12-13 MAY 2025

AVEVA DAY

PERTH

The Industrial Intelligence Event 2025

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AVEVA DAY

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The Industrial Intelligence Event 2025

May 2025

Next Frontier for Industrial Collaboration/ Effectiveness

Enabling “Time” the new Currency

Tim Sowell

SVP Digital Portfolio Transformation Strategy – Global AVEVA

The currency of the data-driven organisation: "**Time**"

"time" is about actionable decisions

65%
Of decisions are more complex than they were two years ago

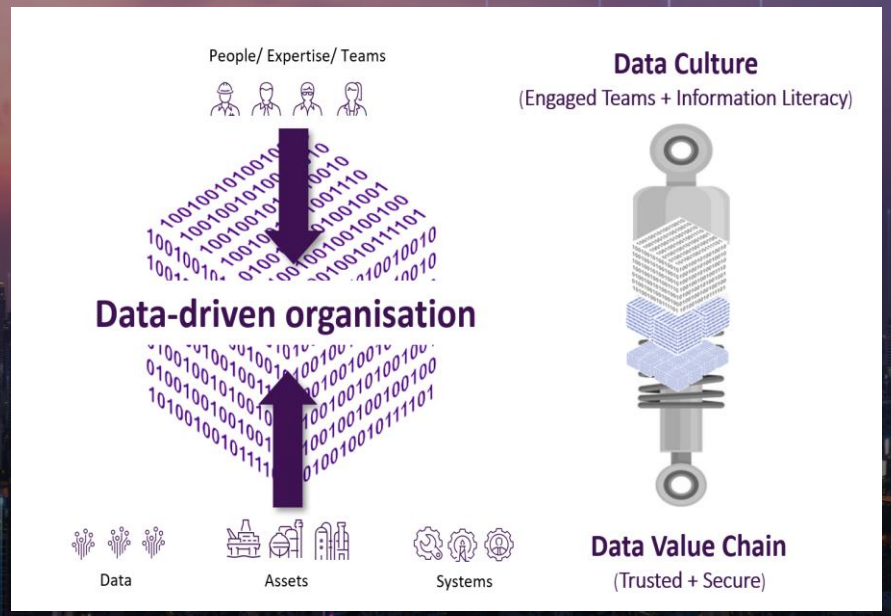
30-50%
Organisations are not where they want to be for data discovery and integrity

20-30%
Productivity gain can be achieved through digital collaboration

3%
Organisational cost in annual profits due to poor operational decision-making

Dynamic Workforce
Dynamic/ Active Workplace

Ages 55-64: median tenure of **9.6 years**
Ages 25-34: median tenure of **2.7 years**



Sustainability driven by digital
89% of industrial companies are investing in digital solutions to drive sustainability, with a focus on collaboration tools, real-time data, and predictive analytics

Digital Transformation
- New ways of working
- Rapid On Boarding
- Leverage Rotating Expertise
- Autonomous Operations
- Reduce wasted work
- Outward thinking
- Value creation
- Customer centric

What it takes to deliver results

Actionable, applied technology that performs control and automation

Domain specificity for value-driven industrial use cases

Hyper-collaborative and interoperable value chain backed by trusted systems and sources

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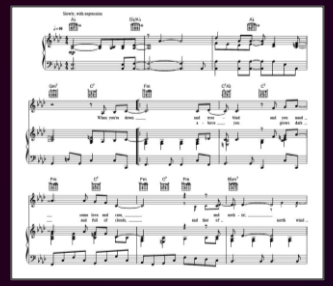
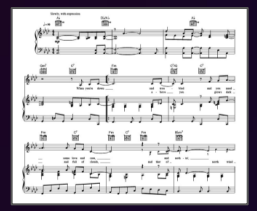
Enabling the new operating norm – Empowering effective teams

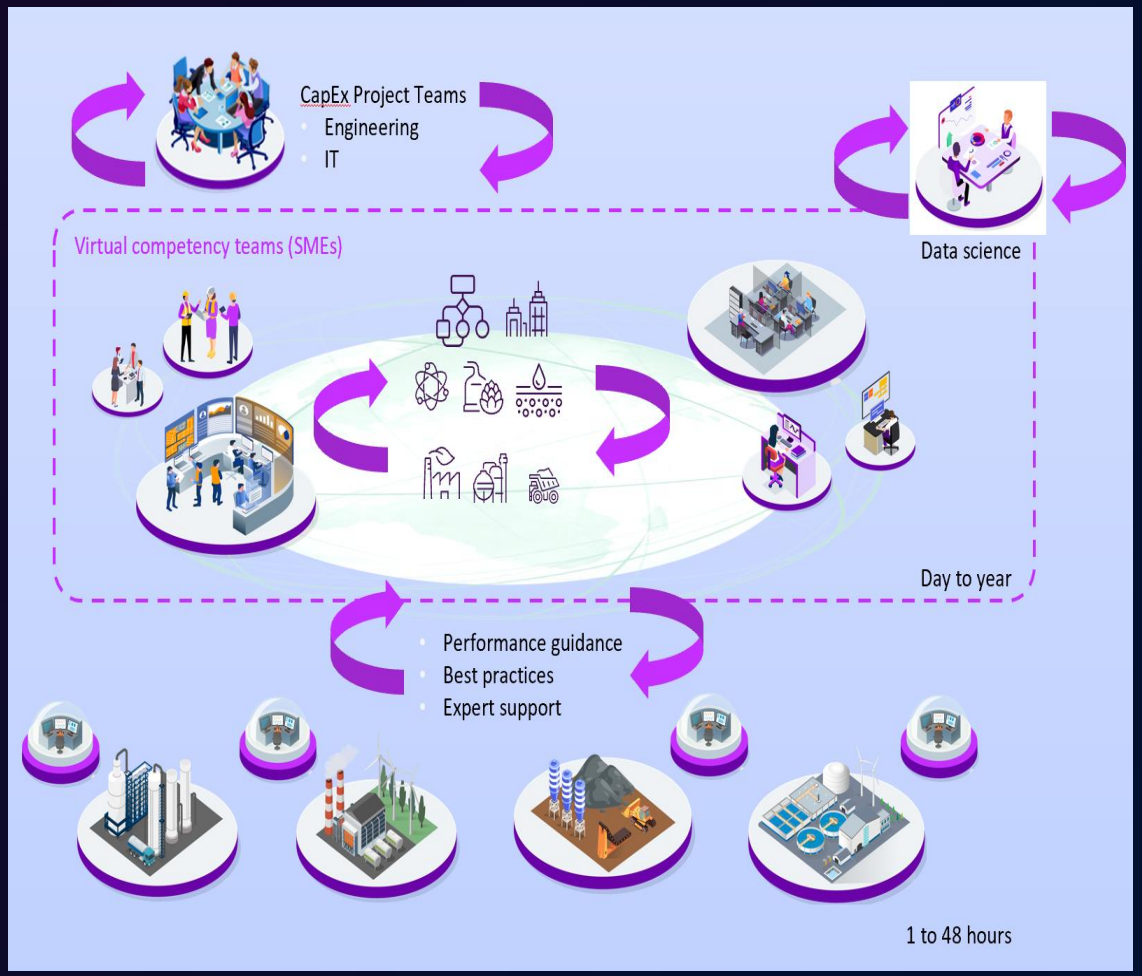




All in location, all aligned
All seeing Conductor

Distributed Expertise, Remote
“How do you align?”

