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# AVEVA™ Unified Engineering – Integrating design/build with operations/optimization for Power & Utilities

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AVEVA

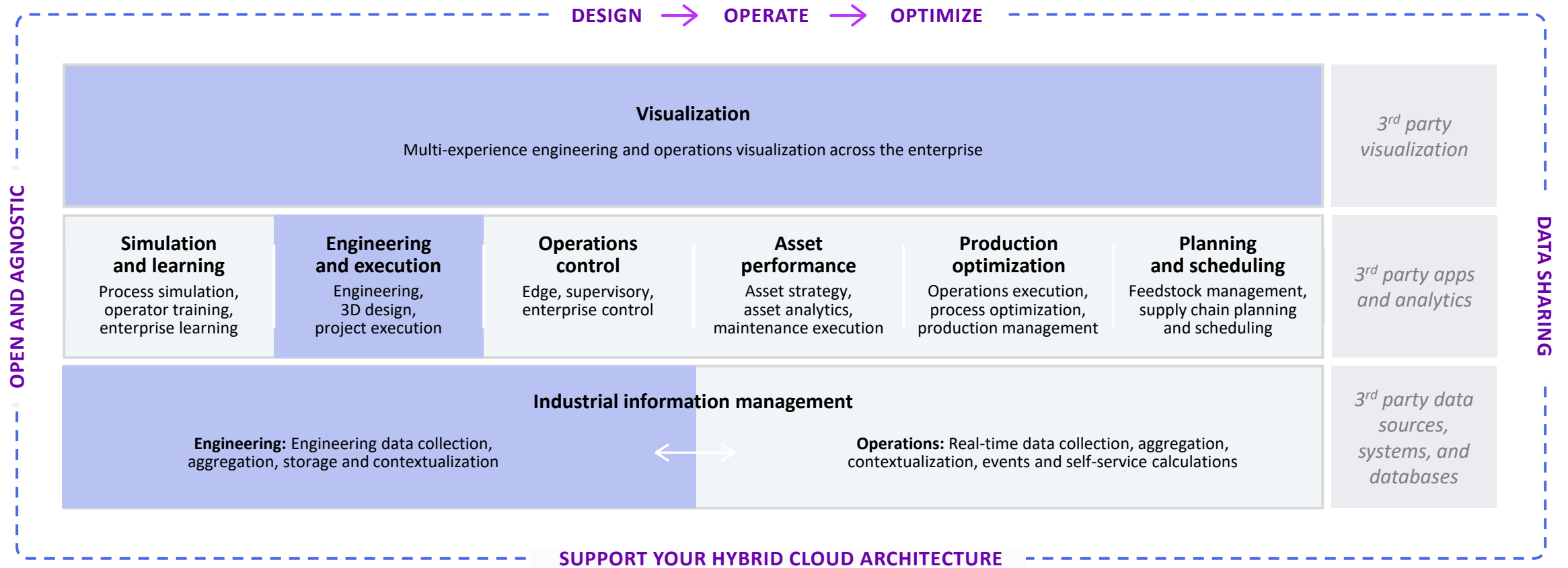
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# Agenda

- Design → operate → Optimize
- Digital twin
- AVEVA™ Point Cloud Manager
- AVEVA™ E3D Design
- AVEVA™ Asset Information Management
- Q&A

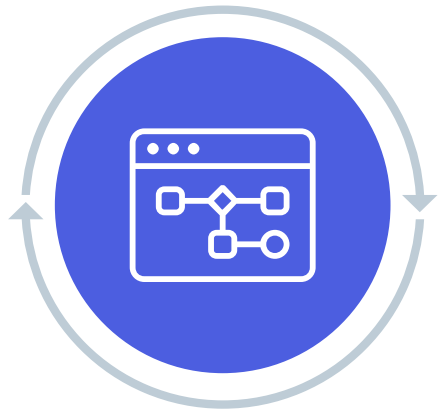
# Delivering a complete digital thread, purpose-built for industry

