

OCTOBER 26, 2023

AVEVA™ Point Cloud Manager (PCM) and Intelligent Cloud-Based Streaming to AIM/E3D

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AVEVA

Agenda

Laser Scanning Background & Benefits

AVEVA™ Point Cloud Manager Solution

Using Reality Capture for Brownfield Projects

The Value of Using Cloud Solutions

Integration with AVEVA™ Unified Engineering
and AVEVA™ Asset Information Management

Roadmap

Intelligent Point Cloud using Artificial Intelligence

Why do we Laser Scan?

- As assets age, differences develop between as-designed, as-built and as-operated data.
 - This makes maintenance, safe operation, and management of the asset increasingly difficult.
- Undiscovered differences lead to wide-ranging consequences.
 - In brownfield CAPEX or time-critical turnaround projects, poor decision making due to inaccurate information results in higher costs or lost revenue.
- Higher re-work costs and unforeseen schedule extensions on revamp projects
 - 5%-7% rework on average, up to 15% of project costs, ENR
- Laser Scans provide an opportunity to safely visualize and validate our work/decisions early in the planning or design stage.



Efficiency Improvements

Reduce Site Visits

Improve Sustainability

Virtually Review Work Packs

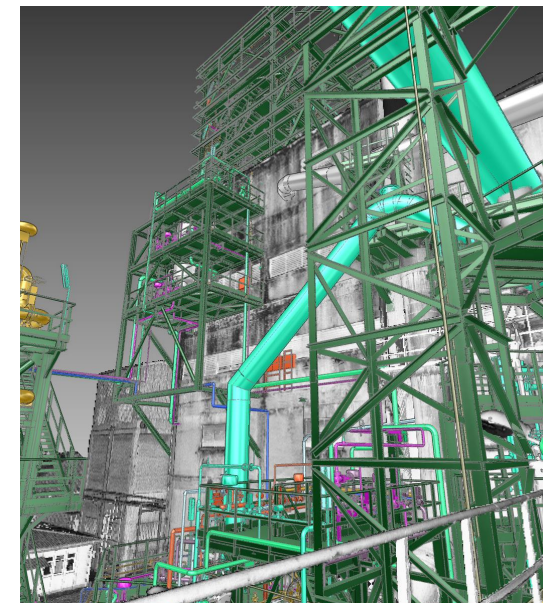
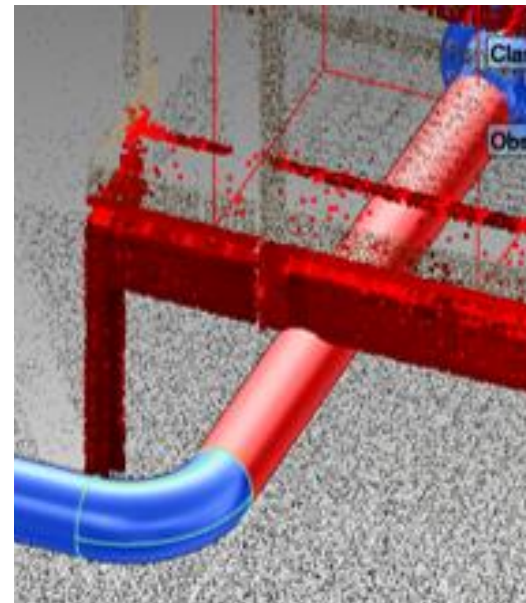
Improved Information Confidence

Remote Scoping

Reduce Hazard Exposure/ Hazard Identification

Improved Work Pack Preparation

Clash-Free Design



AVEVA™ Point Cloud Manager – Strategic Themes

Open and Flexible

Reality Data Capture

Numerous Hardware Partners
Industry Standard Exchange

3D Design & Review

E3D Design, Unified
Engineering, 3D Visualisation,
Third-parties



Scalable and Secure

Ease of Deployments

9 Regions
Multitenant
Browser Upload

Scale of Deployments

'000s of Laser Scans
'000s Tb Storage

Managing Deployments

Self-managed
Create on-demand
Included in Cloud Subscription



Asset Visualization

Visual Consumption

BubbleView™ Imagery
3D Model Overlay
3D Point Cloud Walkthrough

Ease of Use

Simple Browser UI
Project Access Management
Photorealistic Imagery

Integrations

AIM Advanced, AIM Hybrid
Sharelink URLs



Brownfield Engineering

Engineering Tools

Measure: Diameter, Distance,
Area, Deviation etc.

