

MAY 2022

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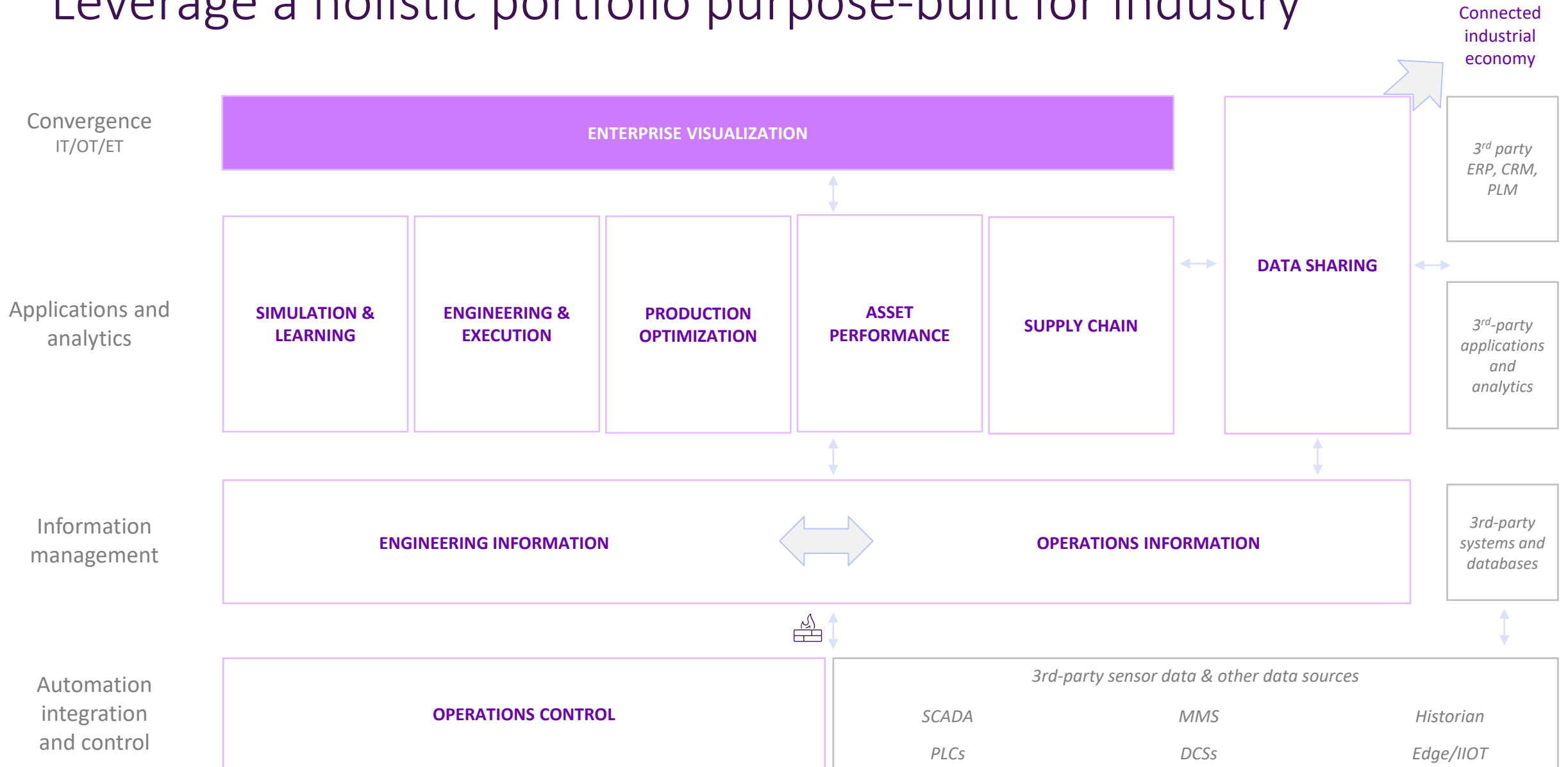
AVEVA PI World

