

12-13 MAY 2025

AVEVA DAY

PERTH

The Industrial Intelligence
Event 2025

MAY 2025

AVEVA DAY

PERTH

Digital platform for Digital Asset
Health

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Major uncertainties to overcome

**Value chain
volatility
increasing**

**25% or
more price
fluctuations**

**Tribal
knowledge
decreasing**

**10 years of
knowledge being
replaced with
3 years**

**Technology
disruptions
accelerating**

**50% of top Industrial
Production Index
companies replaced
since 2004**



Software turns
volatility into opportunity

DESIGN & BUILD SMARTER

\$1.1B saved

by getting the design right
the first time

Software turns talent into opportunity

OPERATE SAFER

20% faster response

by empowering teams with
real-time monitoring displays



Software turns partnerships into opportunity

OPTIMIZE FASTER

\$1.7M saved

**by managing off-hours
HVAC settings**



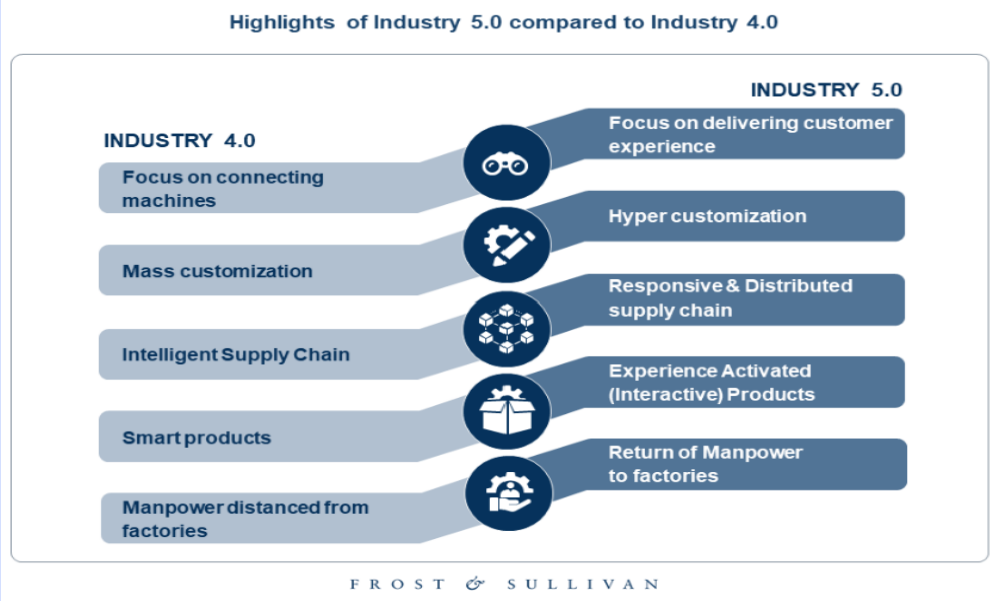
A **problem-solving** organisation is data-driven

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

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

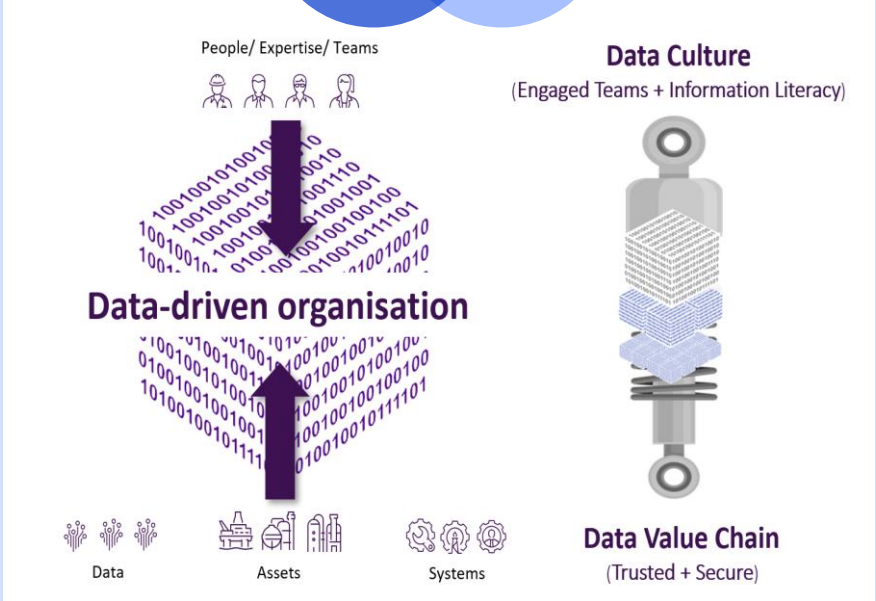


Enabled by Industry 4.0
56% of companies that hadn't implemented Industry 4.0 technologies prior to COVID-19 found themselves constrained in their ability to respond to COVID-19 in the absence of digital technologies to support them



