

AVEVA PI WORLD

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# Empower Your Connected Workforce with a Comprehensive Digital Twin

Optional Subtitle

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# Comprehensive Digital Twin and the Connected Workforce

First things first

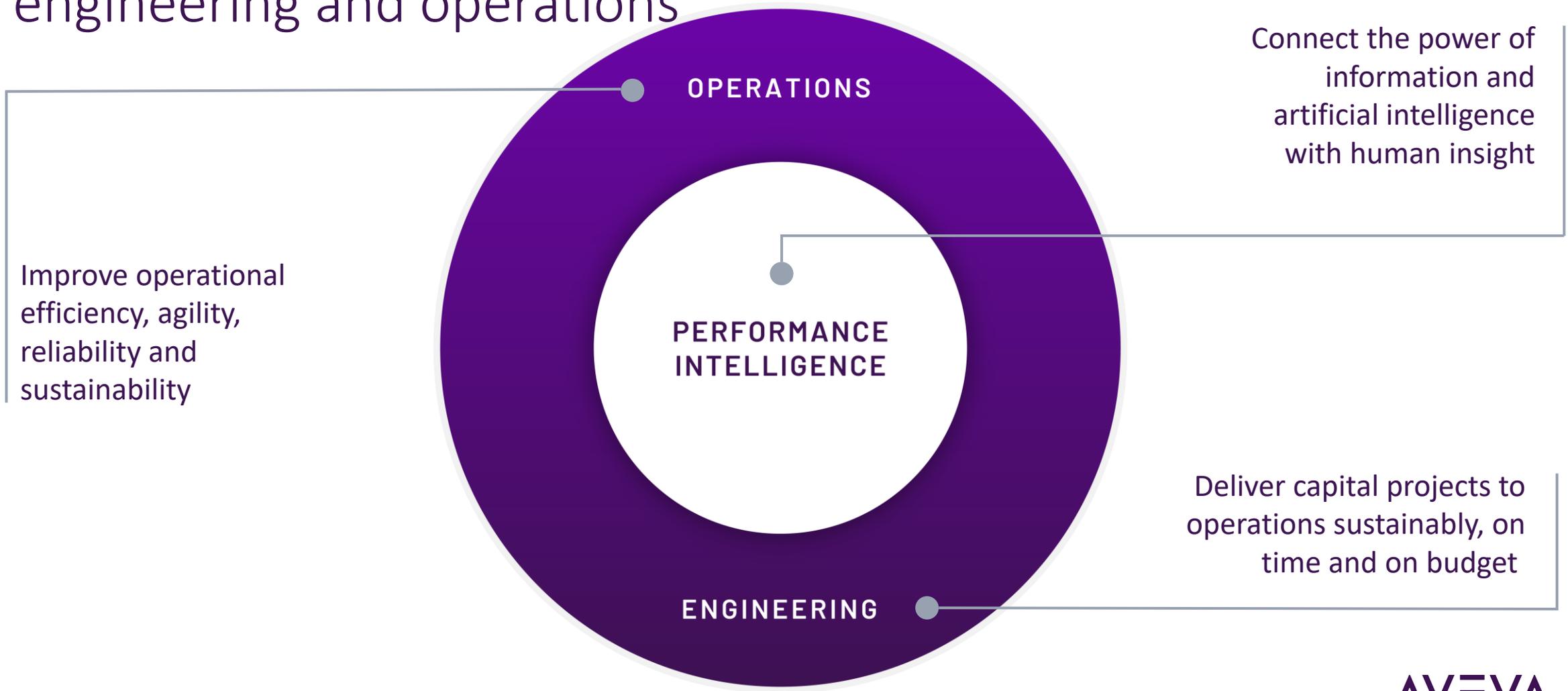


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# The Comprehensive Digital Twin