Cloud Compatible

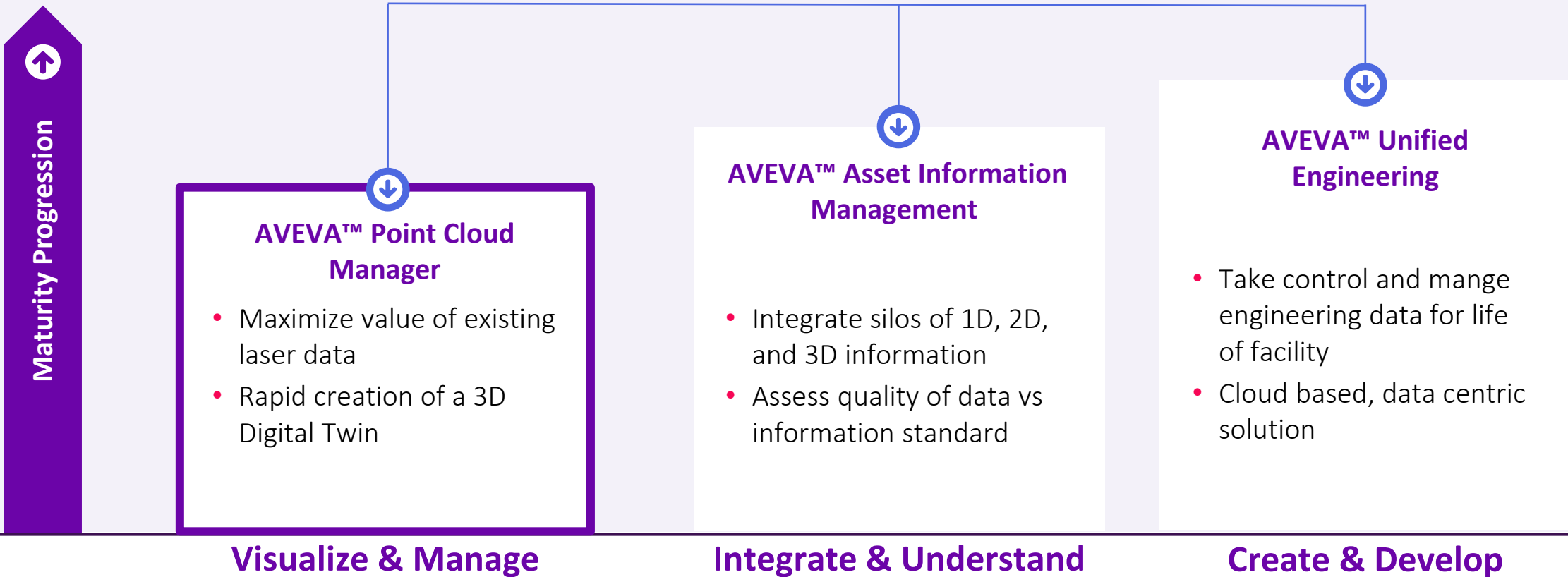
Work with Cloud Stored Data
Single Source of Truth