The New Operating Norm for Industrial Landscape



- Performance guidance
- Best practices
- Expert support

CONNECT

Industrial Cockpit

Virtual competency teams (SMEs)

CapEx Project Teams
- Engineering
- IT

Data science

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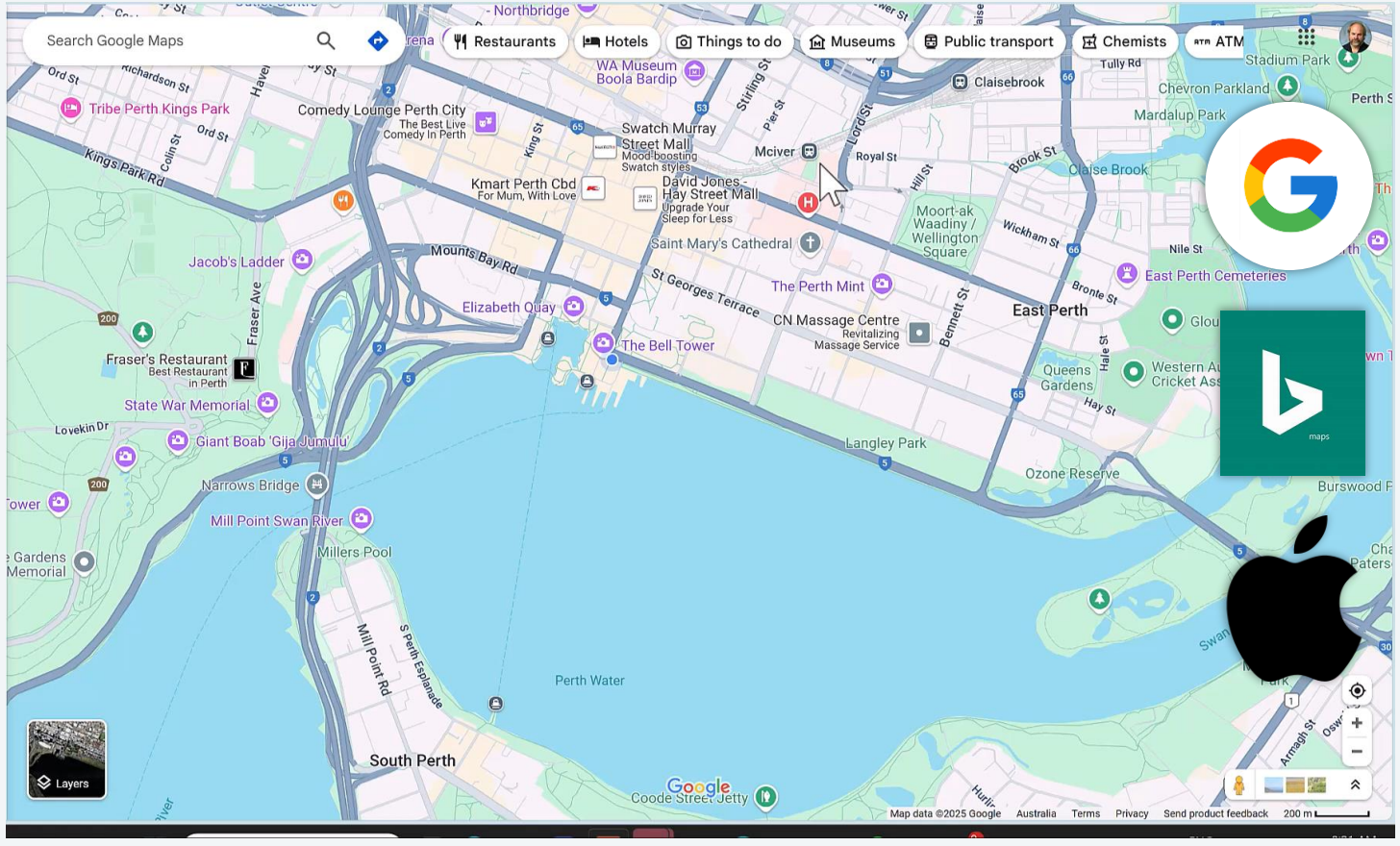
What are the characteristics of a Digital Twin?

One we use everyday:

- Intelligent / Fully contextualized
- Consistent / Persistent
- Layered: Realtime data linked to Static Data
- Extensible
- Accurate
- Intuitive
- Accessible & Searchable
- Trusted



New Ways of Working/ New Collboration

Extending your investments

AVEVA
Unified Engineering

Wonderware
Citect

CONNECT

Virtual competency teams (SMEs)

CapEx Project Teams
- Engineering
- IT

Data science

AVEVA

CONNECT

Industrial intelligence platform

Applications & analytics

Design | Build | Operate | Optimize

Information

Engineering information

Operations information

Enabled by an ecosystem of developers and partners

Assets and devices

Giving back Time: Eldorado Gold

Results & Outcomes: Summary

Remote monitoring and decision making from the Cloud

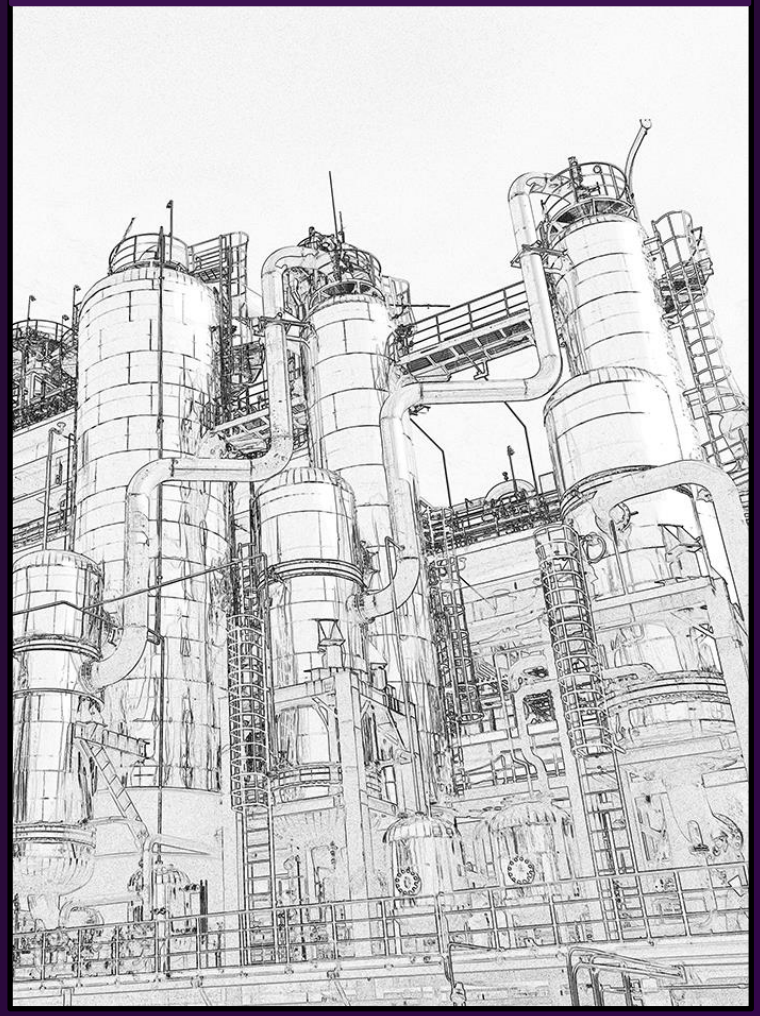
> AVEVA Connect has the potential to be a game changer in consolidated operations reporting and analytics with its seamless integration of different data sources in a centralized platform.

David Pan, Head of Operation Analytics, Eldorado Gold

- Create a **'Centralized Production Reporting'** Experience application using the CONNECT Industrial intelligence platform
  - Connecting AVEVA PI Server from Lamaque site
  - Connecting AVEVA System Platform/Historian from Kisladag site
  - Connecting a Microsoft Az… Health & Safety
  - AVEVA Advanced Analytics (Threads) for calculations