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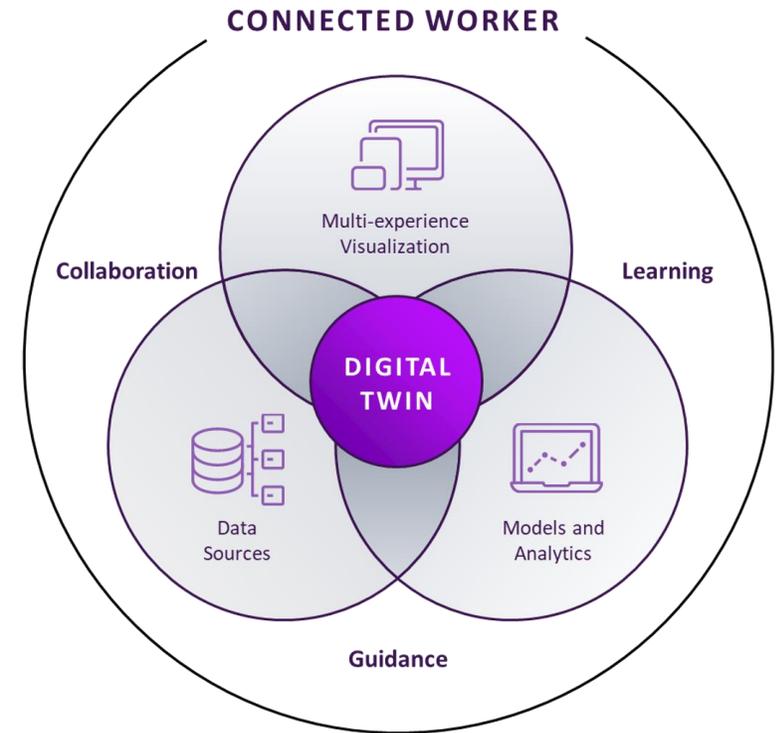
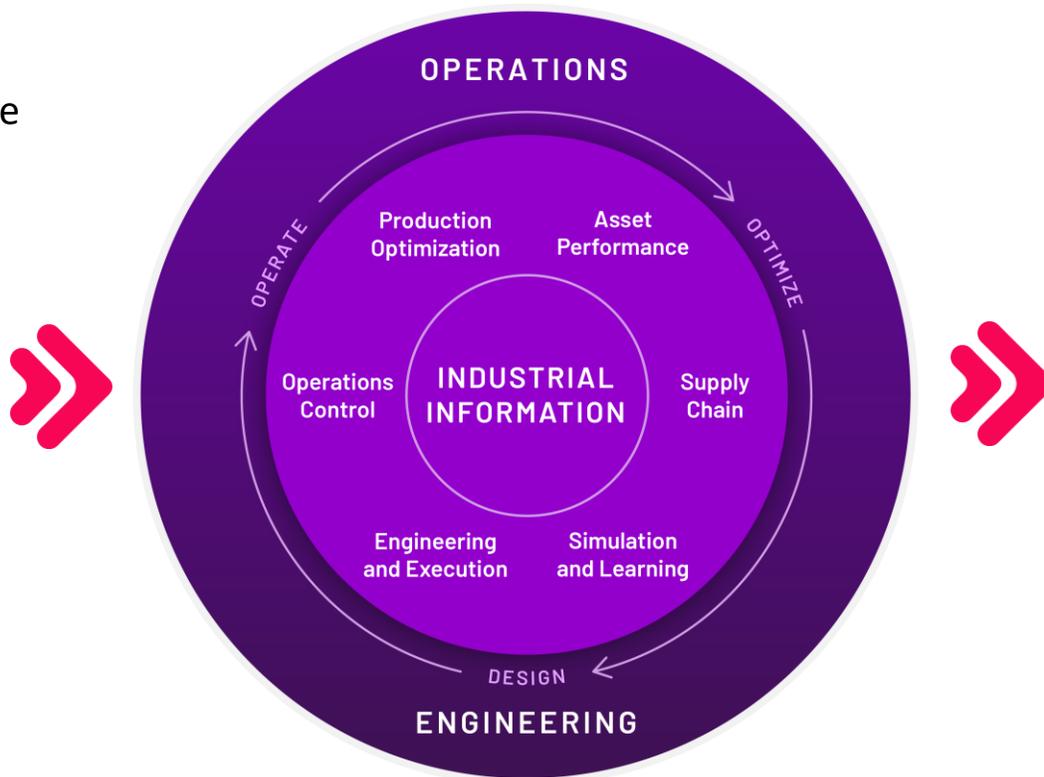
# Common digital thread across engineering and operations



# Defining a Comprehensive Digital Twin

A common digital thread from engineering to operations

-  Artificial Intelligence
-  Cloud
-  Big Data
-  Industrial IoT/Edge
-  Extended Reality



# Goals for the Comprehensive Digital Twin

To deliver actionable, contextualised Information transforming our customer's ability to make faster & more reliable decisions; improving operational safety, asset integrity and reducing project risk.



