

AWS-Powered Material Intelligence for Global Drilling Operations

InfoVision leveraged AWS to build a cloud-native material intelligence platform for a global energy company, connecting engineering data, SAP, and AI-driven operational workflows. The solution enabled real-time visibility across drilling operations, streamlined planning and execution, reduced manual effort, and contributed to approximately significant savings through improved asset visibility and utilization.

\$8B

Asset savings through enhanced visibility

Cloud-Native

Built on AWS ECS & Fargate

AI-Powered

Amazon Bedrock-powered operational intelligence



Business Need

The client needed a modern cloud platform to connect engineering, procurement, logistics, and field operations. They also needed better visibility into materials distributed across multiple drilling locations.

Key challenges included:

- » Fragmented engineering and material management systems
- » Manual material tracking through Excel and Outlook
- » Limited visibility into materials across wells
- » Inefficient forecasting and planning
- » Poor tracking of purchase orders, invoices, and payments
- » Slow operational coordination caused by disconnected workflows



The Solution

InfoVision designed and deployed a cloud-native material intelligence platform on AWS that connected engineering data, enterprise systems, AI services, and operational workflows.

- Cloud-Native Material Intelligence**
Using AWS ECS and AWS Fargate, InfoVision built a scalable platform that centralized engineering and material data while eliminating infrastructure complexity.
- Intelligent Forecasting**
Integrated SAP with cloud-based forecasting to model demand, simulate what-if scenarios, and improve planning decisions.
- AI-Driven Operations**
Leveraged Amazon Bedrock, CrewAI, and document intelligence to automate document processing, logistics coordination, and operational workflows while improving collaboration across distributed teams.



Business Outcomes

-  Approximately \$8 Billion in asset savings
-  Real-time material visibility
-  Improved planning & forecasting
-  Reduced manual effort
-  Better operational efficiency





AWS Services & Platform Technologies

Compute & Containers	Generative AI	Enterprise Integration	Application Stack
AWS ECS AWS Fargate	Amazon Bedrock	SAP Integration Microsoft Graph	Angular .NET Python Azure Document Intelligence CrewAI



InfoVision leveraged AWS to create a secure, scalable, and intelligent platform capable of supporting complex global operations.

- **Cloud-native scalability:**

AWS ECS and Fargate enabled the platform to scale without infrastructure management while supporting evolving business requirements.

- **Enterprise AI at scale:**

Amazon Bedrock provided the foundation for integrating generative AI into operational workflows, helping automate document understanding, logistics coordination, and information retrieval.

- **Connected enterprise operations:**

AWS supported seamless integration between engineering systems, SAP, AI services, and operational workflows to deliver a unified material management platform.

- **Foundation for future innovation:**

The cloud-native architecture positions the client to expand into predictive planning, agentic workflows, and advanced operational intelligence as business needs evolve.

