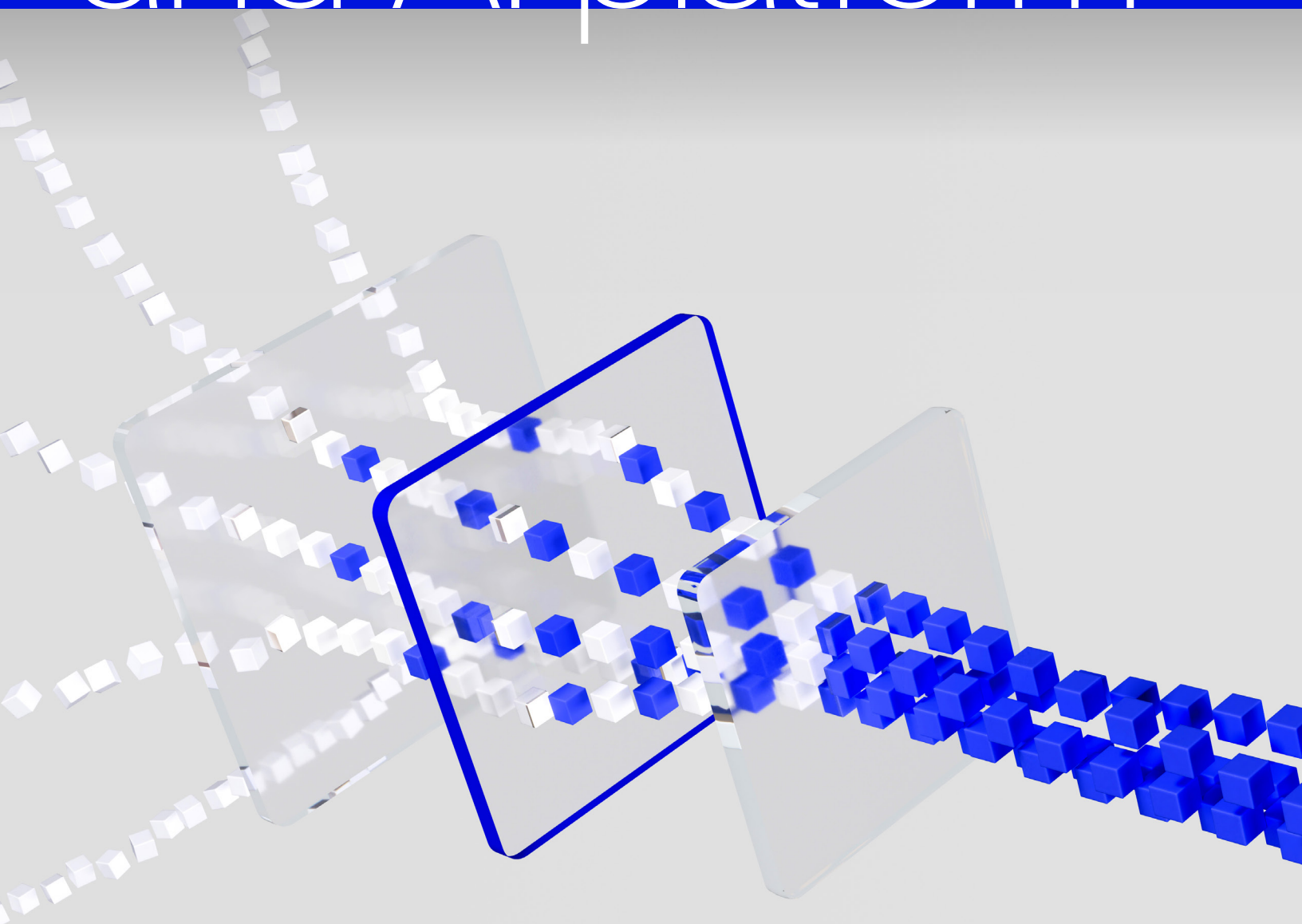# Lumi™ data and AI platform

Your future-ready platform

Delfi platform interoperability

The Lumi platform and the Delfi™ digital platform work seamlessly together to unite the entire E&P life cycle, from planning to production. Both are fully compliant with the Open Group's OSDU® Technical Standard.

Make every decision better

Decisions are everywhere. They're how we execute tasks and achieve goals. What asset should we develop? When should we start? How much should we invest? What do we need to consider? Our answers depend on the flow and quality of information. Better quality information leads to better decisions. Better decisions lead to better outcomes.

The Lumi platform uses data and AI to improve your decision-making. It organizes, cleans, and maintains your data, ensuring its accuracy, reliability, and usability. By breaking down silos and standardizing formats it enables **all your data to be accessible by all your applications, all the time.**

The platform's advanced tools empower you to deploy machine learning and generative AI models that use your data to automate reporting, uncover trends, and create dynamic visualizations. Hidden gems of insight are revealed. Up-to-the minute holistic information enlightens your decision making, empowering you to deliver optimum outcomes for every project, across your entire organization.