**Enterprise scalable,  
managed and secure**



**Rapid access to trusted  
information**



**Aggregate, report  
and maintain**



**Visualize context  
to all endpoints**

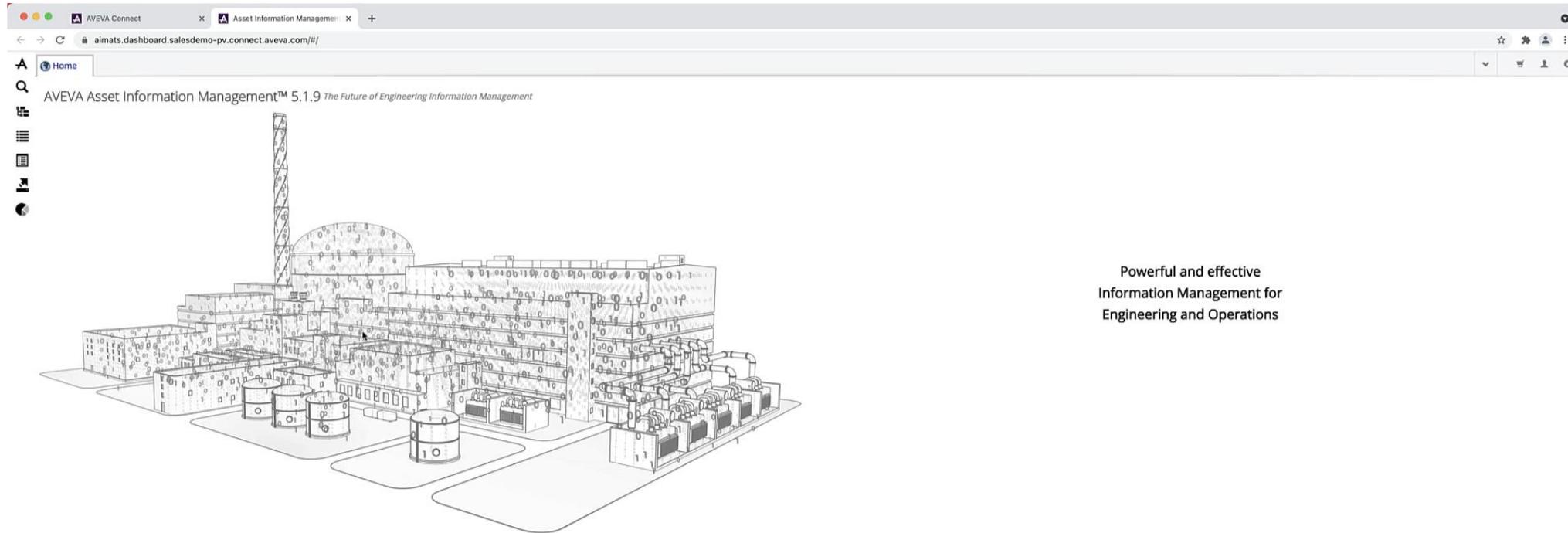


**Ability to assess &  
remediate information**

# From the Operations Data Perspective



# Demo 1



Powerful and effective  
Information Management for  
Engineering and Operations

## Collect

Bring together information in multiple formats and from various source systems to create a complete cross-reference index with links to, and associations between, all items in the digital asset.

## Locate

Provide fast and powerful search capabilities which, combined with its knowledge of tag and document associations, delivers efficient and effective location of information required for decision making.

## Discover

Automatically extract and maintain tag to tag, tag to document, and document to document relationships. Exploiting this interconnectivity, it provides efficient navigation of the digital assets and aids in the discovery of new insights in your information.

## View

Deliver high-quality web-based visualisation of tag data, documents, drawings, 3D models and laser scans. Automatic creation of hotspots and hyperlinks provides additional intelligence for easy identification and navigation of tags.

## Report

Improve project and operational compliance by aggregating project and asset data to report on the quality, consistency, and completeness of your information.

