
EBOOK

The **ultimate** guide to subsurface **success**

Mastering data management
for the future of E&P.

CEΘAL

EBOOK

We combine our cutting-edge technologies with unrivaled data expertise.


To succeed in subsurface operations like oil and gas extraction, geological surveys, or groundwater management, having accurate and reliable data is essential.

Effective data management is not only essential for maintaining accuracy and reliability in analysis and decision-making but is also critical for maximizing resource utilization, minimizing risks, and enhancing operational efficiency.

This eBook explores why data management is the cornerstone of subsurface operations and how it can transform your approach to harnessing and leveraging subsurface information to its fullest potential.

We combine decades of expertise in subsurface software with unrivaled skill in data management. No matter where you are on your digitalization journey, Cenova and the Cegal Data Program will help to deliver maximum business value in the shortest space of time.

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Why **invest** in Subsurface Data Management?

Drive continuous excellence


Investing in effective subsurface data management is vital for any company involved in industries such as oil and gas extraction, geological surveying, or groundwater management.

Investing in subsurface data management is a strategic move that provides a multitude of benefits, from cost savings and risk reduction to enhanced decision-making and operational efficiency.

It positions your company to be more agile, compliant, and competitive in your respective markets.

By leveraging advanced data management solutions like Genova and the Cegal Data Program, your company can transform your subsurface data into a powerful asset that drives success in your digital transformation journey.



A woman in a white shirt is standing and presenting to a group of people. Behind her is a large screen displaying a dashboard with various charts and data. The dashboard includes a line graph, a circular gauge, and a table of data. The text '25% of upstream data users currently spend more than 80% of their time on data handling activities.' is overlaid on the image in a dark box with white and green text.

25% of upstream data users currently spend more than **80%** of their time on data handling activities.

Source: IDC July 2023

Operational Efficiency

Streamlined data storage and retrieval processes save time and reduce the workload on IT and operational staff. This efficiency enables quicker responses to market changes and operational demands.

Cost Savings

By eliminating duplicate data, optimizing storage, and reducing the data footprint, companies can significantly cut down on storage costs and related emissions. These savings can be redirected to other critical areas of the business.

Enhanced Data Quality

Continuous monitoring and improvement of data quality lead to more reliable and accurate datasets. High-quality data supports better strategic planning and operational execution.



Over **75%** of upstream companies believe their business performance has **improved** as a result of investments in **modernizing** data management.

Source: IDC July 2023



Improved Decision-Making

Access to high-quality, well-managed data ensures that decision-makers have the most accurate information at their fingertips. This enhances the accuracy and confidence of strategic decisions, driving better business outcomes.

Scalability and Flexibility

A robust data management framework can scale with the company's needs, supporting future growth and technological advancements. This flexibility ensures the company can adapt to new challenges and opportunities.

Sustainability

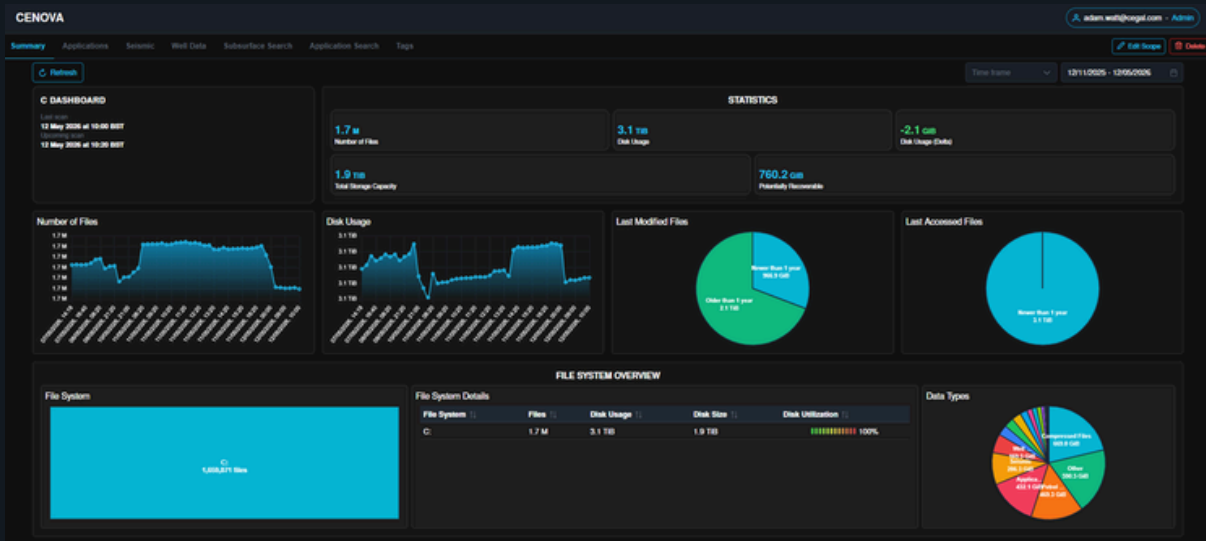
Efficient data management practices contribute to the sustainability goals of a company by reducing data storage needs and associated energy consumption. This not only cuts costs but also aligns with environmental responsibility initiatives.

