Low Voltage Smart Meter Fault Detection Lessons Learned: Data Challenges: Longstanding data issues and short-term solutions can slow project progress. Vendor Cooperation: Resistance from vendors to upgrade or support new systems can introduce complexity. Phased Implementation: Prioritizing use cases that show immediate value can help manage project timelines and expectations.

https://www.aveva.com/en/perspectives/presentations/2025/powerrunner-on-aveva--pi-system---lessons-learned-on-distribution-utility-deployments-for-power-and-water/

AW25 Power & Utilities presentations

Adani Energy Solutions Limited (AESL): Driving digital transformation and sustainability in electrical utilities. Our innovative approach to asset management.

Adani Energy Solutions Limited (AESL) headquartered at Ahmedabad in Gujarat, is one of the largest private sector power transmission companies in India with a presence across the entire country. This presentation will showcase the digital transformation journey of Adani Transmission with AVEVA PI System and collaboration partner Cerebulb with a particular focus on advanced asset performance management (APM) solutions for high-voltage assets. Detailing the transition from manual processes to scalable, modular, and intelligent systems, including the central command center for remote asset management this session includes an overview of the world-class dashboards that provide the real-time analytics and fleet performance insights that enable them to drive a data-driven culture across the enterprise. Additional topics include the importance of data governance, historical data analysis, and sustainability efforts, such as reducing greenhouse gas emissions and monitoring water usage. The presentation underscores the value of digital solutions in driving efficiency and reliability across Adani's high-voltage assets.

https://www.aveva.com/en/perspectives/presentations/2025/adani-energy-solutions-limited--aesl---driving-digital-transformation-and-sustainability-in-electrical-utilities--our-innovative-approach-to-asset-management-/

ONS Brazil: Maximizing Renewable Energy Utilization: The Impact of AVEVA PI System on Grid Efficiency

The National Electric System Operator (ONS) of Brazil needed to improve renewable energy integration and grid efficiency while reducing response times and avoiding unnecessary curtailments of wind and solar power. The Solution: AVEVA PI System, integrated with an energy management platform, provided real-time monitoring, automation, and data-driven decision-making to optimize energy dispatch. By enabling faster adjustments, ONS achieved a 98% improvement in operational communication efficiency, saved 211,000 MWh of renewable energy, and avoided $11.40 million USD in losses in 2024 by maximizing clean energy utilization.

https://www.aveva.com/en/perspectives/presentations/2025/ons-brazil--maximizing-renewable-energy-utilization--the-impact-of-pi-system-on-grid-efficiency/

AW25 Power & Utilities presentations

Ormat: Optimizing Geothermal Energy Production with Advanced Analytics

Discover how Ormat Technologies, with system integrator Casne Engineering, is using AVEVA solutions to enhance the efficiency and reliability of geothermal energy production. This session will showcase the implementation of real-time data analytics, predictive maintenance, and performance optimization across Ormat's geothermal plants using AVEVA PI System, AVEVA Historian (formerly Wonderware Historian) and AVEVA Plant SCADA (formerly Citect). Learn about the challenges faced in geothermal energy production, including scaling, corrosion, and resource variability, and how Ormat's innovative solutions have led to significant operational improvements and cost savings. Join Yehiel Viner, Rachel Huberman, and Sarah Rappaport as they present their journey in digital transformation and share insights on the future of geothermal energy.

https://www.aveva.com/en/perspectives/presentations/2025/ormat--equipment-monitoring-improvements-with-the-aveva-pi-system-and-standardization-of-complex-analytics/

City of Burbank: Enhancing situational awareness in power utilities. Our journey with AVEVA PI Vision

Join Chris Traber from the City of Burbank as he presents on the innovative use of the AVEVA PI System to enhance situational awareness and data validation within their power and utilities operations. Chris will showcase how Burbank has transformed their control room with advanced visualization tools, improving real-time monitoring and decision-making. He will discuss various use cases, including the integration of PI Vision for executive management displays, transmission line monitoring, and the automation of National Weather Service alerts. Attendees will gain insights into the practical applications of PI System in addressing complex challenges, such as energy procurement and system reliability, and learn about the significant time and cost savings achieved through these implementations. This session is a must-attend for those interested in leveraging data-driven solutions for operational excellence.

https://www.aveva.com/en/perspectives/presentations/2025/city-of-burbank--enhancing-situational-awareness-in-power-utilities--our-journey-with-aveva-pi-vision/