Integrated AI: Shortening time to ROI

DESIGN & BUILD SMARTER



OPERATE SAFER

OPTIMIZE FASTER

Enabling a Self Service Industrial Twin – AI Applied Simplification

AVEVA AIM

Asset Information Management

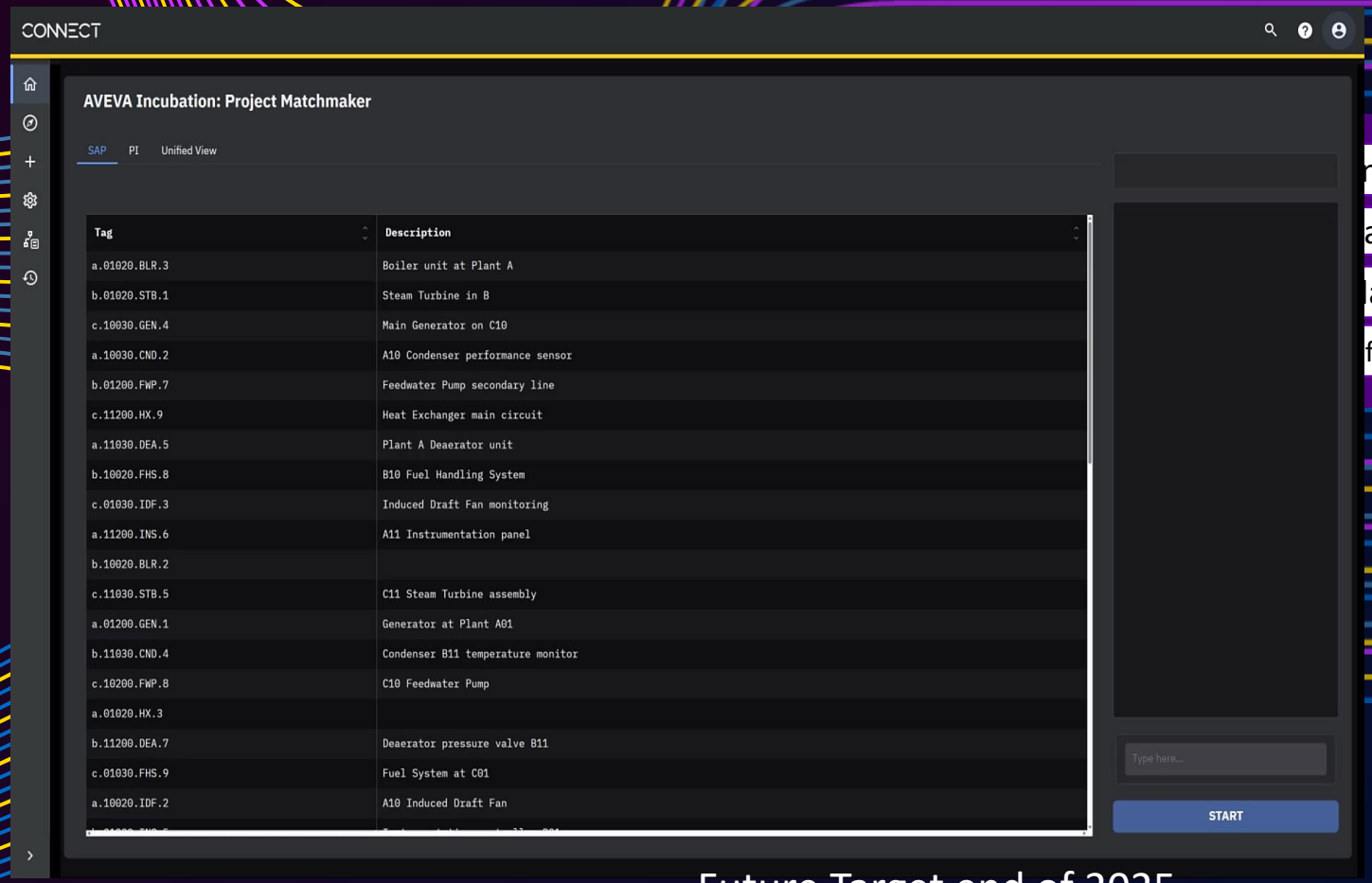
Engineering Twin

PI/Asset Framework

Process Twin

Unified Operations Centre

Operational Twin



ntuitive Engagement

ata Sharing Flexibility

lability/ Regionalization

fy/ Lower Cost Of Ownership

Future Target end of 2025

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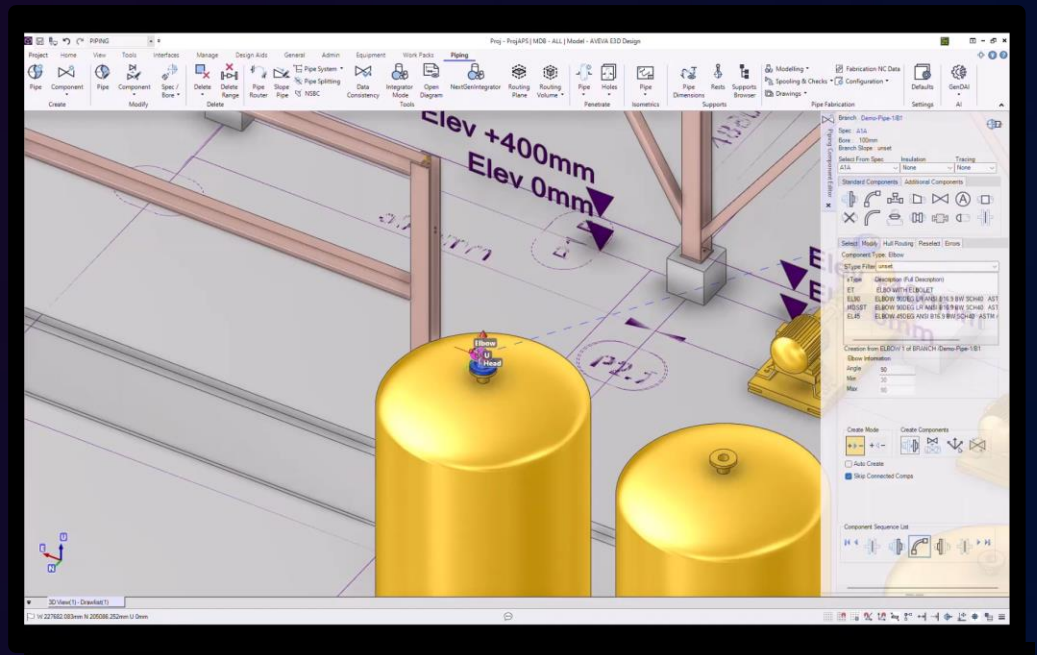
Generative AI to save time and materials