Up to 73% of all data within an enterprise goes unused for analytics.
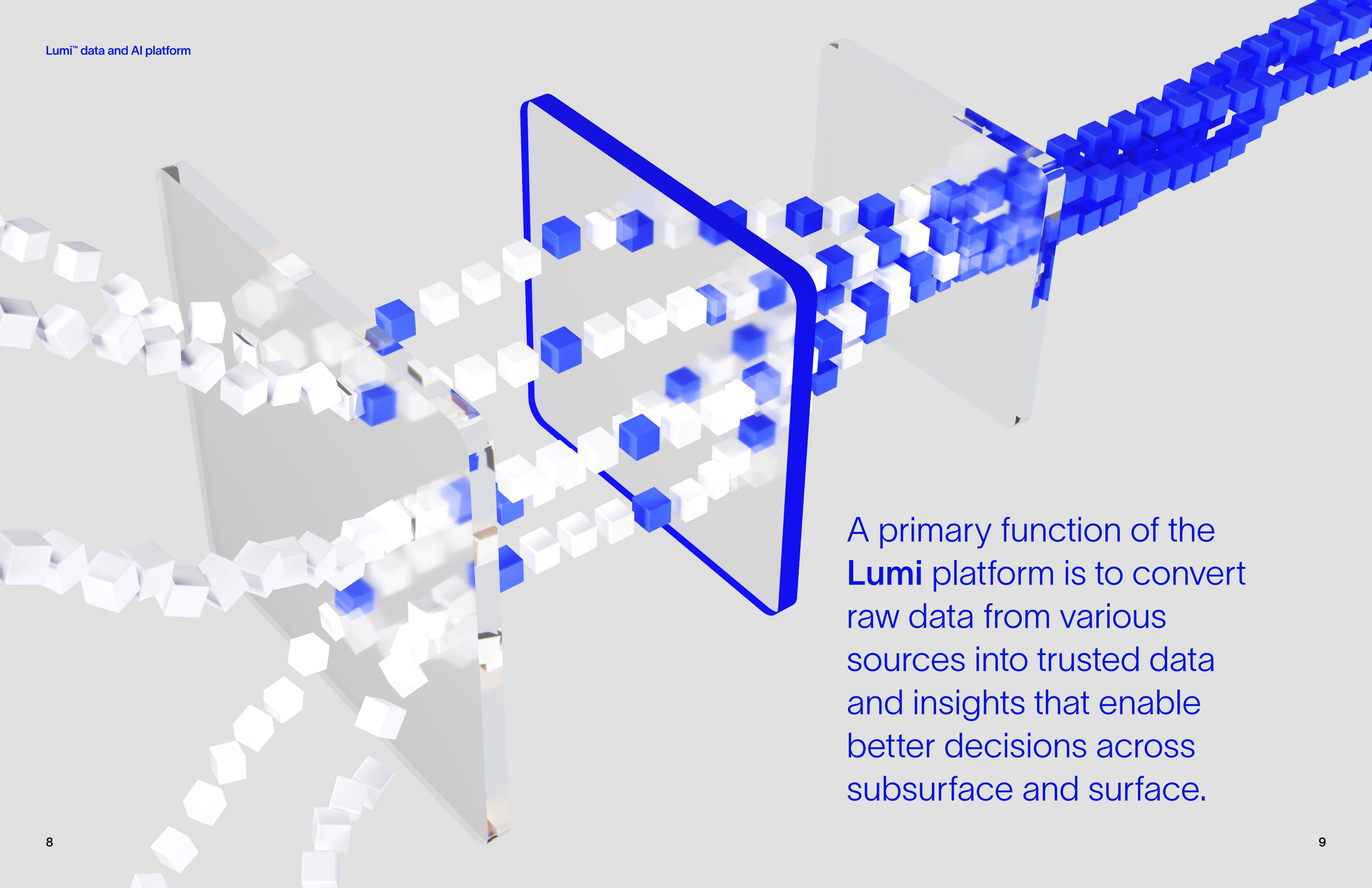
Forrester Research

Key data and AI challenges

01
Eliminating data silos

02
Finding quality data

03
Scaling AI

A primary function of the **Lumi** platform is to convert raw data from various sources into trusted data and insights that enable better decisions across subsurface and surface.

Lumi platform at a glance

↗ Brings all your exploration and production data together in one place.

↗ Converse with all your data, including reports and documents, to get actionable insights.

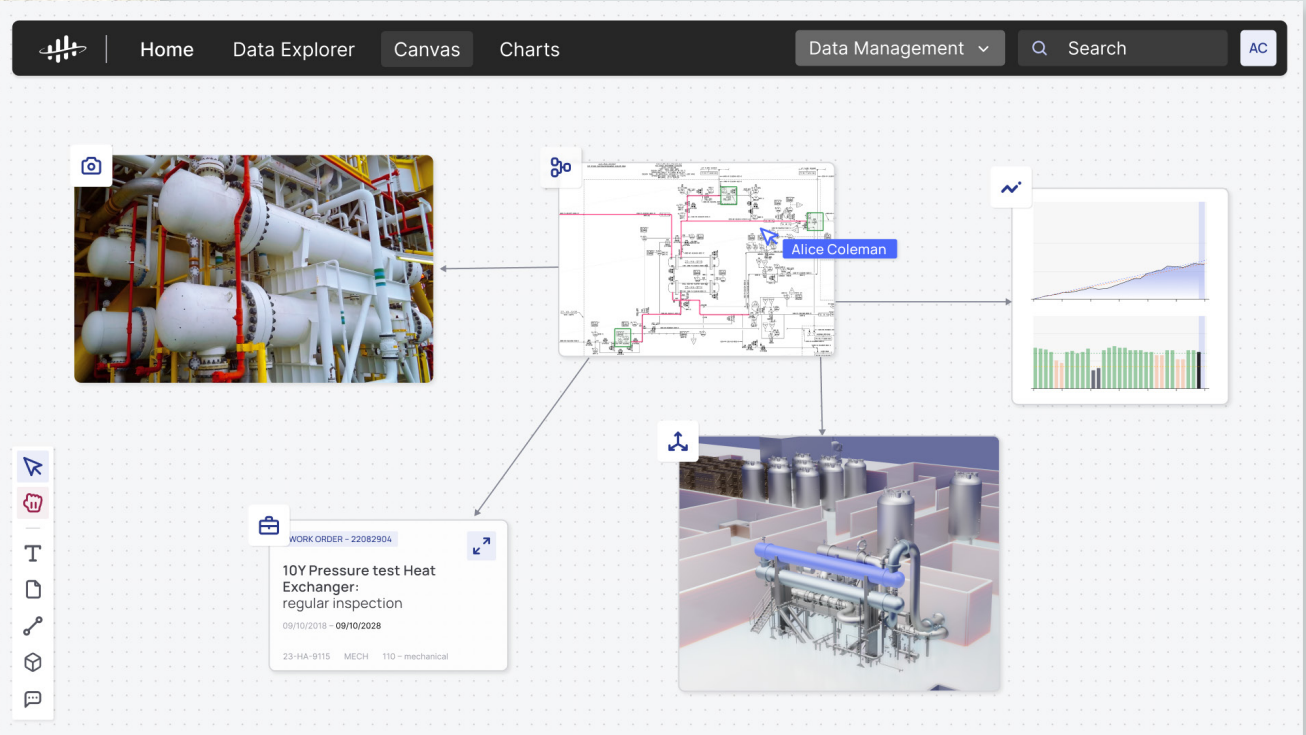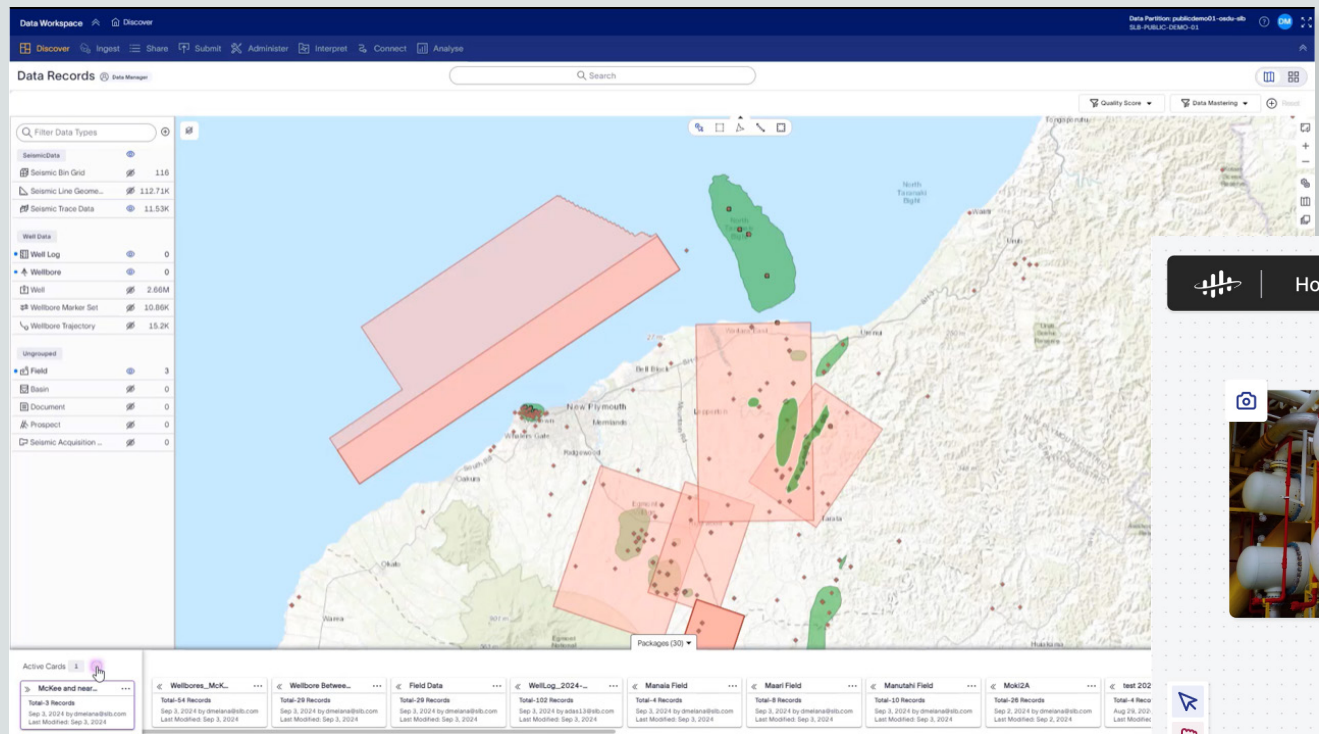↗ Seamlessly integrate all applications with your data ecosystem.

