

NTNU OSDU Innovation Lab

BRU conference 2023

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What is OSDU?

The Open Subsurface Data Universe (OSDU) is an industry consortium that enables stakeholders in the energy industry to collaborate on the development of transformational technology to support the world's changing and evolving energy needs.



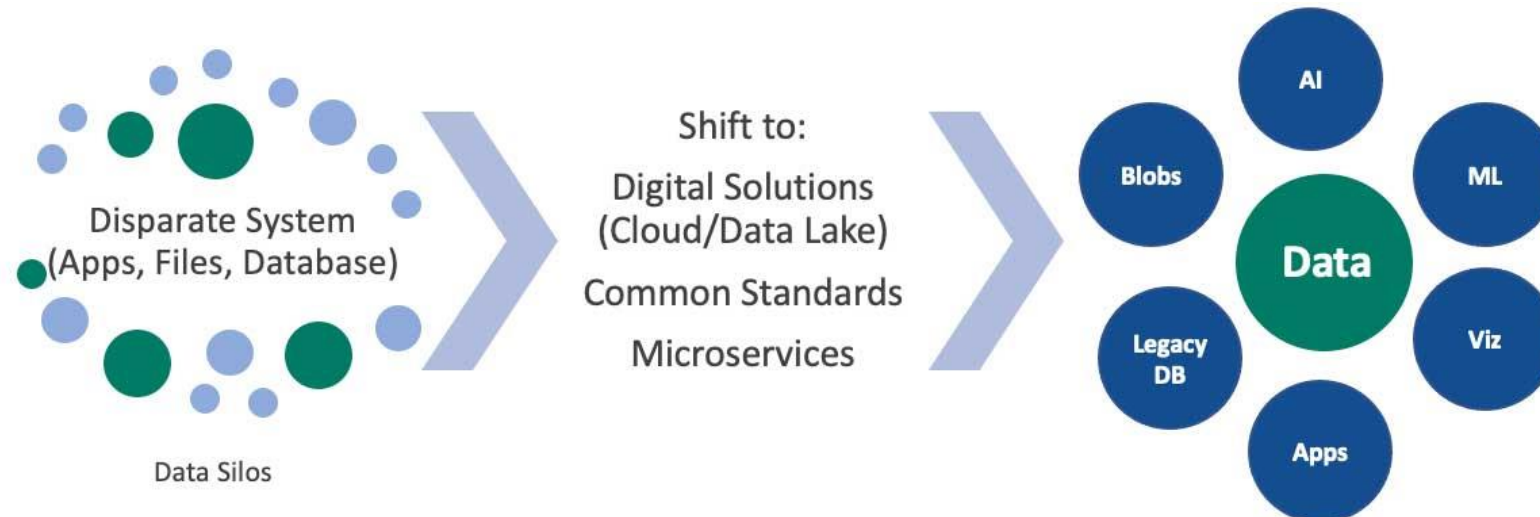
What is OSDU data platform?

OSDU is a cross-company data platform for the oil and gas industry. It provides an open solution where workflows can be developed without data being stored into silos, enabling E&P companies to bring together all data in one centralized cloud solution.