AVEVA Unified Engineering

Design & Build

Routing pipes
Critical but time consuming

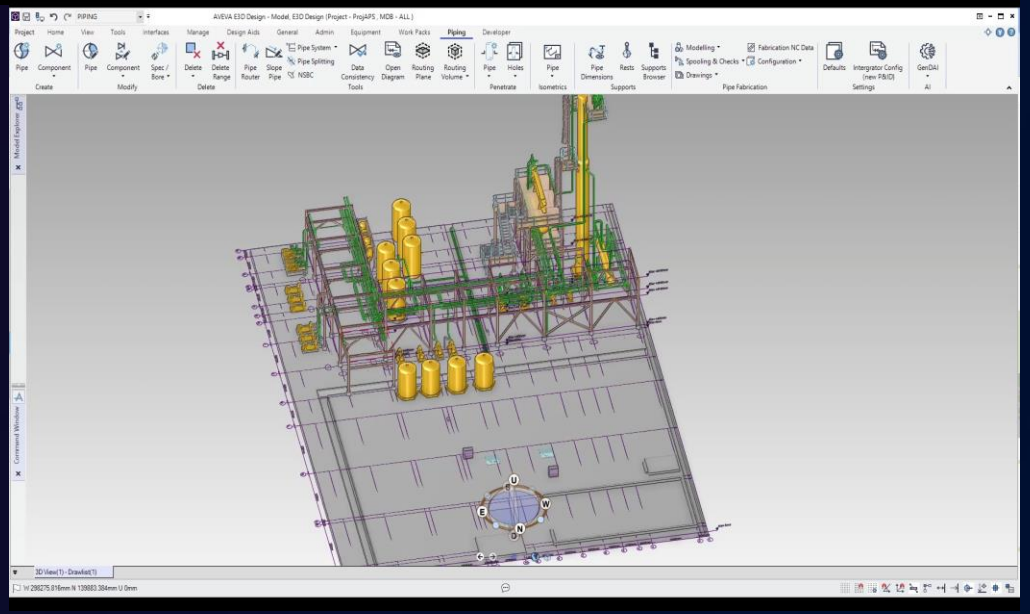


CONNECT

Wonderware Citect

Operate

With AI
20x productivity
100% clash free



Optermize

Interactive AI instruction

AVEVA Unified Engineering

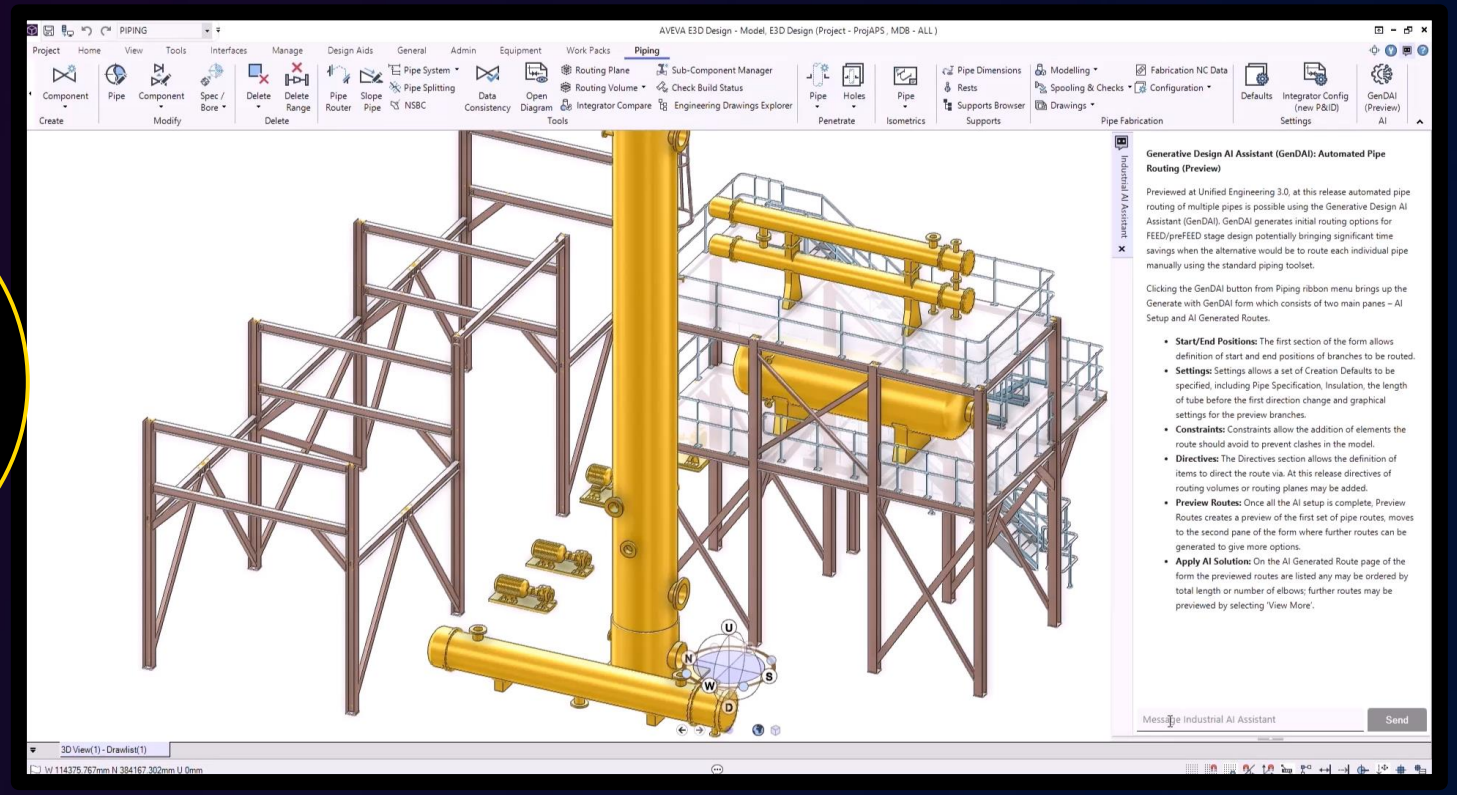
Design & Build

Wonderware Citect

Operate

Optermize

CONNECT



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Industrial AI: Intelligent Point Cloud – Allowing the Real Visual

AVEVA Unified Engineering

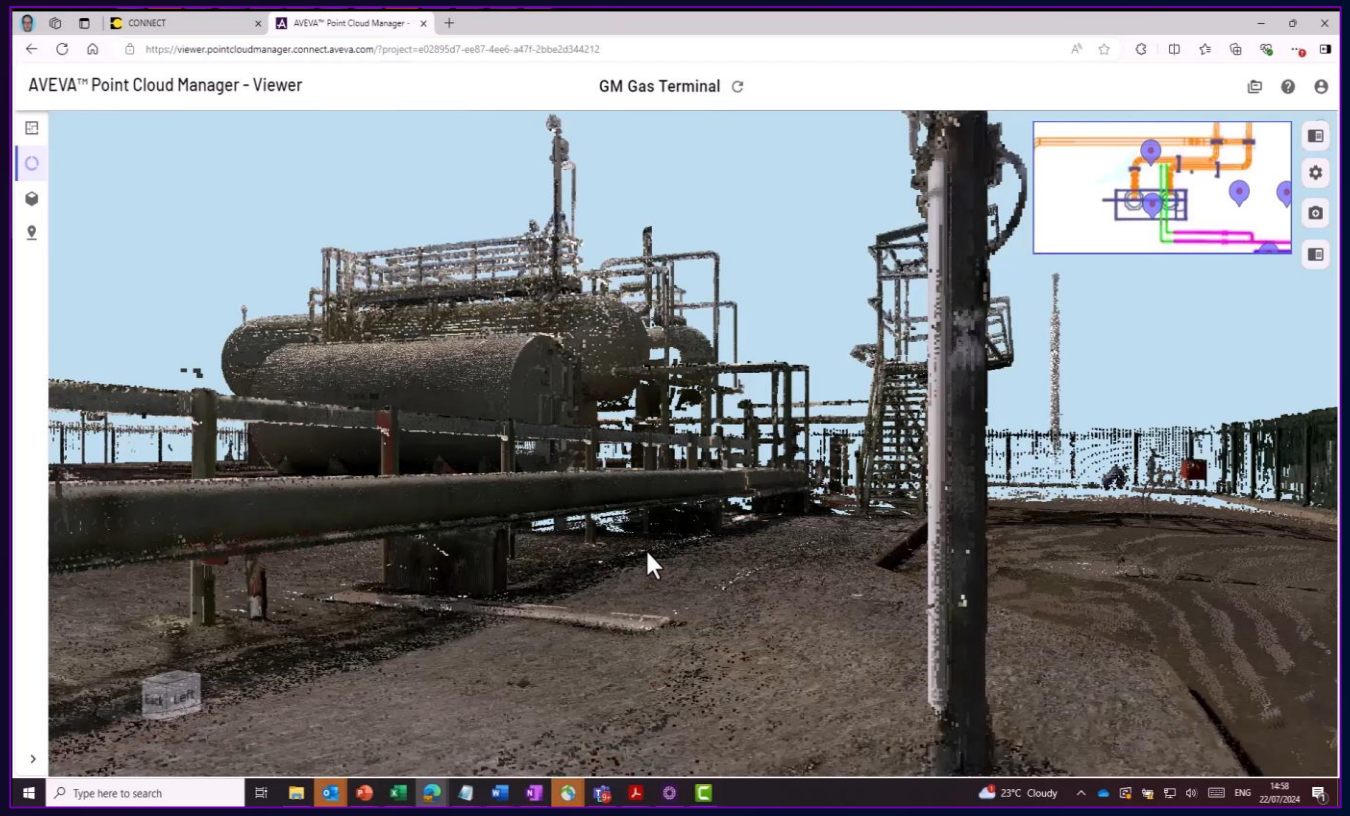
Design & Build

Wonderware Citect

Operate

Optermize

CONNECT



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Industrial AI: Digital Twin - find in-context industrial information

