

NOVEMBER 2022

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# The Roadmap to Operational Excellence

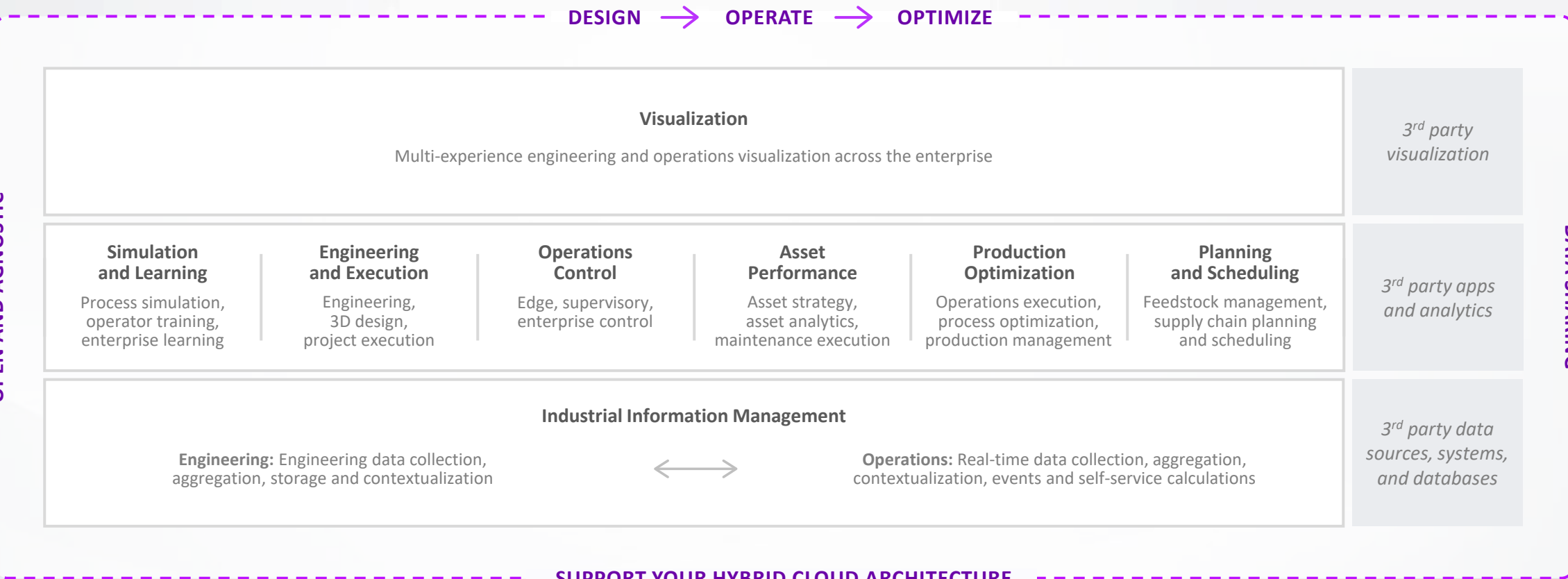
## AVEVA™ PI System™

Brian Bostwick, VP Portfolio Management, Operations

**AVEVA**

# Delivering a complete digital thread, purpose-built for industry

Accelerate time to value with flexible, scalable, and trusted industrial hybrid SaaS solutions



# Delivering a complete digital thread, purpose-built for industry

Accelerate time to value with flexible, scalable, and trusted industrial hybrid SaaS solutions

DESIGN → OPERATE → OPTIMIZE

## Industrial Information Management

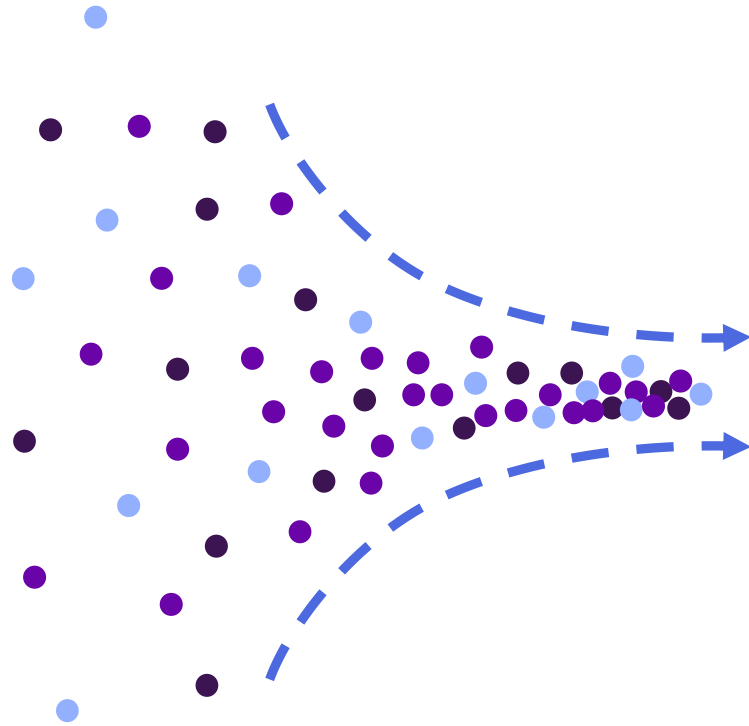
**Operations:** Real-time data collection, aggregation, contextualization, events and self-service calculations