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# The Connected Worker



# Worker perspective - The changing workplace

## My Workplace

- More complex operations
- Compliance and sustainability targets
- More digital solutions
- Increased automation
- More data to filter

## My Opportunities

- Better connectivity & infrastructure
- More sensors & industrial IoT
- More powerful mobile devices
- Wearable devices and smart IoT
- More AI insights

**Personalized**  
Is the experience right for me?

**Interactive**  
Can I easily find what I need?



**Visual**  
Is the context intuitive?

**Guided**  
Does it prescribe what to do next?

**Actionable**  
Is it timely & trustworthy?



# Connected Work – powered by the Digital Twin



Connected Worker



Comprehensive  
Digital Twin  
enabled by AI



Digital Twin (Cloud)



Digital Twin (On Premise/Edge)



Access to  
both Asset and  
Operations Data

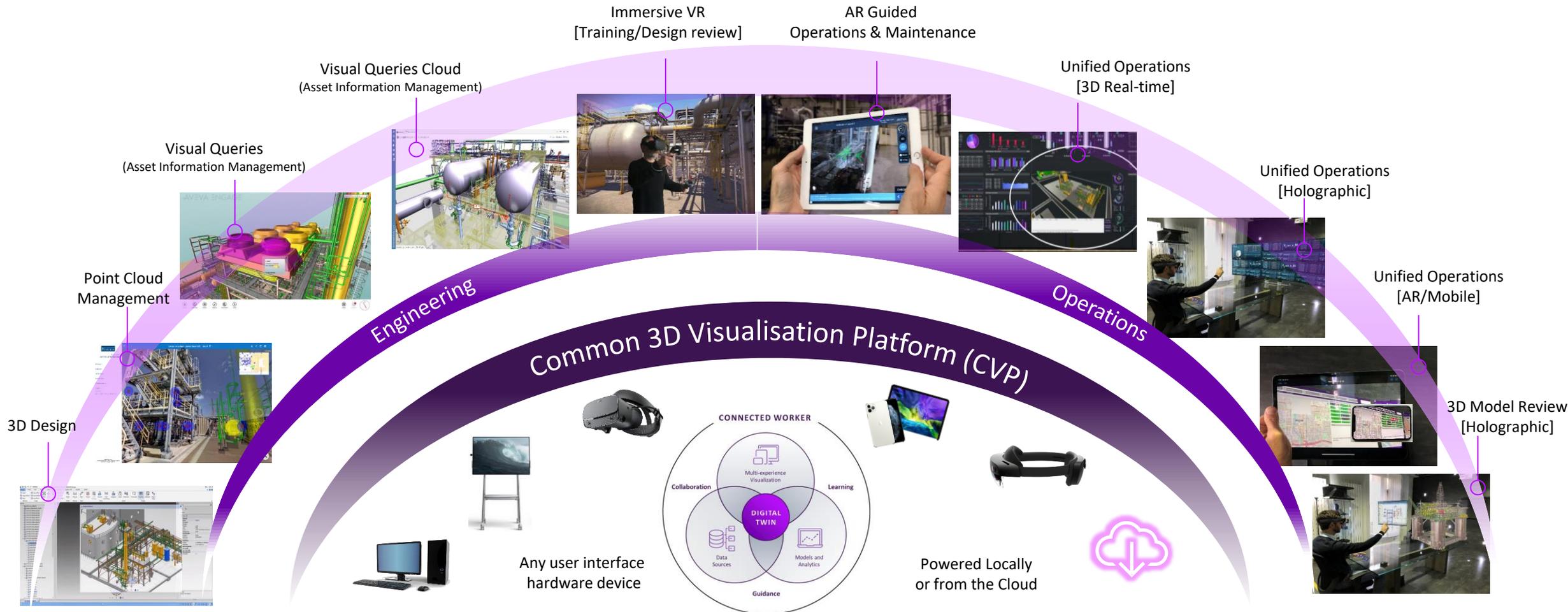
Unparalleled access  
to industrial data