AVEVA AIM

Asset Information Management

Engineering Twin

Wonderware Citect

Unified Operations Centre

Operational Twin

CONNECT

PI/Asset Framework

Process Twin

AVEVA

Industrial AI: Digital Twin – Content Generation on Demand

AVEVA AIM

Asset Information Management

Engineering Twin

Wonderware Citect

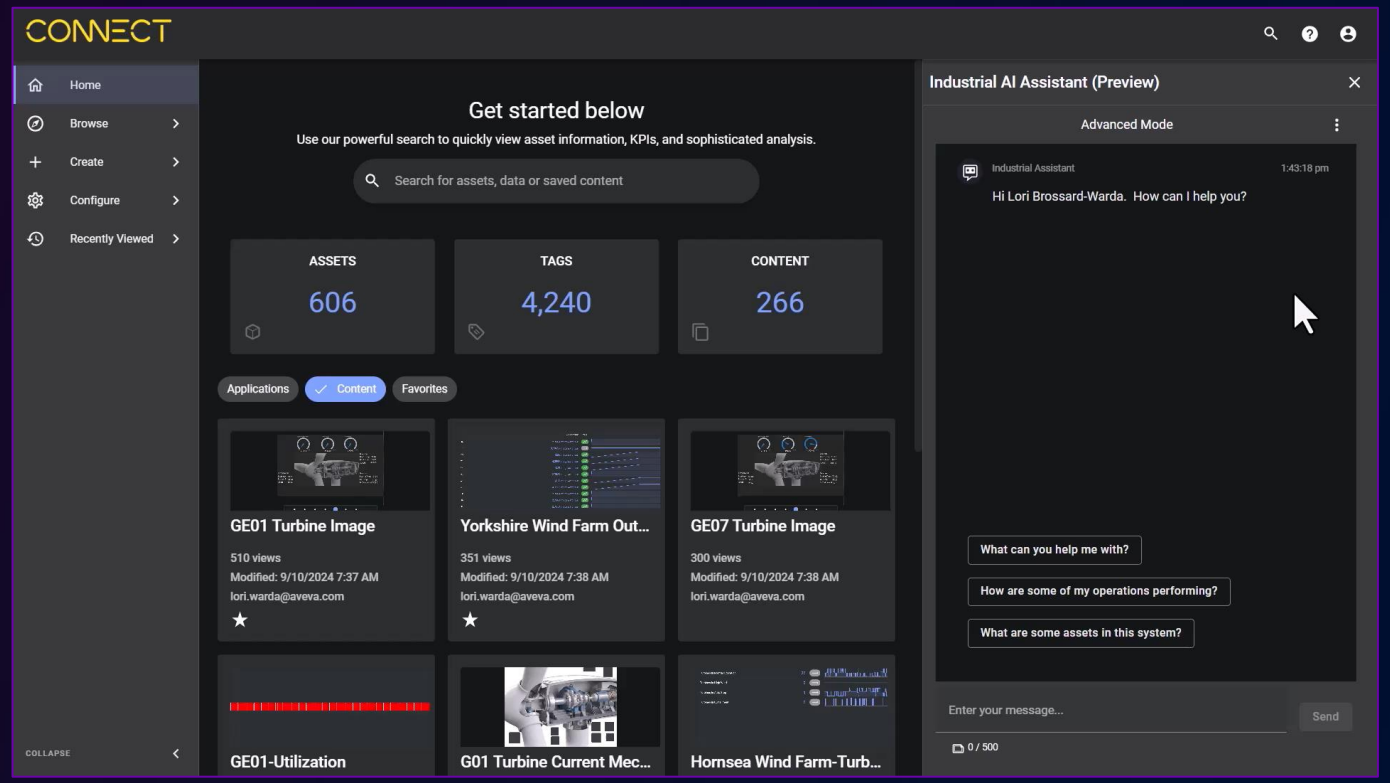
Unified Operations Centre

Operational Twin

PI/Asset Framework

Process Twin

CONNECT



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Industrial AI: Digital Twin - find in-context industrial information

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CONNECT

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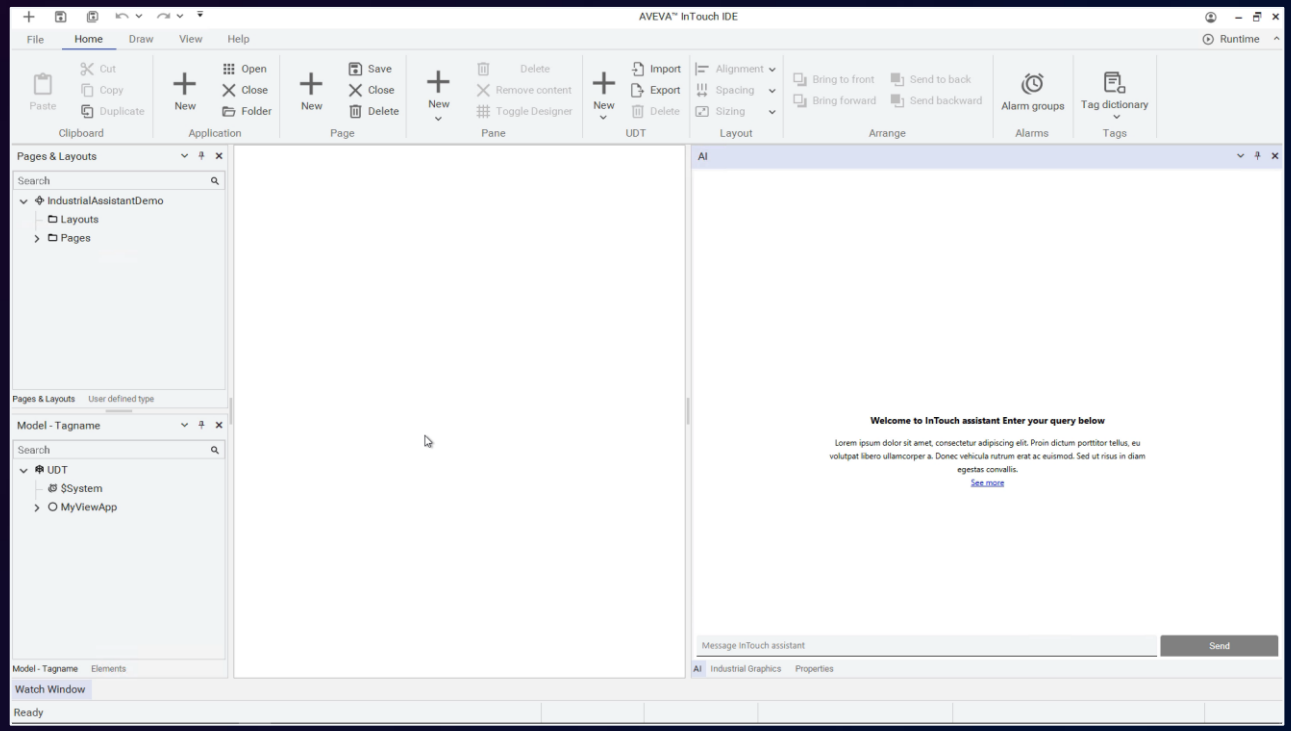

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Industrial AI: Autonomous Operations

AVEVA AIM

Asset Information Management

Engineering Twin

Wonderware Citect

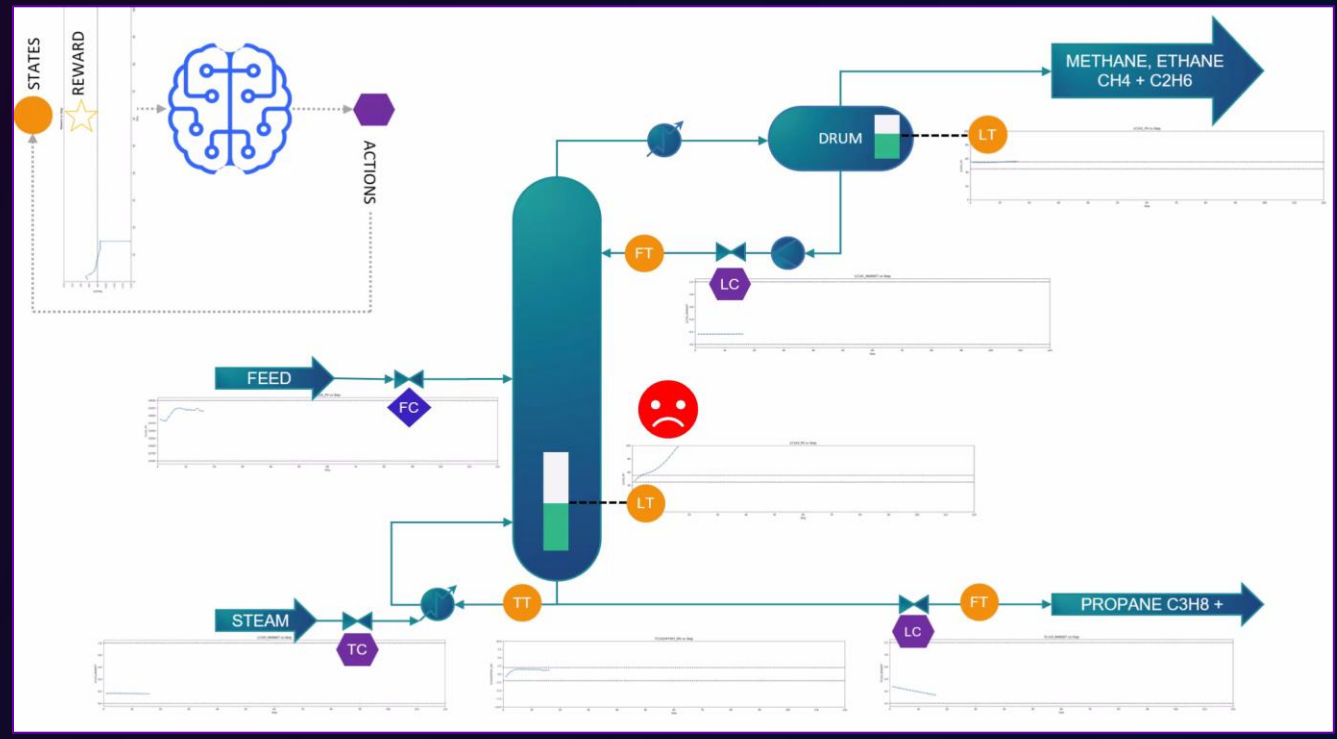
Unified Operations Centre

Operational Twin

CONNECT

PI/Asset Framework

Process Twin



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Industrial AI: Configuring AI Models, outputs on-demand