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

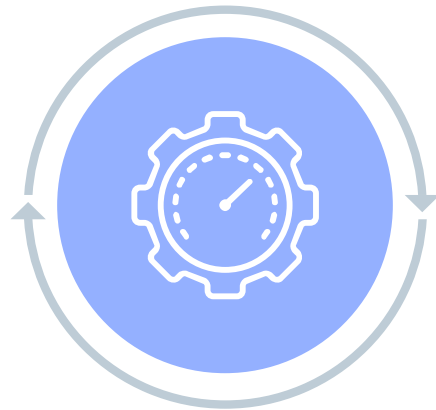


# Transform the way your teams work

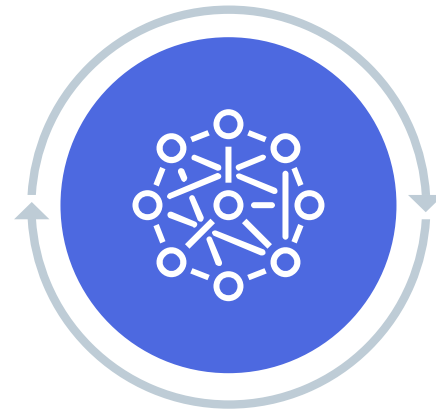
Breaking down silos



Engineering



Operations