# Enterprise Visualization, A Step Change in Operational Awareness

Rob Kambach, Director of Unified Operations Center Solutions

**AVEVA**

# Leverage a holistic portfolio purpose-built for industry



# Meeting the needs of the Enterprise User

## Enterprise

Long Term Focus  
(up to 1 Year)  
Enterprise View  
IT/OT Convergence



Command Center



Remote Operations Center



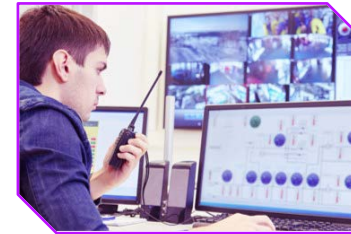
Casual User

## Supervisory

Medium Term Focus  
(up to 1 Week)  
Process View  
OT Convergence



Control Room



Area Workstation



Mobile Supervisor

## Edge

Short Term Focus  
(up to 1 Shift)  
Work Cell View  
Control Convergence



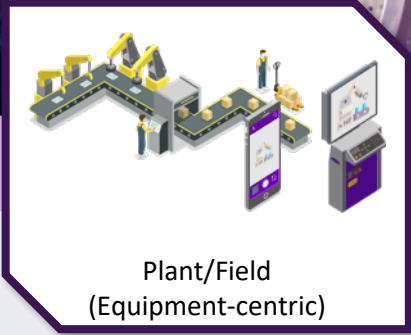
Panel-based Operations



Tablet-based Operations



Off-site Operations



	Execution
Dashboards & KPIs	Predictive Analytics
	Mobile Rounds
Training	Tasks
Extended Reality	Collaboration Tools
GIS	Reporting
Process Screens	Historical Analytics

LIMS	Scheduling
Energy	MES
Dashboards & KPIs	Predictive Analytics
3D Models	Work Orders
Training	Workflow
Extended Reality	Collaboration Tools
GIS	Reporting
Process Screens	Historical Analytics

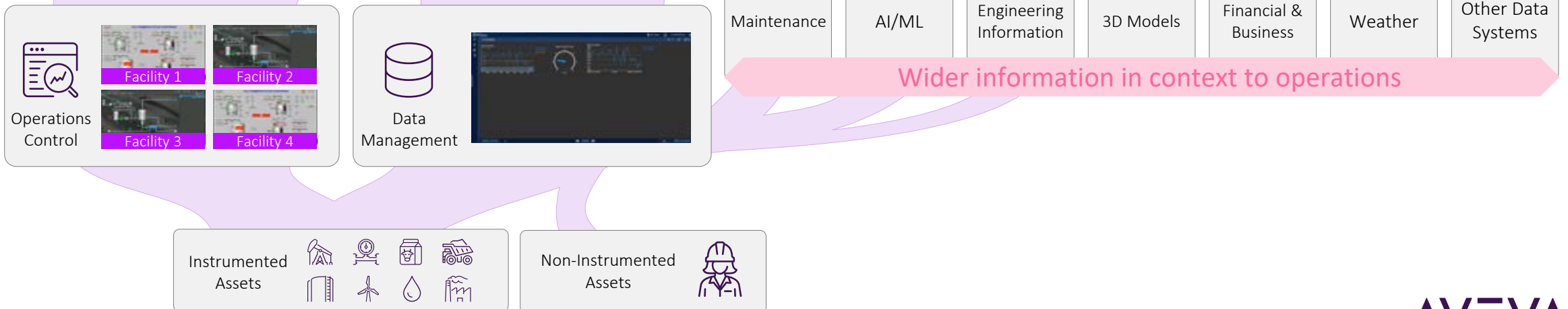
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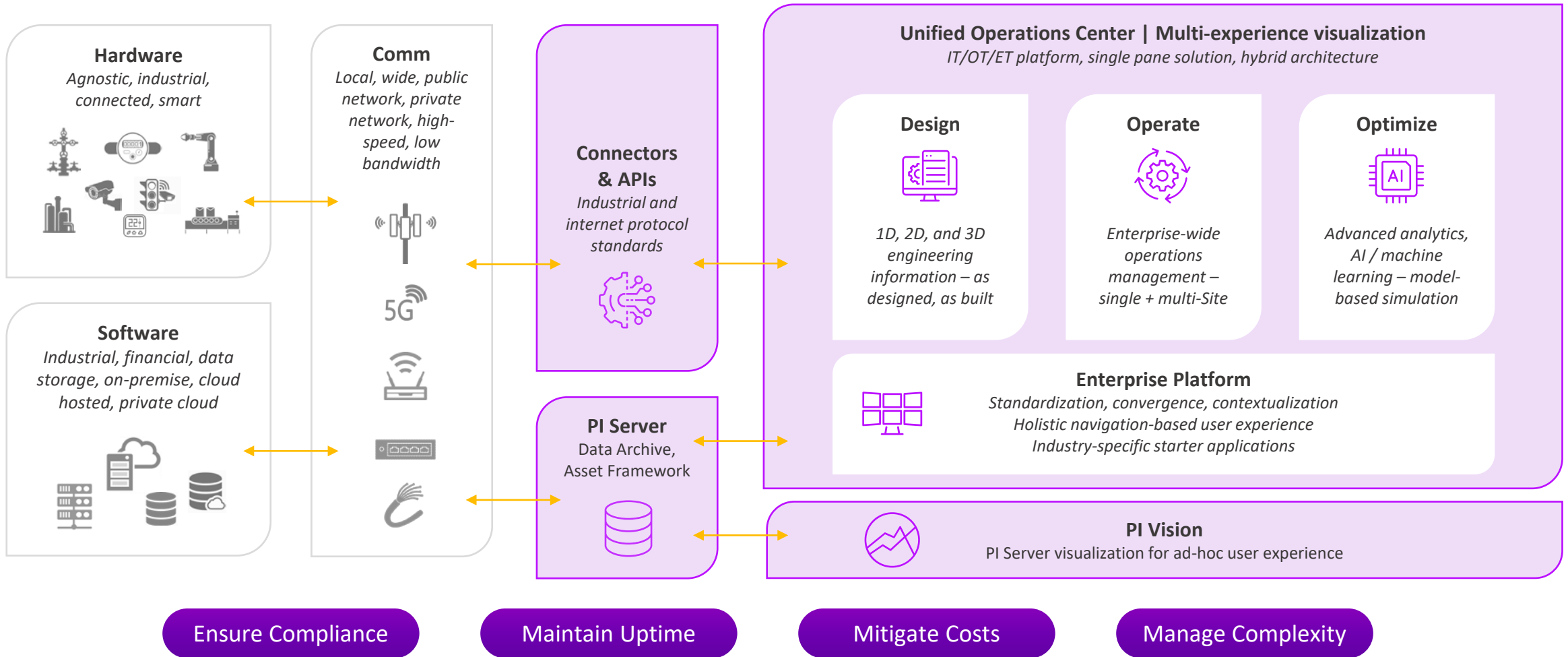
# Scaling beyond traditional operations control