OPEN AND AGNOSTIC

DATA SHARING

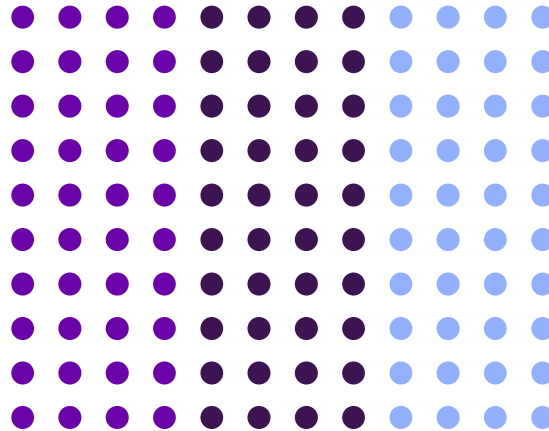
SUPPORT YOUR HYBRID CLOUD ARCHITECTURE

# AVEVA PI System, from data to intelligence



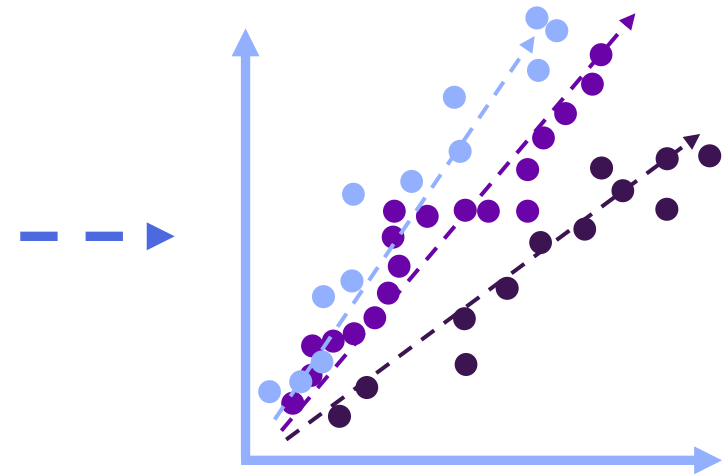
**Data**

Raw data points,  
difficult to interpret



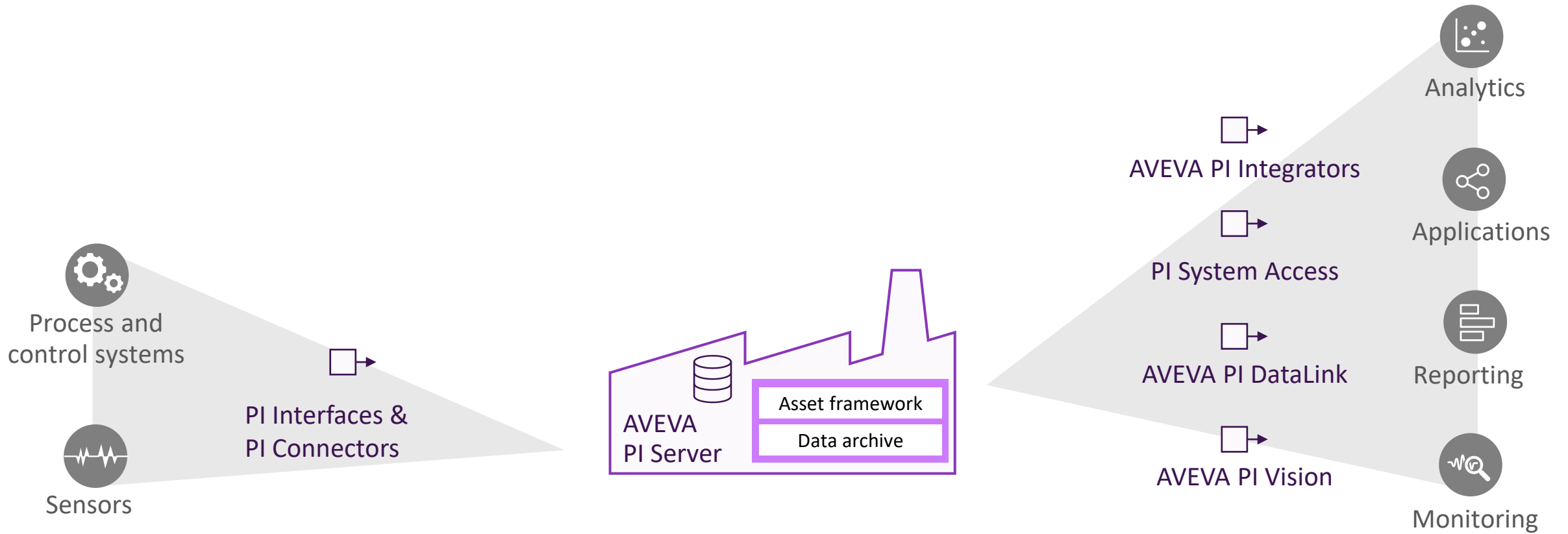
**Information**

Contextualized, real-time  
decision support



**Intelligence**

Business/operation  
analytics



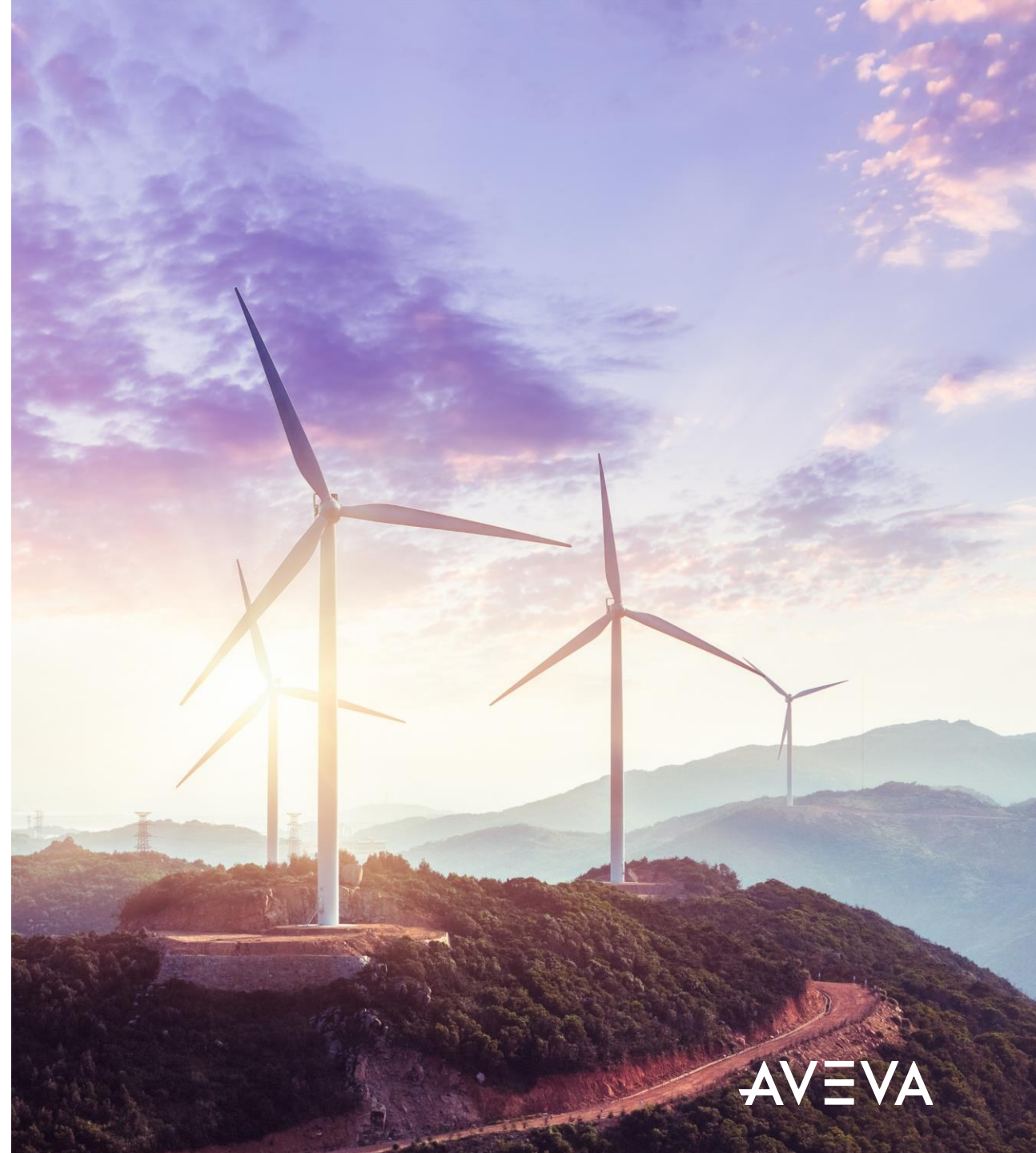
**AVEVA PI System: collect, enrich, visualize**