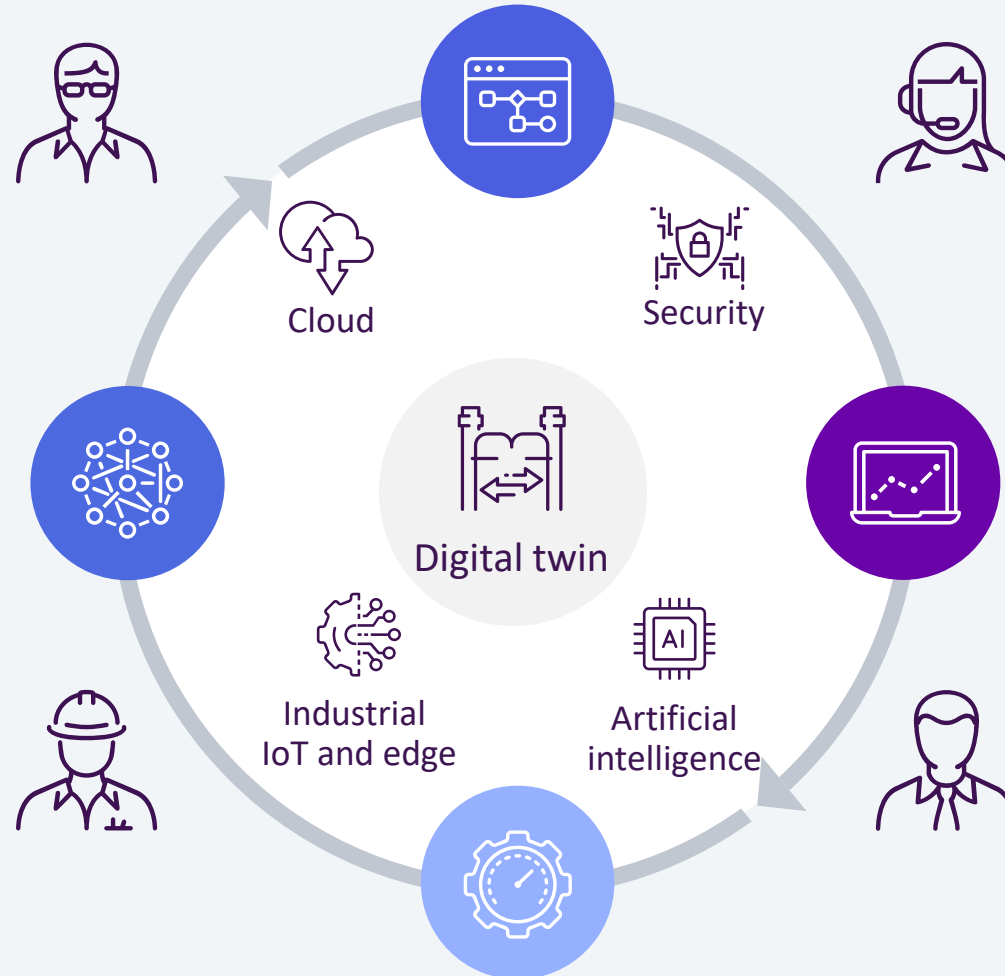
Developer



C-suite

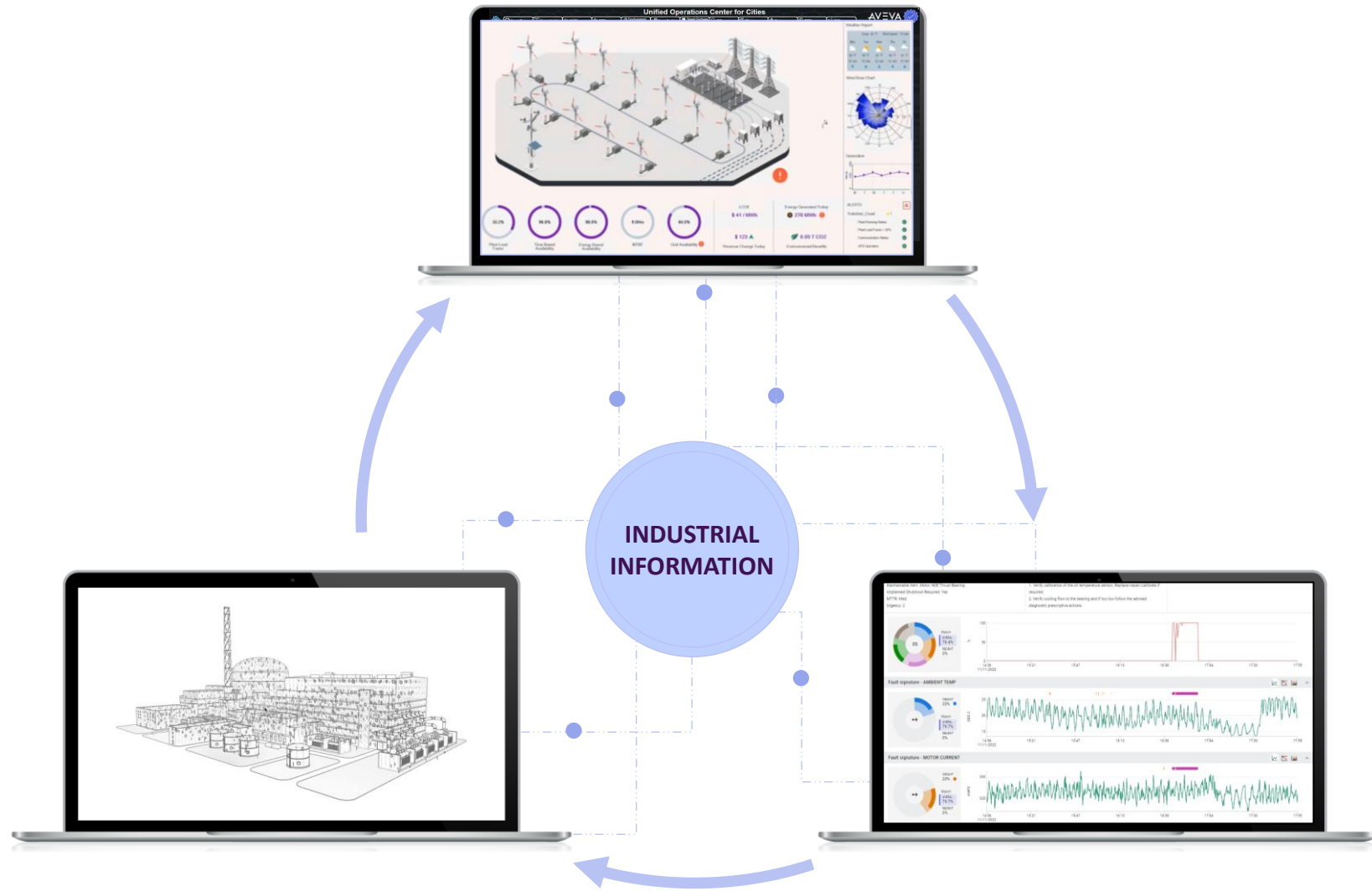
# Transform the way your teams work

Enabled by a **virtual representation** of your assets, processes and sites: The **digital twin**