## Enterprise visualization

- High-level perspective
- Consolidated content
- Enriched data in context
- Connected workforce enablement
- Operating environment for decisions



# System of systems approach



# AVEVA Unified Operations Center

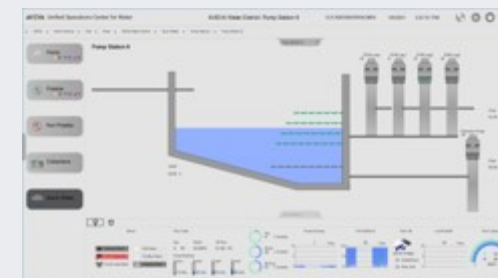
- ▲ Hierarchy of linked KPIs
  - Global
  - Regional
  - Plant/Facility/Operations
  - Equipment
- ▲ Supervisory control
- ▲ Map-based / GIS content
- ▲ Cross-functional collaboration
- ▲ Connected workforces
- ▲ Contextualized 3D models
- ▲ Regulatory alerts
- ▲ Infuse AI and ML
- ▲ Workflow integration
- ▲ Reporting integration
- ▲ Maintenance integration
- ▲ Incident reporting & SOPs
- ▲ Revenue/financial
- ▲ PI Server & PI Vision integration
- ▲ Video surveillance
- ▲ Extensible apps



