
AVEVAWORLD
PARIS

Product Engineering on AWS

Smarter Development with Data-Driven Engineering

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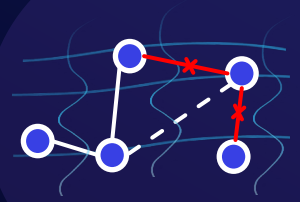
EMEA Lead Product Engineering & Development
Automotive & Manufacturing
AWS for Industries

Product Engineering & Development Department challenges

Performance & Scalability

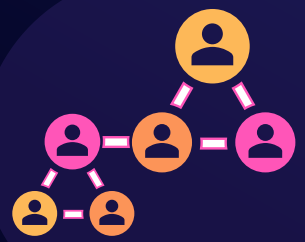
Richer analysis and development solutions with a set of use-cases combining multiple disciplines



Data Friction

Data/information flow across business processes regardless of source format

Difficulty in leveraging past knowledge and intelligence



Global Collaboration

With cloud technologies and AI/ML solution stack

Product Engineering & Development Enterprise Transformation

Delivering Outcomes Through a Complex Landscape

Business Outcomes

Business Process & Review

Data Intelligence

Knowledge Graph

Manufacturing Enterprise Systems

Product Lifecycle Process

Cost Savings

Staff productivity

Operational Efficiency

Actionable Intelligence

Accelerate innovation

Process

Analytics

Spatial / Review

KPI's & Decision Support

Large Language Models

GenAI

Machine Learning

CRM

PLM

ERP

MES/MOM

IoT

Requirements

Design

Assembly

Supply Chain

Monitoring

Maintenance

End-of-Life

DESIGN

MANUFACTURE

OPERATION

Why AWS Cloud?

Cost Savings (TCO)