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

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



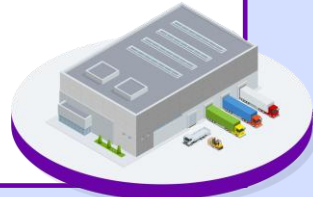
Sustainability driven by digital
89% of industrial companies are investing in digital solutions to drive sustainability, with a focus on collaboration tools, real-time data, and predictive analytics

Traits of the **data-driven** organisation

Value chains become **digital nervous systems** that can quickly adapt to market conditions



Products become **information streams** enabling transparency and traceability across the design-to-dispose lifecycle



Physical assets become **information appliances** that are self-aware and increasingly autonomous



Workers become **problem solvers** who bring judgement, imagination and improvisation for innovation and agility



Work processes become **information loops** enabling closed-loop feedback, precision control and continuous improvement



The digital transformation **challenge**

\$2.8 trillion

The amount spent on digital transformation in 2025, double 2020.

70%

Of digital transformations fall **short of their objectives**

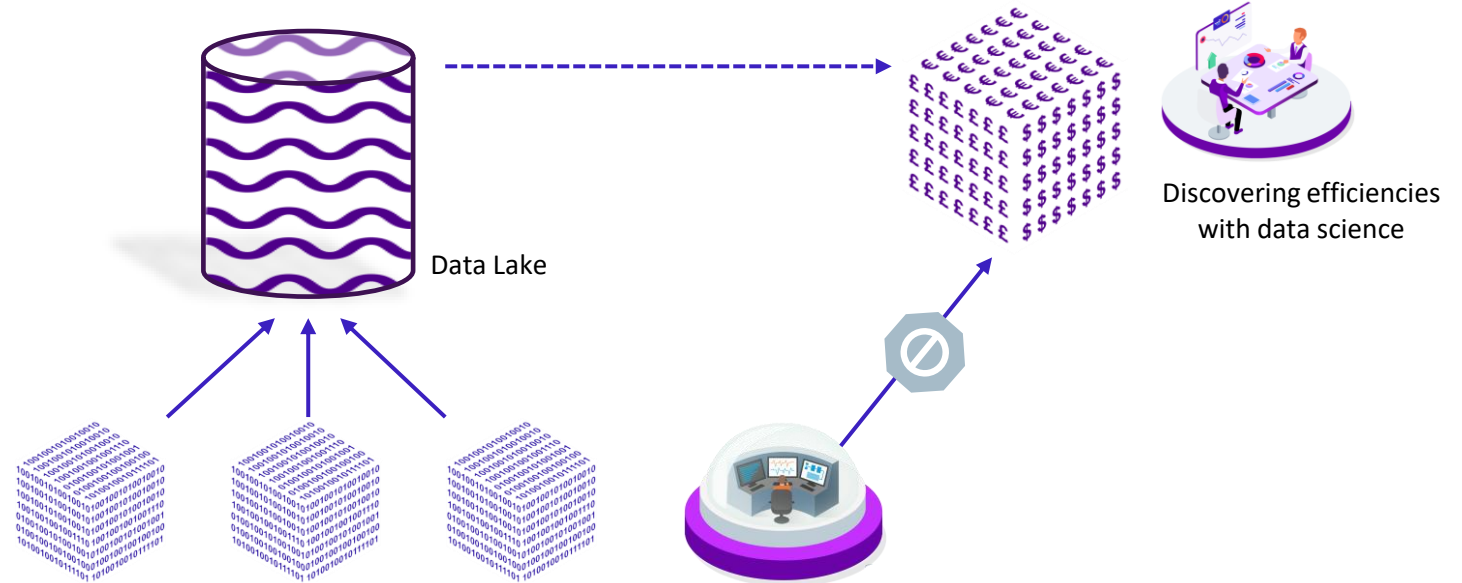
84%

Of companies **fail at digital transformation**

7/10

Say digital transformation progress has **slowed or stalled**

Digital transformation wave 1



Sources: IDC, BCG, Forbes, McKinsey

Understanding your objective

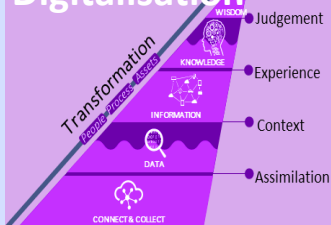
3

Digital Transformation

- New ways of working
- Reduce wasted work
- Outward thinking
- Value creation
- Customer centric
- **Timely + Adaptable**