KPI Dashboards



Operations Overviews



Drill-down Metrics



Notifications & Trends



Converges IT, OT, ET, and IoT data systems into a **single pane solution**



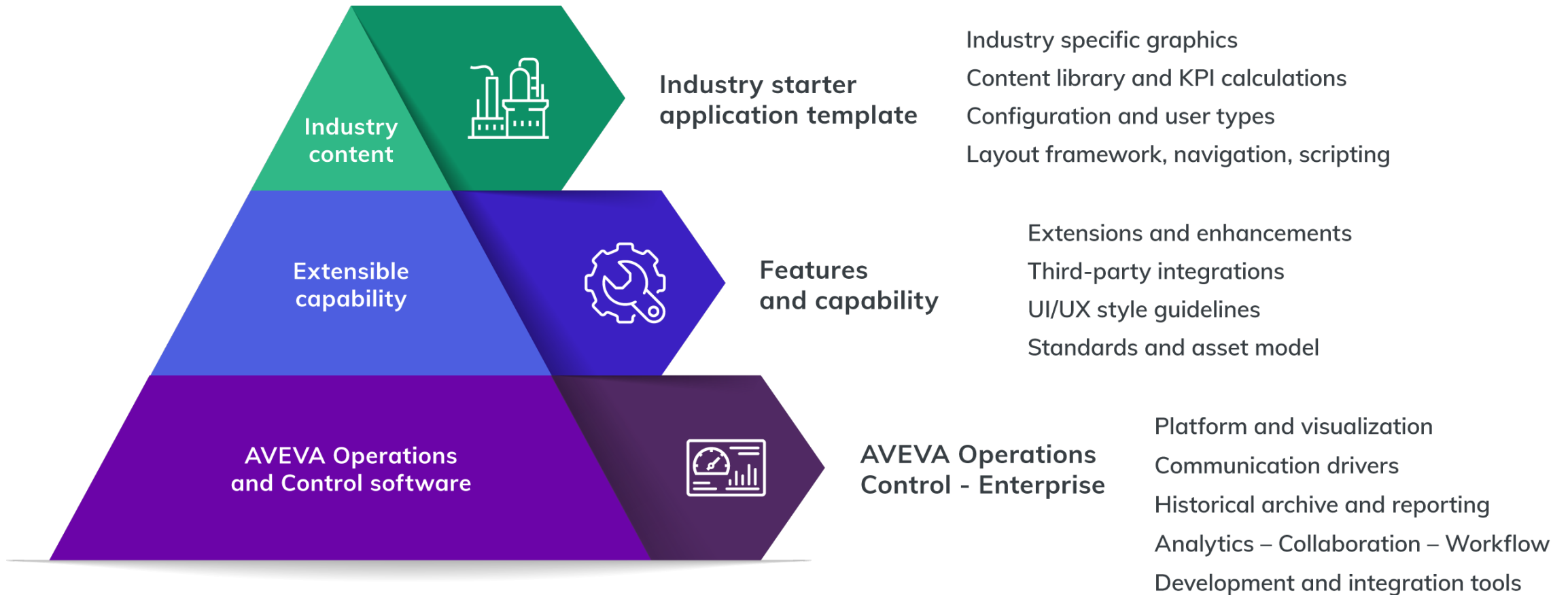
Converges Features & Functionality; for Monitoring & **Command\Control**



Out-of-Box **Industry Content**; **accelerate** development and ensure **scalability**

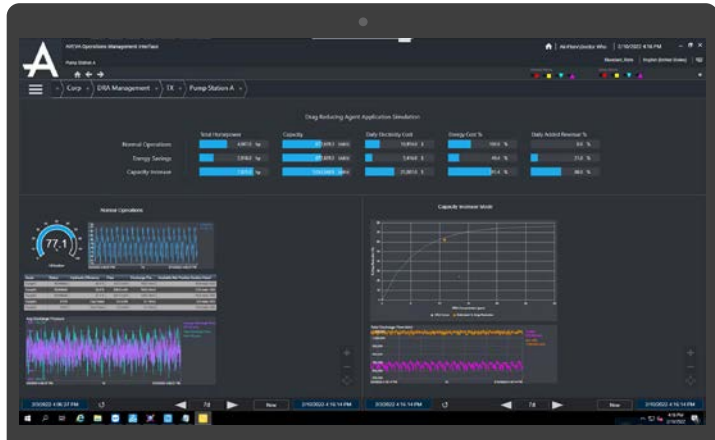
# Building blocks of AVEVA Unified Operations Center