↗ Make on-premises data accessible to AI tools effortlessly.

↗ Develop, deploy, and use AI, physics-based models, and generative AI in your workflows.

Maximize value from your existing data

We start by leveraging your existing data investments, unifying your data while establishing a foundation for secure, scalable, data-driven decisions.

→ Fit-for-purpose, modular solutions and connectors integrate E&P data into a single platform, including on-premises databases.

→ Incorporate data from surface production facilities, subsurface sources, and unstructured formats from older assets or acquisitions.

→ Streamlined data management workflows and automation enhance data quality, accessibility, and maintain data lineage.

→ Reduce maintenance costs by lowering complexity, minimizing data fragmentation, and ensuring easier access to more data.

Elevate the productivity of your workforce
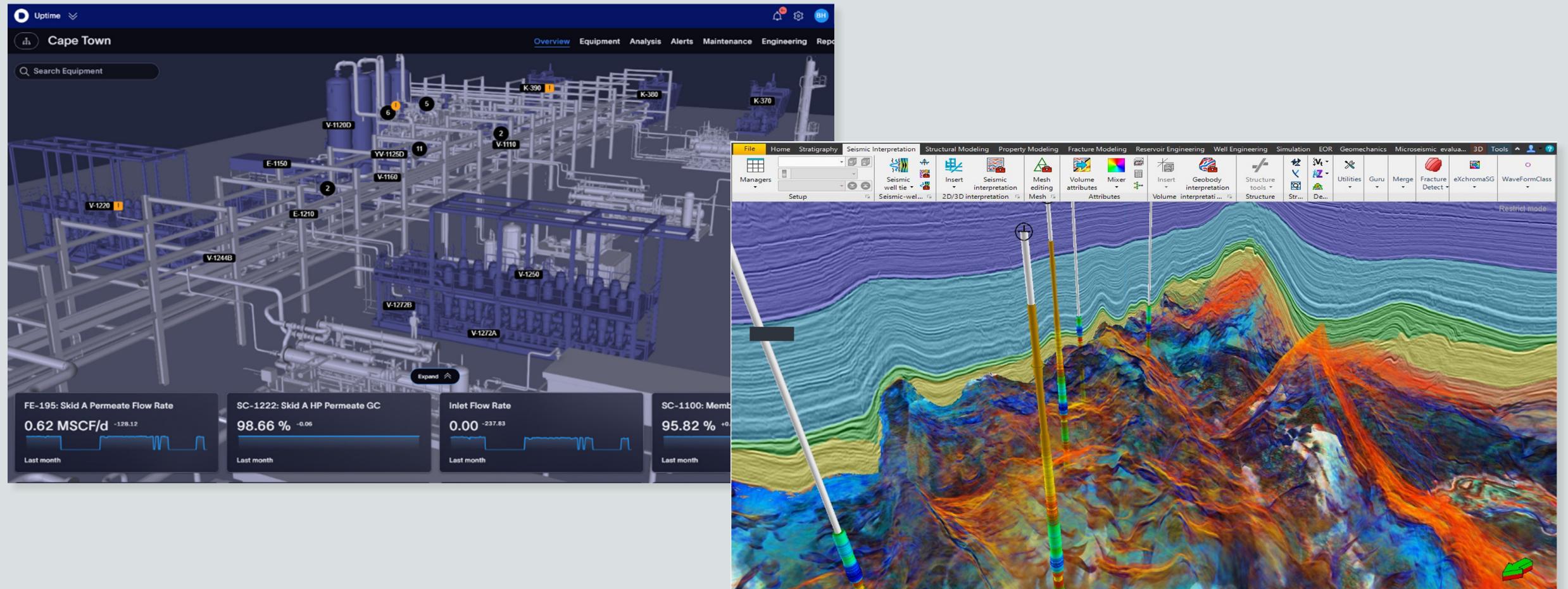
Enhance the effectiveness of your domain users with data and AI-enabled decision-making, through seamless integration with the Delfi platform, your own applications, and third-party options.

→ Domain experts can collaborate across teams to quickly find and use trusted data.

→ Generative AI allows users to converse with their data and efficiently search through large volumes of documents.

→ Internal teams and third parties can deploy and work within an ecosystem of models and apps to drive rapid innovation.