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# Roadmap themes

## AVEVA PI System information management

- Seamless infrastructure from edge to cloud
- Manageable software and systems
- Increased value and scope of data



# Seamless data infrastructure, to the edge

## Challenges at the edge



**Data from remote  
sources**

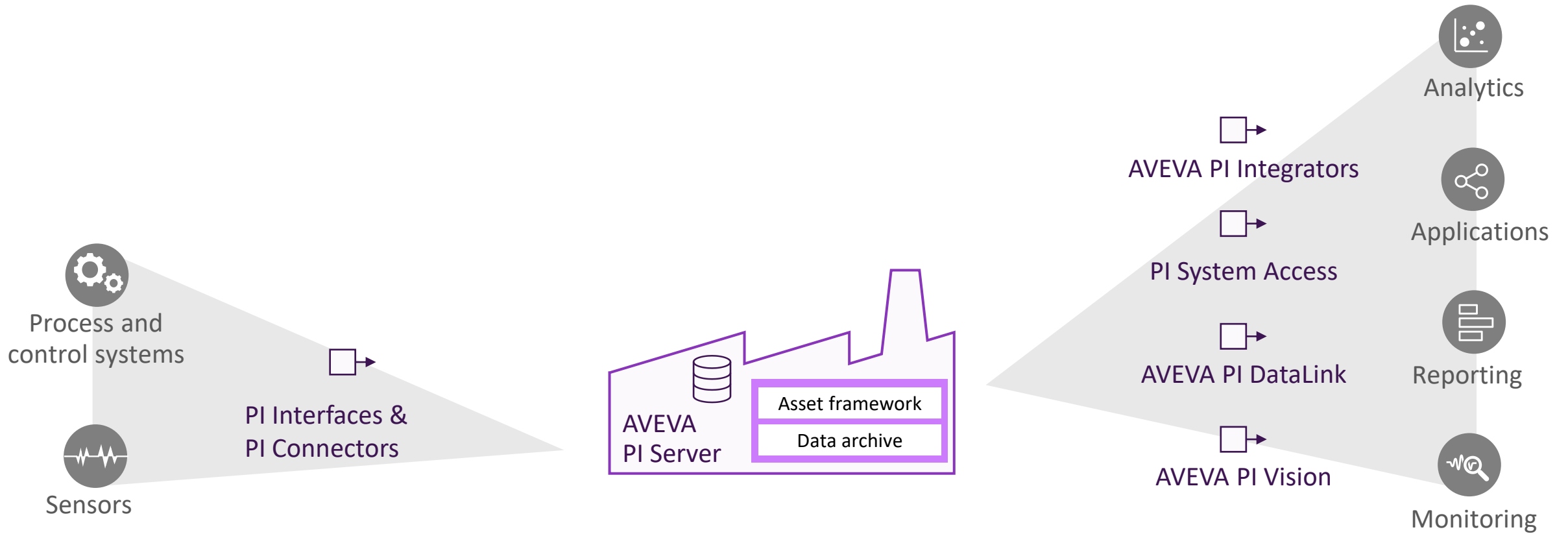


**Local history  
for applications**



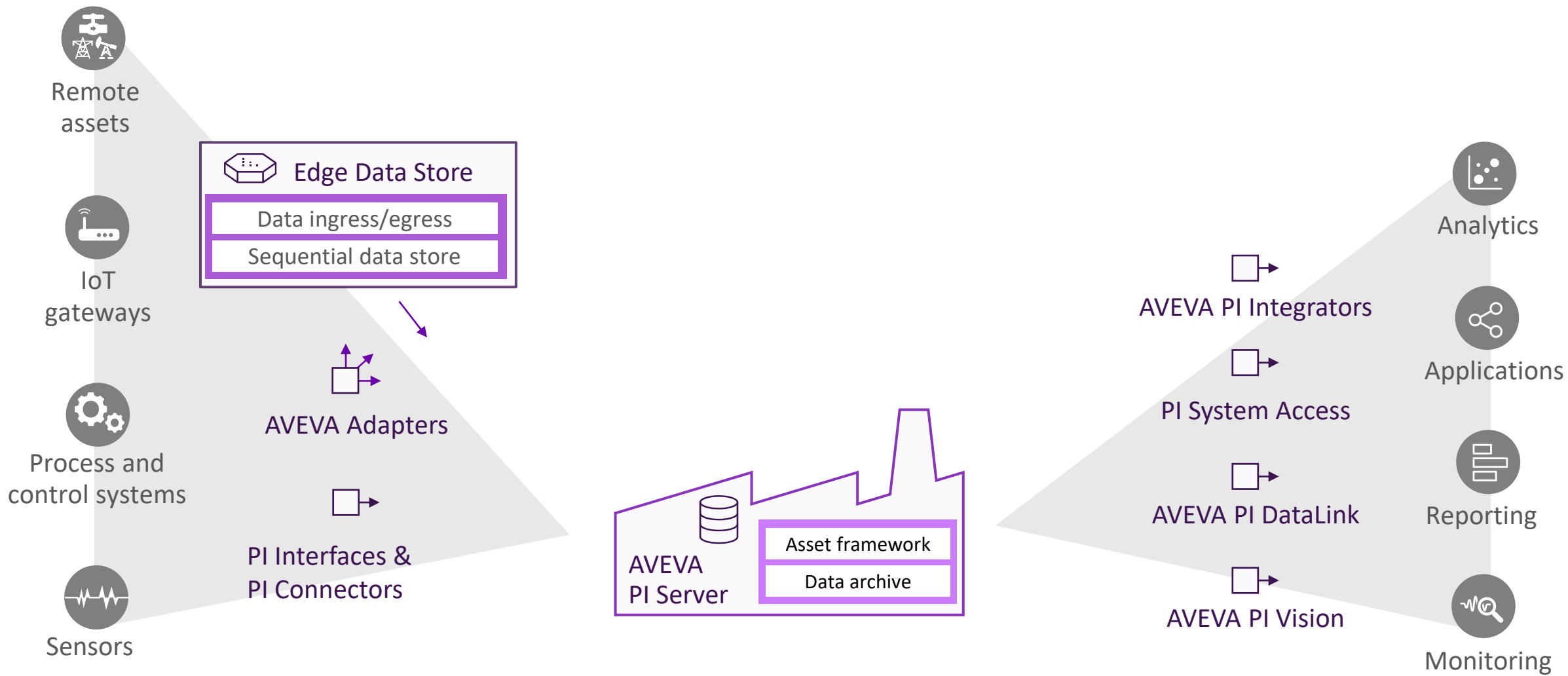
**Linux or Windows  
platform**





AVEVA PI System: extending at the edge





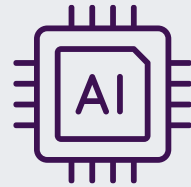