Industry templates provides a base structure that you can customize



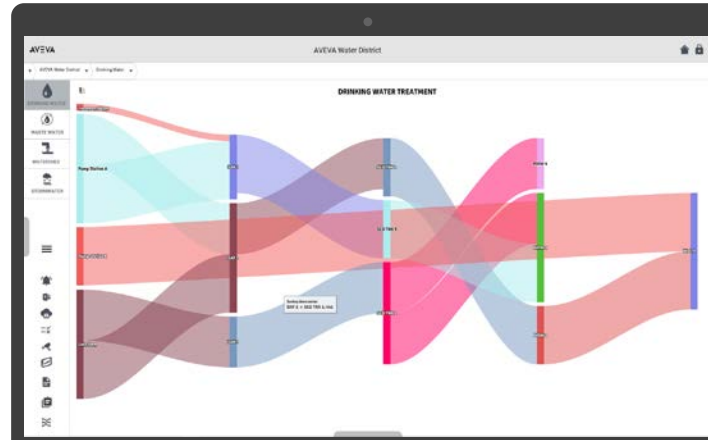


# Extensibility



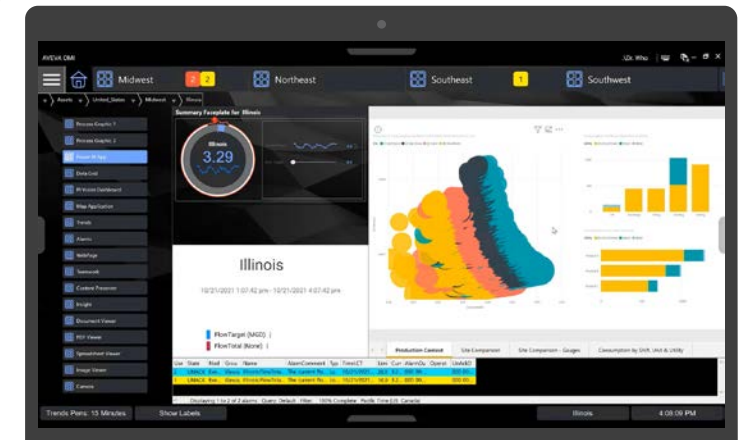
## AVEVA PI Vision

Integrate existing AVEVA PI Vision dashboards, benefiting from navigational context between selected content.



## Sankey Diagrams

Visualize energy, financial, and material paths, on a regional or national level to locate the most important contributions to a flow.



## Microsoft Power BI

Show Power BI reports with dynamically configured dashboards based on the current context or configuration of the application.

# Industry templates for AVEVA Unified Operations Center



General Availability



Early Access

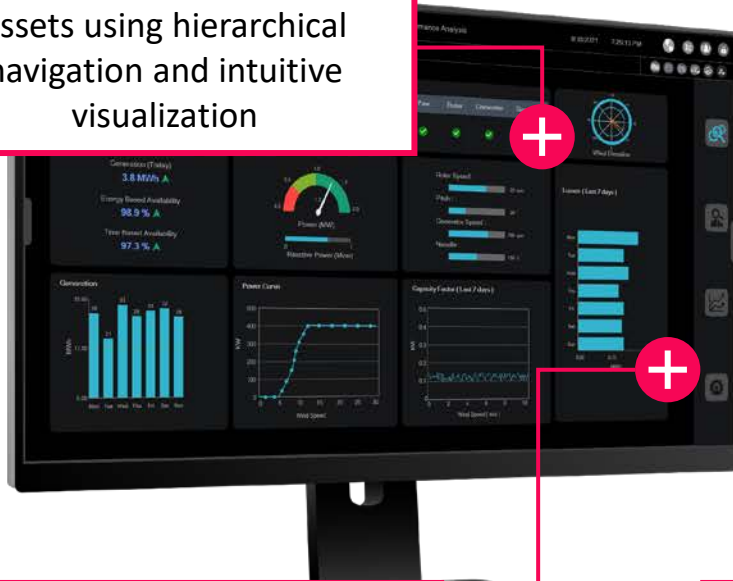


Conceptual

# Enterprise operations performance visibility in real-time

Rich intelligence offers a high-level perspective

Drill down by site to individual assets using hierarchical navigation and intuitive visualization



Detailed operational analysis to maximize efficiency and ensure resource availability

Merge data types to understand deeper context between various aspects of operations



Holistic view of impacts from upstream and downstream operational disruptions or outages