Factory / Plant / Facility / Asset



# Redefining what can be asked and how we can ask it



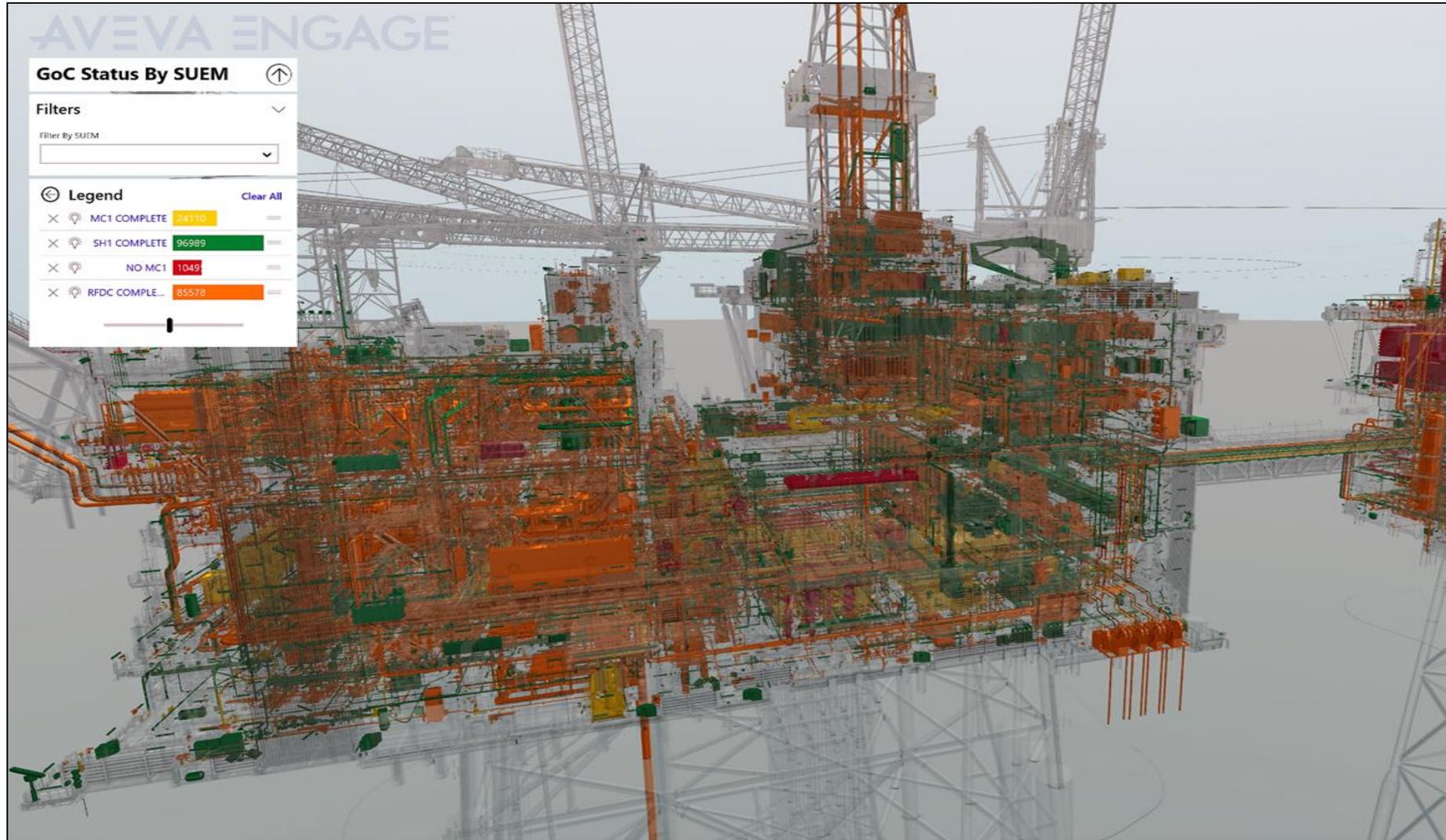
# Whole Asset Insights



- Model
- Reset View
- Section
- Measure
- Collect
- Collection



# Whole Asset Insights



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Capture  
Consolidate  
Enrich  
Share

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# Engineering and Performance

