

12-13 MAY 2025

**AVEVA DAY**

PERTH

**The Industrial Intelligence  
Event 2025**

MAY 2025

# AVEVA DAY

PERTH

Digital platform for Digital Asset  
Health

Presented by:  
Gavin Hughes – Senior Presales Manager APAC M&C and MES



# Major uncertainties to overcome

**Value chain  
volatility  
increasing**

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**25% or  
more price  
fluctuations**

**Tribal  
knowledge  
decreasing**

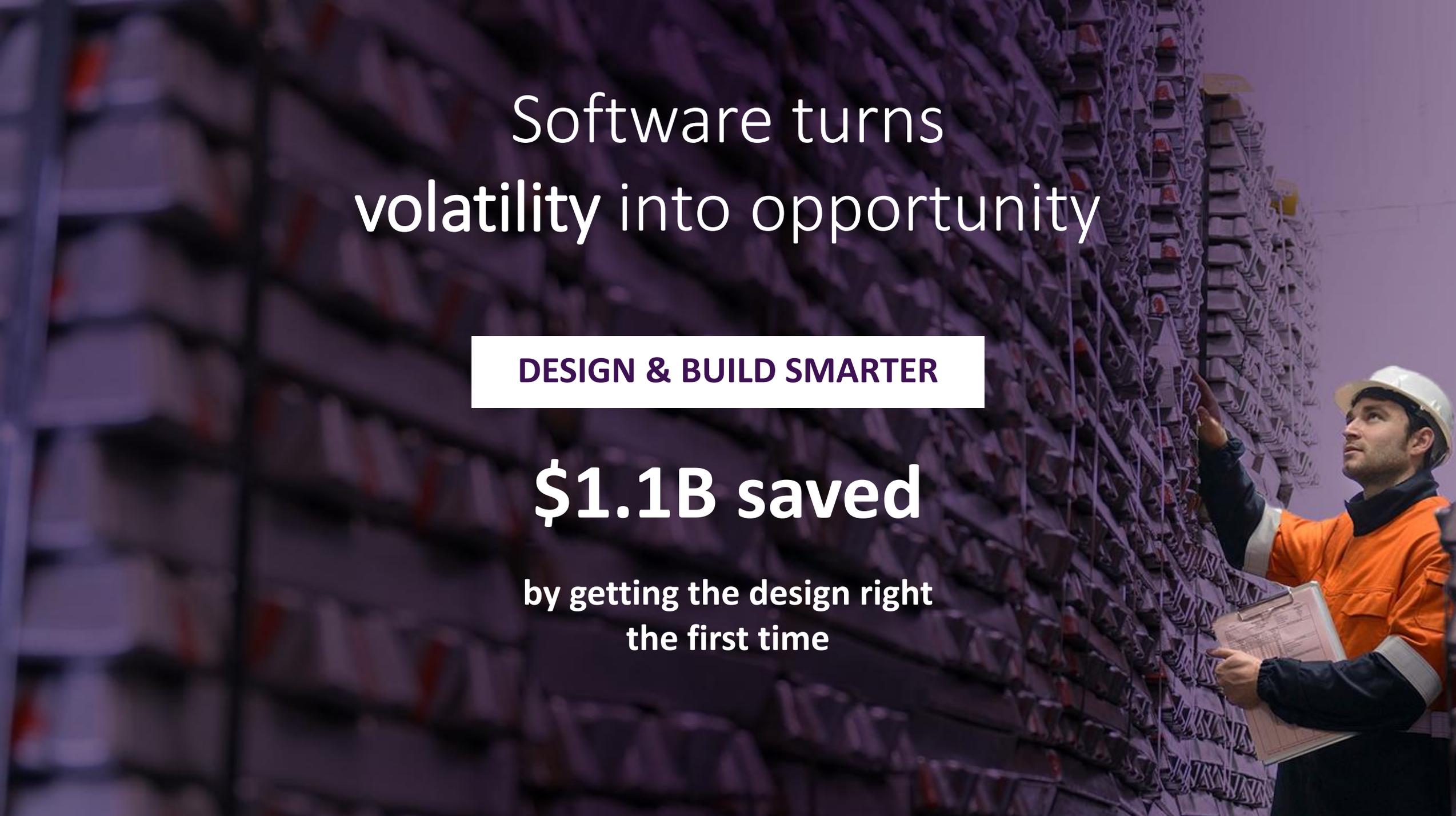
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**10 years of  
knowledge being  
replaced with  
3 years**

**Technology  
disruptions  
accelerating**

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**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



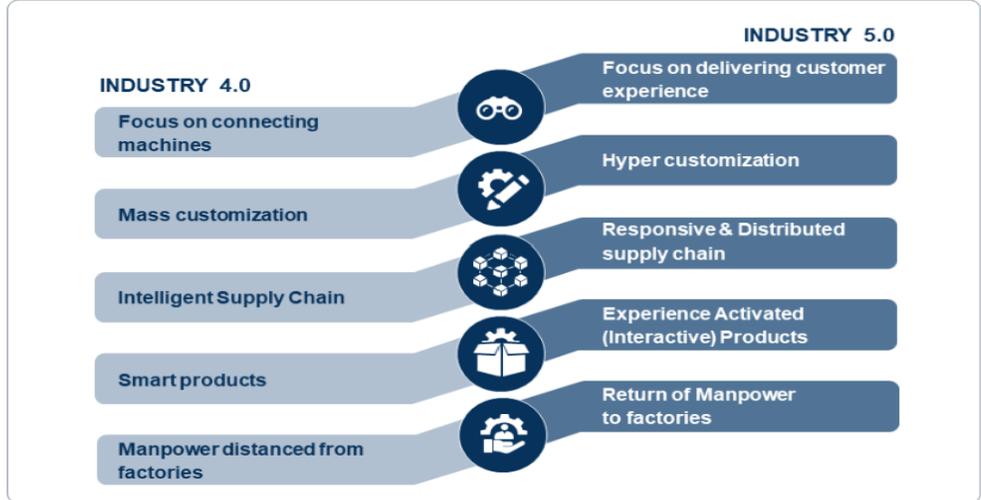
# A **problem-solving** organisation is data-driven