AVEVA PI System: extending at the edge

# Seamless data infrastructure, to the cloud.

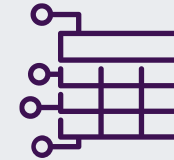
Challenges from innovative uses of data



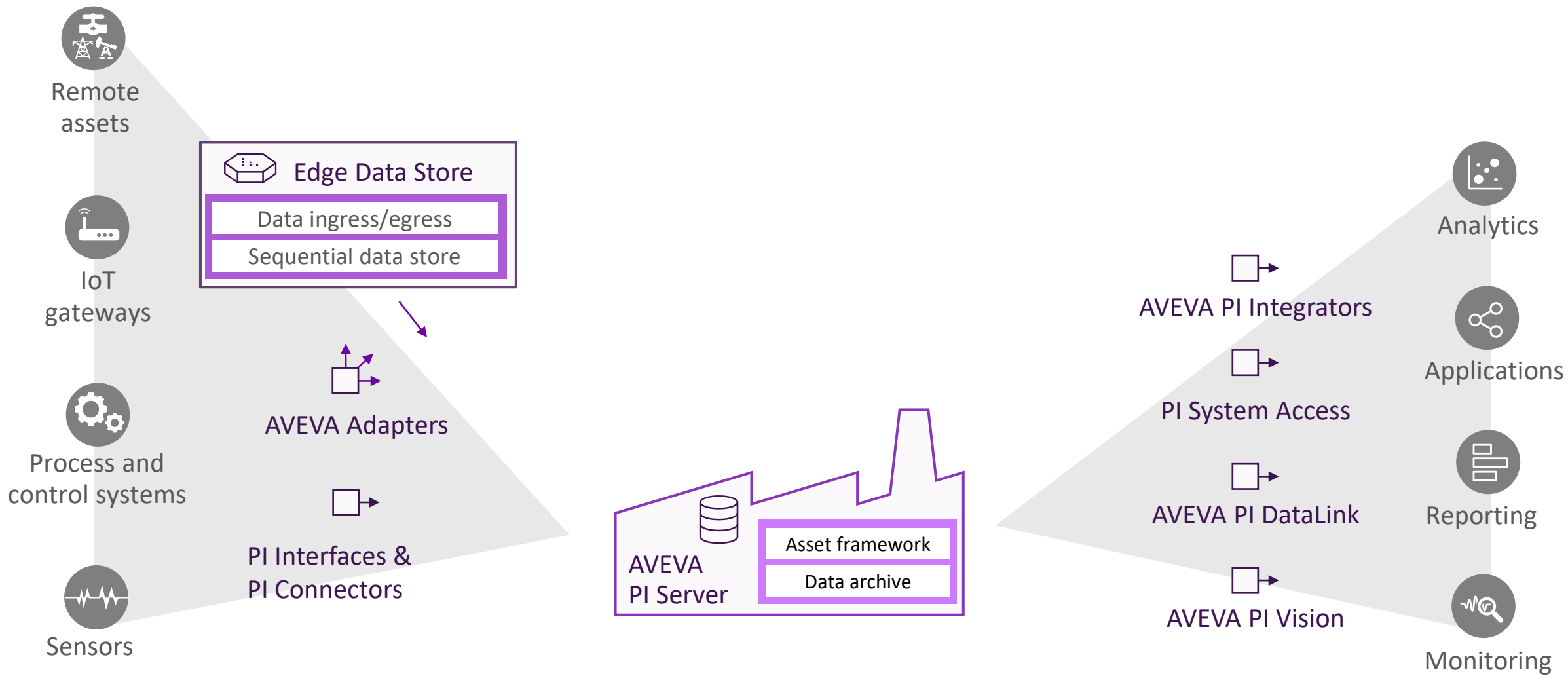
**Business  
Intelligence**



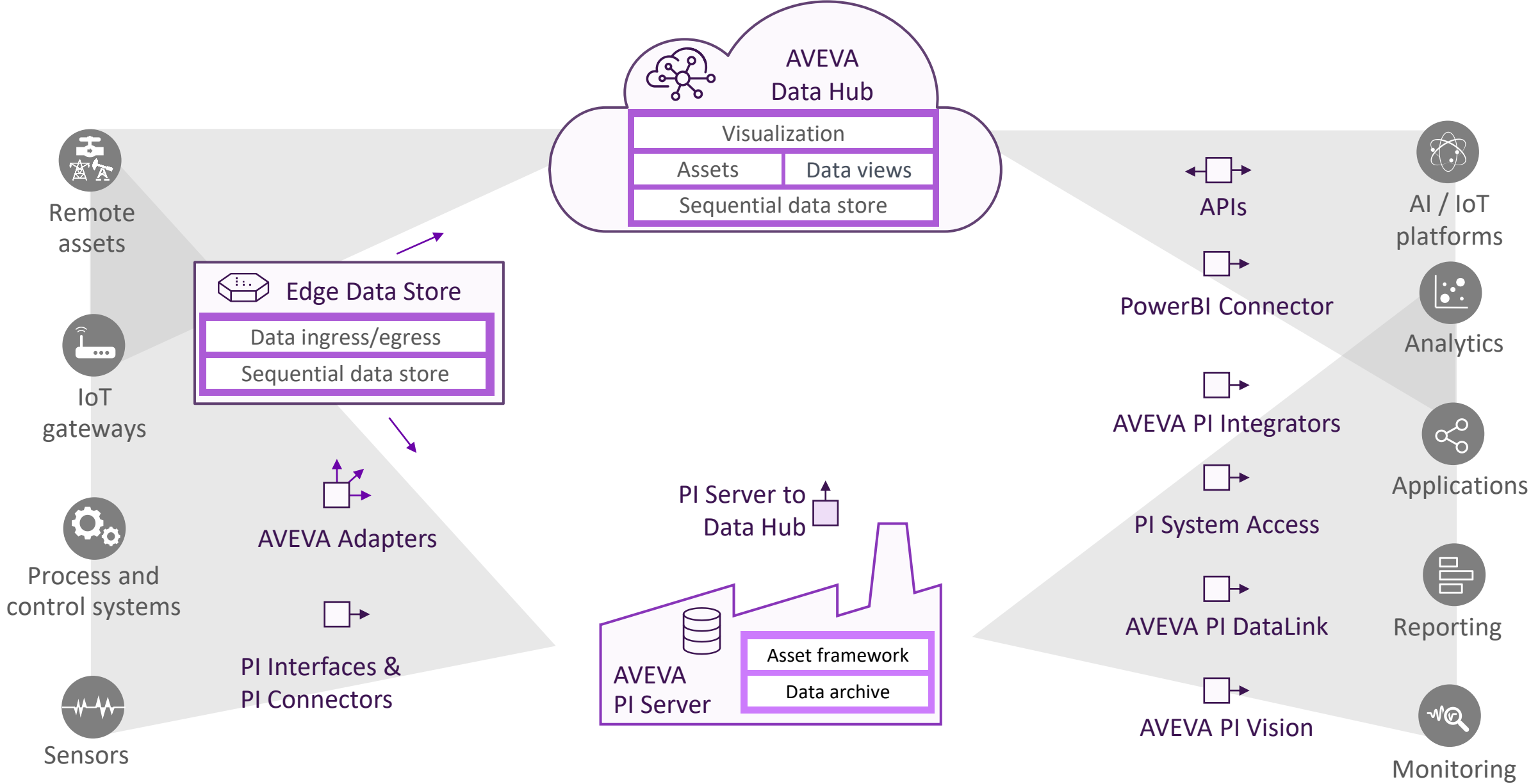
**Advanced  
analytics**



**Shared  
data sets**



## AVEVA PI System: extending to the cloud



## AVEVA PI System: extending to the cloud

# Increased scope and value of data

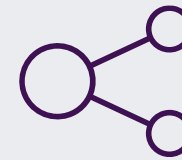
Challenges with analyzing and sharing more data