## Key building blocks of the Comprehensive Digital Twin

Standardise

Acquire

Consolidate

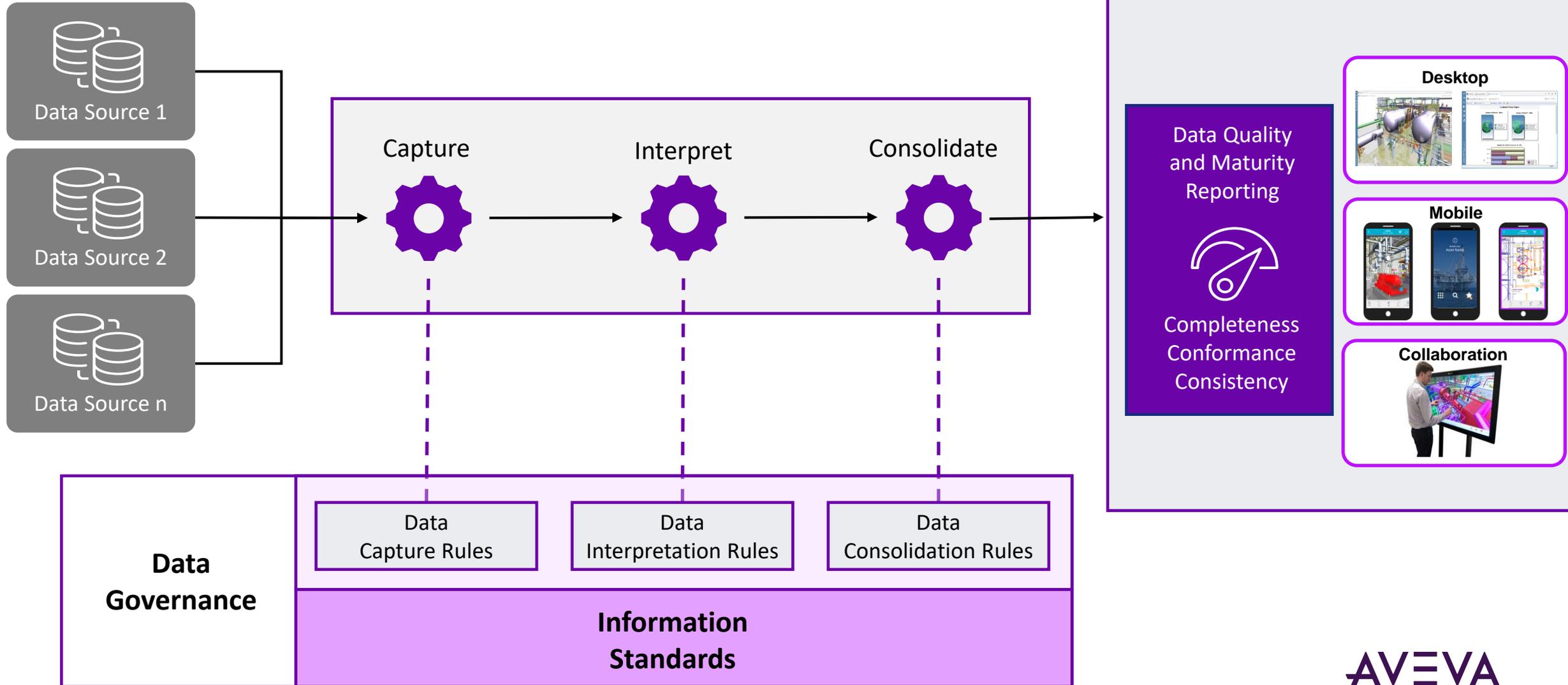
Enrich

Share

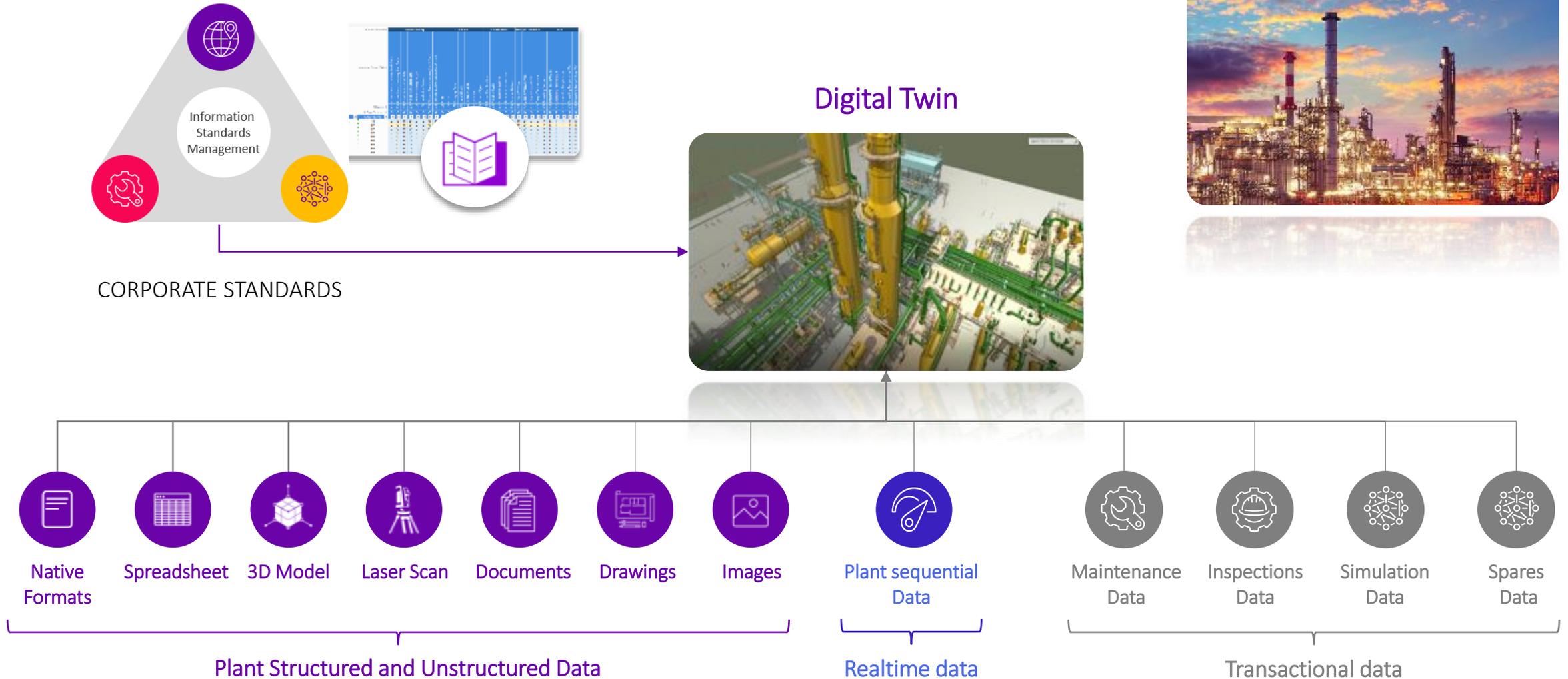


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# Building a Comprehensive Digital Twin



# Bringing the Digital Twin To Life



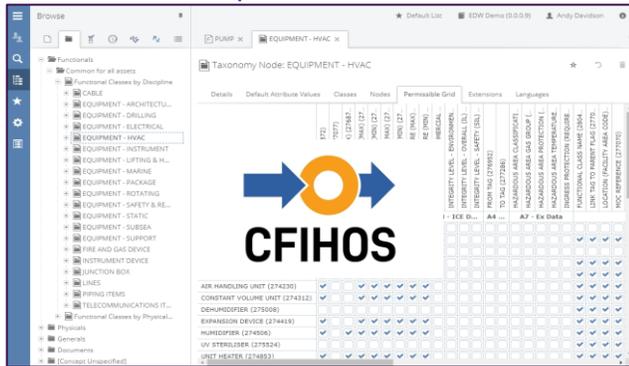
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# Benefits