→ This approach accelerates decision-making and delivers more comprehensive, higher-quality domain insights.
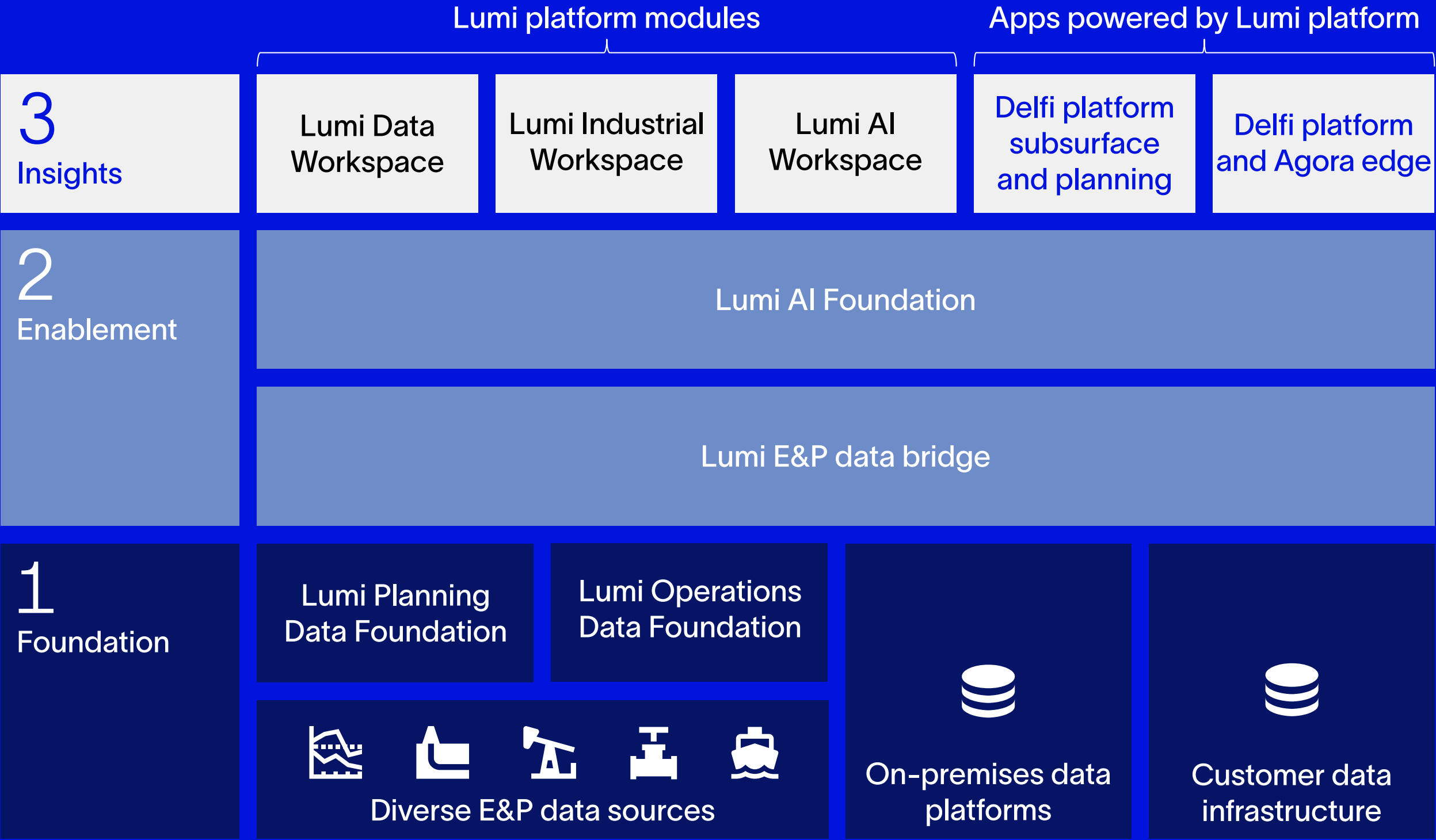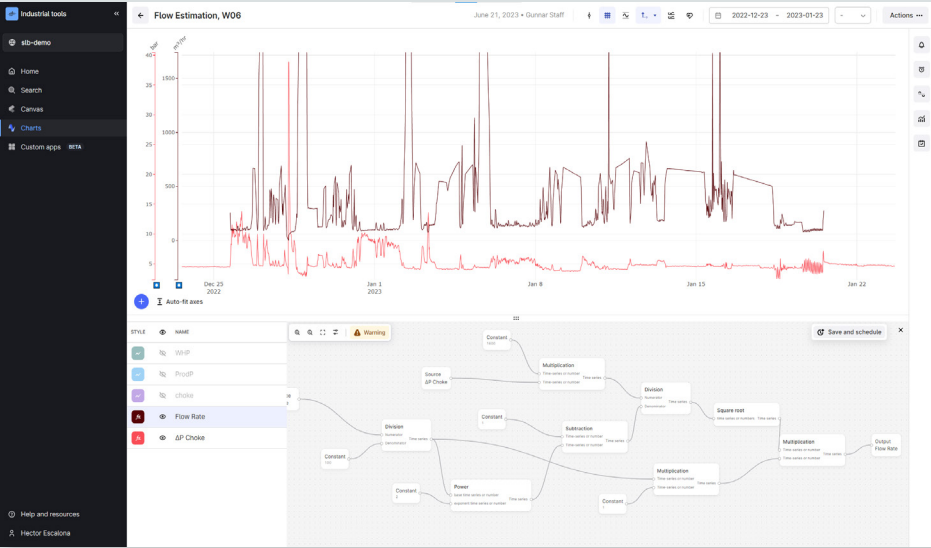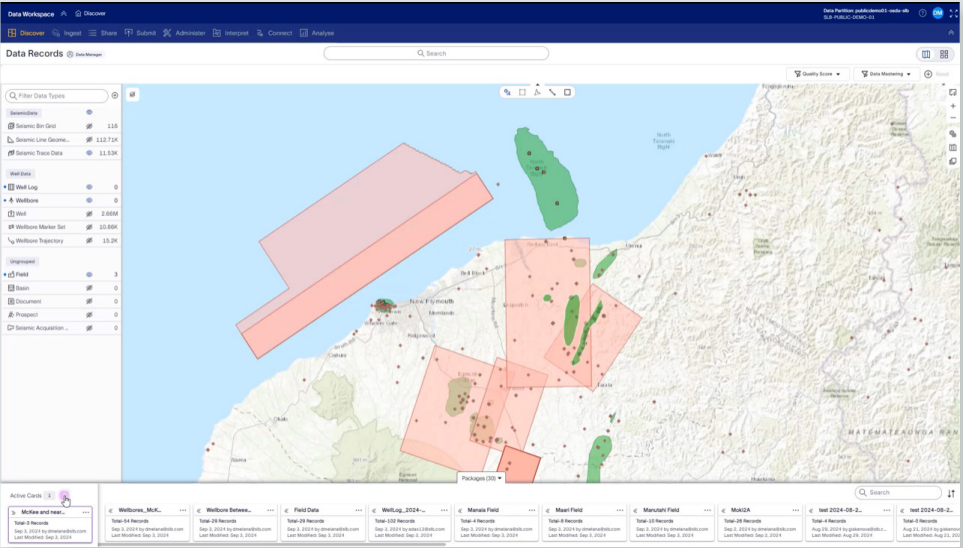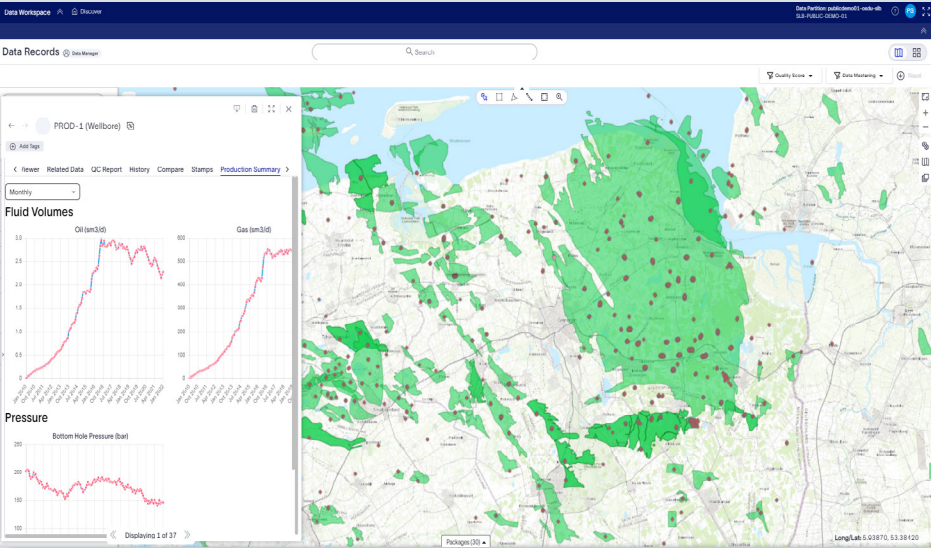
Scale AI across your operations