> 55% of data is “**dark**”

Source: Splunk (2024)

Cenova

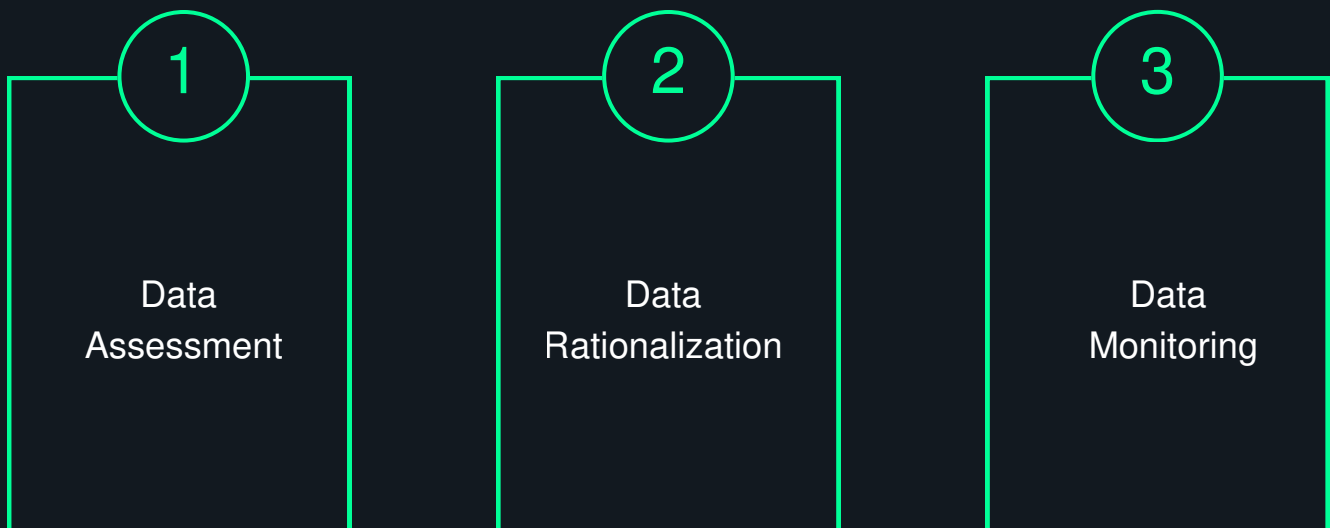
Cenova gives subsurface, IT, and data leaders an instant, trusted view of every file, project, and dataset across their environment without moving a single byte.



Cegal Data Program

Powered by Cenova

The Cegal Data Program comprises three core components:



This service delivers

- A review of your subsurface data environment
- Improvement in project quality, data access, and storage efficiency
- Continuous project and data excellence



1 Cegal Data Assessment

Define today's landscape



The Cegal Data Assessment delivers a comprehensive overview of your subsurface project and data landscape and uses Cegal's comprehensive file and project scanning technologies to ingest meta-data about your file systems and deliver unparalleled business insight.

The Cegal Data Assessment is the right start to any corporate data initiative.