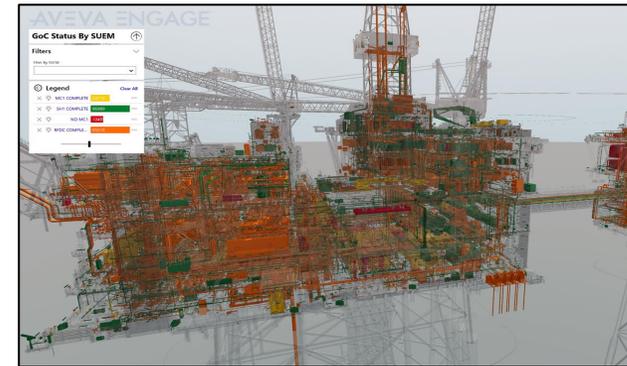


# Example Benefits during CAPEX

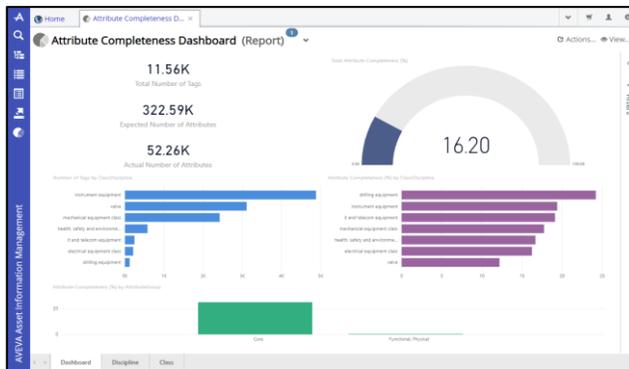
Improve visibility, trust and control to meet budget and schedule while enabling a smooth handover and a quick start-up



Information standard aligned with international standards to guide adoption of a consistent approach to information.



Collaborative, graphical reviews of constructability and commissioning status



Accurately measure data quality Verify consistency, compliance and completeness of data from EPC.



Use the 3D model for conducting e-reviews and apply mark-up remotely.

# Example Benefits During OPEX

Use of As-Operated Engineering Data to support analysis for Performance, Safety, Process Issues...



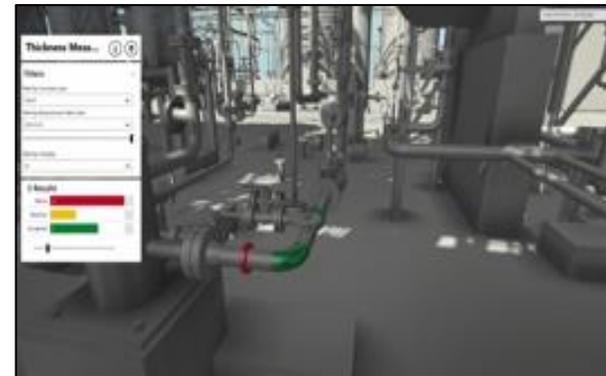
Engineering digital twin is integrated with real time data and with other operations and maintenance tools to see all information in context.



Viewing critical and supercritical equipment in the workorders highlighted on the 3D facility model.



Viewing corrosion loops in the 3D model to support in inspection activity reducing the need for onsite survey.



Viewing reflection of thickness measurement in the 3D model.

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# Where Next ?

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AVEVA Insight

Search for content, tags, or keywords... Advanced

POINTS	POINTS/DAY	TAGS	DEVICES	FACILITIES
1.7 BILLION	96 MILLION	325 MILLION	244 MILLION	103 WORLDWIDE

Start

- SEARCH**  
Through all data: tags, attributes, assets  

- BROWSE**  
Find existing views  

- RECENT**  
Open recent views  

- NEW**  
Create a new view  


https://l2meap1web.z33.web.core.windows.net



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DZIĘKUJĘ CI  
 NGIYABONGA  
 TEŞEKKÜR EDERİM  
 DANKIE  
 TERIMA KASIH  
 СПАСИБО  
 GRAZIE  
 МАХАДСАНИД  
 GO RAIBH MAITH AGAT  
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 GRACIAS  
 ТИ БЛАГОДАРАМ  
 TAK DANKE  
 RAHMAT  
 HATUR NUHUN  
 PAKKA PÉR  
 HATUR NUHUN  
 PAXMAT САГА  
 CÁM ƠN BẠN  
 WAZVIITA  
 謝謝  
 ТАРΑΔΗ ΛΕΙΒΗ  
 KEA LEBONA  
 БАЯРЛАЛАА  
 MISAOTRA ANAO  
 WHAKAWHETAI KOE  
 DANKON TANK TAPADH LEAT  
 MATUR NUWUN  
 ХВАЛА ВАМ  
 MULŢUMESC  
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 HVALA  
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# THANK YOU

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