AVEVA Unified Engineering

Design & Build

Wonderware Citect

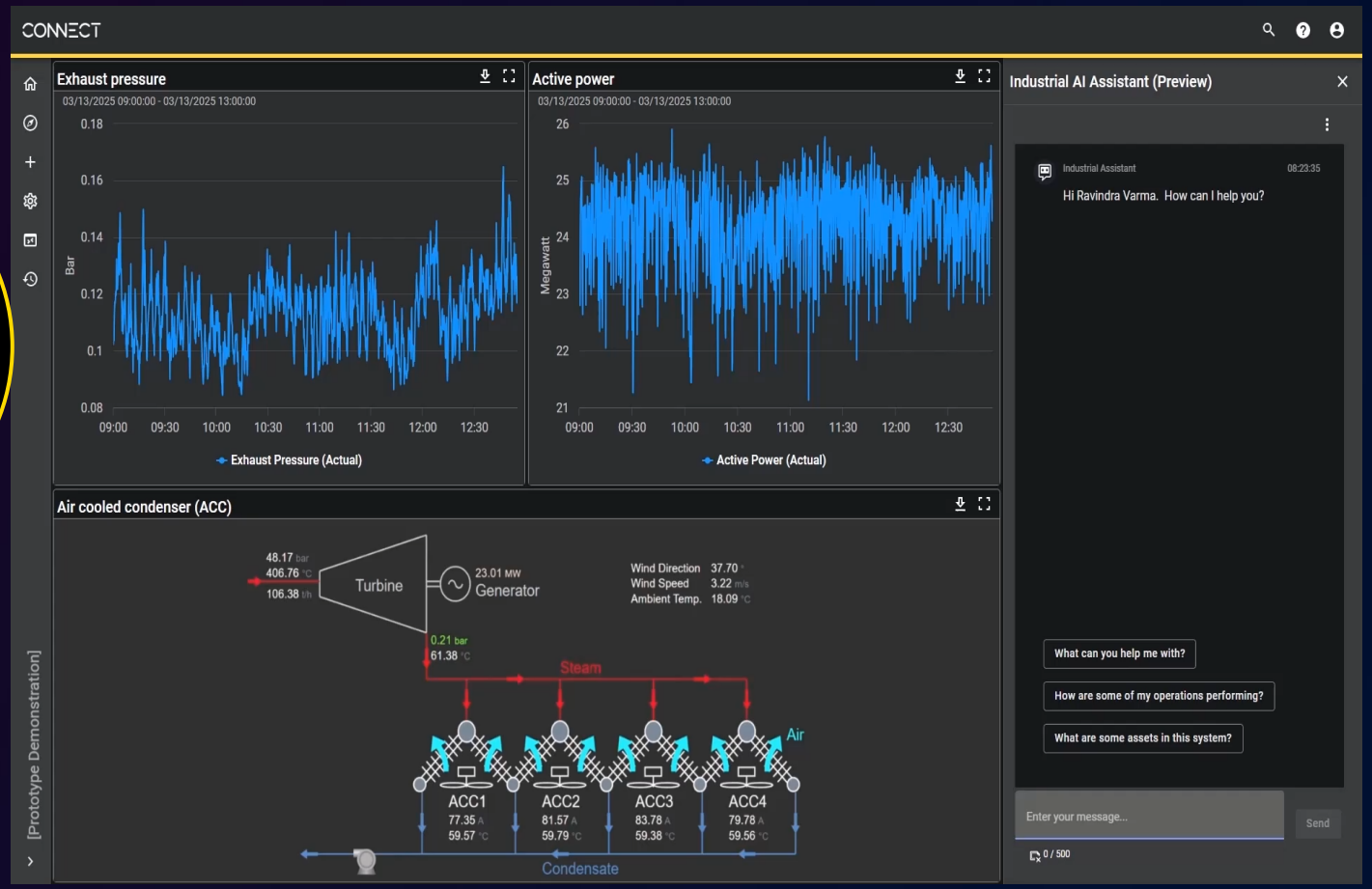
Operate

Optermize

CONNECT

Define, Configure and Apply Predictive models “by instruction” rather than manually.

Future in development



Use AI Agents to create models and monitor 24x7 (*Agentic AI*)

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Industrial AI: Bring analytics results back to improve decisions

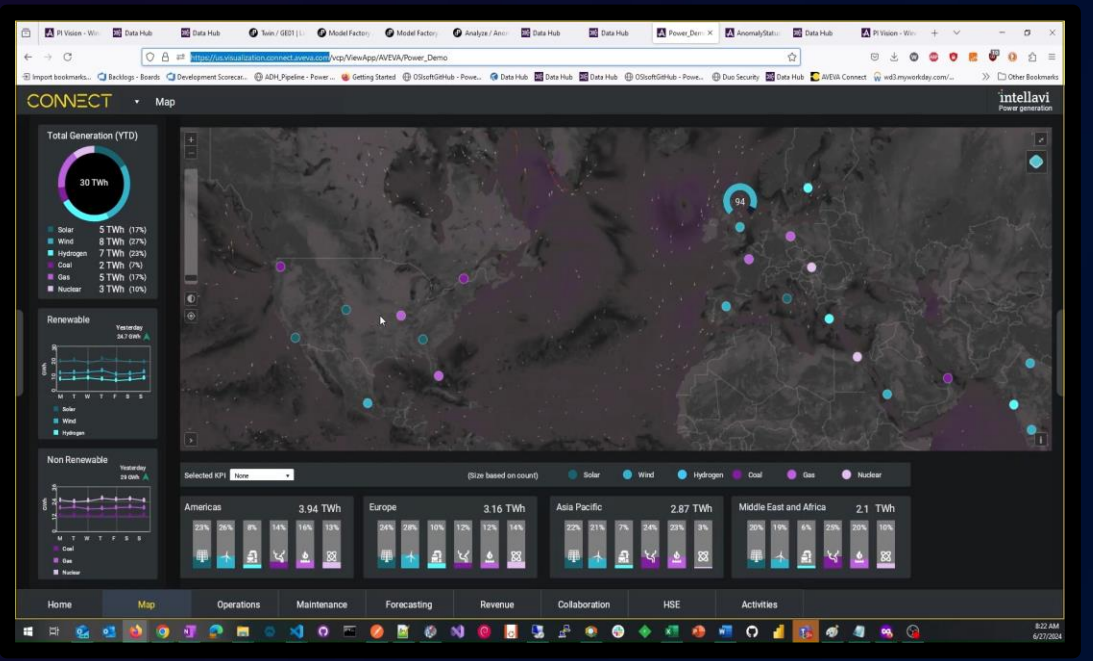
1

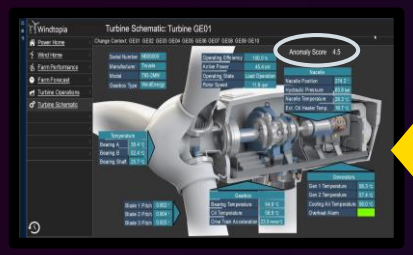
2

3

1. Securely transmit data
2. Aggregate & apply AI/ML techniques
3. Write back allows PI Vision to expose CONNECT analytics