Analyze

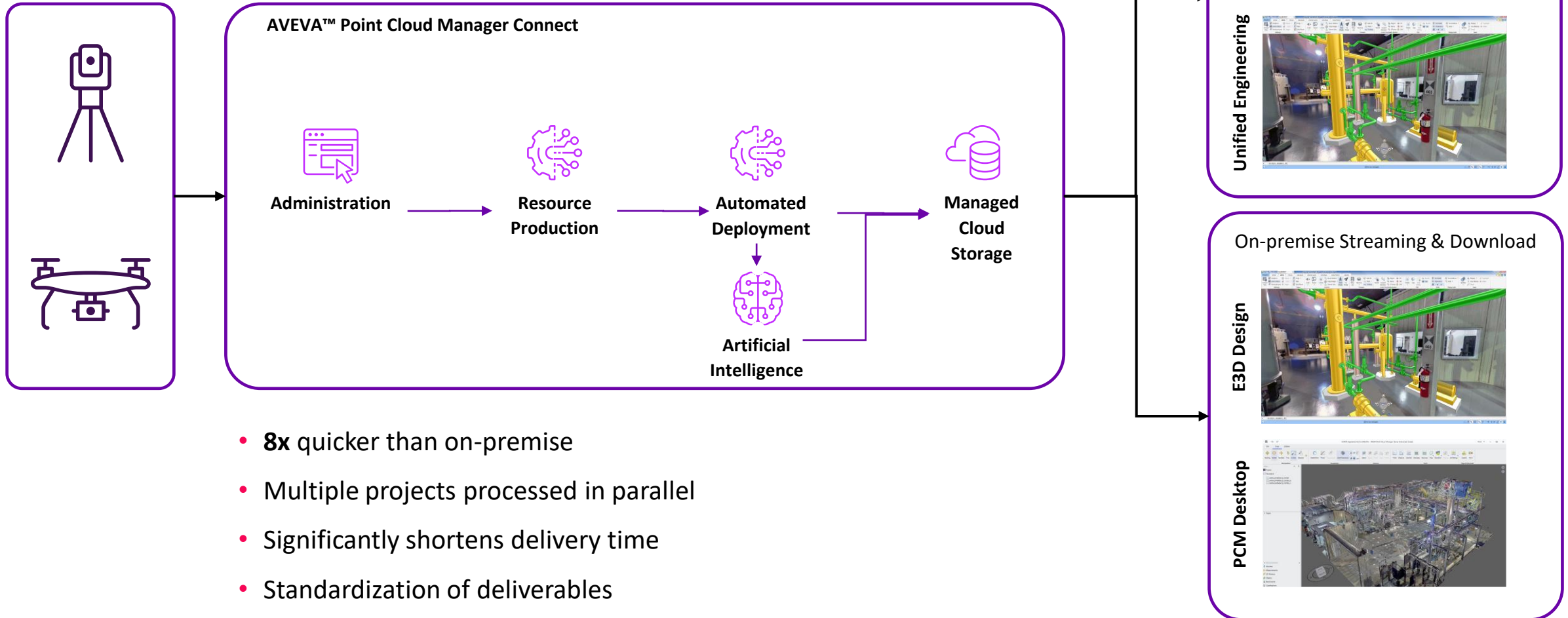
Clash Detection, Review &
Management



Integrating with a Brownfield Digital Project



Cloud Value



- **8x** quicker than on-premise
- Multiple projects processed in parallel
- Significantly shortens delivery time
- Standardization of deliverables

Integration with AVEVA™ Unified Engineering & AVEVA™ Asset Information Management