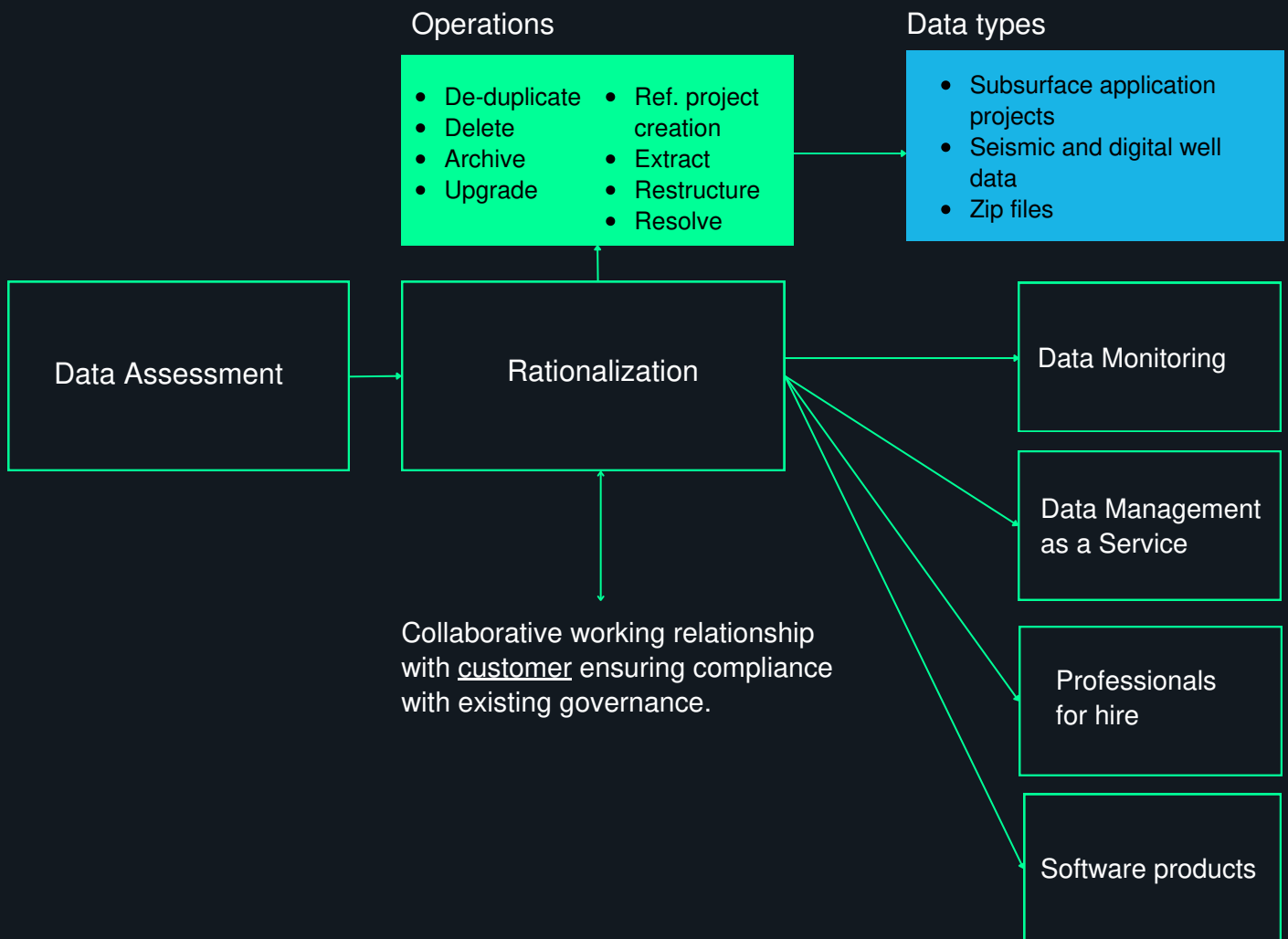


2 Data rationalization

Enact targeted improvement

Enhance your subsurface projects and data with our specialized services, leveraging our latest automation technologies and proven workflows. From managing unlicensed seismic data to restructuring file systems post-merger, we deliver effective improvements quickly and reliably.

The Cegal Data Assessment results and Cegal’s proprietary technology are used to undertake a detailed, auditable rationalization of your data estate.



Case study #1

Migration to cloud

In this case study, the client aimed to migrate their subsurface data to the cloud. After conducting a Data Assessment, Cegal evaluated the potential cost savings from streamlining their data estate, which was subsequently carried out as a project.

Task	Value/benefit	Potential savings*
Petrel project rationalization	Reduced disk usage on Petrel, reduced complexity of project storage. Reduced Petrel management time	\$ 311,631.3 / yr
Subsurface app project rationalization	Reduced disk usage, faster access to data	\$ 147,482 / yr
Project migration	Reduced folder complexity saving time on data search	n/a
Internal Petrel seismic rationalization	Reduce storage by de-duplicating files. Performance of Petrel projects improves as seismic is externalized	\$ 92,313 / yr
Reconnect Petrel seismic links	Ensure Petrel users can access their connected seismic files	n/a
De-duplicate external Petrel ZGY	Reduced disk usage by removing redundant copies of large seismic files	\$ 54,405 / yr
De-duplicate SEG-Y	Reduced disk usage by removing redundant copies of large seismic files	\$ 18,620 yr
De-duplicate digital well data	Small reduction in disk usage by removing redundant copies of small well data files	\$1582 / yr

Total savings per year **\$626,033**

*If migration to cloud e.g \$75 TB per month.