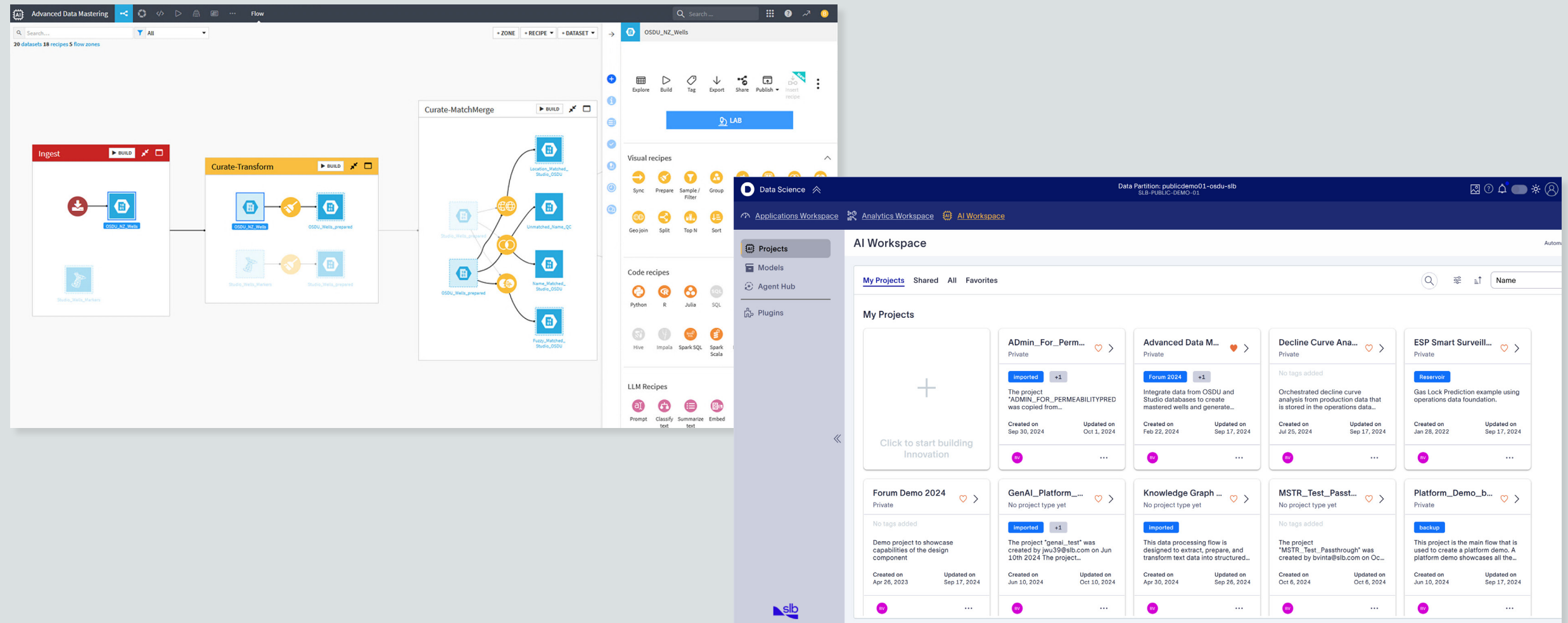
Our AI solutions are designed specifically for the energy sector. They combine scalable, best-in-class technology with a comprehensive suite of tools, including existing machine learning and generative AI models, to help you build and deploy AI.