Global Collaboration with 30% Operating Cost Reduction

Staff Productivity

10% Efficiency Gain in Development

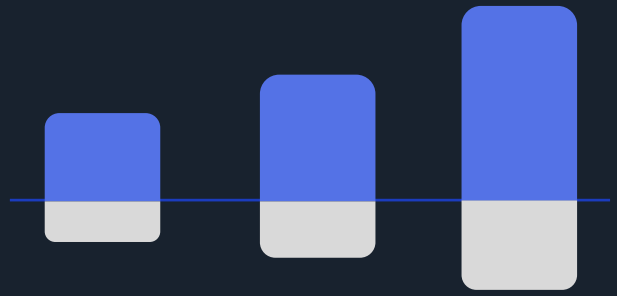
Business Agility

Serverless Connected Platform for Millions of Products

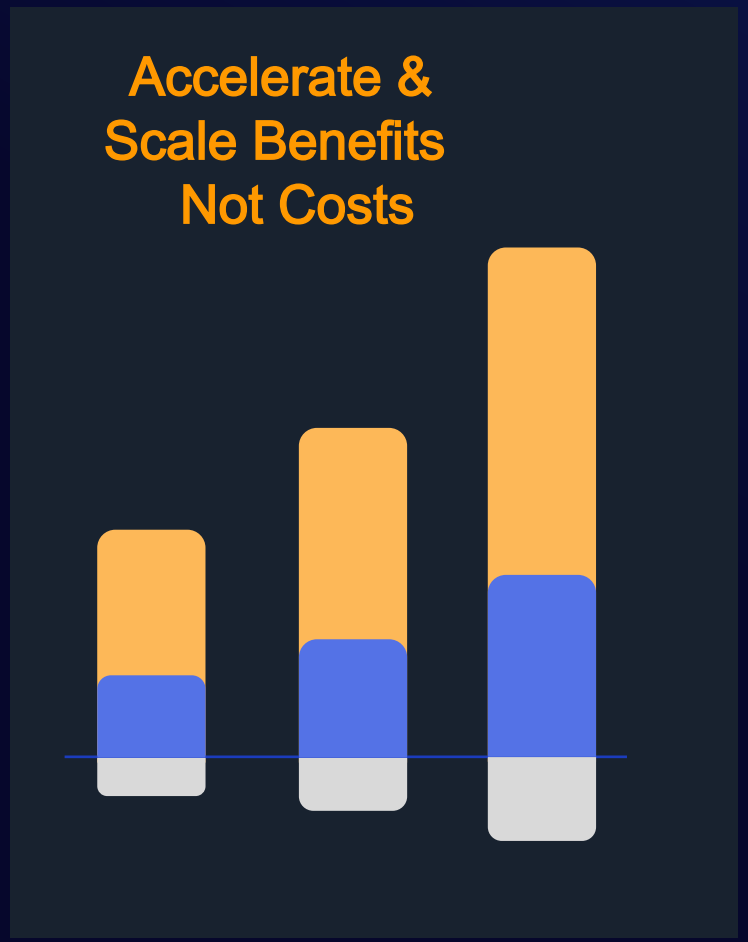
Operational Resilience

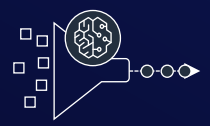
HPC Core Remediation from 6 months (on-prem) to 6 weeks On AWS Cloud

Improve Product Engineering & Development Economics on AWS Cloud



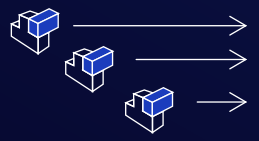
AWS Cloud Accelerating Product Engineering & Development Transformation





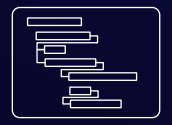
Innovation Pipeline

Increased ability to identify and assess alternatives through cross functional product/technology intelligence



Product Engineering Capacity

Improved product development convergence through more effective and value-added design iterations



Time to Release

Reduce time to market through digital thread that is cross-functional and extends throughout the extended enterprise and value network

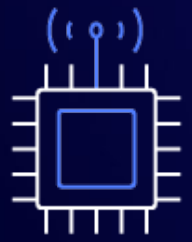
Quality, Iteration & Rework

Enable firm-specific design-for-quality outcomes by closing the loop between engineering, manufacturing, and product in use

Transforming Engineering & Development on AWS

Computer Aided Engineering (CAE)

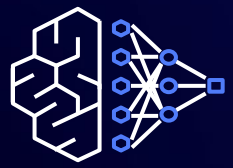
Electronics Design Automation (EDA)



Product Lifecycle Management (PLM)

Engineering Desktops (eVDI)