Industrial information is at the heart of the living digital twin

Frictionless exchange of information fuels innovation and confidence



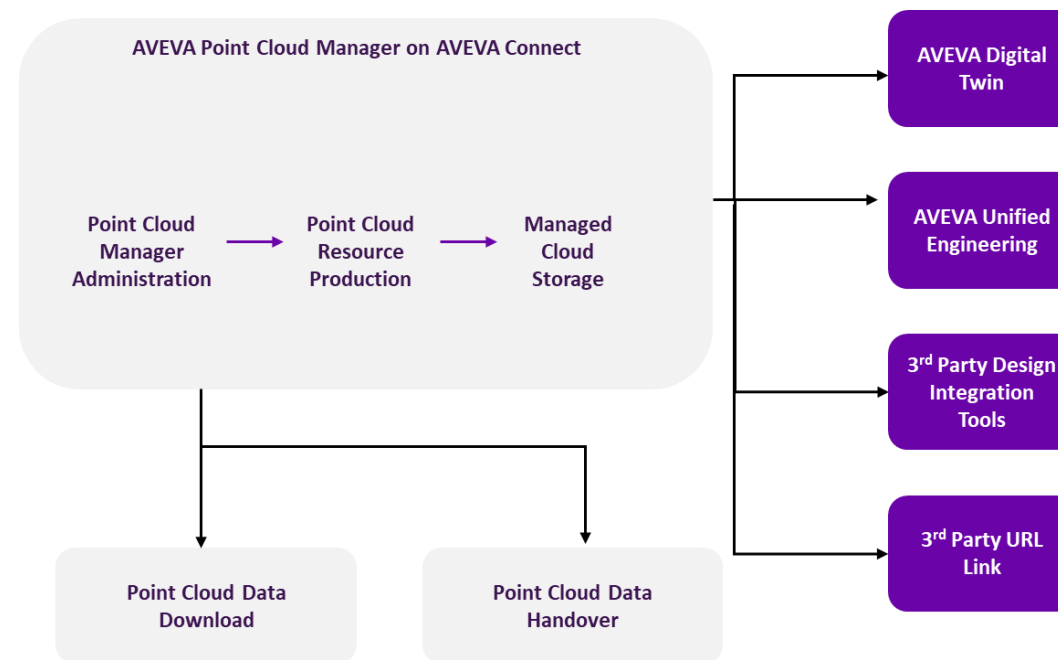
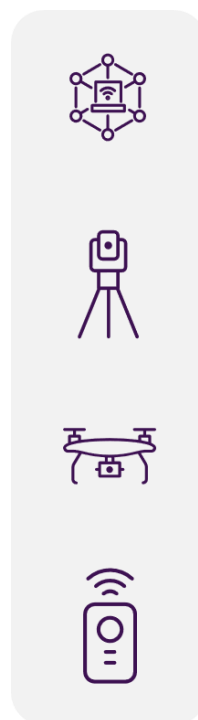
# AVEVA Point Cloud Manager