AW25 Power & Utilities presentations

APS: Sustainable Synergy - Harnessing new technology for reliability

Sobia currently is leading a new organization, New Resource Implementations of clean energy resources, including driving enterprise wide decisions, and new technology implementations for APS. She is also leading APS s new resources FERC Interconnection applications.

https://resources.osisoft.com/presentations/aps--battery-and-renewables-management-using-the-aveva%E2%84%A2-pi-system%E2%84%A2/

PG&E: Enhancing AVEVA PI System Health Monitoring with Centralized Log Management

Join Shawn McNabb from PG&E as he presents an innovative approach to managing the health of extensive AVEVA PI System infrastructures. In this session, Shawn will discuss the challenges faced in monitoring over 150 servers across multiple networks and how his team leveraged PowerShell scripting and Splunk to centralize log management. Learn how this solution streamlined access to critical logs, enabled proactive system health monitoring, and reduced management time significantly. Shawn will share practical insights, including the benefits of automated notifications, custom reports, and the potential for AI integration to identify patterns and anomalies. This session is ideal for professionals seeking to enhance their system monitoring capabilities and improve operational efficiency.

https://www.aveva.com/en/perspectives/presentations/2025/pg-e--enhancing-aveva-pi-system-health-monitoring-with-centralized-log-management/

AW25 Power & Utilities presentations

Dominion Energy: AVEVA PI System Automation - From PI Tags to AF Models

Across Dominion Energy's T&D footprint, the frequent addition of new equipment and retirement of old ones make it challenging to manually manage PI tags and AF models. We aim to automate the creation and updating of the AVEVA PI System, which contains over 5 million tags, by integrating data from both EMS and ADMS SCADA systems. The goal is to maintain AF models with a user-friendly structure that consolidates relevant information from various systems.

https://www.aveva.com/en/perspectives/presentations/2025/dominion-energy--aveva-pi-system-automation---from-pi-tags-to-af-models/

AVEVA™ PI System™ and AVEVA™ PI Data Infrastructure roadmap

The industry-leading AVEVA PI System continues to evolve to support the hybrid data needs of its community of users and partners. Join us to hear about AVEVA's investments across the PI System portfolio and AVEVA PI Data Infrastructure. And learn about the future roadmap for this suite of products in support of your data management, visualization, and analytics for any use case from edge, to plant, to community.

https://www.aveva.com/en/perspectives/presentations/2025/aveva--pi-system--and-aveva--pi-data-infrastructure-roadmap/

AW25 Infrastructure presentations

Stanford University: Improving Stanford Energy System Innovations overall reliability and sustainability with PI System

2 Yeas ago, it was time to change to a new data historian. Stanford University utilities had been metering energy use since before 1940 and we needed a new system to hold all that information. AVEVA PI System has been integrated and has been a vital tool in optimizing energy use from the power plant where it is produced, all the way to the building where customers use the energy. Over 2 years ago, Stanford's powerplant needed to double its cooling capacity and also transition away from a DDC system managing operations. By implementing AVEVA System Platform, there was a great leap forward in system operations and control. This allowed us to achieve total system energy control and optimize the system to its true potential. ASP's flexibility has enhanced the plant efficiency and helped the campus achieve sustainability goals, while seamlessly integrating diverse controls components.

https://www.aveva.com/en/perspectives/presentations/2025/stanford-university--improving-stanford-energy-system-innovations-overall-reliability-and-sustainability-with-pi-system/

University of Iowa: Data Modernization at the University of Iowa's Water Plant

Until recently, the Water Plant at the University of Iowa stored its lab data in an agin Microsoft Access database from the 1990s. This database had numerous problems and limitations: data was not easy to use, users were unable to edit the structure to accommodate changing needs, incorrect labeling of samples, samples that were unable to be recorded accurately due to constraints, calculated fields were calculated incorrectly, and so on. This program was used to calculate our CT values (an equation which tells us if we have properly disinfected the water), which caused reporting issues as well. As ENGIE has been pushing to digitize and modernize our data collection and retention we have taken many steps to improve the processes. Updatable bench sheets were developed, data was generated digitally to minimize printing and paper use, a digital shift exchange log was built, and, most importantly, a new laboratory information management system was sough out. First, we explored licensing a water specific laboratory information management system but, due to the cost, we had to find other options. Both ENGIE and the University of Iowa have utilized AVEVA's PI System for quite a while and there is a local team dedicated to its support, so the water plant group and the PI team worked together to develop a PI-based system to manage laboratory results. We now use PI Manual Logger to enter our sample results, PI Vision to view and share the results, and PI DataLink to enter any of the results into Excel spreadsheets to generate reports. Many calculations can now be ran such as CT values, the Langelier Saturation Index, water storage totals, and hydroxide alkalinity through the PI System utilizing both current operating conditions and recent sample results. Daily water and chemical usage reports, as well as generation of the Monthly Operations Report, is in the works currently.