**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



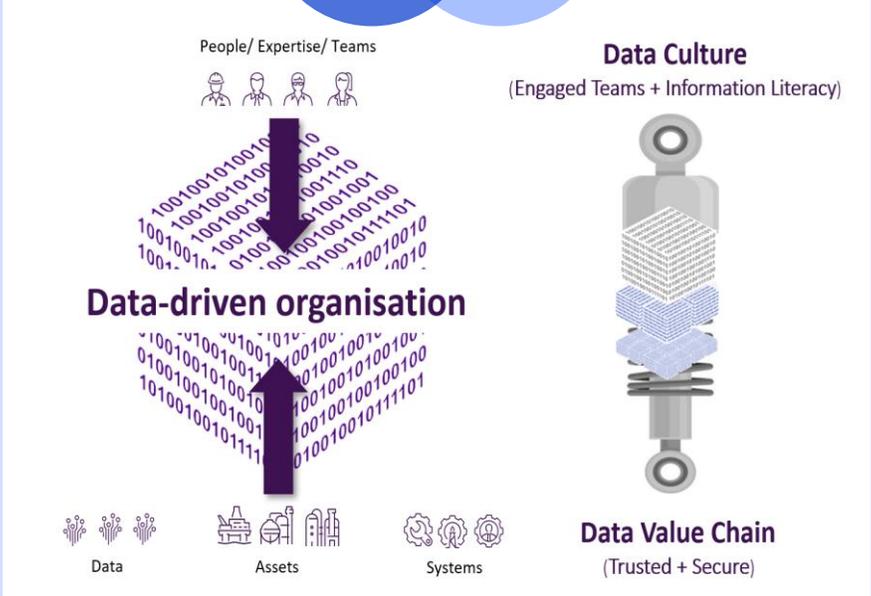
Highlights of Industry 5.0 compared to Industry 4.0



**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



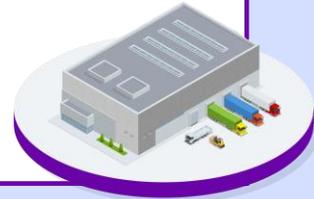
**Sustainability driven by digital**  
89% of industrial companies are investing in digital solutions to drive sustainability, with a focus on collaboration tools, real-time data, and predictive analytics

# 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

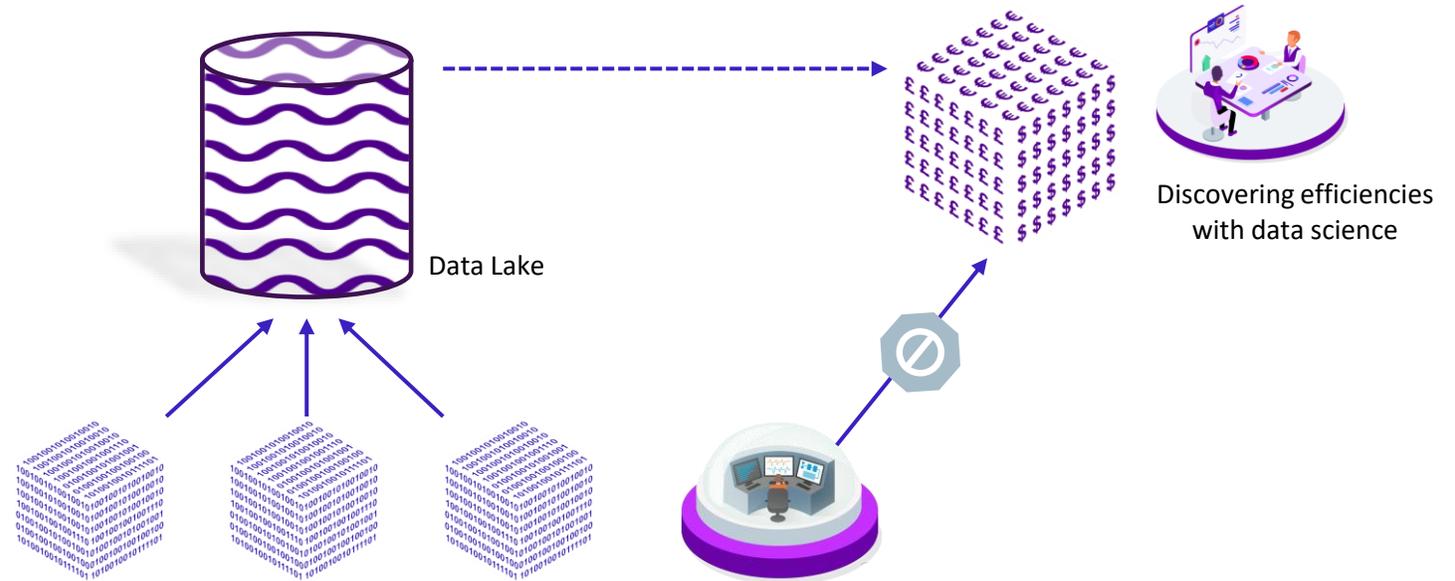
**84%**

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

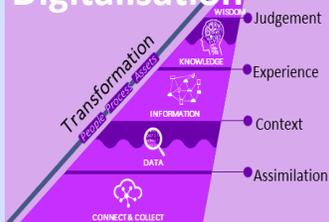
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## Digital Transformation