Efficient 3D Modeling for Brownfield Assets



Reduce Hazard Exposure & Enable Remote Scoping



Integrate with Engineering & Design Information



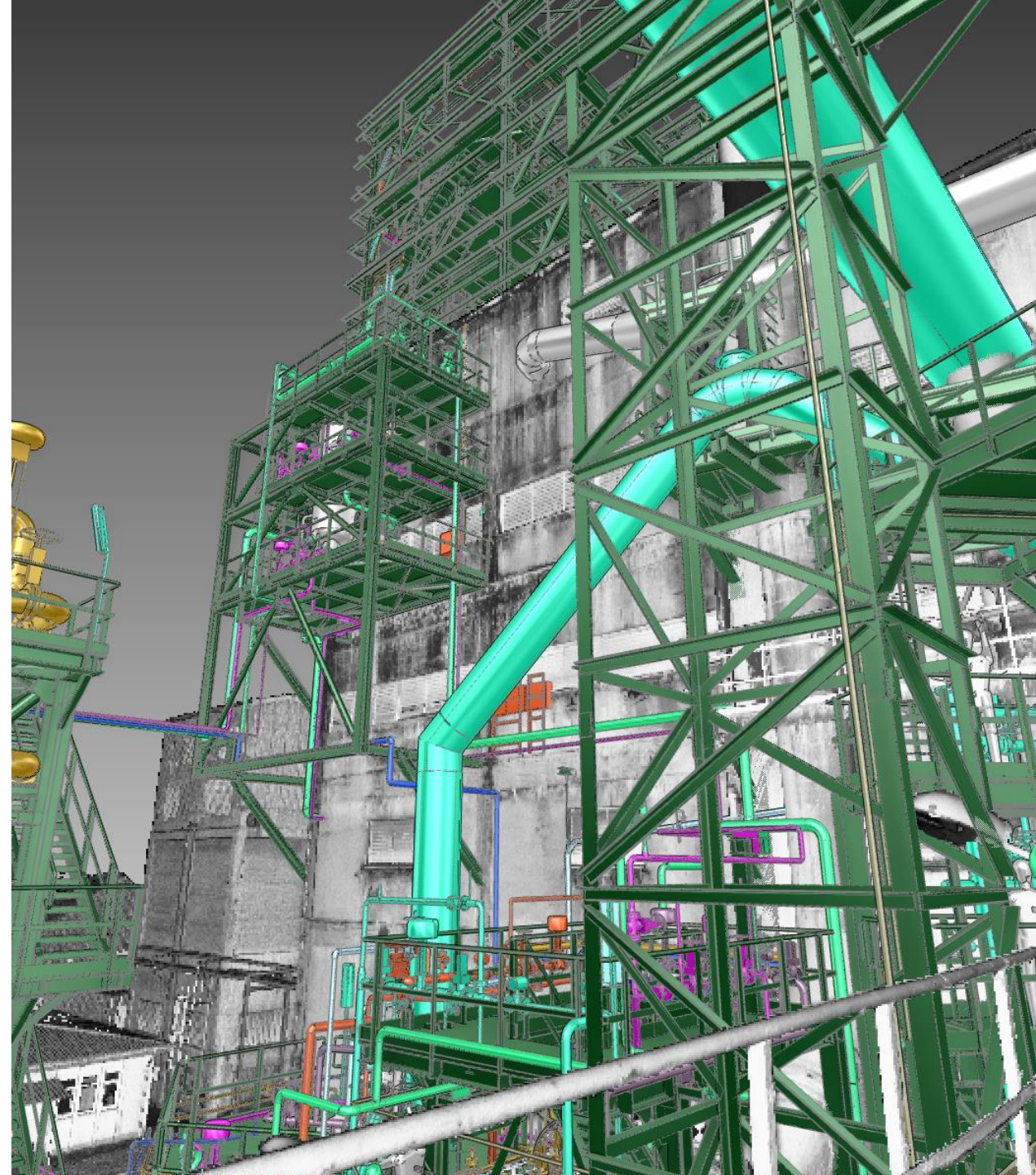
Deliver Faster & Handover using Cloud Services



Engineering & Information Management:

Site Familiarization, Clash Detection Visualization, Familiarization, Collaboration,

Laser scan and 3D model of Toros Tarim Samsun Fertilizer plant. Image courtesy of Tekfen Engineering



AVEVA™ Point Cloud Manager – Customer Quotes

EFFICIENCY



“AVEVA PCM on AVEVA Connect can help us to save almost **14,000 hours** on our 400 modification projects per year”
- **Global EPC**