## Overview

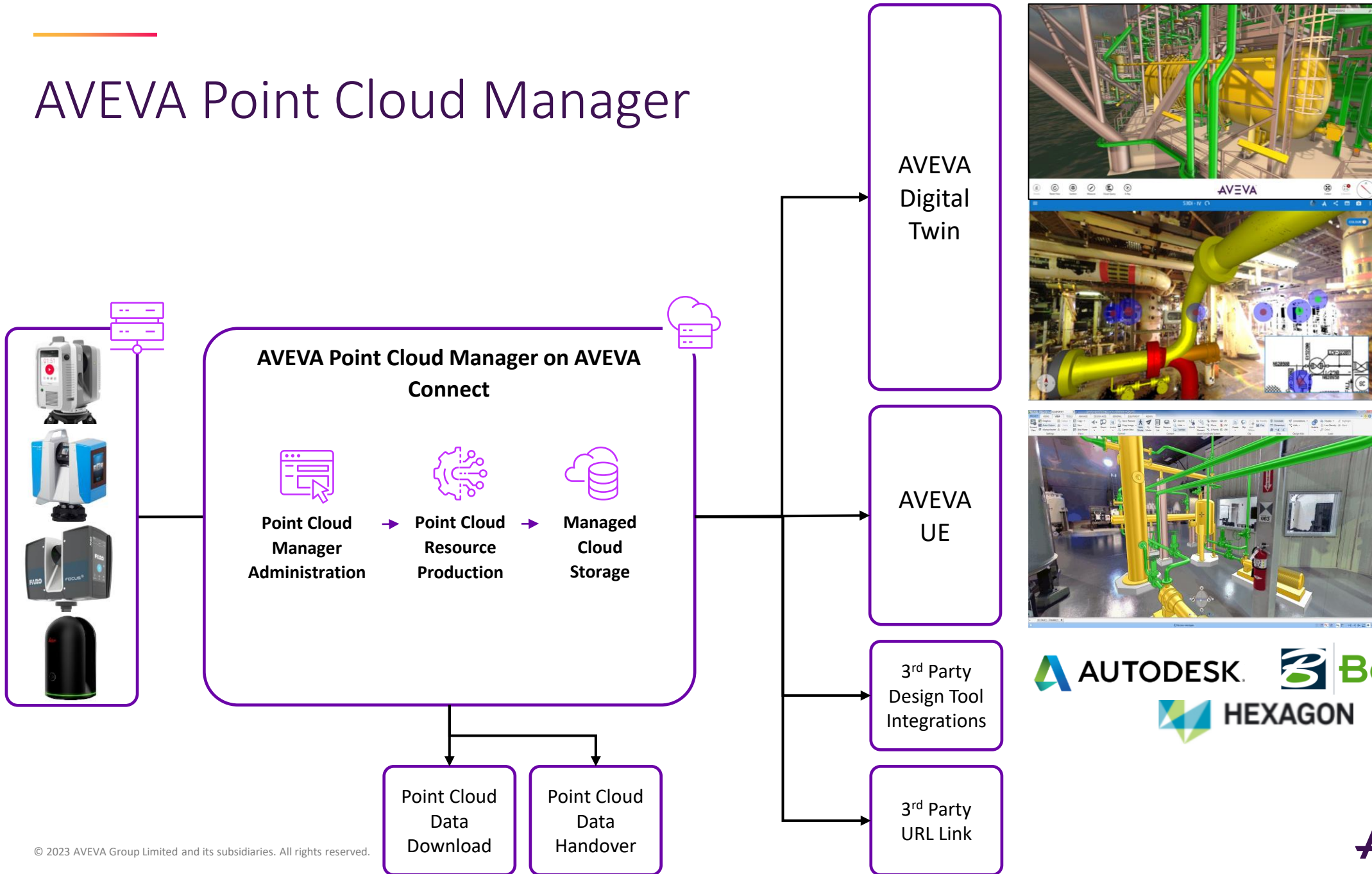
- Trusted living point cloud, single source of truth for the as-built geometry
- Hardware-agnostic approach supports project needs by ensuring the right hardware is used for the right job
- Scalable, robust and reliable enterprise-wide or project-specific resource management
- Easy and flexible interface lets users display, enter and visualize complex information

## Benefit areas

- Improve project quality
- Optimize materials availability, and minimize waste and surpluses



# AVEVA Point Cloud Manager





# ATKINS

Needed to reduce time creating deliverables and boost engineering collaboration to enable lean methods in brownfield project execution.

## Challenges

- Compliance with industry, company, and project standards
- High cost of doing business in Australia
- Traditional surveying techniques can be slow and costly

40% reduction in the delivery time of structural drawings and global deployments are now set up in days, not months

*“When we ran a trial of AVEVA E3D Design, we found that getting drawings out in this way would reduce the delivery time of structural drawings by 40%. That’s a lot. 40% saves a lot of money, especially if you’re looking at massive projects such as the Apache Energy project.”*

**Jim Wright**

**Design Team Lead, Atkins**



# AVEVA E3D Design

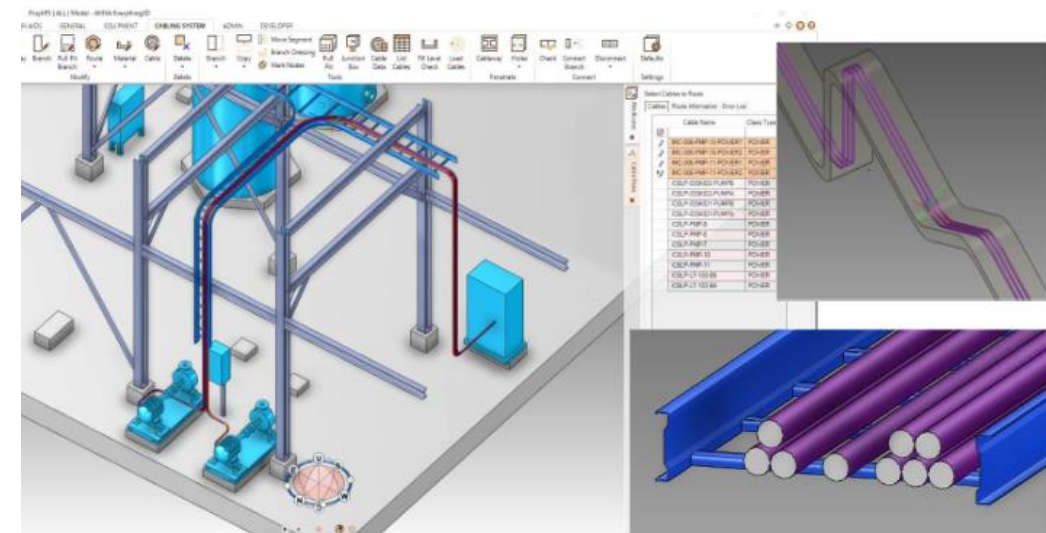
*The most advanced and powerful 3D engineering design software, enabling clash free, multi-discipline collaboration on the cloud to maximize engineering and design efficiency.*