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

2

## Digitalisation

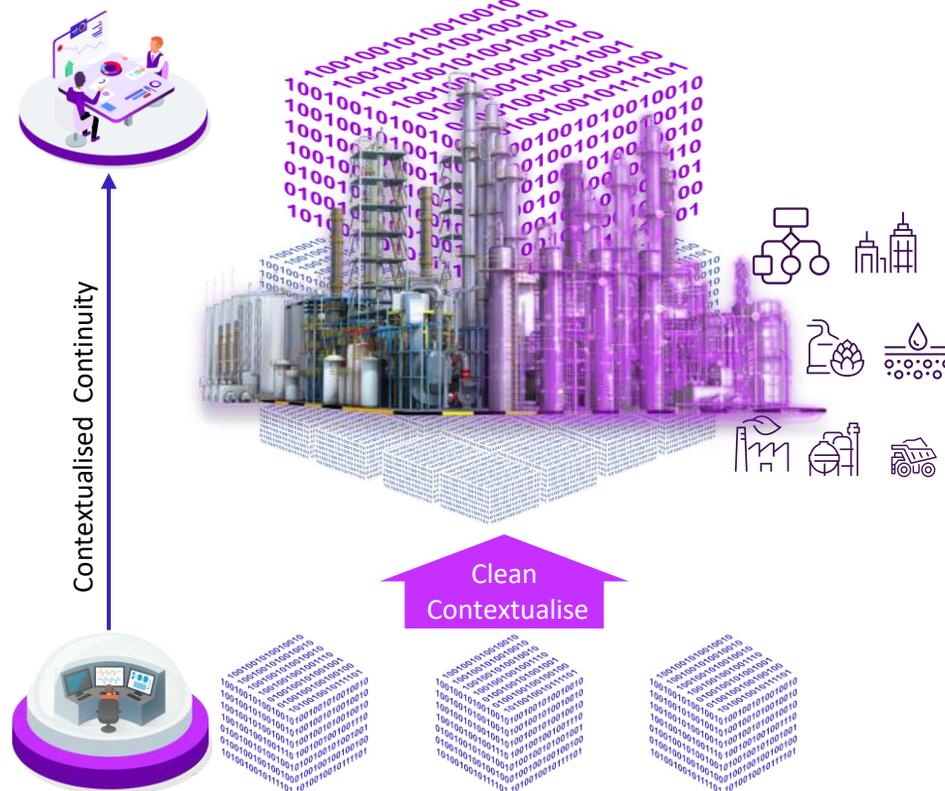


1

## Digitise

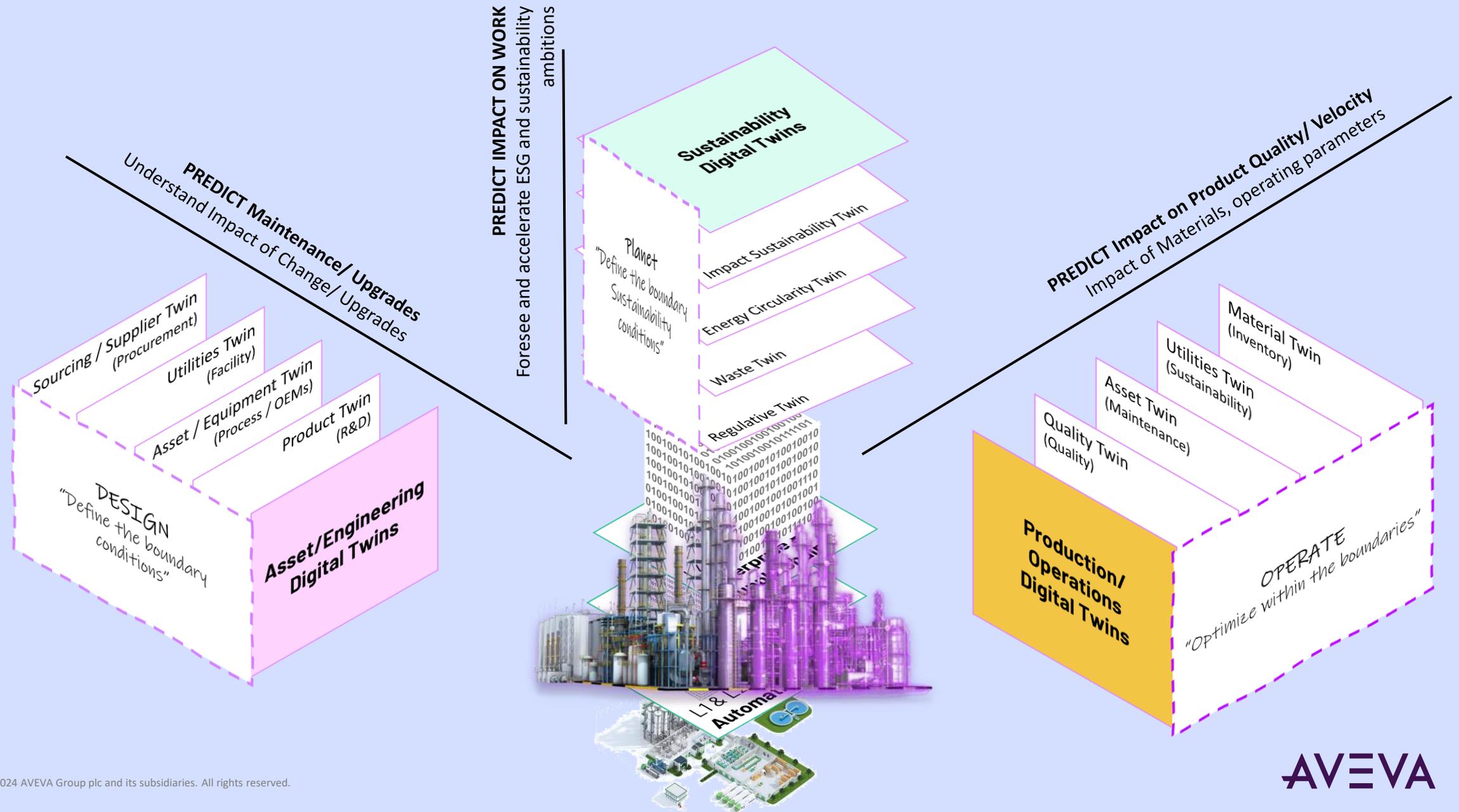
- Electronic capture
- Digital engagement
- IoT cost-effective capture