**Self service  
analytics**

$f(x)$

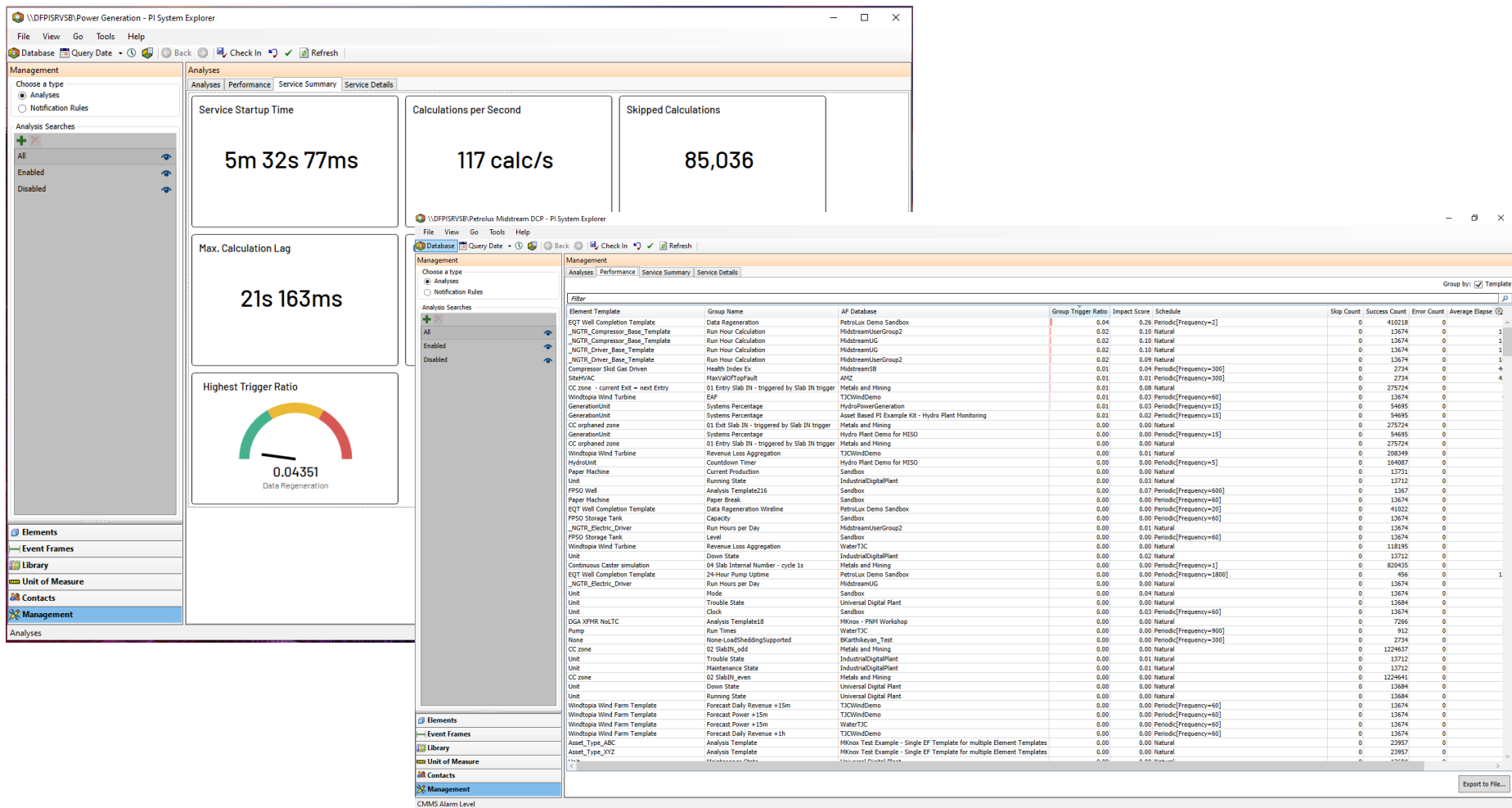
**Context  
and calculations**



**Data shared  
with context**



# Diagnose PI AF analytics performance and bottlenecks





# Replicate AF Elements to AVEVA Data Hub with PI to Data Hub

The image displays two software interfaces side-by-side, illustrating the process of replicating an Asset Framework (AF) element to the AVEVA Data Hub.

**Left Interface: PI System Explorer (Administrator)**

- File** | **Search** | **View** | **Go** | **Tools** | **Help**
- Database** | **Query Date** | **Back** | **Check In** | **Refresh** | **New Element** | **New Attribute**
- Elements** pane shows a tree structure: **PI Data Archive** > **Plant** > **Line 1** > **Inlet Pump**.
- The **Inlet Pump** element is selected, and its details are shown in the main pane.

**Right Interface: AVEVA™ Data Hub - Asset Explorer**

- Assets** search bar contains **inlet\***.
- Filter facets** include **Status** and **Asset Type**.
- Status** options: ☒ Good, ☐ Warning, ☐ Bad, ☐ Unknown.
- Asset Type** options: ☐ DataCollectorHealth, ☐ DataCollectorService, ☐ StorageHealth, ☐ DNP3 Windtopia Wind Turbine, ☐ Windtopia Wind Turbine, ☐ OmfEgressHealth, ☐ Reactor with Outlet Sensor, ☐ Line, ☐ Outlet Pump, ☒ Pump.
- Inlet Pump** asset is selected.
- Properties** tab shows a table of attributes:

Property	Last Value	UOM	Timestamp
<input checked="" type="checkbox"/> Bearing Temperature   Value	170.902		10/10/22, 4:30 PM
<input type="checkbox"/> Flow Rate   Value	454.173		10/10/22, 4:30 PM
<input type="checkbox"/> OnOff   Value	0.726		10/10/22, 4:00 PM
<input type="checkbox"/> Reason Code   Value	Unknown		10/10/22, 9:35 AM

**Graph:** A line graph showing the **Bearing Temperature | Value** over time. The y-axis ranges from -20 to 200. The x-axis shows time from 09 AM to 04 PM. The temperature fluctuates between approximately 100 and 180.