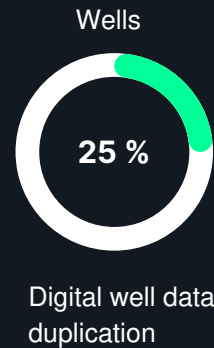
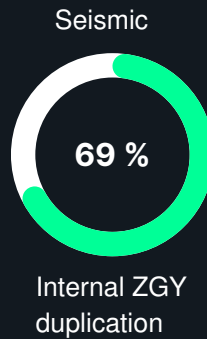
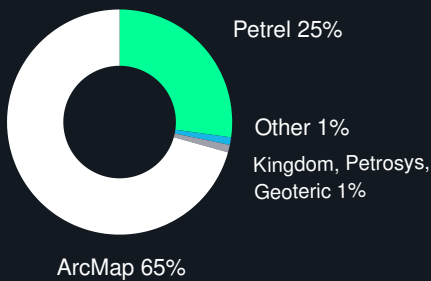


Case study #2

Post mergers and acquisitions rationalization

Case study 2 highlights a rationalization project for a customer managing the merger of three companies. Cegal began with a Data Assessment to identify rationalization opportunities. Following this assessment, a rationalization project was executed, and the outcomes are detailed below.

Subsurface apps



Petrel users (Count of distinct Petrel users in green)



Each = 5 distinct users Row = 50 users

Archive

59TB



Unused Petrel projects

Seismic data

22TB



Orphaned ZGY files

Zip data

820



Petrel projects in zip files only

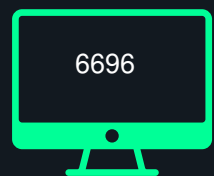
Petrel versions

62



Petrel projects

6696



Petrel projects in Tracker



Case study #2

Key outcomes of the Rationalization

Petrel projects removed

7.3 TB

Seismic externalization

(removed duplicates)

~27.5 TB

De-duplicated ZGY/ SEG

39.6 TB

Total storage saving

74.4TB



3 Data Monitoring

Drive continuous excellence

The Data Monitoring includes the deployment of several technologies to monitor, govern and maintain your data and project environment over time for a fixed monthly cost. This unique reporting service helps maintain consistent alignment with your corporate data management strategies.

Benefits

- Data Efficiency – Continuous oversight for optimal data management
- Compliance – Uphold governance standards and regulatory requirements
- Issue detection – Early identification and resolution of data issues saves time and resources
- Data quality – Continuous monitoring rectifies data issues, enhancing decision-making accuracy

Examples of dashboard delivered with Data Monitoring

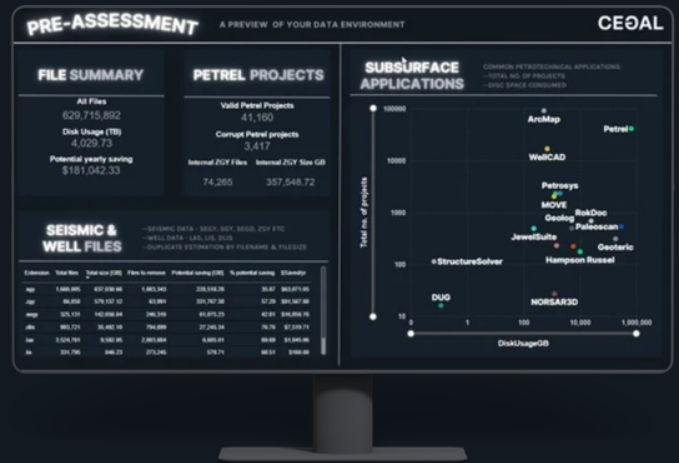


Data Monitoring

- Continuous reporting of the subsurface project and data environment with the Data Monitoring dashboards
- Cegal consultants available to support scanning and crawling
- Full use of all standard Blueback Project Tracker functions

Looking to **optimize** your Subsurface Data Environment?

Start with our Pre-Assessment, a valuable first step available at a minimal cost. Connect with us today to schedule and unlock key insights into the potential of your data.



Scan the QR code to contact us