https://www.aveva.com/en/perspectives/presentations/2025/data-modernization-at-the-university-of-iowa-s-water-plant/

AW25 Infrastructure presentations

SABESP: Enhancements in Water Resource Management with AVEVA PI System

This project presents the modernization of the PI System environment at SABESP, focusing on server virtualization and the updating of essential components. Through a robust and distributed architecture, significant improvements were implemented, including the migration of a legacy application to modern technologies, forecasting water consumption at pumping stations, and real-time monitoring of Water Pumping Stations. The project resulted in reduced operational costs, increased efficiency, and improved service quality for the population. The integration of systems and the adoption of a data-driven approach for decision-making ensured more efficient management of water resources, minimizing water scarcity in the São Paulo Metropolitan Region (RMSP). This initiative highlights the potential for innovation and the possibility of replication in other organizations within the sector.

https://www.aveva.com/en/perspectives/presentations/2025/sabesp--enhancements-in-water-resource-management-with-aveva-pi-system/

LA County Sanitation District: Centralizing, Visualizing and Sharing Real-time data using PI, Asset Framework and CONNECT

The LA County Sanitation Districts (LACSD) use PI System, Asset Framework, and CONNECT to streamline workflows, provide real-time actionable insights for on-premise data, collect data from various sources that can impact our operations, and share data with our partners. This presentation will share several use cases, including: Automated notifications for operations support using PI Analytics, centralization and standard visualization of flow monitoring data from the sewer system {with help from Rovisys), using CONNECT to share data with third-party analytics platforms (in this case, AquaDNA), using CONNECT to collect data from industries that can impact treatment plant operations.

https://www.aveva.com/en/perspectives/presentations/2025/la-county-sanitation-district--centralizing--visualizing-and-sharing-real-time-data-using-pi--asset-framework-and-connect/

AVEVA

AW25 Infrastructure presentations

Jal Jeevan Mission: Revolutionizing Water Management with PI System & Arc GIS: Real-time Data Monitoring

The Jal Jeevan Mission, a flagship initiative by the Government of India, aims to provide safe and adequate drinking water to every rural household through individual household tap connections. By integrating AVEVA PI System and ESRI Arc GIS, Maharashtra aims to monitor, manage, and optimize water supply across the state effectively. This integration enables real-time data acquisition, visualization, and analytics to monitor and manage water supply systems efficiently. Real-time monitoring and quick response to contamination ensures the supply of safe and clean drinking water to all households. Continuous monitoring and data-driven decision-making enhance the reliability and consistency of water supply across cities and villages. Early detection and localization of leaks through integrated systems significantly reduce non-revenue water, improving the efficiency of the water supply network. Accurate reservoir level monitoring aids in optimal water resource management, ensuring preparedness for varying demand and drought conditions. Consistent water pressure at critical points prevents infrastructure damage, ensures equitable distribution, and minimizes water waste

https://www.aveva.com/en/perspectives/presentations/2025/jal-jeevan-mission--revolutionizing-water-management-with-pi-system---arc-gis--real-time-data-monitoring/

LA City Hyperion Water Relamation: Complexity to clarity through technology

Presentation not on site yet.

10-20% overall OPEX reduction; **25%** reduction in downtime; **30%** maintenance cost savings

AVEVA APM blueprint

Manage risk cost and performance while ensuring safe and reliable operations and workforce

Asset Strategy Optimization

Balance Risk, Cost and Performance in your Asset Strategy

- Align asset strategy to enterprise goals
- Asset criticality
- Reliability-centered maintenance
- Failure mode and effects analysis
- Asset library
- Root cause analysis
- Risk simulation and management

Predictive Analytics

Reduce Downtime with Predictive and Prescriptive Analytics

- Predictive analytics
- Prescriptive maintenance
- Case and collaboration management
- Turnkey MDSC capabilities
- Artificial intelligence
- Machine learning
- Condition-based Maintenance

Maintenance Execution

Improve Safety and Reliability in Maintenance

- Operational safety management
- Control of work
- Digital work permitting
- Hazard analysis
- EAM Integration
- Mobile maintenance
- Connected worker

Industrial Information Management

Engineering: Engineering data collection, aggregation, storage and contextualization

Operations: Real-time data collection, aggregation, contextualization, events and self-service calculations