- Rapid deployment and project start-up
- Increased design efficiency
- Easier regulatory compliance with automatic drawing production
- Breakdown disciplinary silos through clash-free design to avoid costly, unsustainable rework and on-site retrofits
- Integration of as-built laser scan data allows users to update and correct any non-compliant construction without the need to be on site

# Features & capabilities

## High level overview

- Efficient, intuitive usability
- Multi-discipline
- Inbuilt clash detection
- Laser data merged directly with model
  - Ability to demolish parts of the point cloud and represent laser in drawings
  - Maintain a living, up-to-date point cloud
- Drafting integrated with model
  - Quickly produce scale drawings





Needed fast, efficient, effective engineering & design tools capable of handling the complexities of large-scale nuclear projects

Extensive use of AVEVA engineering & design software for fast, efficient design

Improved productivity, quality & design consistency. Improved collaboration with partners. Easier monitoring of design status\*

\* Full presentation available on AVEVA YouTube site

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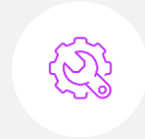
# AVEVA Asset Information Management



Engineering efficiency and transparency



Scalable using SaaS/hybrid architecture



Create an evergreen digital twin platform for operation and maintenance



Reduce unplanned downtime, risk and maintenance cost, and drive carbon efficiency