2

Digitalisation

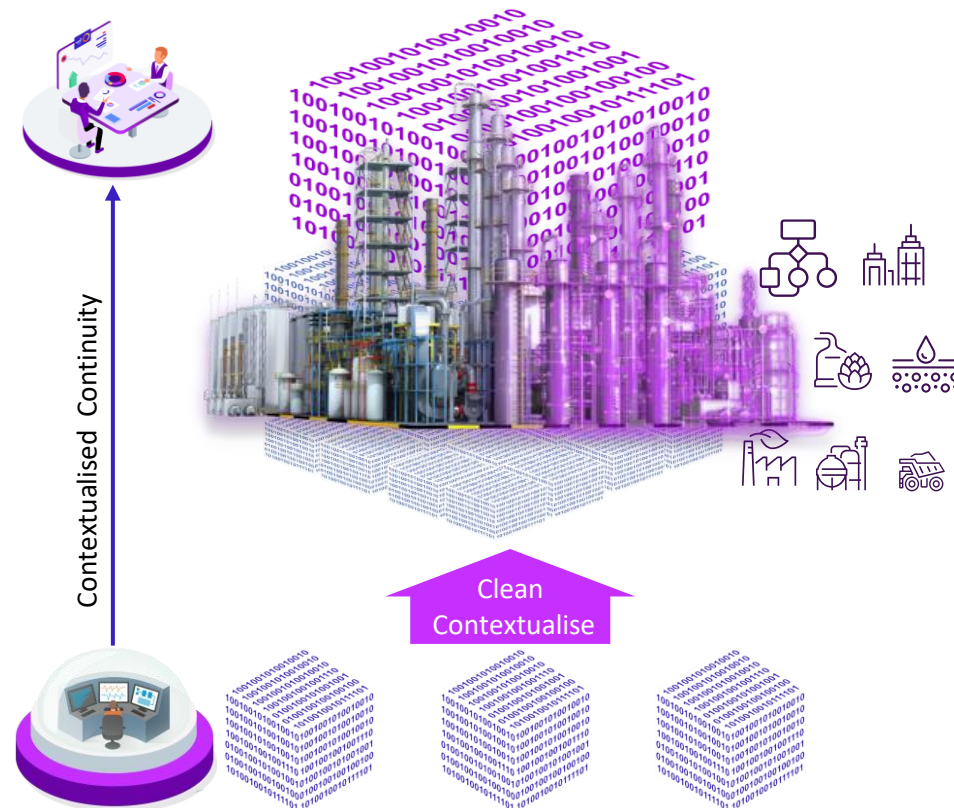


1

Digitise

- Electronic capture
- Digital engagement
- IoT cost-effective capture

Digital transformation wave 2



**SYSTEMS OF
RECORD**
perspective:
The data value
chain

The relationship between Engineering, Operations & Sustainability



Asset Digital Thread – Industrial Information as a Service (IIaaS)

Individual Services Combined to form the Digital Thread

Fuel Gas Flow
DC.Srv01R
94:GRDIDX.Tr
P01.BT.PV
Pressure.P
V Boiler Feed
Pump #1
1-8.Net
Volume
03LBA32CT0
01-2
DC.SJ.ITLoad.P
WR
FT9001 TI-145
fasttag FR2001
TI-178
GE04_OS
FT9004
FT9001

Asset 97: Springfield

Average uptime

Asset 42: Springfield

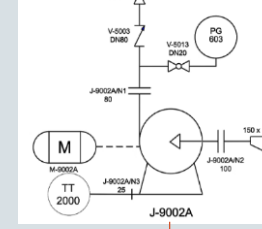
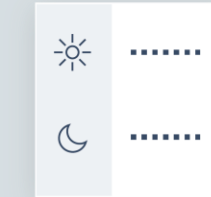
Energy usage: Site 1