CONNECT





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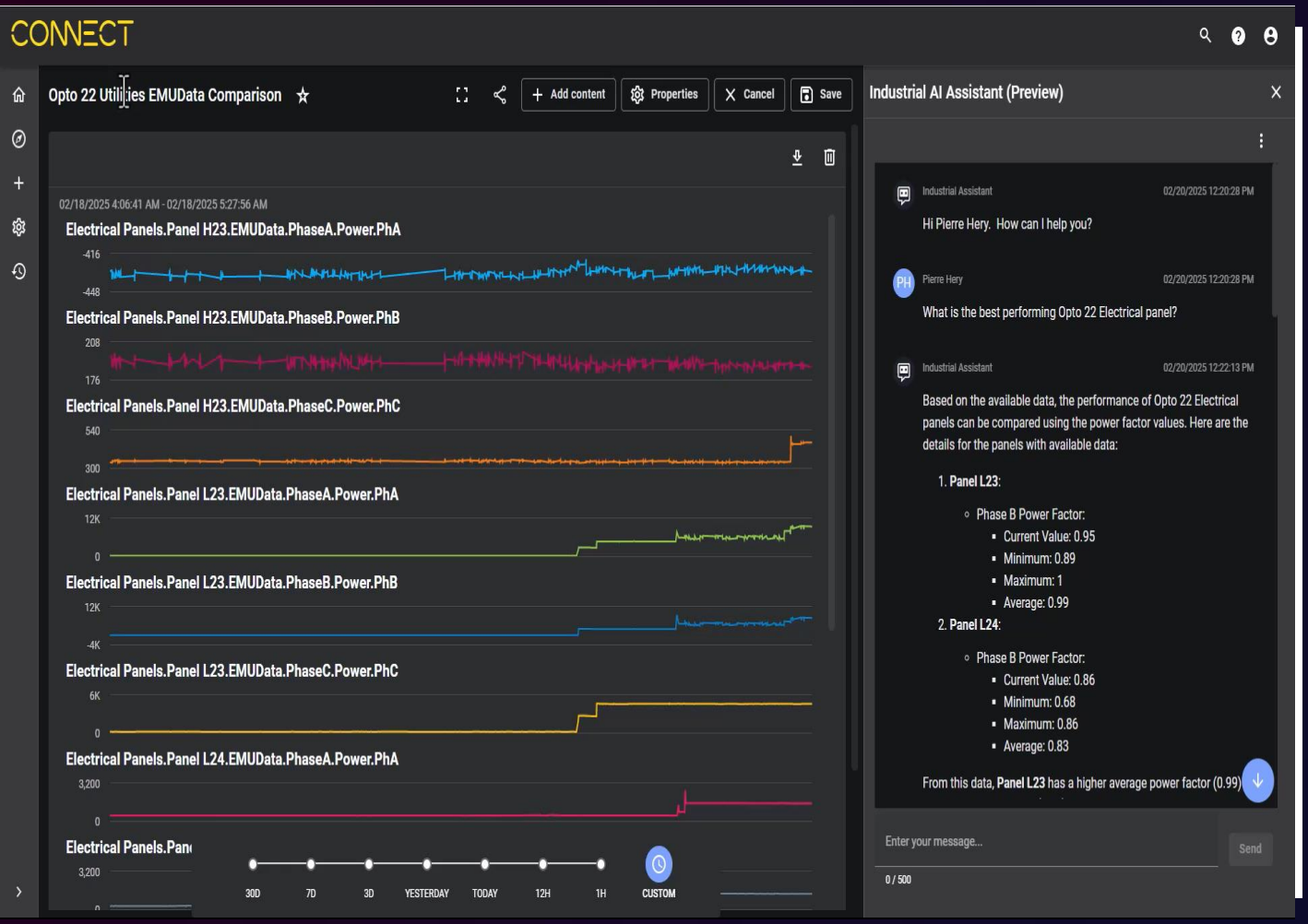
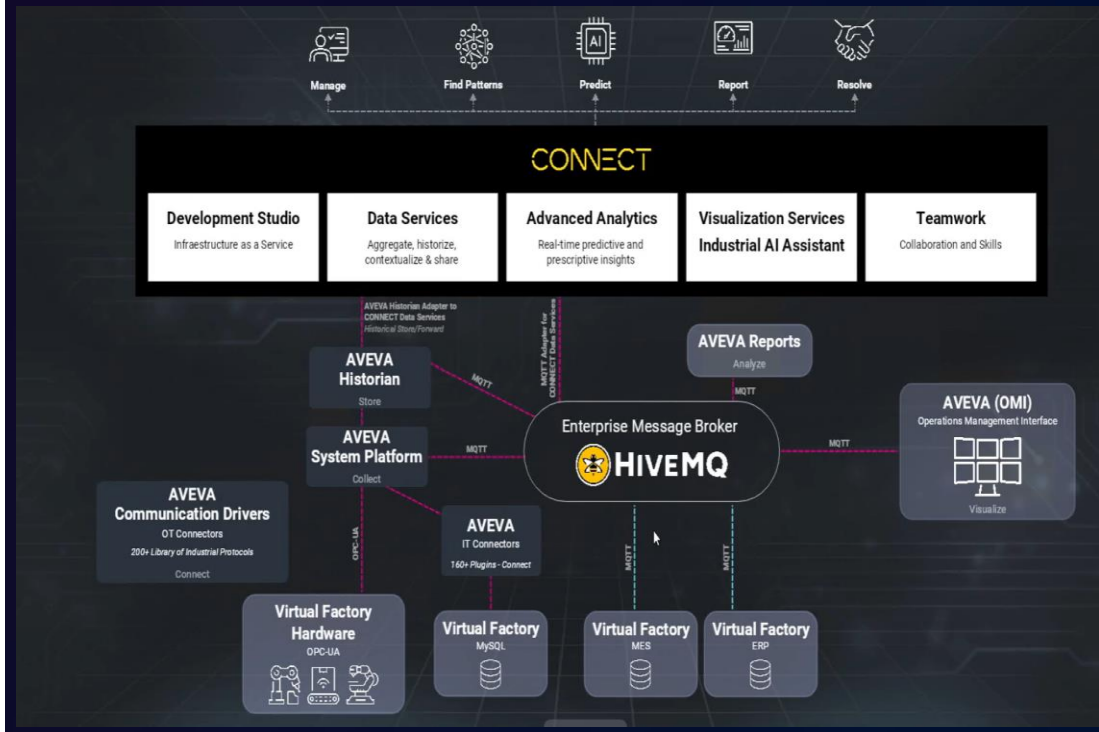
Evolving from SCADA to Operations Control

Leveraging your SCADA Install base but growing with Digital Transform





Where are We Headed?

Unified User Experience
"*convergence*"

Functional Software Level
"*tell it what you want it to do*"
(connected to other types of AI)

Data & Information Level
"*ask a question*"