→ Deploy and manage AI, including ready-to-use AI, physics-based, hybrid, or generative AI models, in your environment, for rapid value creation.

→ No-code platforms and rapid prototyping tools democratize AI, empowering users to create and deploy their own solutions.

→ AI integrates seamlessly with your domain workflows, operating on the same data as your subject matter experts, including on-premises workloads.

→ Robust data and model governance ensure secure, ethical, and sustainable AI deployment, compliant with the EU AI Act and US regulations.

Lumi platform

Lumi platform modules

Apps powered by Lumi platform

3 Insights	Lumi Data Workspace	Lumi Industrial Workspace	Lumi AI Workspace	Delfi platform subsurface and planning	Delfi platform and Agora edge

2 Enablement	Lumi AI Foundation
	Lumi E&P data bridge

1 Foundation	Lumi Planning Data Foundation	Lumi Operations Data Foundation	On-premises data platforms	Customer data infrastructure
	Diverse E&P data sources			

Data Foundations

Data Foundations	Data Workflows	AI Foundation	AI Workflows

Lumi Planning Data Foundation

Store and access your subsurface and planning data with the OSDU® Data Platform deployment of your choice.

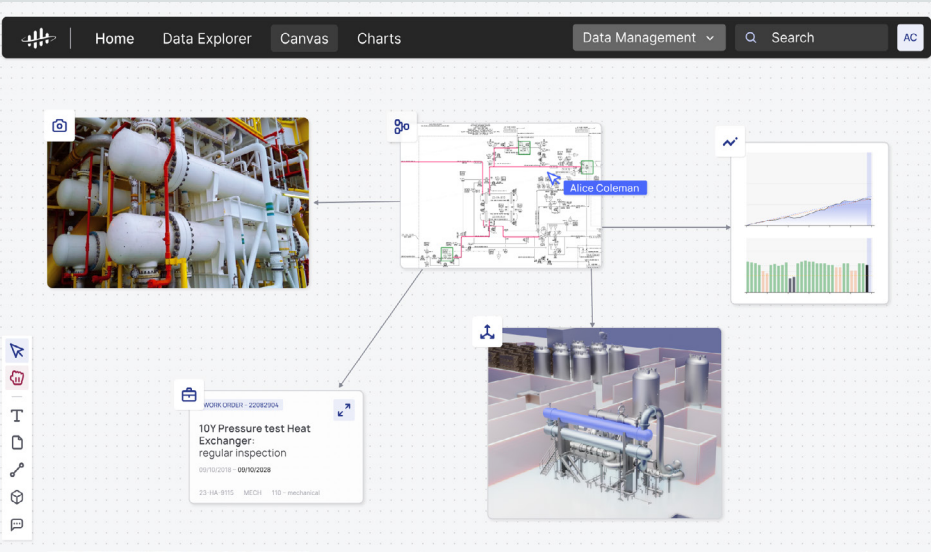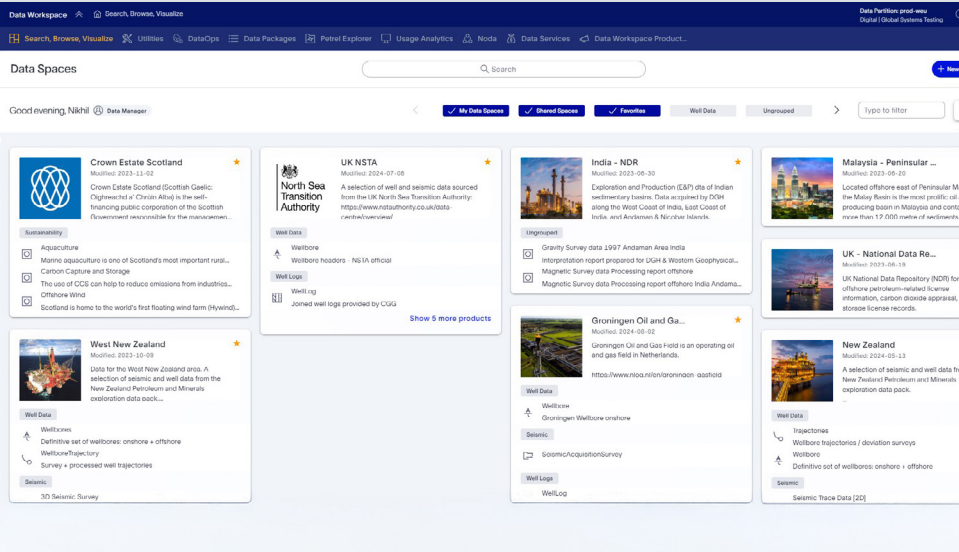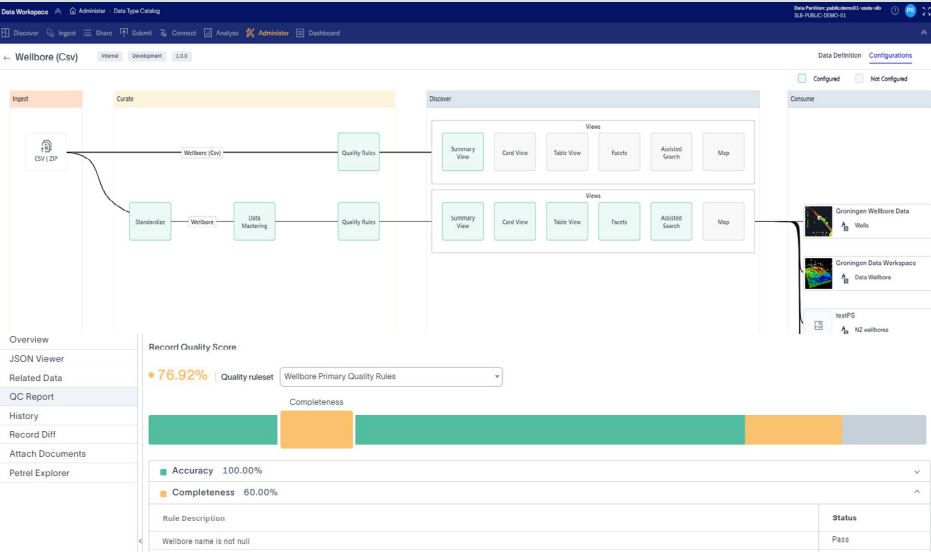### Lumi Operations Data Foundation

Connect your operations data into an insightful data foundation powered by Cognite Data Fusion®.

Prosource™ system

Bring your Prosource™ E&P data management & delivery system investment into the Lumi platform. Zero migration. Zero Friction. Full AI value.

Domain data services

Analyze borehole, seismic, geological modeling, reservoir, production, and rock and fluids data.

Data Foundations	Data Workflows	AI Foundation	AI Workflows

Lumi Data Workspace

Discover and visualize all your subsurface data, integrating content across domains and sources.

Lumi Industrial Workspace

Unifies production data, visualization and exploration from various sources in real time for efficient analysis.

Document curation and insights

Unlock massive untapped value in unstructured data. Rapidly ingest decades of reports, images, maps, and plots using open energy data standards.