## Digital transformation wave 2



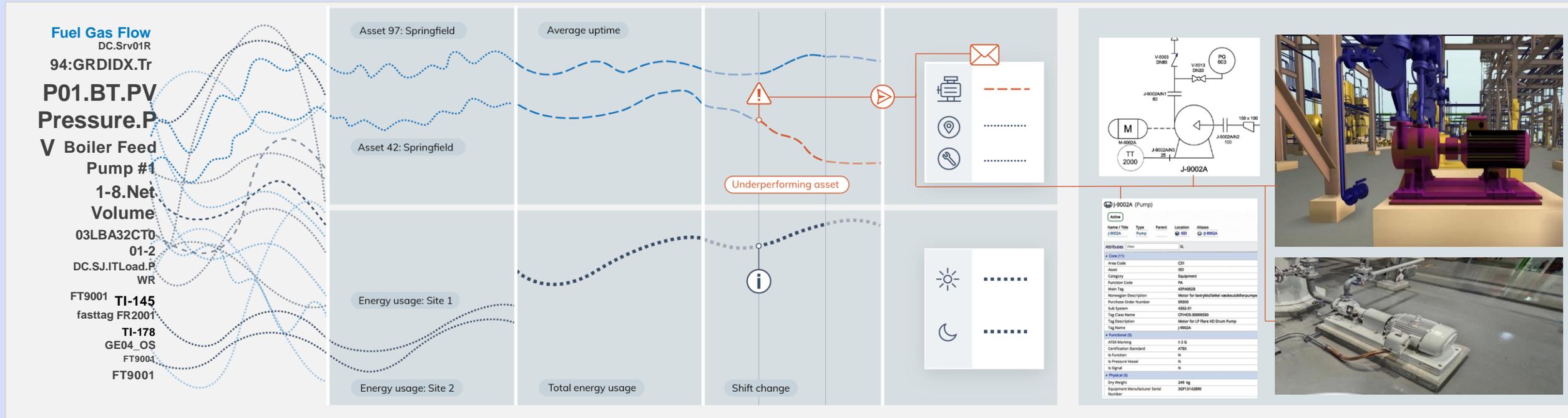
**SYSTEMS OF RECORD**  
perspective:  
The data value chain

# The relationship between Engineering, Operations & Sustainability



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

Individual Services Combined to form the Digital Thread



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**



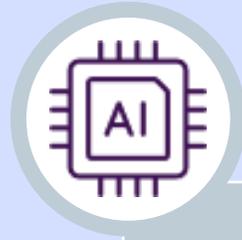
# Trends Influencing Industrial Operations

## 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

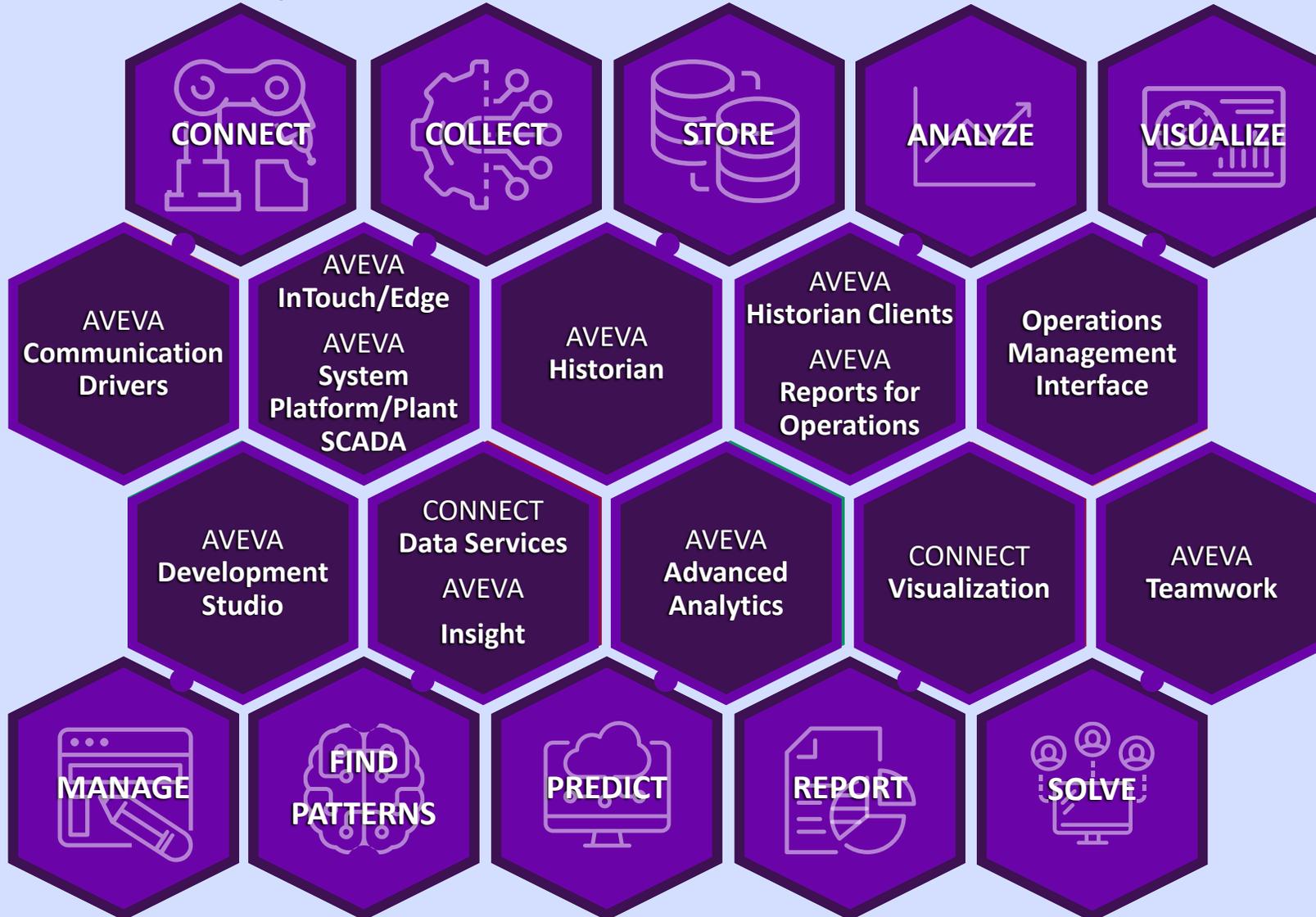
- Inflation
- Distributed Workforce
- Geo-Political Events
- Digital Natives Become the Majority
- Cyber Security
- Increasing Rate of Change
- Sustainability
- Data Sovereignty