**Showing 1 - 2 of 2 Items per page: 50**

# Manageable software, security and reliability

## Challenges on premises



**Cyber security**



**Evolving  
IT landscape**

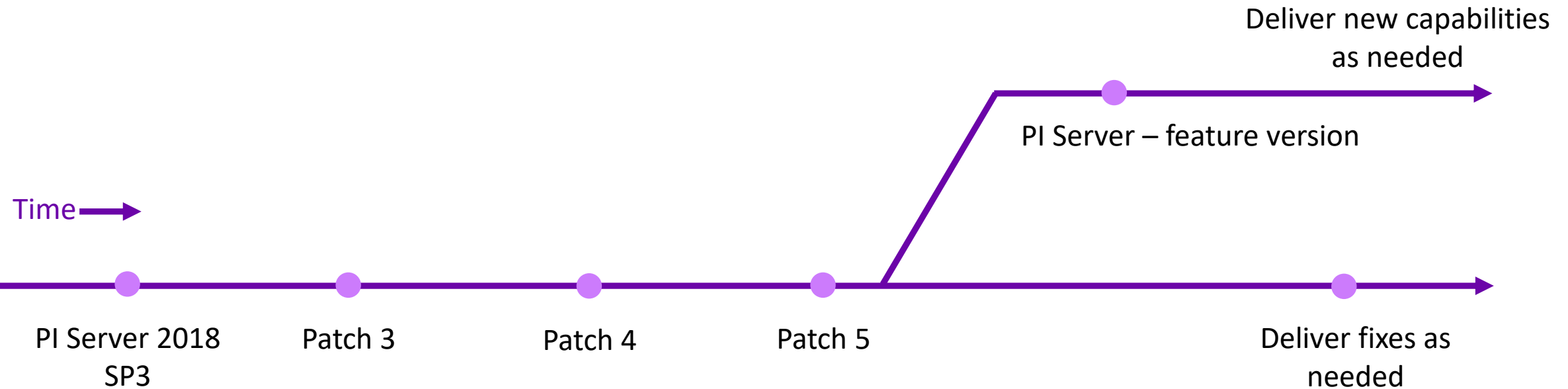


**Validate  
new releases**

# The AVEVA PI Server



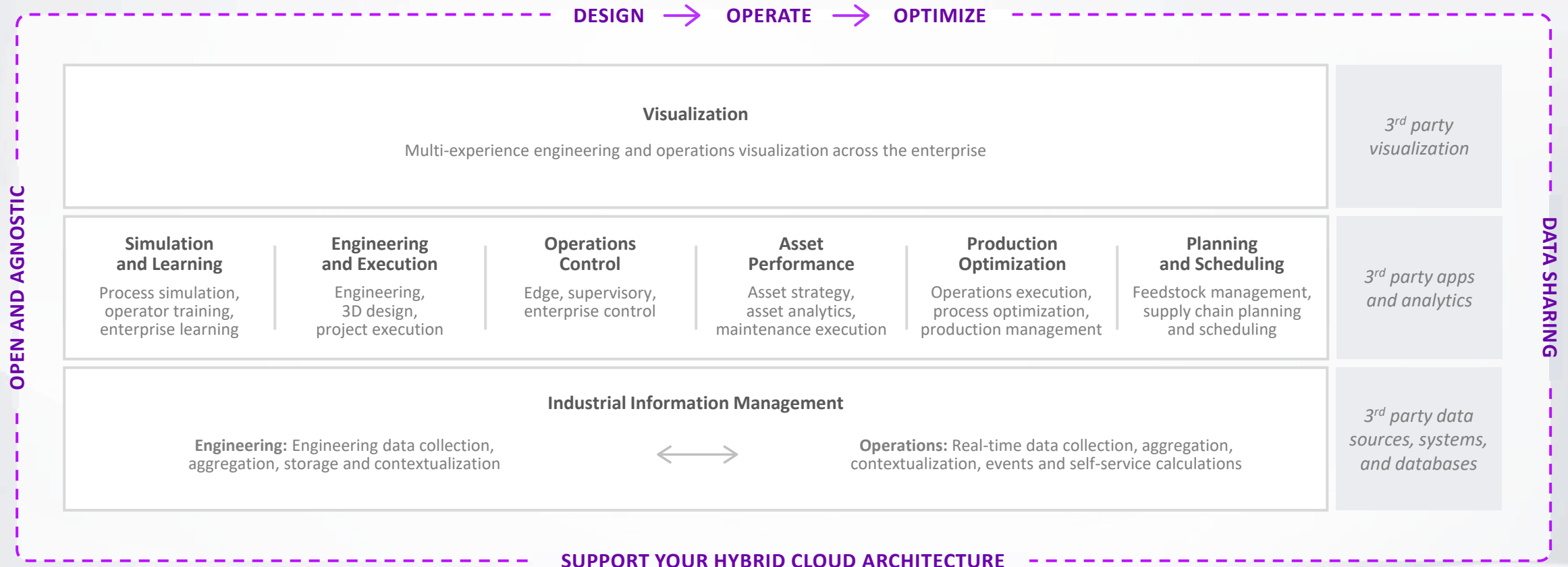
Modern authentication



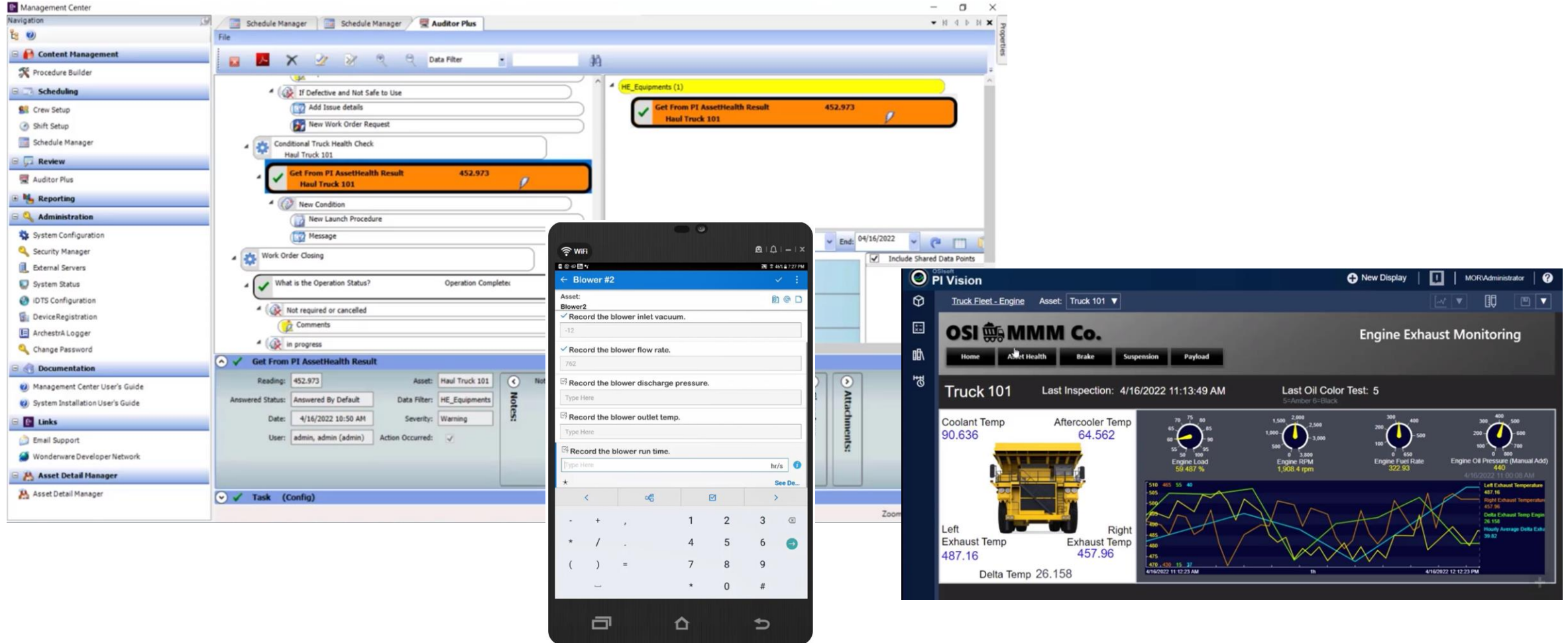
Critical fixes over time

# Delivering a complete digital thread, purpose-built for industry

Accelerate time to value with flexible, scalable, and trusted industrial hybrid SaaS solutions