ACCURACY



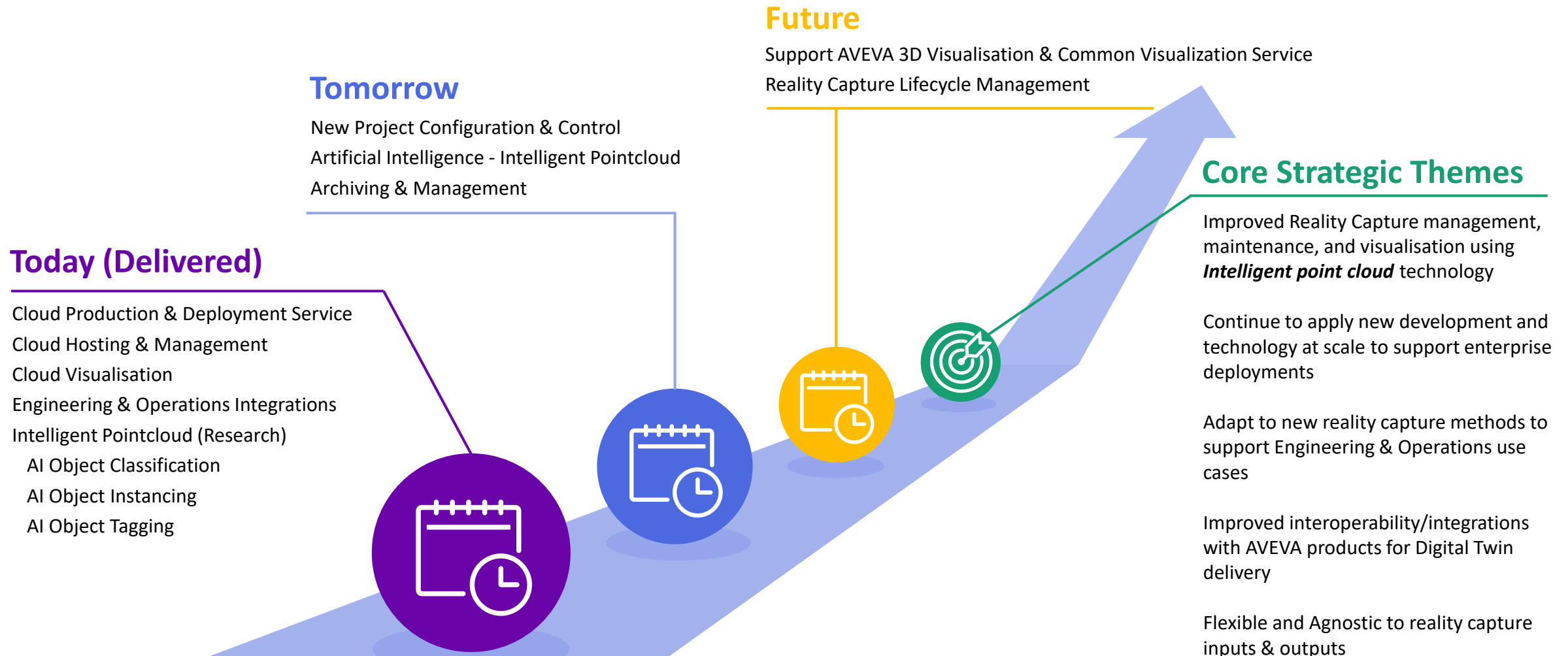
“Construction times cut by **25%** through using laser scanning to ensure **accurate retrofit**”
BLOM Maritime