# What activities benefit from access to operational data?

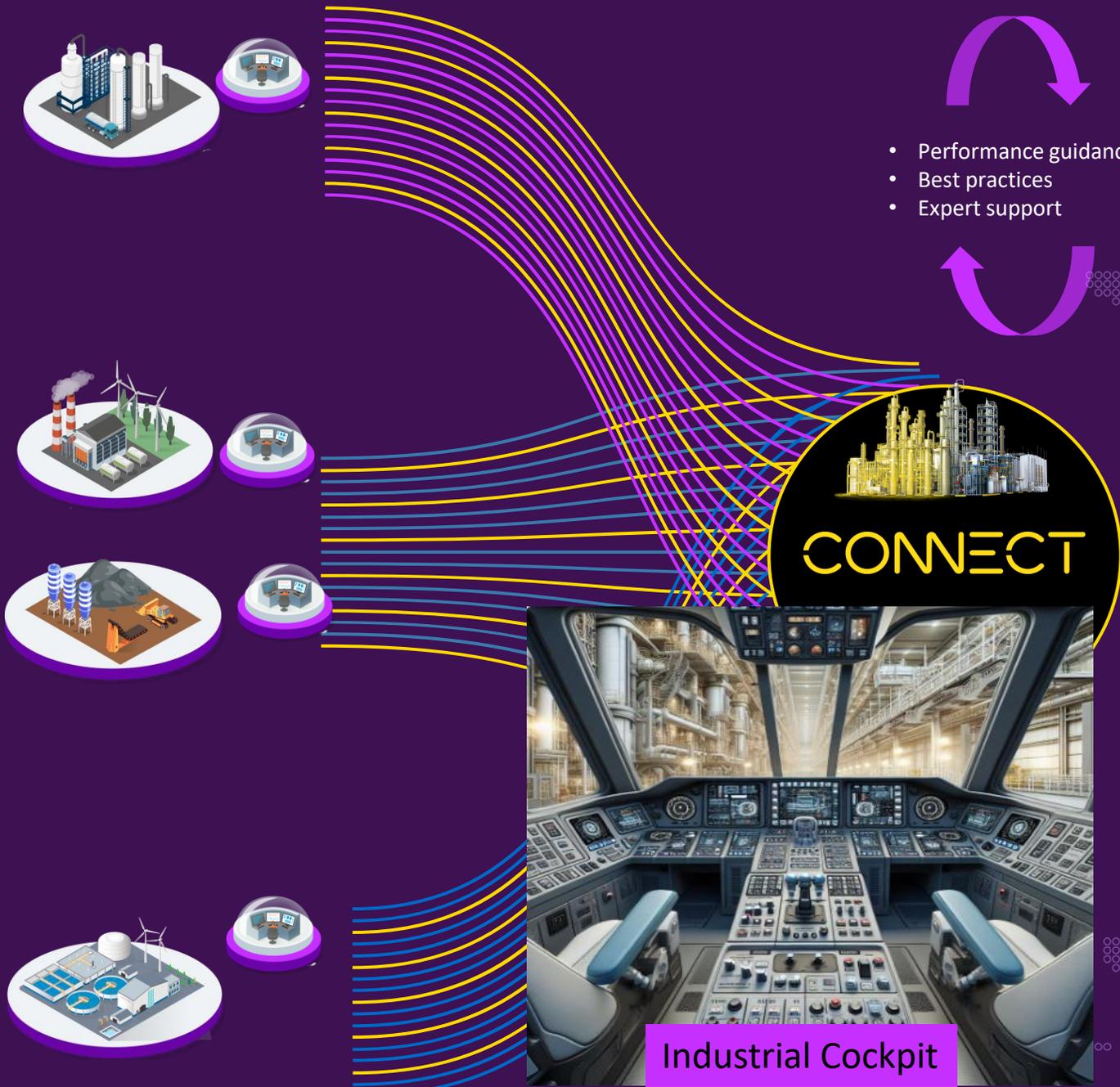
Leveraging operational data beyond monitoring and control