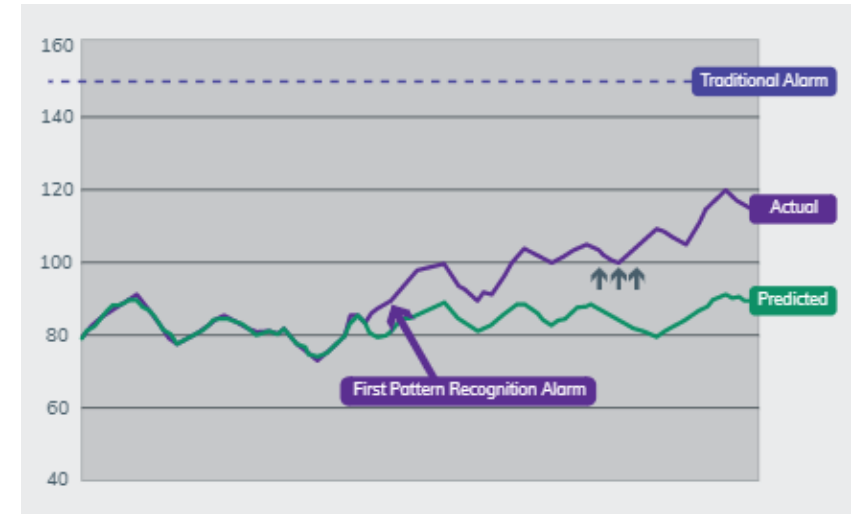
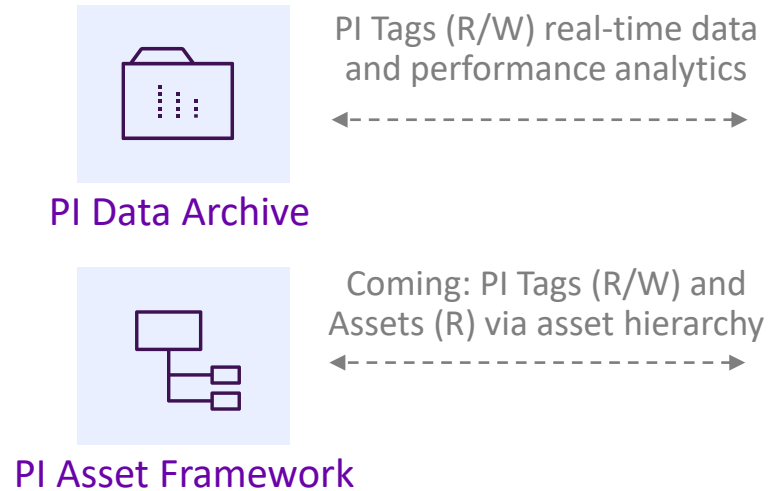
# AVEVA Mobile Operator manually collects & validates data



# AVEVA Predictive Analytics & AVEVA PI Server

Combine PI Server data with AI and machine learning-driven insights for early warning detection

- Reduce downtime
- Minimize maintenance costs
- Prevent asset failure
- Extend asset/equipment life
- Improve safety
- ✓ **Optimize your asset management strategy**