Energy usage: Site 2

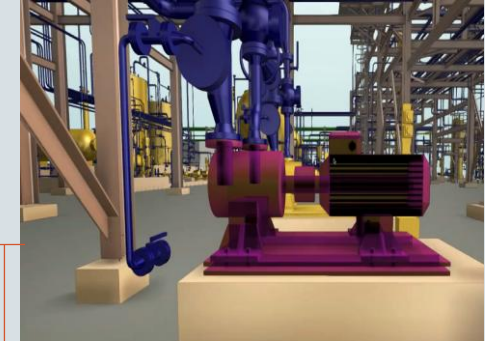
Total energy usage

Underperforming asset

Shift change



J-9002A (Pump)				
Active				
Name / Title	Type	Parent	Location	Aliases
J-9002A	Pump		ED	J-9002A
Attributes				
Area Code	C31			
Asset	ED			
Category	Equipment			
Function Code	PA			
Main Tag	4394003			
Manufacturer Description	Motor for Isotryktofallet vassdruckerpump			
Purchase Order Number	BR000			
Sub System	4004-01			
Tag Case Name	CPH05-30000550			
Tag Description	Motor for LP Flare RD Drum Pump			
Tag Name	J-9002A			
Functional (S)				
ATEX Marking	0 2 G			
Certification Standard	ATEX			
Is Function	N			
Is Pressure Vessel	N			
Is Signal	N			
Physical (S)				
Dry Weight	349 kg			
Equipment Manufacturer Serial Number	50P13142890			



Streams

Asset Context

Analytics

Notifications

Lifecycle

Spatial Context



Use case by
Connect Endpoints



IIaaS Services

Data Streams

Data Enrichment

Reference Content

Local Situation (3D, Laser)

But the work landscape has changed! Need for **information literacy**



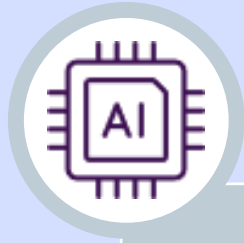
Trends Influencing Industrial Operations

Challenging Traditional Approaches



Customer Trends

- Organizational Convergence
- Software Sprawl
- Resource Challenges
- Informational Silos Breakdown (IT/OT)
- Globalization/Consolidation
- Digital Transformation/Data Priority



Technology Trends

- Cloud Computing
- Containers
- Managed Services
- Artificial Intelligence
- Generative AI/LLM
- Unified Namespaces
- MQTT Brokers
- Data Ops
- IIoT



Market Trends

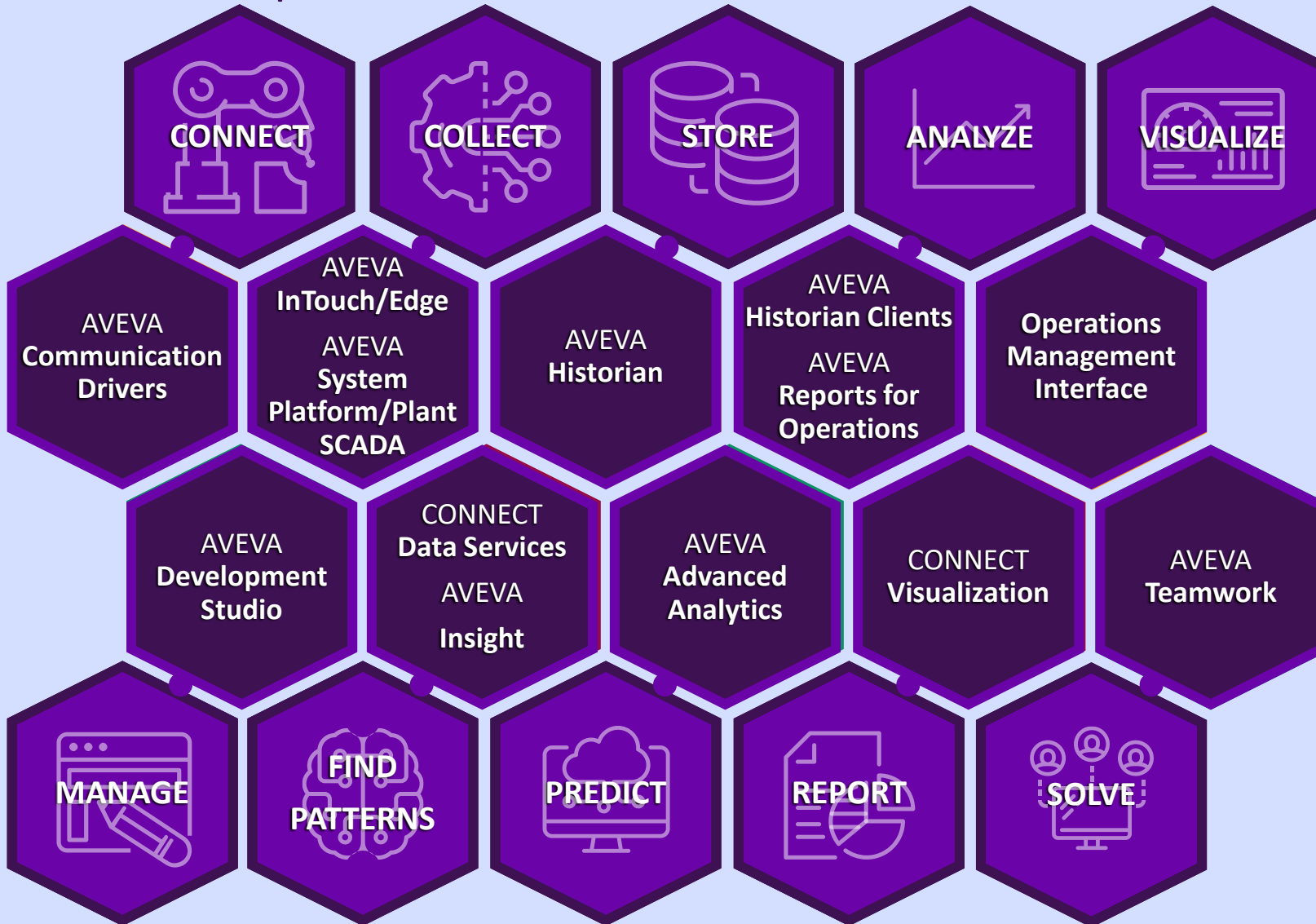
- Inflation
- Distributed Workforce
- Geo-Political Events
- Digital Natives Become the Majority
- Cyber Security
- Increasing Rate of Change
- Sustainability
- Data Sovereignty