AI/ML for Simulations

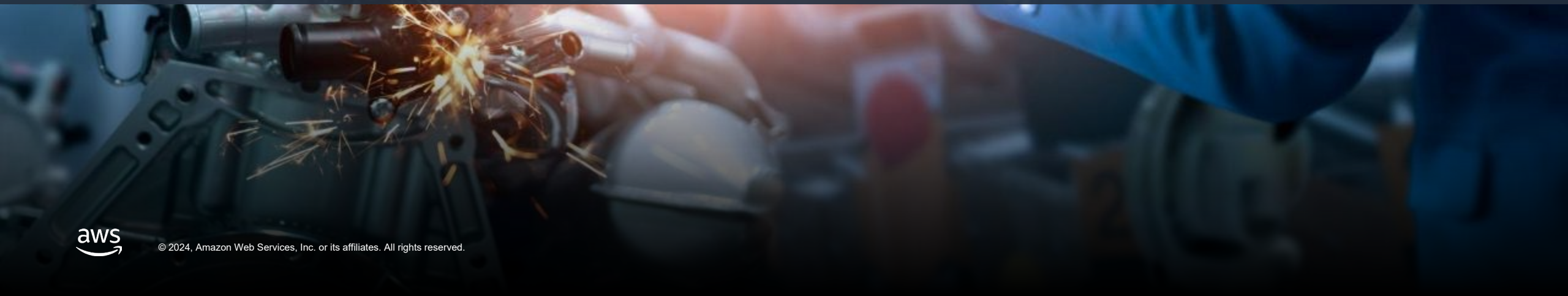


Generative AI

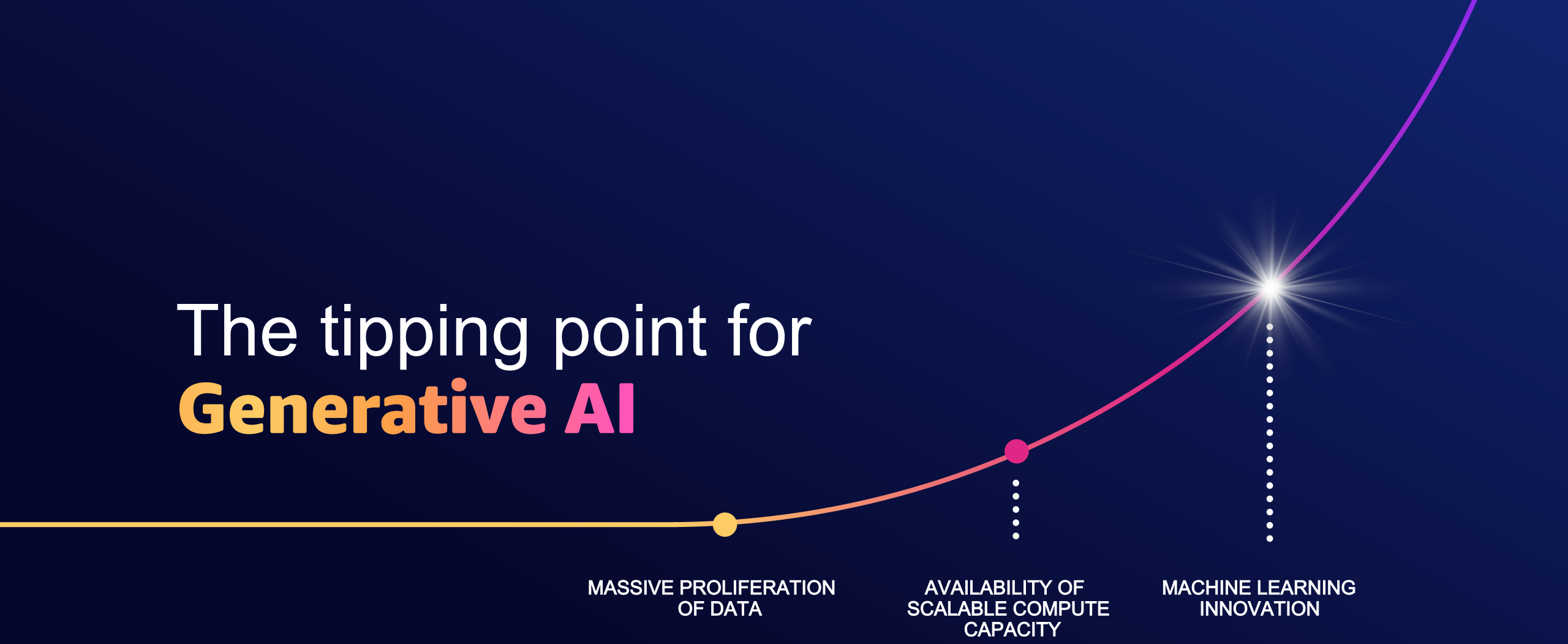
Open Industrial Data Fabric

93% of industrial companies are convinced AI will be a game changer in driving growth and innovation in the sector*

*According to Deloitte study

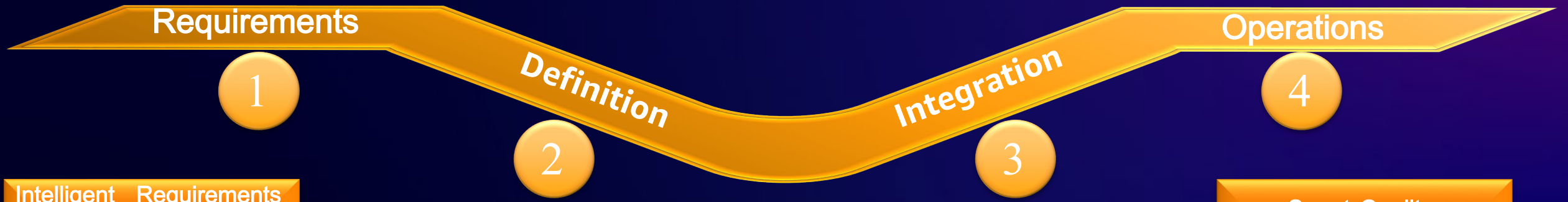


The tipping point for **Generative AI**



AI/ML allows to leverage structured / unstructured data and Intellectual Property to create competitive advantage