AVEVA Predictive Analytics

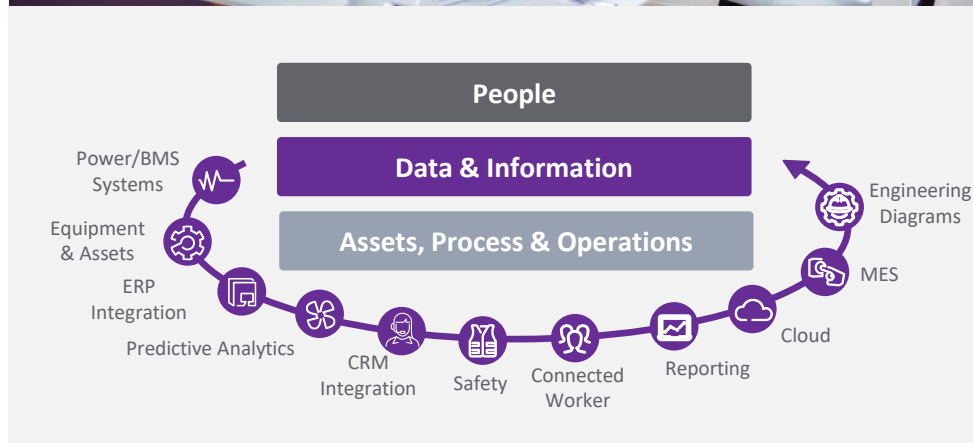
# AVEVA Unified Operations Center



Mobile / Desktop / Wall

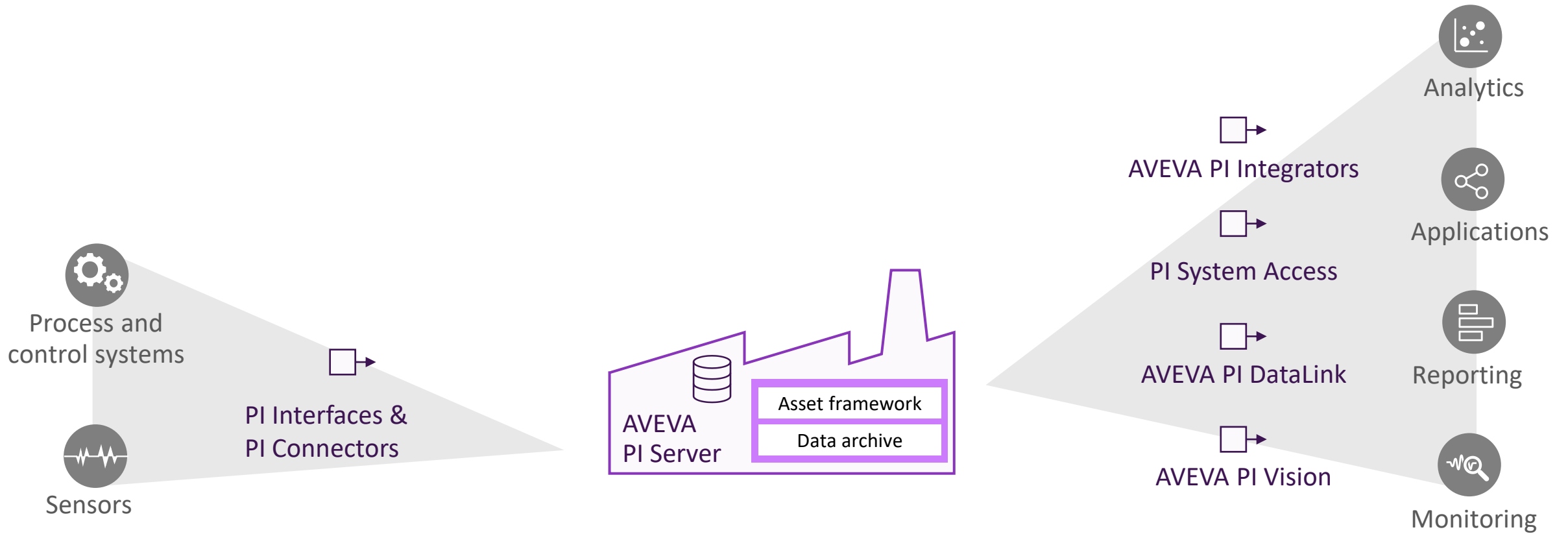
Powerful 3D diagrams

Contextually connected visuals

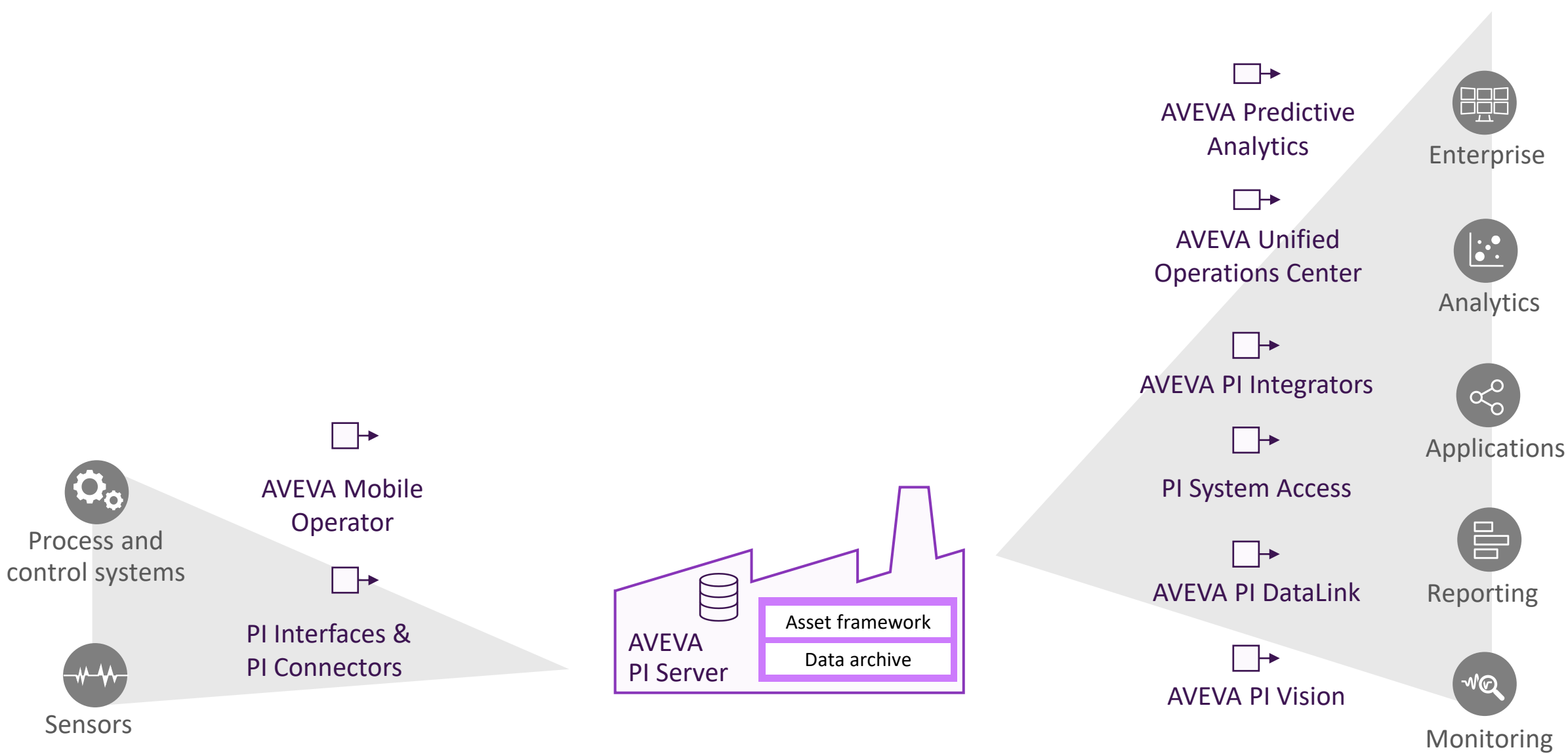


Show AVEVA PI Server data & AVEVA PI Vision displays in context



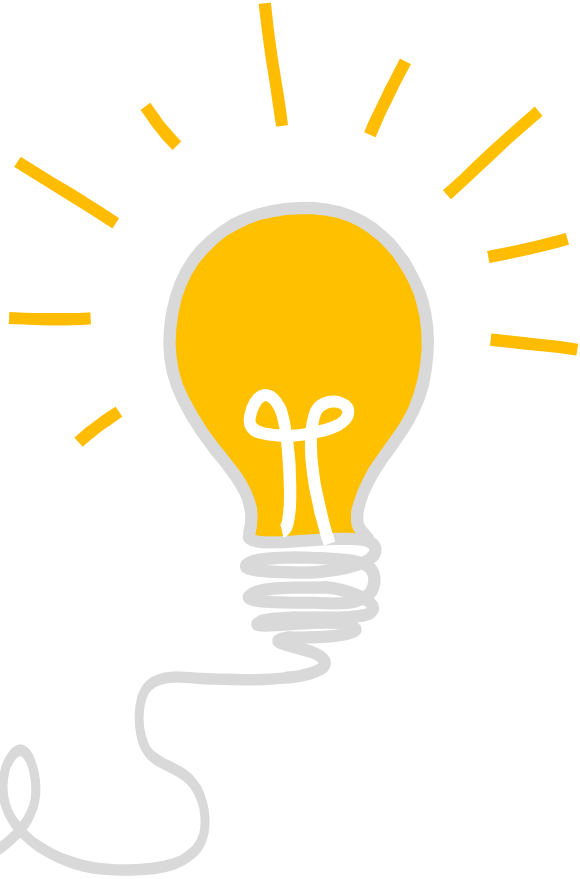


**AVEVA PI System: expanding capabilities**



**AVEVA PI System: expanding capabilities**

How can you influence the AVEVA PI System roadmap?



<https://feedback.aveva.com>

Let us know your product feedback!



# Brian Bostwick

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AVEVA

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# Questions?

Please wait for the microphone.  
State your name and company.



# Please remember to...

Navigate to this session in the mobile  
app to complete the survey.




# Thank you!



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#### ABOUT AVEVA

AVEVA is a global leader in industrial software, sparking ingenuity to drive responsible use of the world's resources. The company's secure industrial cloud platform and applications enable businesses to harness the power of their information and improve collaboration with customers, suppliers and partners.

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. With operations around the globe, we are headquartered in Cambridge, UK and listed on the London Stock Exchange's FTSE 100.

Learn more at [www.aveva.com](https://www.aveva.com)