What activities benefit from access to operational data?

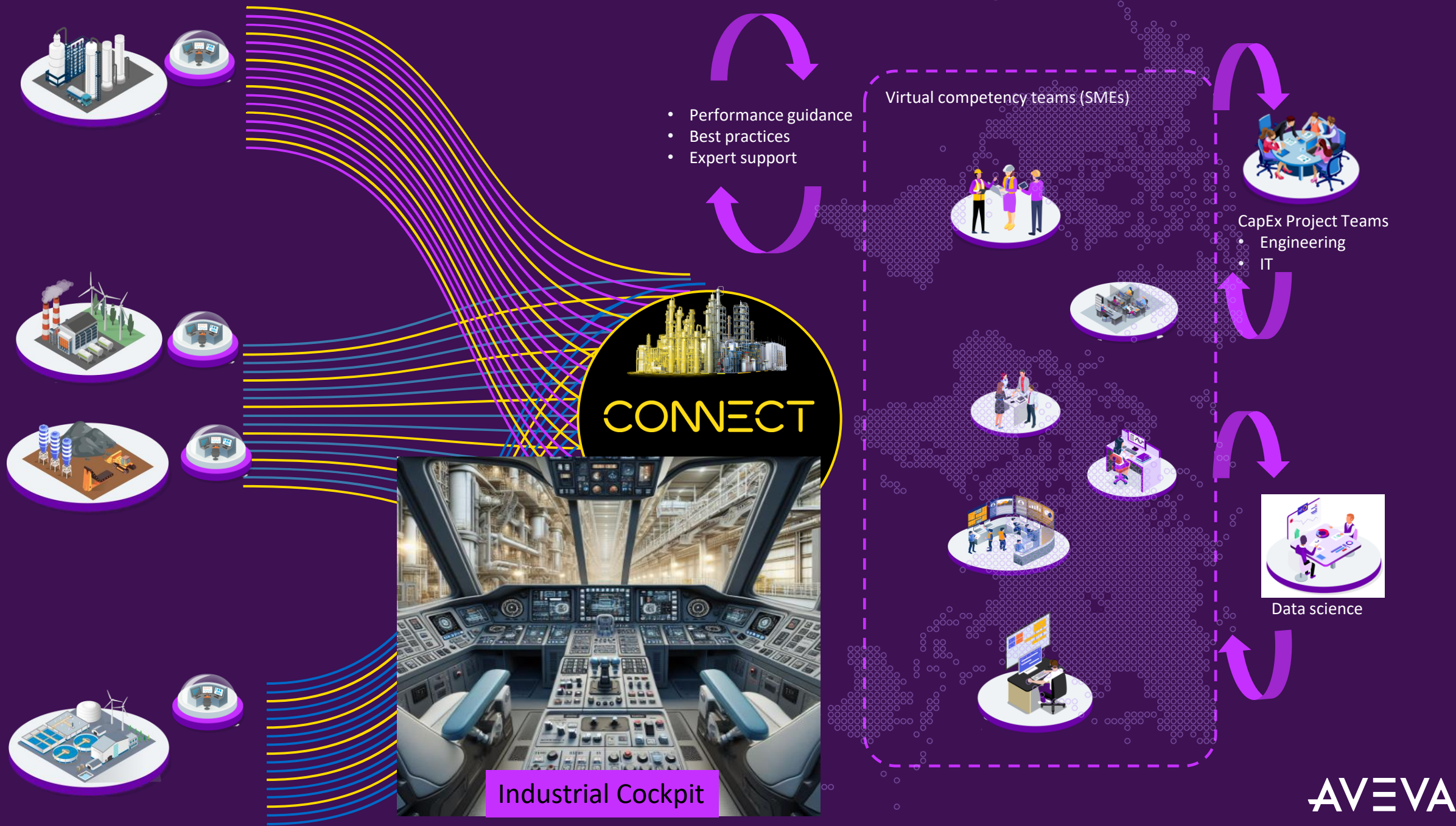
Leveraging operational data beyond monitoring and control