GenAI-driven Use-Casesacross the Engineering Lifecycle



Intelligent Requirements and RFP management

Accelerate response to RFP and ensure requirements traceability

Design Exploration

Explore wider design spaces to support innovation & performance

Smart Trials and Virtual Testing

Better design physical trials to reduce costs and leadtime

Smart Quality

Detect earlier and reduce the number of quality issues

Accelerate MBSE

Enable scenario and model based analysis in the early phases

Smart simulations and surrogate modeling

Better define simulation strategy for accelerated outcomes

Software Defined X

Leverage Software defined trends to accelerate development pipeline

Variants and Portfolio management

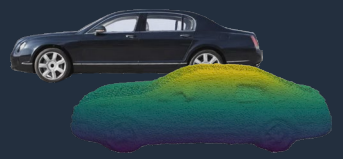
Reduce variants complexity and increase re-use of parts

Expected Business Outcomes $ Cost savings Cycle reduction Staff efficiency

Smart Simulations to Accelerate Time to Outcomes

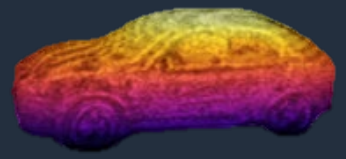
One generation cycle, repeated *m* times

Image generation



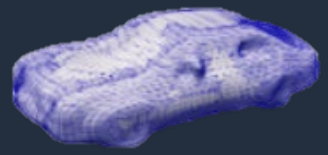
Create *n* variants from initial 2d image

3D generation



Generate NeRF point clouds from variants

Mesh Generation



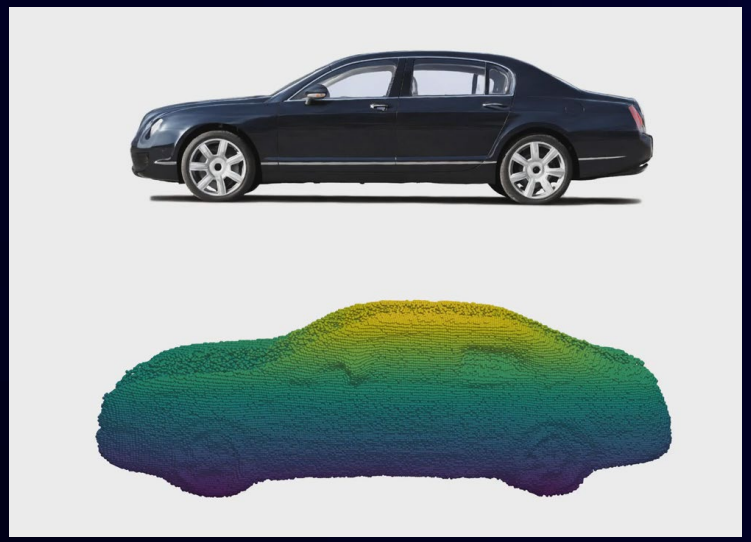
Generate meshes from point clouds

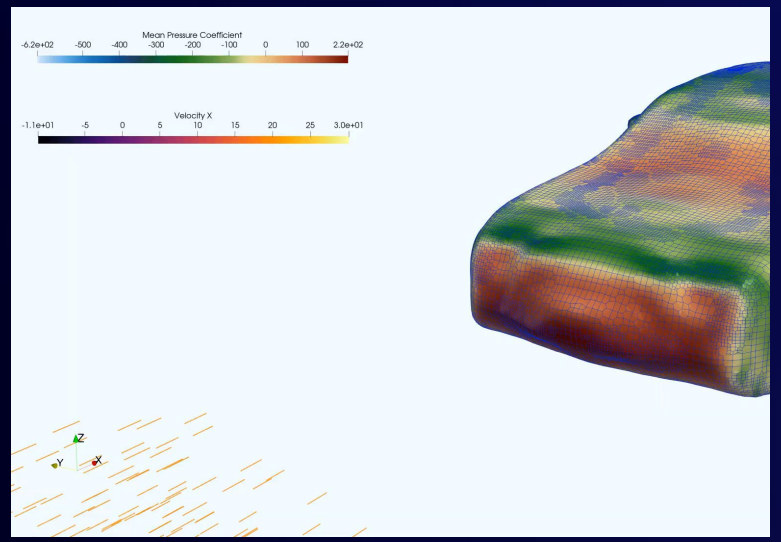
Run Simulation

Run simulations using the meshes

AWS Graviton3

Select Best

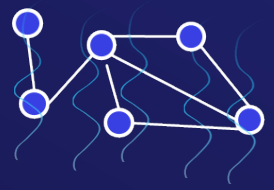




Drag coefficient (C_d) = 0.461

Link Blog Conceptual design using generative AI and CFD simulations on AWS

Smarter Development with Data - Driven Engineering



Connect silos and build use cases

enabling business outcomes with digital technologies

Differentiate with your data

in a **secure and private** environment

Increase productivity

with cloud technologies and AI/ML solution stack

Leverage latest AI/ML technologies

at scale, with a wide selection of cost-efficient models

aws

Come and visit us at the AWS booth

Join us at booth # 6:

- Future of Engineering with AVEVA Unified Engineering (UE) on AWS
- Further topics (incl. AVEVA PI on AWS and GenAI)

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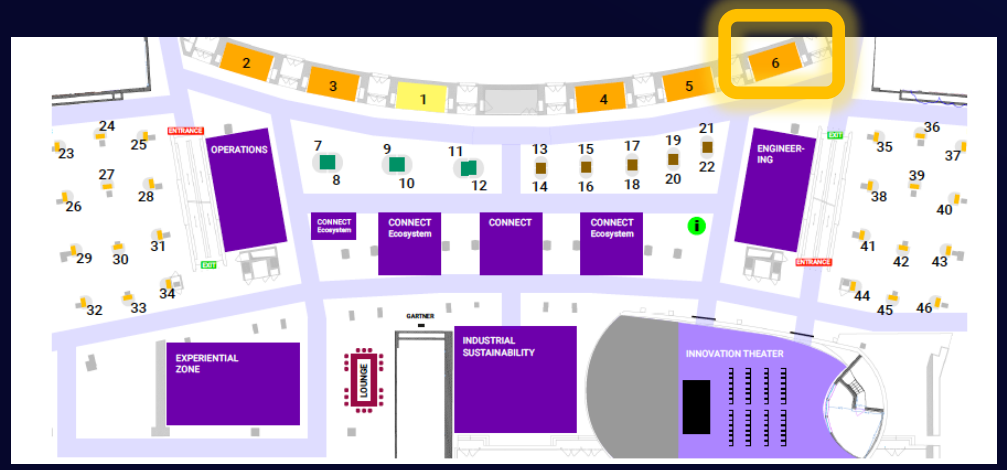
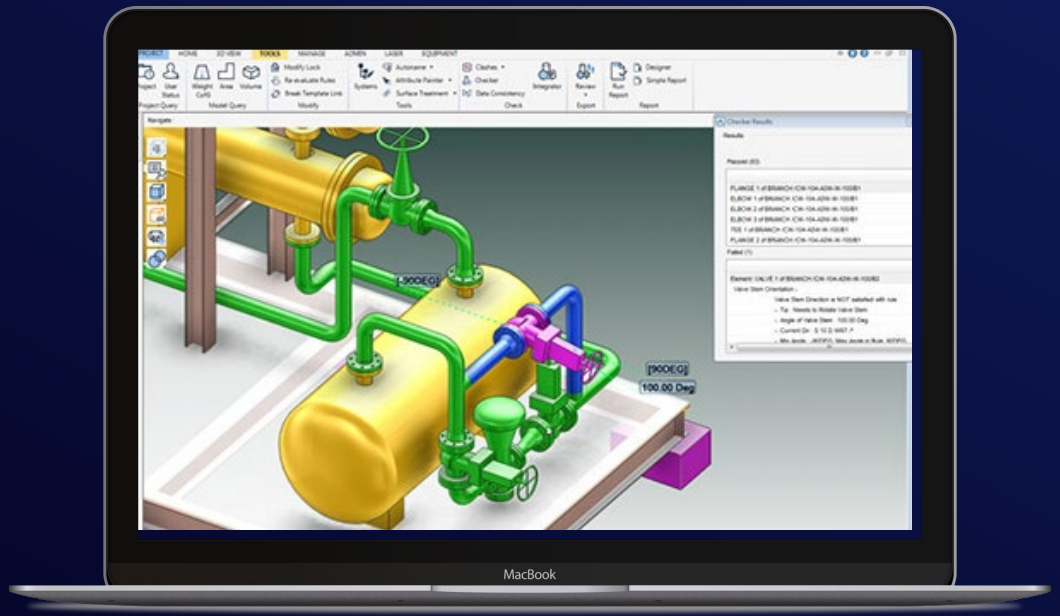
Booth #6



Highlights of future UE on AWS:

- Broad range of client devices
- No client desktop installation required
- Support for dual monitors



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Thank you!

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