# AVEVA Operations Control



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



- Performance guidance
- Best practices
- Expert support



Virtual competency teams (SMEs)

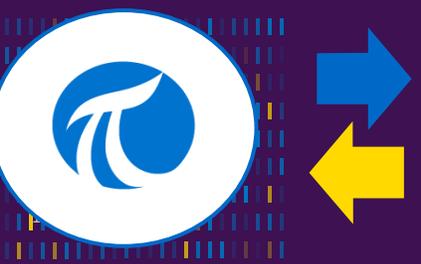
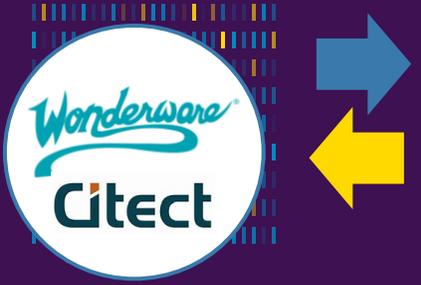
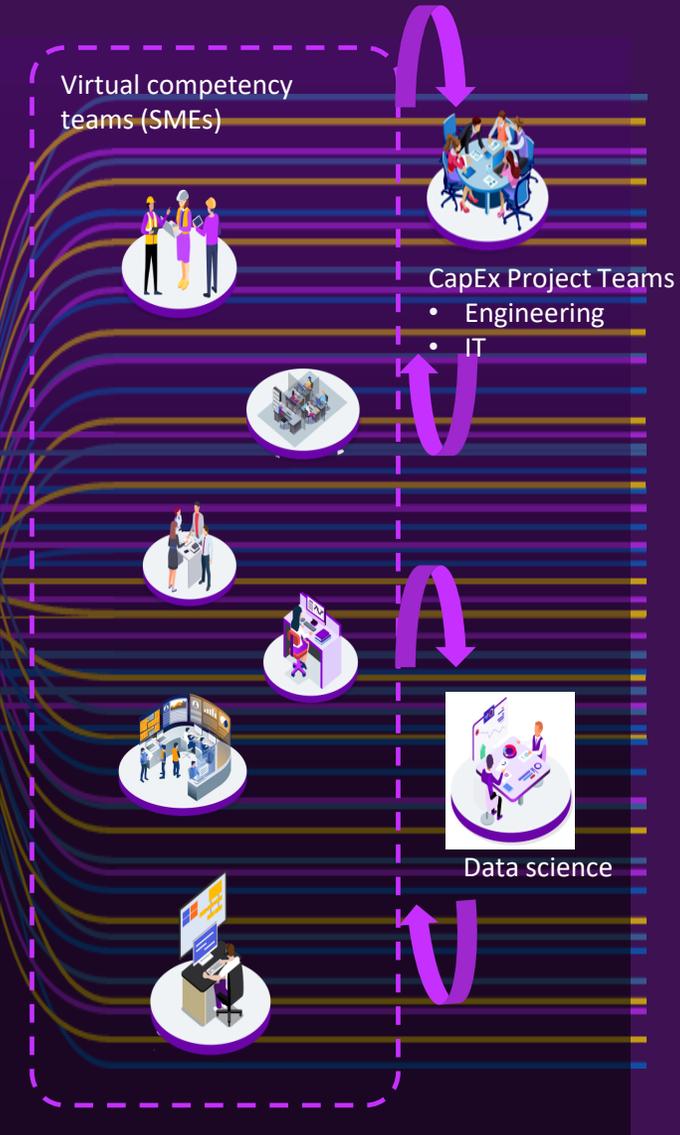