AVEVA Operations Control

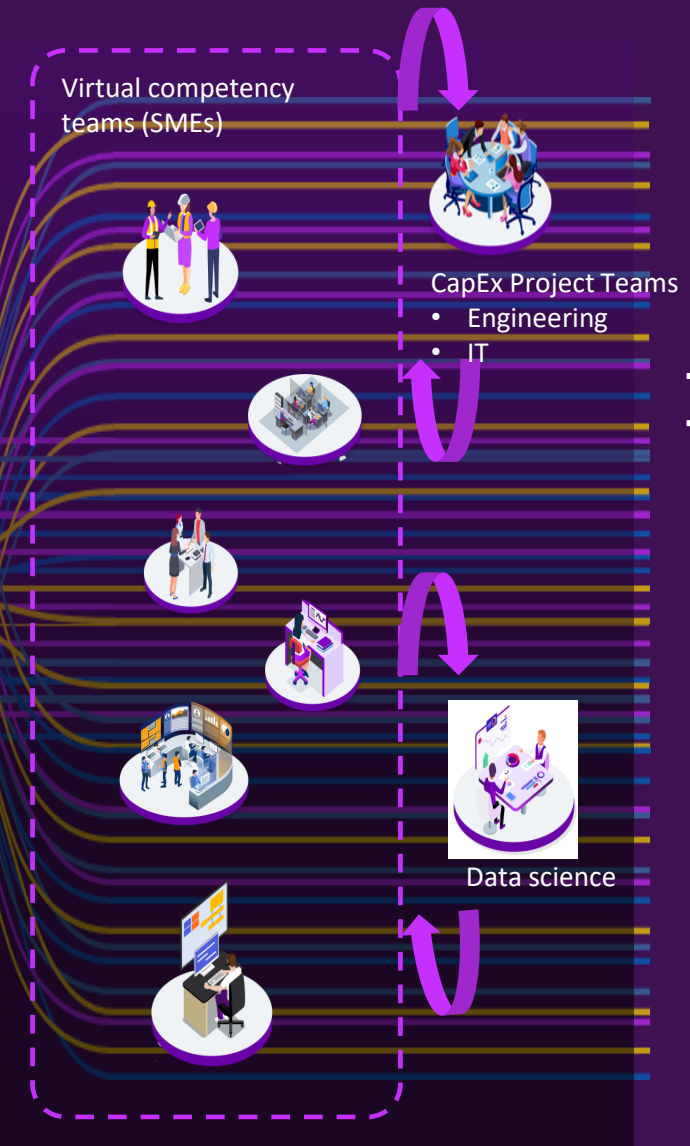


Empowering Digital Transformation with the power to choose the configuration, architecture and deployment options that best meet your objectives