Data governance, quality and completion



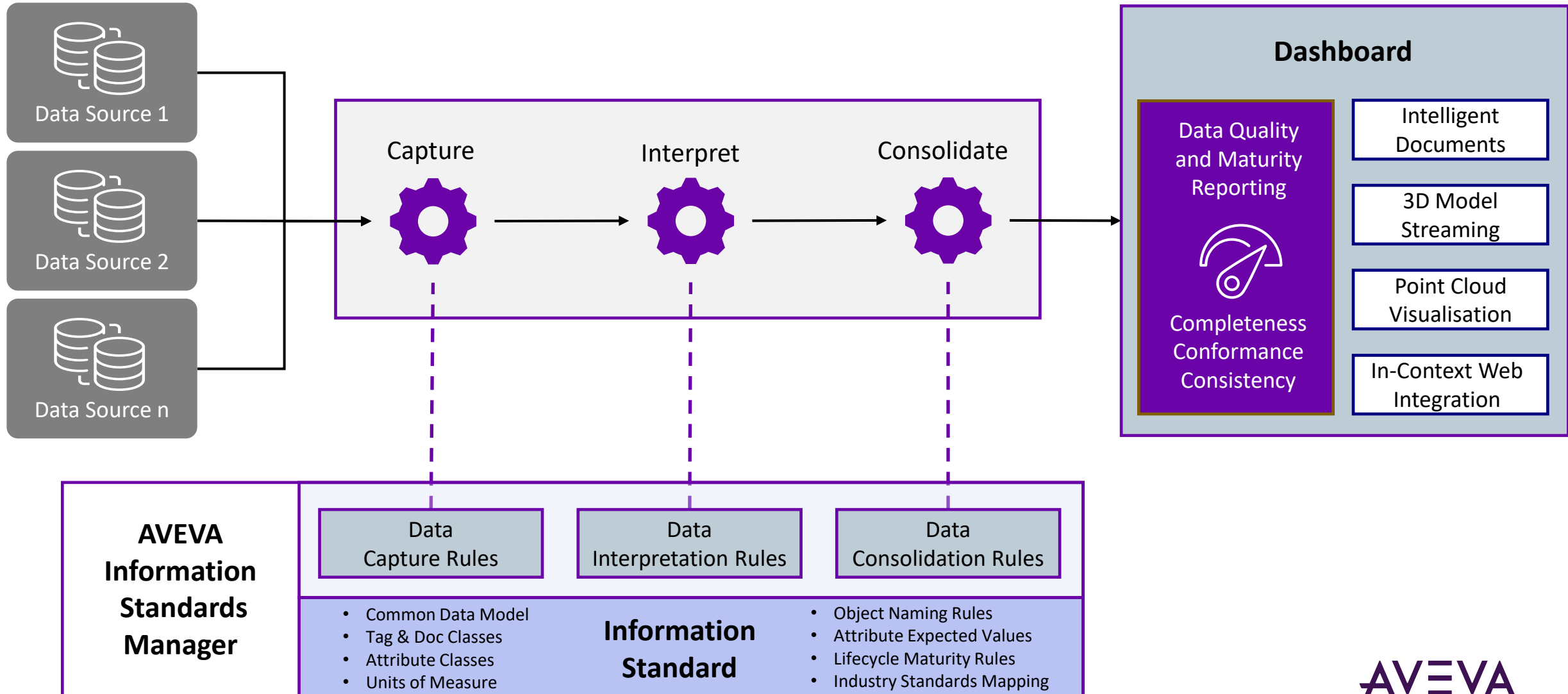
Quick access to data in context



Improve handover and operational readiness



# How AVEVA Asset Information Management works





Ørsted uses AVEVA™ Unified Engineering and AVEVA Asset Information Management in the cloud to drive efficiencies across its wind farm, hydrogen and carbon capture design projects. Connecting engineering teams in the cloud streamlines collaboration, driving best practices across the organization while the AVEVA Asset Information Management software enables optimization of the asset performance using predictive analytics.

Improved design processes and data transparency with seamless integration throughout the engineering lifecycle

Increased cross-functional collaboration based on shared data and resources

Optimized engineering efficiency



# Our proven success



Improve CAPEX  
efficiency

More than **200 construction** clashes detected and avoided

**Shanghai Laogang Project**



Enable agility and  
resilience

Delivered over **\$4 million** savings in 2 years

**Leading Canadian Generation Company**



Shift to green  
energy mix

Optimized renewable generation production, resulting in savings of more than **\$7 million per year**

 **Xcel Energy**<sup>SM</sup>



Promote workforce  
empowerment

**\$260 thousand saved** in a single early detection

 Southern Company

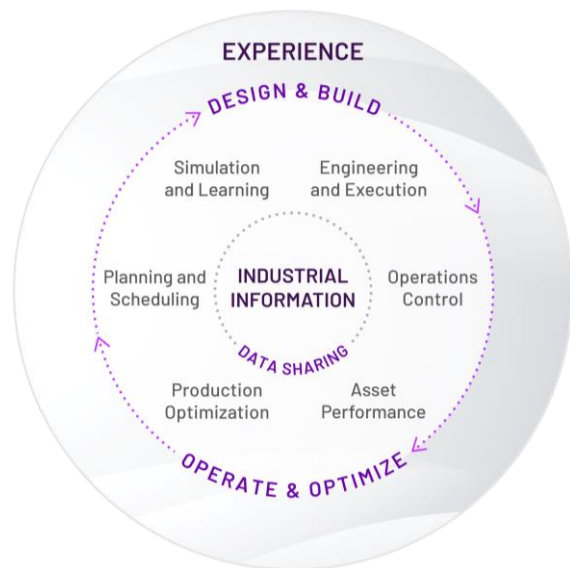


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# Trusted by the power industry



# Why AVEVA?



Sparking industrial ingenuity with trusted information and data-led insights



**2000+**  
R&D Capacity

**16%**  
of Revenue  
reinvested in R&D



**6500+**  
Employees

**20,000+**  
Customers  
worldwide



**4300+**  
global strategic  
partners including  
Microsoft, AWS,  
and others



Over **1000** power  
plants depend on  
AVEVA solutions to  
monitor  
**500,000+**  
megawatts



**50+ Years**  
of leadership in  
industrial software  
with **open and**  
**agnostic** approach



**Industry  
Expertise**  
with deep domain  
knowledge and  
experience



**Complete  
Digital Thread**  
Integrated digital  
tools across the  
industrial lifecycle



**Collaborative  
Approach**  
in designing  
customer specific  
solutions and value  
cases



**Ability to Scale**  
up from proof of  
concept to  
enterprise solution



**Flex**  
subscription model  
provides enterprise-  
wise licensing  
flexibility to  
maximize your  
return



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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 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.

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