From application-controlled silos and manual data loading



Automation and agile data solutions



Evolution of the OSDU



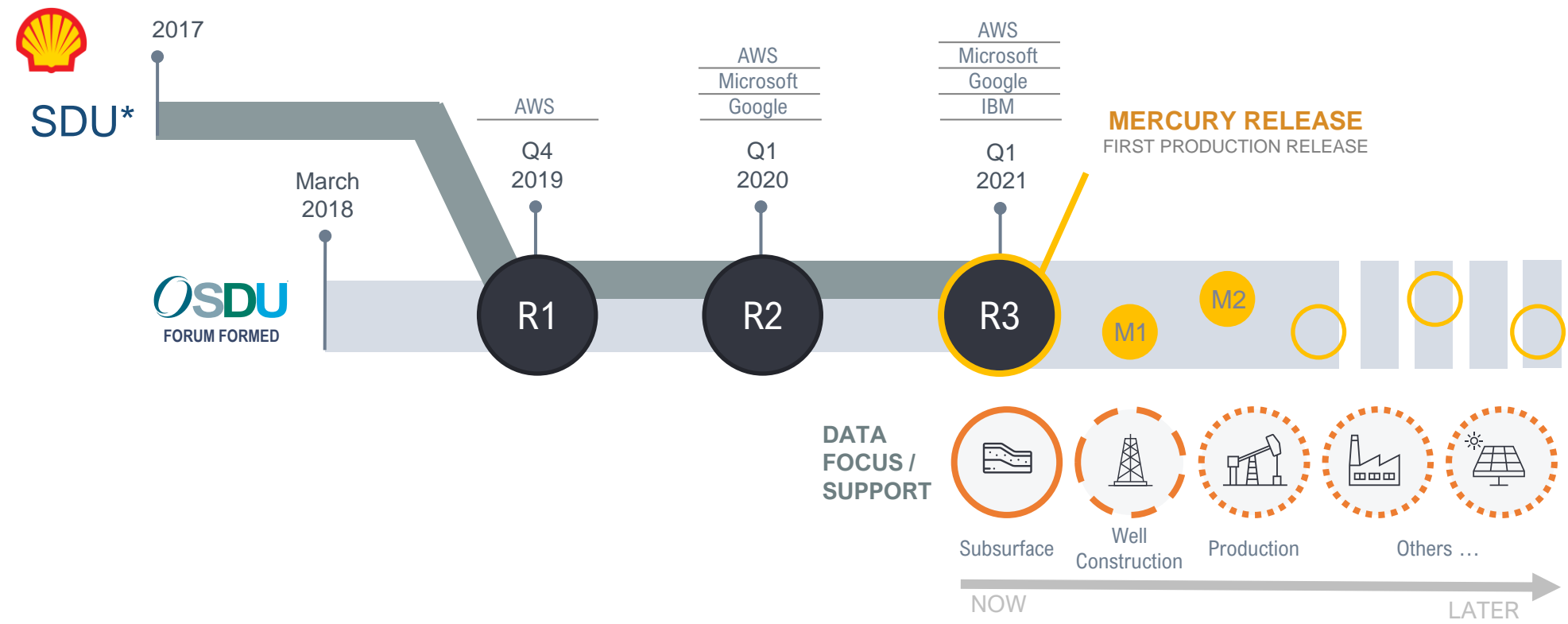
Founded by Operators



> 200 Members
as June 2022



Open-sourced DES* at its core



OSDU forum?



“There is no other place in the world that you see this list of competitors working together to develop a product!”




Unique opportunity in the industry for distributed and collaborative innovation.

“Multiple firms collaborate in developing the platform’s technology and then compete with each other in providing differentiated but compatible versions of the platform”

(Eisenmann, 2008)

OSDU will enable interoperability in Subsurface tools



 OSDU stands for Open Subsurface Data Universe. It is a community-driven, open-source initiative aimed at creating a standard data platform for the oil and gas industry. The OSDU platform provides a cloud-based environment for storing, managing, and sharing subsurface data such as well logs, seismic data, and geological data.

The OSDU initiative was launched in 2018 by a group of oil and gas companies, including Shell, BP, Chevron, ExxonMobil, and Total, who recognized the need for a standardized platform for managing subsurface data. The OSDU Forum, a global community of industry experts, technology providers, and academic institutions, was established to develop and maintain the platform.

The OSDU platform is designed to be flexible and scalable, allowing users to store and access data in a variety of formats and from different sources. It uses open standards and APIs, which makes it easier to integrate with other software systems. The platform is also built to be secure, with robust access controls and data encryption to protect sensitive information.

The OSDU platform is developed using a combination of open-source technologies and proprietary software. The platform uses Kubernetes, an open-source container orchestration system, to manage the deployment and scaling of the software. It also uses Apache Kafka, an open-source data streaming platform, for messaging and data integration.

- Enable efficient data flow across applications, so people no longer need to do manual export and import of data
- Help with collaboration and efficiency, all data and tools available in one place.
- Standardization!
- Lead to widespread innovation and new business models

What do we hear about the OSDU now?

Does not support my data

My workflow is not supported

Not mature enough

Lack features

Not ready



New skills required

There is no magic!

The key is to address known OSDU gaps (project workspace, performance, etc.)!

Why bring OSDU to academia?



❑ Education

- OSDU-ready graduates

❑ Speed up research and innovation

- Access to industry data
- Sharing data with research partners and data providers
- Reduce data related challenges in data driven analysis

❑ Easy to onboard new apps and create new workflows

- Cloud space for academic spin offs

Bru21 initiative: OSDU innovation lab

Objectives?

- ❑ Accelerate research to first prototype
- ❑ Ensure relevant skills
- ❑ Research on knowledge management
- ❑ Accelerate the platform

What is an Innovation lab?

Innovation Labs are co-working spaces, both virtual and physical, in which new ideas can be explored.

➤ IBM design Studio

➤ MIT Media Lab

➤ Berkeley AI Research Lab

OSDU innovation workshop at NTNU



OSDU and AC/DC – Academia, Commitment, Data & Community
Alexander Neber, OSDU Business Development Manager at SLB
Tormod Slette-meas, Data and Digital Solutions Owner Norway at SLB



The OSDU™ Data Platform – An Enabler for AI in Geoscience
Einar Landre, Lead Analyst IT at Equinor



Subsurface Digital Transformation as a Collaborative Effort
Therese Rannem, Project Leader Subsurface at Equinor



OSDU Unwrapped - Perspectives on Strategy, Technology, and Implementation
Espen Knudsen, Principal Advisor - Digitalization and Innovation at Cegal

Friday, April 28, 2023, More than 40 participants



- Introduce OSDU to NTNU community.
- Evaluate the value of establishing an OSDU innovation lab at NTNU.
- How to set up the OSDU innovation lab at NTNU.

The way forward



Interested industrial partners



Coordination meeting June 2023

Other industrial partners and new ideas are welcomed

Thank you

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