CapEx Project Teams  
• Engineering  
• IT



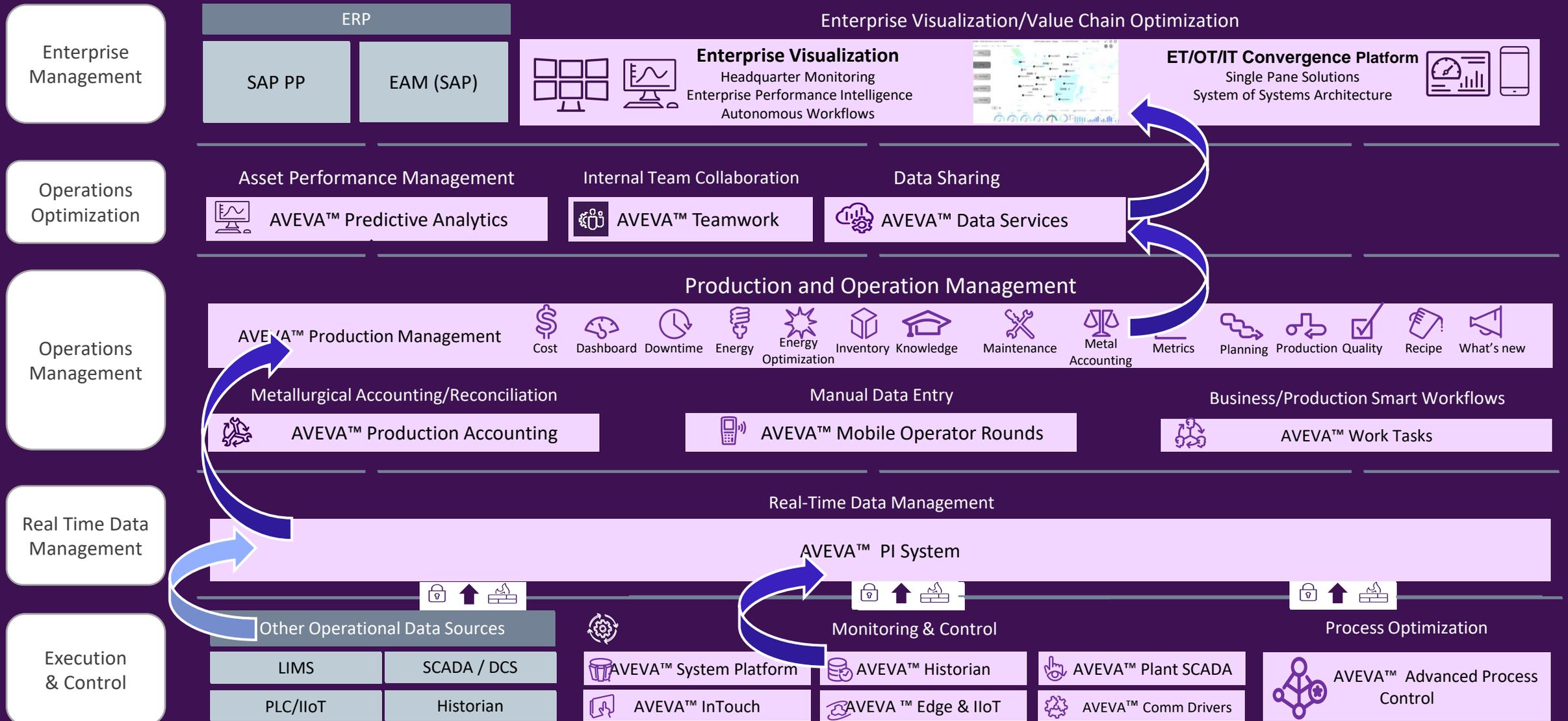
Data science

# New Ways of Working/ Opportunities



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

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

Document - Microsoft Power BI

# Site Summary - Current Day

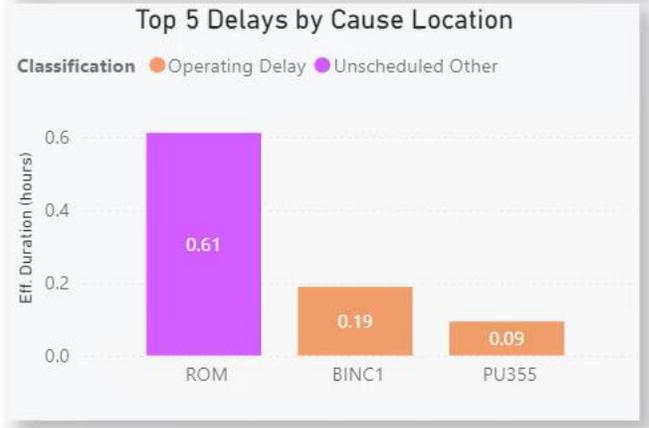


Crushed Tonnes (t)

## 32,535

Crushed Tonnes Target (t)

## 58,034

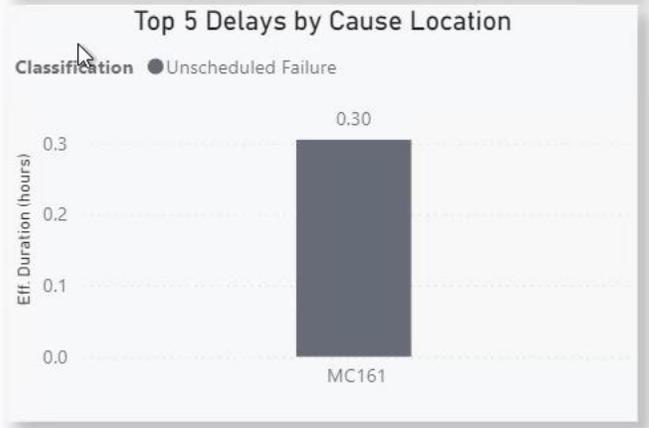


Product Tonnes (t)

## 1,462

Product Tonnes Target (t)

## 1,819



Total Tonnes (t)

## 399

Total Tonnes Target (t)

## 1,682



## Coromandel Digital Projects selection criteria

Total Potential use cases: 36

## Coromandel Data Analytics Use-case

### P2O5 efficiency improvement in PAP-2

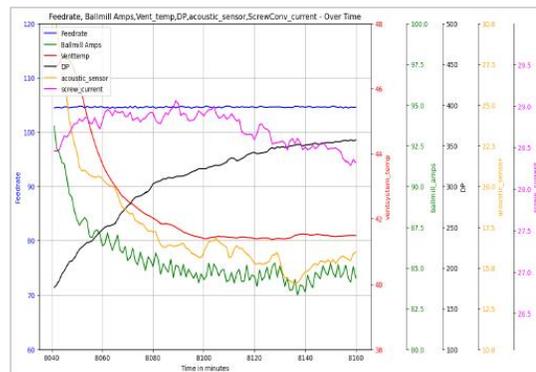
## Coromandel Data Analytics Use-case

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

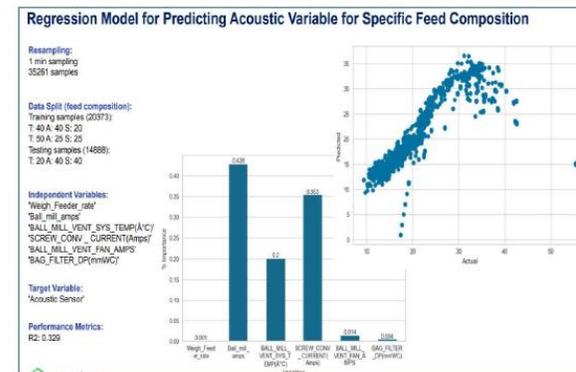
#### Results

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

Data Availability  
to build the short  
the quality to fur  
cases

Business Prior  
businesses and  
the pain areas to  
Analytics use ca  
business to imp