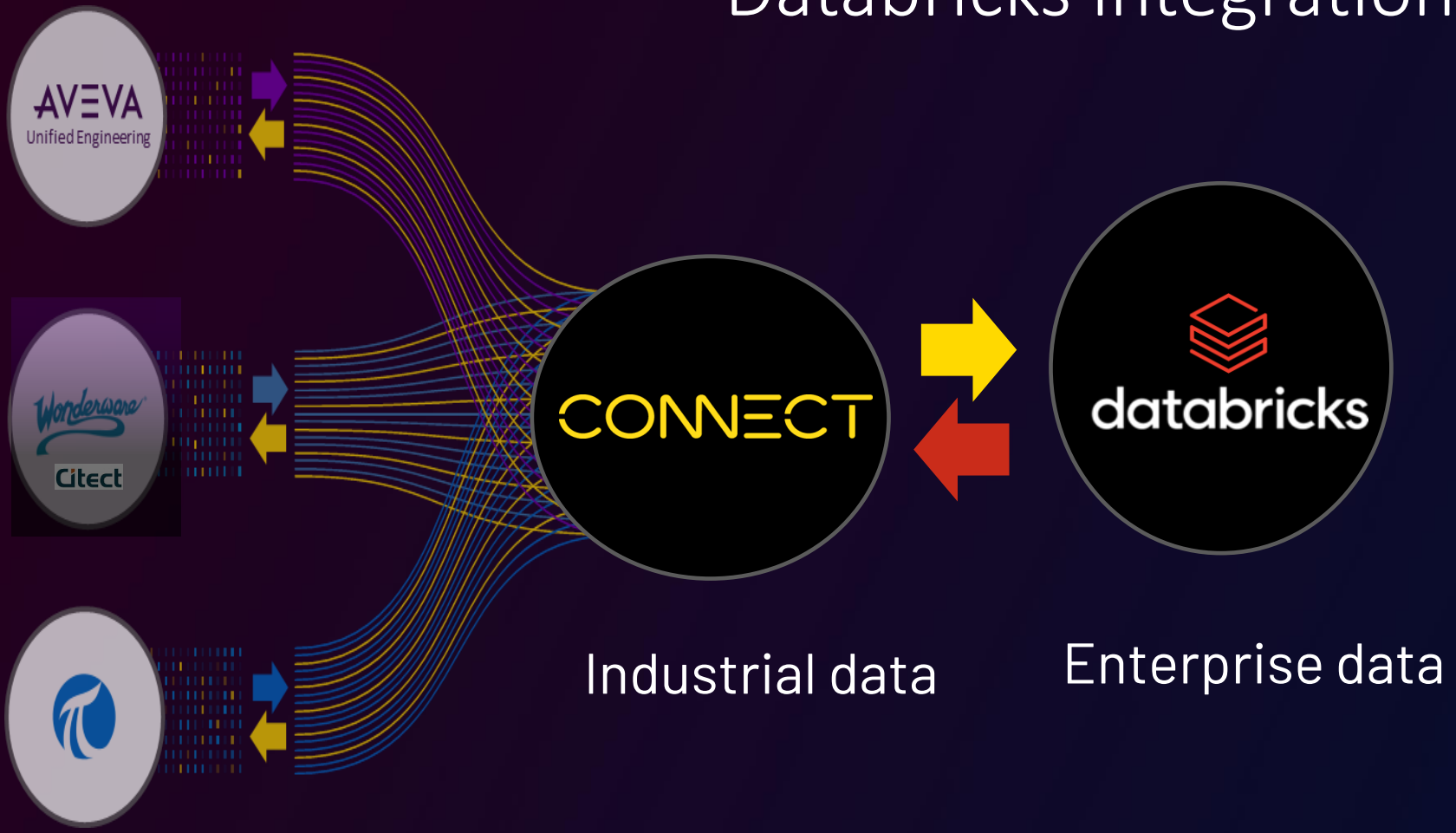
Today

Tomorrow

Future

NEW

Databricks integration



CONNECT

Industrial intelligence platform

Industrial AI Innovations

Enriching existing investments

Partner ecosystem

AVEVA

APRIL 2025

Thanks

Changing the way we engage!

AVEVA

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.

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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.

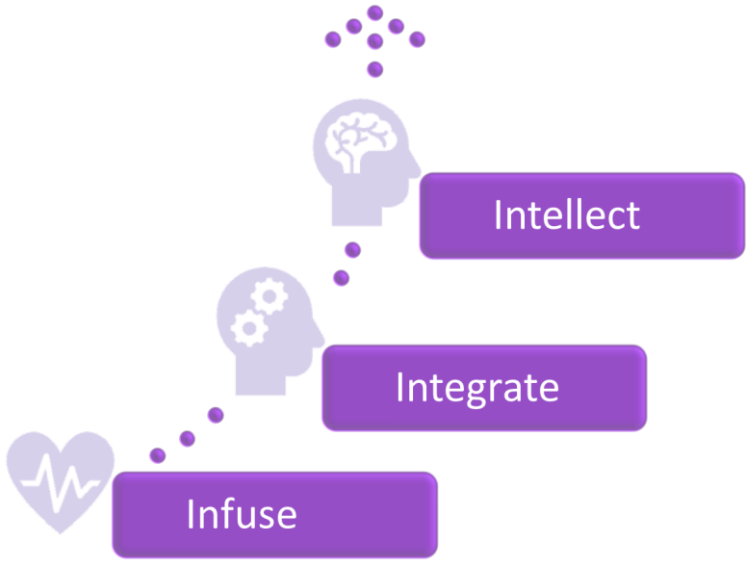
Learn more at www.aveva.com

AVEVA

AVEVA and AI: Not just technology

Industrial Intelligence

- 20+ years experience in industrial AI
- Strong domain and industry expertise
- 19 AI infused products
- Sustainable and actionable insights



AI Strategy

Data and analytics across the full lifecycle

Design | Operate | Optimize

Faster design processes and handover

↓

Smarter, more responsive industrial processes

↓

Reliable and optimized plant operations

Example of Extending Existing Systems

CEREBULB

Coromandel FUTURE POSITIVE

Coromandel Data Analytics Use-case

Coromandel Reimagined

Prediction of Free Acid in Reactor Slurry of PAP1

Problem

- Needed to predict the free sulphate in the reactor slurry based on process parameter performance
- To avoid process upsets which ultimately lead to long shutdowns and impact phosphoric acid production and more P2O5 losses.

Measures undertaken

- Model developed with AVEVA Advanced Analytics
- 6 months data collected from July to Dec-23.
- 10 No's of influencing parameter considered for model building.
- Considered plant stabilisation period i.e SA flow > 550 LPM.
- EDA performed and feature engineering applied.
- Correlation heatmap analysis done.
- Linear regression accuracy – 9.6%
- Decision tree regression accuracy – 49%
- **Random Forest regression accuracy – 92%**
- Model training completed and implementation under progress

Results

- Potential benefit of 1.76 Cr/year

CONNECT data services & AVEVA Advanced Analytics template PAP 01 free acid prediction

Coromandel Digitalization Journey

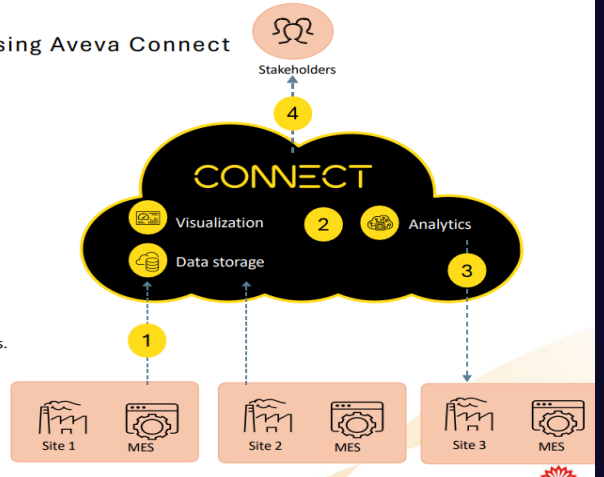
Coromandel Reimagined

➢ Use case : Predictive downtime alerts using Aveva Connect

1. Aggregate MES production data and other lab data into CONNECT data services.
2. Train AI/ML models on previous production runs to detect potential downtime causing conditions when producing a specific product.
3. Suggested corrective action to operations teams based on detected conditions.
4. Provide stakeholders with greater visibility to recommendations to avoid downtime when producing this product.

Results:

- Proactively manage production through analytical guidance to operations. Real-time alerts to and recommendations for avoiding downtime events.
- Monitor and view data, trends and performance outcomes through CONNECT visualization or 3rd party tools



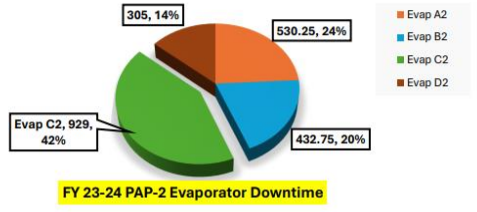
Evaporator Availability improvements

Problem

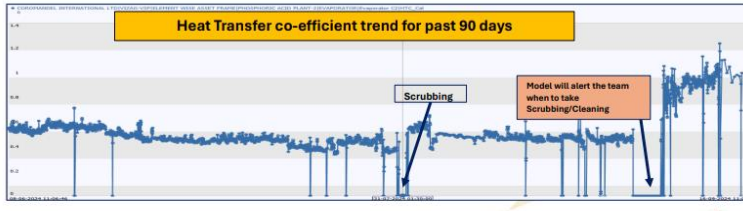
- Evaporator downtime FY 23-24 is almost 42% of the entire plant.

Measures undertaken

- Overall heat transfer coefficient has been calculated to monitor the rate of heat transfer to give anomaly on scrubbing.
- Carried out analysis for incorporating scrubbing date info dashboard for easy monitoring. Collected operational parameters and meta data from critical equipment and configured an asset framework (AF) template in AVEVA PI System.
- Developed Dashboards for Plant Operations Maintenance team to enable real time monitoring of KPIs and for data insights.
- Incorporated Heat transfer coefficient and various KPIs into dashboard for ease in decision making and performance monitoring.
- Created event frame notification for various KPIs alerts levels.



FY 23-24 PAP-2 Evaporator Downtime



Coromandel Achieves Potential benefits of 3.7 M$ through Process improvement

Challenge

- Process upsets leading to long shutdowns and impacting phosphoric Acid production and more P2O5 losses
- Evaporator downtime FY 23-24 is almost 42% of the entire plant.
- Loss of product produced due to non maintenance of target quality parameters

Solution

- Development of advanced analytics models on enterprise data management model to process production and process anomalies using AVEVA PI system, AVEVA AAA and CONNECT Platform

Results

Sl.No	Use Cases	Target	Business Impact/year- Current Scope- Under Vetting
1	P2O5 Efficiency Improvement & P2O5 loss reduction	Rock Efficiency Improvement by 0.3%	4.09 Crores
2	Quality Prediction & reduce rework	900 MT	5.4 Crores
3	Digital Twin for Evaporator C2	Reduction of 50% downtime of past 3 years yearly average downtime of 750.67 hrs	2.05 Crores
		Total Business Impact(Rs Crores/Year) =	Rs 11.54