Real-time visibility to critical events as they occur, improving responsiveness



Innovative approach to alarm management, emphasizing actionable alerts



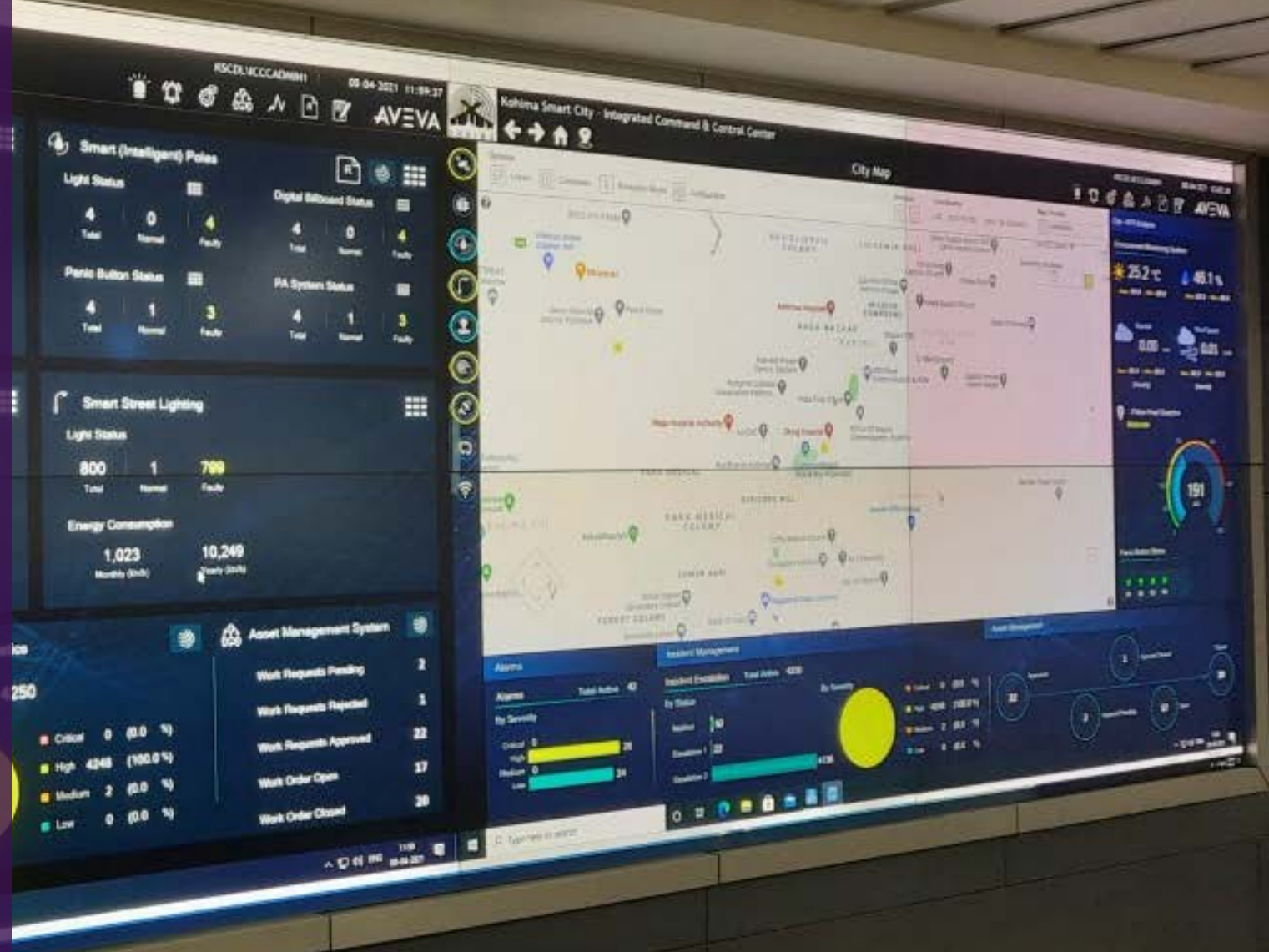


# Kohima Smart City

AVEVA's Unified Operations Center helps create blueprint in sustainable smart city innovation

Integrated cross-city command center and technology platform optimizing the management and efficiency of the city's smart services

Deployed remotely to manage traffic, energy consumption using smart street lighting, city pollution monitoring and public address system





# Saudi Aramco

Saudi Aramco remotely implemented AVEVA Unified Operations Center

Early value chain optimization using 3D engineering model

Improved visibility for faster decision making

Installation completed remotely securely & to time, during lockdown



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# Nutrien

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Improved efficiency using  
operational data and insight from  
the PI System and  
AVEVA Unified Operations Center

Real-time data empowers the team to  
proactively troubleshoot and problem  
solve operational challenges in nitrate  
production

Better cross-team collaboration using  
shared data

Streamlined data-transfer between teams  
and plants




AVEVA


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AVEVA is a global leader in industrial software, driving digital transformation and sustainability. By connecting the power of information and artificial intelligence with human insight, AVEVA enables teams to use their data to unlock new value. We call this Performance Intelligence. AVEVA's comprehensive portfolio enables more than 20,000 industrial enterprises to engineer smarter, operate better and drive sustainable efficiency. AVEVA supports customers through a trusted ecosystem that includes 5,500 partners and 5,700 certified developers around the world. The company is headquartered in Cambridge, UK, with over 6,500 employees and 90 offices in over 40 countries.

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