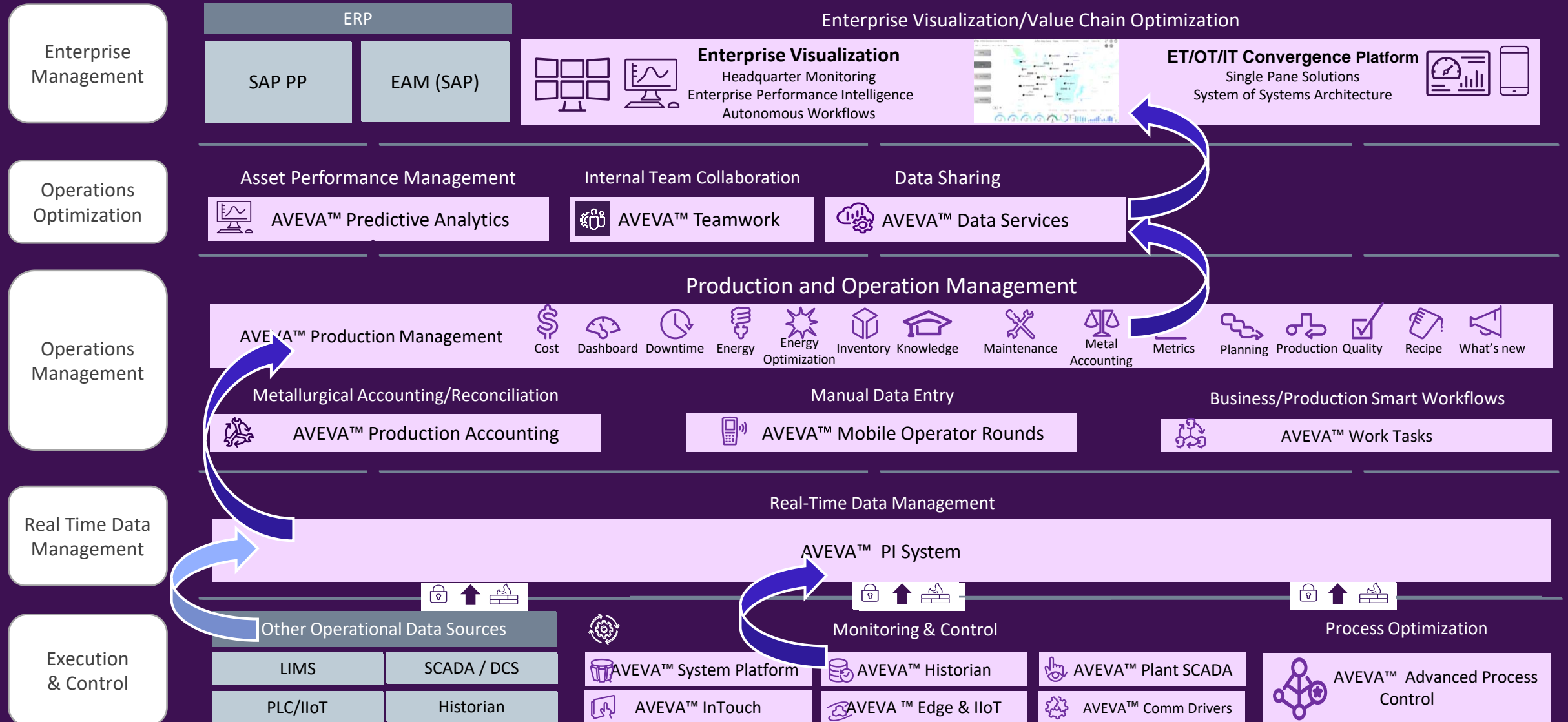
New Ways of Working/ Opportunities

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Extending your investments

Reference architecture for mining & processing plant



Navigation

Hierarchy

- Location ▾
- ACME
 - Jina Mine
 - Mining
 - Concentration
 - Train Loadout
 - Waste Dump
 - Reports
 - Dashboards
 - Inventory Summary
 - Daily Performance And Sustainability
 - Monthly Performance And Sustainability
 - Rocky Mine

- Downtime
- Inventory
- Knowledge
- Metrics
- Production
- Quality

Document - Microsoft Power BI



Site Summary - Current Day

Crusher



Crushed Tonnes (t)

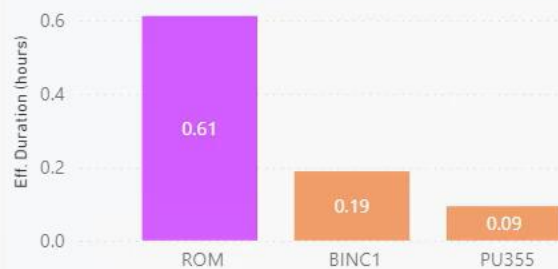
32,535

Crushed Tonnes Target (t)

58,034

Top 5 Delays by Cause Location

Classification ● Operating Delay ● Unscheduled Other



Processing



Product Tonnes (t)

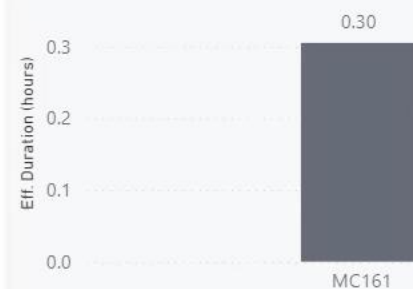
1,462

Product Tonnes Target (t)