Time to Deploy  
framework for t  
the complexite  
identify those us  
for the business

S.NO	
1	Brainstorming with Plant Op
2	Team(DT&T&E&H&M&O&O&V&T)
3	Preliminary Data analysis of
4	combination Vs Throughput,
5	Dynamics losses
6	Historical data collection (L
7	process parameters)
8	Segregation of measured an
9	Data cleaning
10	Process correlations
11	Validation of process correl
12	Theoretical loads
13	Identification of Controlled
14	relevant parameters
15	Preparation of models with
16	Building asset Analytics and
17	AVEVA-PI
18	Dashboard creation in PI vs
19	Creation of Events and Not
20	Automation Initiatives
21	Budget Proposals

Abbreviations

# 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

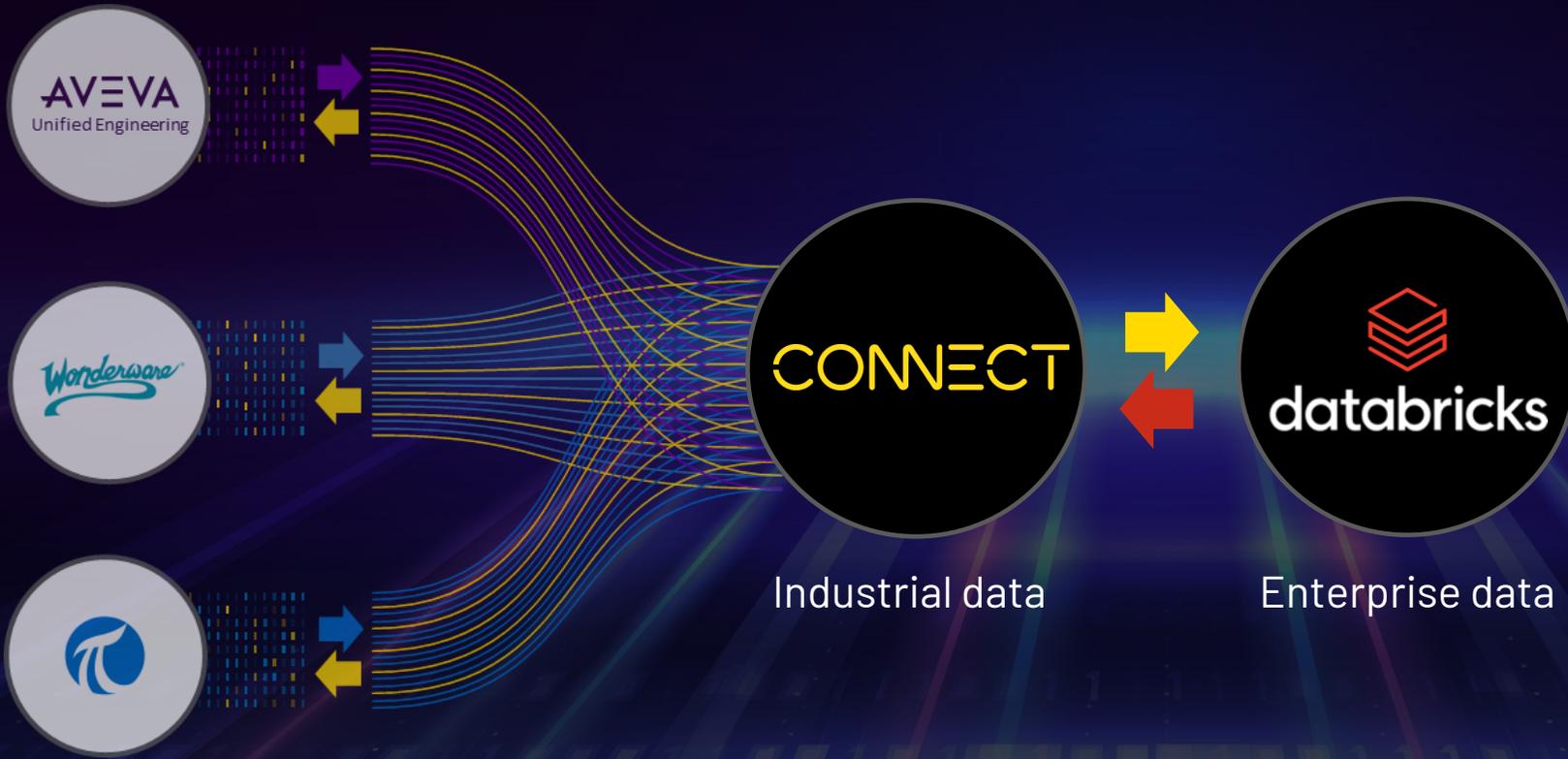
## Results

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





# NEW Databricks integration



Data scientist

```
try {  
  # query data from data services data view  
  # Specify an initial set of parameters to query the data view  
  startIndex = str(date.today() - timedelta(days=10))  
  endIndex = str(date.today()) #10 days of data  
  interval = "00:00:00" #interpolate every minute  
  count = 250000 # max rows per results page  
  form = "csv"  
  dataView = "All Wind Turbines" # created data view name  
  # generate the URL for the data view query  
  try:  
    result2 = client.DataViews.getDataInterpolated(namespace_id,dataView,count,form,startIndex,endIndex,interval)  
  except Exception as e:  
    print(e)
```



# 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



# 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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