Lumi E&P Data Bridge

Connect your existing data to apps and AI with zero migration. Including the Prosource system, third party, and more.
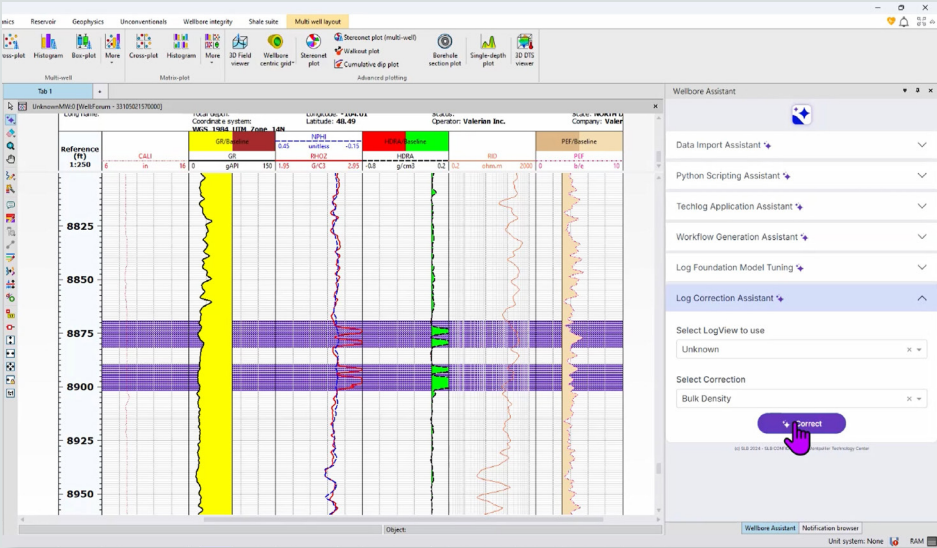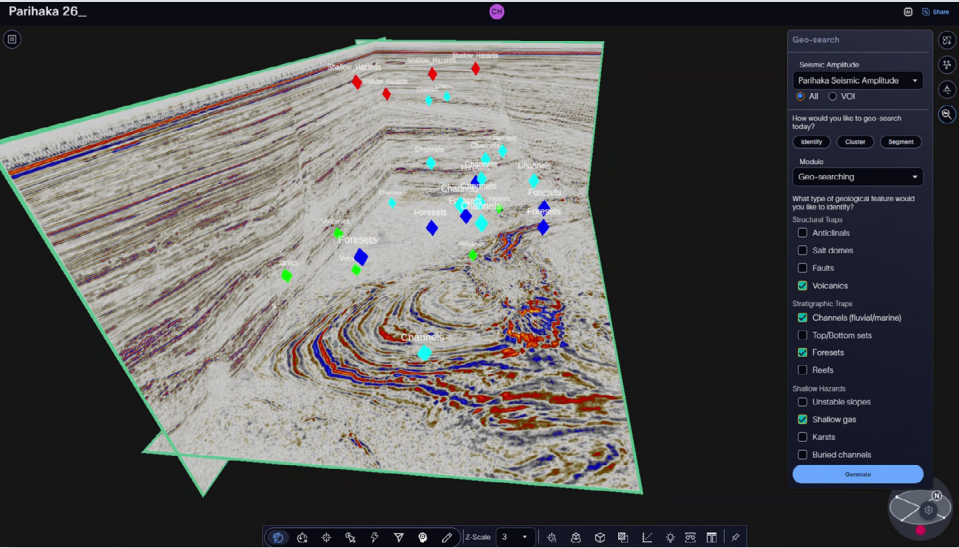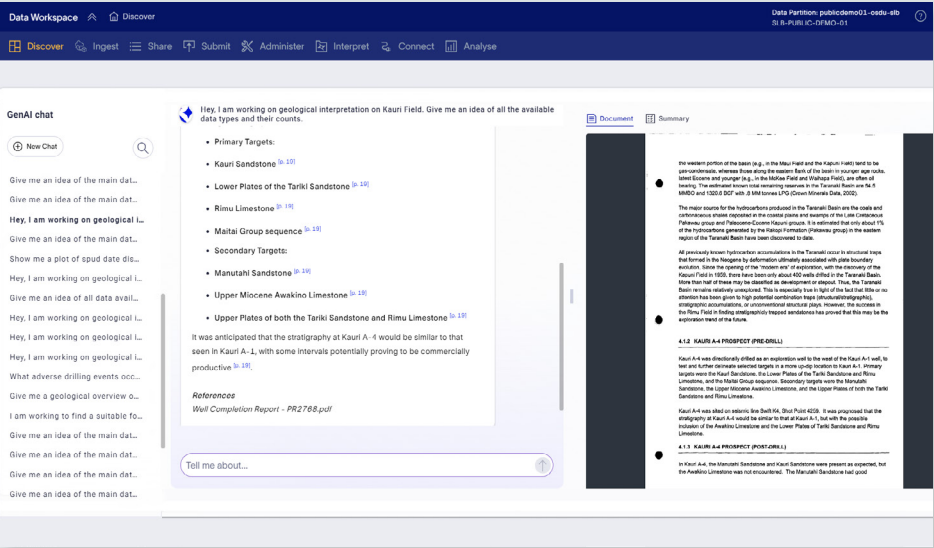
Data Foundations

Large language models

Support for multiple LLMs

Multi-CSP and on-premises deployment

"SLB LLM for energy"

Data Workflows

Domain foundation models

Subsurface (seismic/wells)

Production (process/assets)

Extensible by customers on their data

AI Foundation

Model management

Discover, manage, and execute generative AI, machine learning, surrogate, and physics-based models.