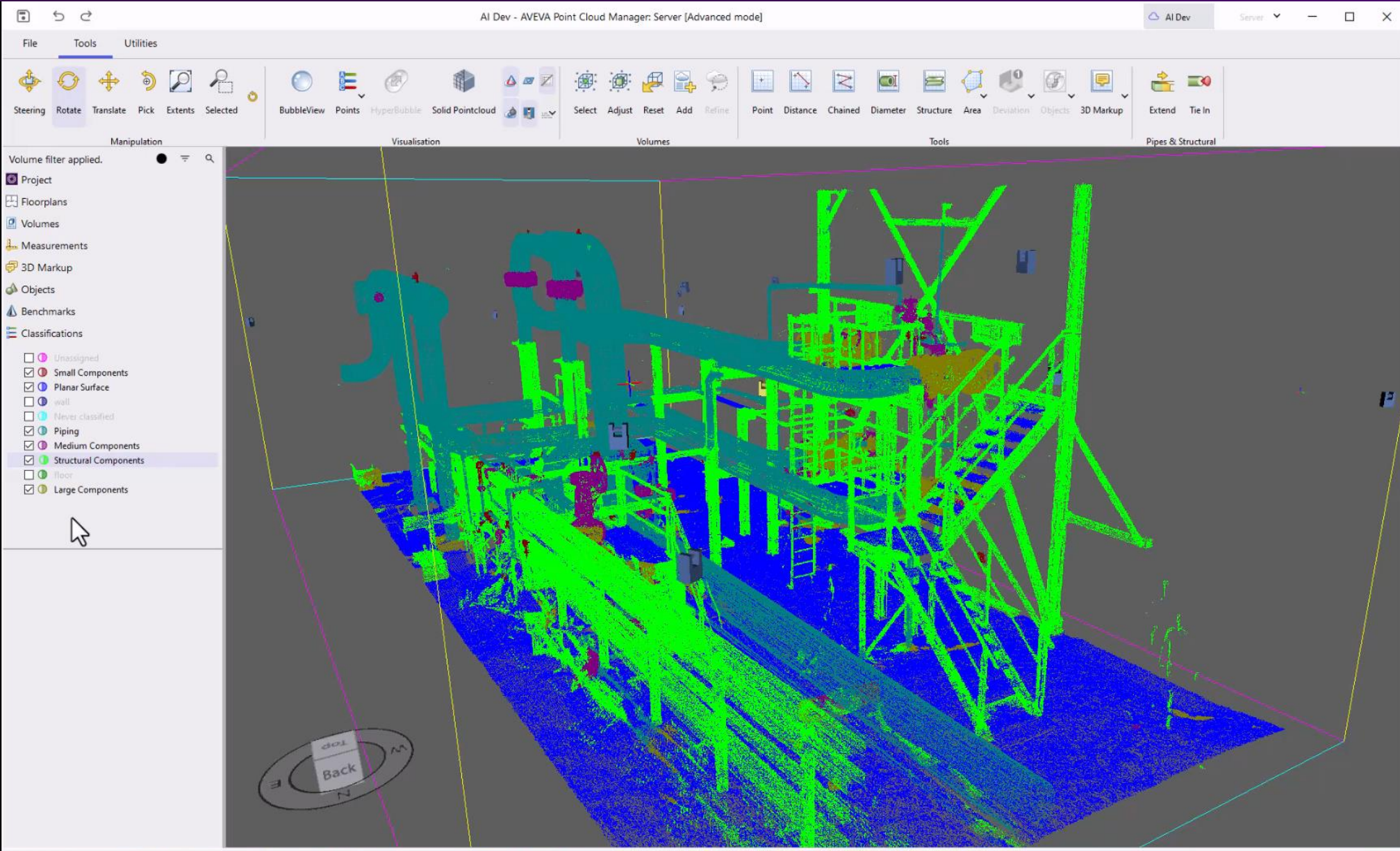
FLEXIBILITY



“With several **hundred TBs** of data our infrastructure is reaching its capacity limits. AVEVA PCM removes this challenge with its **unlimited scale**”
- **Global Chemical Company**

Multi Generation Plan – AVEVA™ Point Cloud Manager





“Only 3D laser scanning with virtual engineering capabilities can ensure efficient and secure module assembly by allowing as-built modelling of the different components, wherever they are being created in the world.”

*Marius Blom,
CEO, BLOM Maritime*

Questions?

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



Please remember to...

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Watch the next sessions in the Engineering User track



Thank you!

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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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