1,819

Top 5 Delays by Cause Location

Classification ● Unscheduled Failure



Train Loadout



Total Tonnes (t)

399

Total Tonnes Target (t)

1,682

Top 5 Delays by Cause Location

Classification ● (Blank)



Coromandel Digital Projects selection criteria

Total Potential use cases: 36

Coromandel
Reimagined

Coromandel
FUTURE POSITIVE

Coromandel Data Analytics Use-case

Coromandel
Reimagined

P2O5 efficiency improvement in PAP-2

Coromandel
FUTURE POSITIVE

Coromandel Data Analytics Use-case

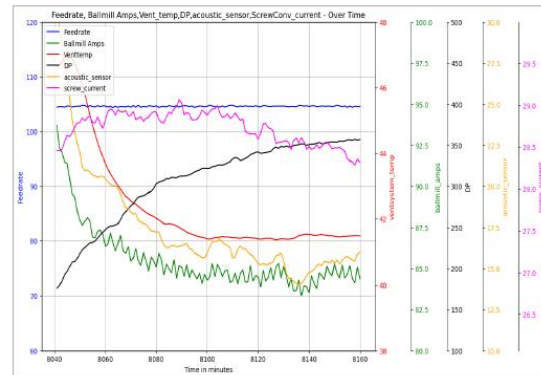
Coromandel
Reimagined

P2O5 efficiency improvement in PAP-2 : Ball mill-Descriptive Analysis

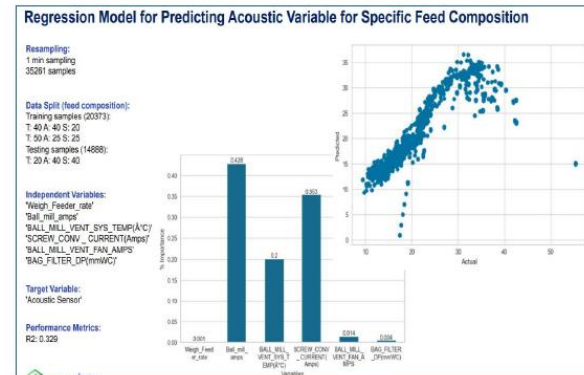
Results

Ball mill – Descriptive analytics shown that

- Developing a ball mill efficiency improvement model and based on historical data after segmented to rock ratio wise found strong cross correlation between
 - <200micron size Vs Ball mill vent fan amps
 - Ball mill vent system temperature Vs Ball mill amps
 - Ball mill vent fan amps Vs Screw conveyor amps
- At a constant feed rate ,observed different patterns of critical parameters Ball mill Amps, Vent system temp, Acoustic sensor, Bag filter DP ,Screw Conveyor Current.
- Potential benefit 2.98 Cr/year



Critical parameters behaviour at constant feed rate



Critical parameters behaviour at constant feed rate

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



3.7 M\$

Increasing value from a growing ecosystem

- Services
- Specialized solutions
- Enterprise integration



NEW

Databricks integration



Data
scientist

```
1 7/17/2024 (17h) 9
2
3 # query data from data services data view
4
5
6 # Specify an initial set of parameters to query the data view
7 startIndex = str(date.today()-timedelta(days=10))
8 endIndex = str(date.today()) # 10 days of data
9 interval = "00:01:00" # interpolate every minute
10 count = 250000 # max run per results page
11 form = "csv"
12 dataView = "All Wind Turbines" # created data view name
13
14 # generate the URL for the data view query
15 try:
16     result2 = client.DataViews.getDataInterpolated(namespace_id,dataView,count,form,startIndex,endIndex,interval)
17 except Exception as e:
18     print(e)
```

Reliability
engineer



Operator



Call to Action

Contact your AVEVA Account Manager, or Channel account manager or Distributor to ensure you have a Connect account setup!

Log onto
Connect

Connect
Your data
source

Visualize
your data

Analyze
your
Data

Need Help – Reach out to the Presales team in AVEVA or Schneider Electric!

Ask at the Booths for
further information

CONNECT

Industrial intelligence for the connected industrial economy

Seamless
experience



Applications
and analytics

Design & build

Operate

Optimize

Ecosystem
of developers
and partners

Information

Engineering information



Operations information

Assets
and devices



AVEVA

CONNECT

Industrial intelligence platform



**Industrial
AI Innovations**

**Enriching existing
investments**

**Partner
ecosystem**



Thank you

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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.

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