AI Workflows

Application smart assistants

Semantic / conversational search

Data / content summarization

Workflow generation → automation
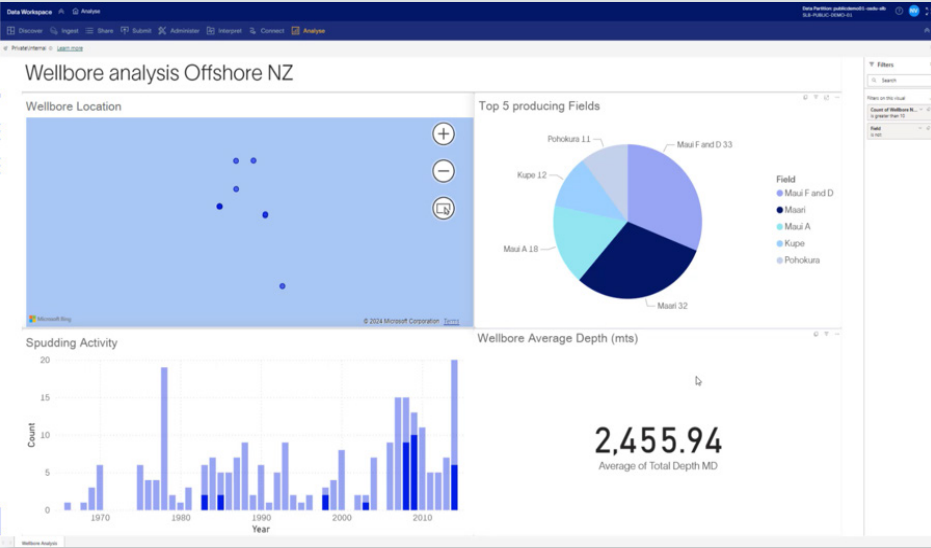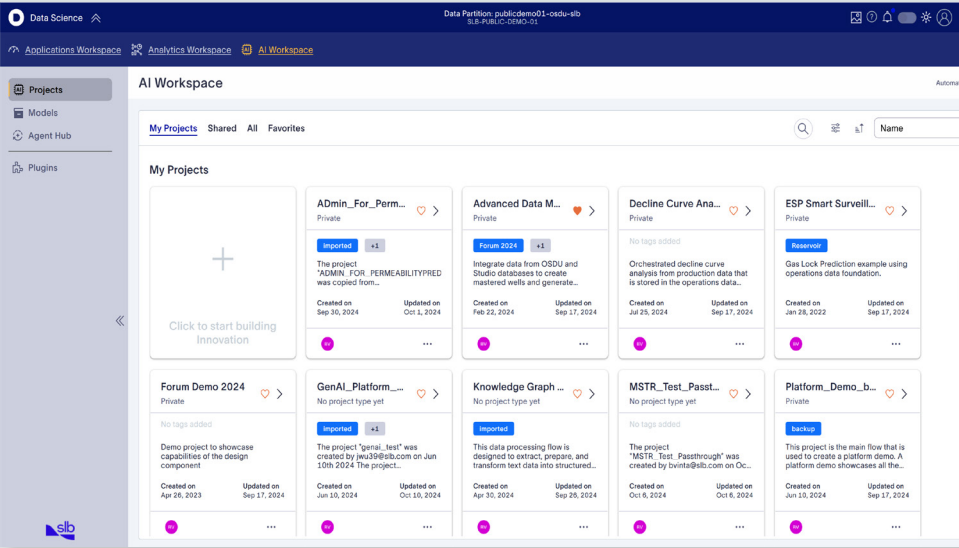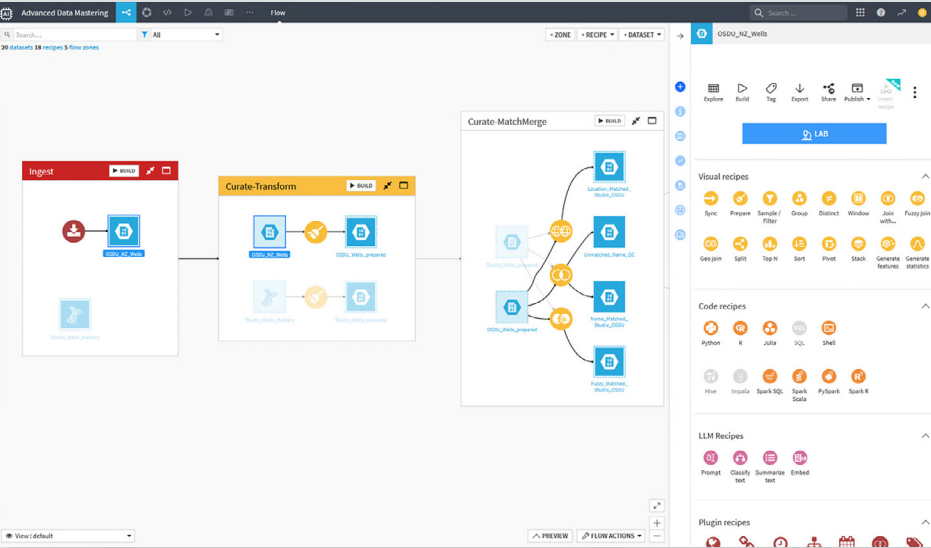
Data Foundations	Data Workflows	AI Foundation	AI Workflows

Lumi AI Workspace

Tools to train and design AI models. Build your own solutions on the platform.

Lumi Analytics Workspace

End-to-end data visualization tool that enables customers to analyze data, share insights, and act quickly.

Conversational Insights

AI is built into the platform. Generate insights with AI connected to your trusted data.

Domain embedded AI

AI inside your most popular applications such as Petrel™ subsurface software, Techlog™ wellbore software, and Intersect™ high-resolution reservoir simulator.

Why is the Lumi platform needed?

The Lumi platform is a distinct, stand-alone solution that addresses comprehensive data and AI needs across the entire energy sector, beyond subsurface workflows. While our Delfi™ digital platform focuses on domain workflows, the Lumi platform covers the full data value chain from upstream to midstream operations. This separation allows each platform to deliver specialized, high-performance capabilities tailored to different operational domains.

What is unique about the platform?

The platform stands out due to its:

→ Specific design for the energy sector, leveraging SLB's domain expertise.
→ Comprehensive integration capabilities across diverse data environments.
→ Robust data governance and AI life cycle management to deliver domain specific insights that can be trusted.
→ Support for both legacy and modern data infrastructures.
→ Spans subsurface and surface.

Where is the platform deployed?

The Lumi platform can be deployed on your organization's on-premises environment, or on any of the three major cloud service providers: Microsoft Azure, AWS, or Google Cloud. Deployment on-premises is recommended for organizations requiring high control over their data. Customers that choose cloud deployment benefit from the highest levels of scalability, performance, and security. The platform is deployed with flexibility to meet diverse operational needs, offering modular components that allow for customization and adaptation to existing infrastructure.

How long does a deployment take?

The time to deploy depends on the specific scenario and customer needs, including factors such as the number of assets to be onboarded and the desired deployment speed. We also take into account the need for training and other customization requirements, ensuring a tailored and efficient deployment process.

What types of data can the platform manage?

The Lumi platform manages all types of data, including structured, unstructured, historical, and real-time data. It supports data from various domains, such as seismic, production, and drilling operations.

How does the platform ensure data quality and governance?

We emphasize robust data governance, ensuring data integrity, compliance with industry standards, and secure data management. Our platform includes tools for data quality monitoring, automated quality assurance and quality control processes, and auditable data lineage.

What AI capabilities does the platform offer?

The platform offers a comprehensive suite of AI tools, for traditional AI (data analytics and machine learning) as well as generative AI (large language models (LLMs) and domain foundation models). In addition, the platform provides comprehensive model management and orchestration capabilities. These enhance workflows across exploration, development, and production; providing insights and automation to improve efficiency and decision-making.

How does SLB ensure the Lumi platform is secure?

The Lumi platform adheres to strict security standards, including NIST cybersecurity standards and System and Organization Controls 2 (SOC2) certification. SLB's 24/7 security operations center (CSOCs) monitors operations, ensuring a secure environment for all data and AI applications. We prioritize data security through robust governance frameworks, compliance with industry standards like General Data Protection Regulation (GDPR) and National Institute of Standards and Technology (NIST) cybersecurity standards.

How is data privacy managed on the platform?

The Lumi platform adheres to strict data privacy policies, ensuring that all data is handled in compliance with relevant regulations. We implement strong access controls, encryption, and regular audits to protect sensitive information.

What services does SLB offer to onboard the Lumi platform?

SLB offers a range of services to onboard the Lumi platform, including a maturity assessment to evaluate your current setup, data migration and cleaning to ensure smooth integration, AI solutions to enhance workflows, and managed services for ongoing support and optimization.

Data in. Brilliance out.

Maximize, elevate, and scale data-driven
decision making, with AI.

slb.com/Lumi

slb