

# BI in **Upstream**

## Field planning and optimisation

A Brytlyt Use Case

## Use Case Objectives

- Drill Better Wells
- Make Smarter Capital Allocation Decisions
- Screen Acquisition Opportunities Faster
- Make Smarter Field Development Decisions

## Blending private and publicly available data

Brytlyt provides speed of thought analytics on blended private and publicly available oil and gas data of any type, that can be accessed 1000x faster than the solutions typically used today. For oil and gas companies, data is a fundamental component of their hydrocarbon business. To stay ahead of the competition, they need to derive insights from the massive amounts of public and private data, sensor and geolocation data, and drilling and seismic data that is available.

Traditional analytic methods are increasingly challenged by the volume of data and slow response times. This is compounded by a lack of domain experts in the industry who can no longer keep up with the demand. Over the years, many companies have become constrained by compute power, memory bandwidth and the cost running their technical operations.

## The Challenge

Low latency analysis of large datasets is important for anyone leveraging data to support multimillion-dollar decision making. Public data is disconnected from privately available data that exists in siloes. Oil and gas companies who cannot connect all the relevant data are at a massive disadvantage to those that can access relevant sources of data to produce high value analysis, leading to better decision making.

Solutions available today are not able to analyse fully blended data sets containing public data combined with an operator's proprietary private data with low latency response times and speed of thought analytics.

## The Solution

A service where oil and gas companies use the Brytlyt platform to –

Combine relevant public and private data into a single Business Intelligence tool in a way previously thought impossible, while retaining a low latency, highly responsive, highly flexible end user experience.

Enable machine learning and neural networks to build and train models on billions of rows of data from that is combined from many different, siloed sources.

## Seismic and on-location well data

Interpretation of seismic with speed and accuracy is critical to the exploration workflow. Multi-GPU technology boosts the throughput of the heavy computation needed for this and can deliver improved 3D seismic trace attributes and visual analysis of complex regional basins, at the analyst's desk.

The high compute power, massively paralleled processors and high-speed memory of GPUs allow oil and gas companies to:

- Visualise and analyse terabytes of well location and associated production data, in milliseconds
- Implement advanced algorithms for unique insights in seconds
- Use deep learning on seismic trace data to accelerate exploration and discover faults in geology
- Dramatically reduce model processing cycle times and provide sharper images within a region-of-interest from raw data

This can lead to more effective lease bidding, higher service revenues and increases in production.

## Brytlyt's competitive advantage

Brytlyt is a GPU accelerated PostgreSQL database with out-the-box support for market leading Business Intelligence tools like TIBCO Spotfire, PowerBI, Tableau.

Brytlyt is tightly integrated with frameworks like PyTorch and MLFlow for building best in class Data Science solutions.

Brytlyt.io is a single end-to-end solution that includes a high-performance analytic database, powerful browser-based analytics workbench and tight integration with tools for deep learning and data science.

## About Brytlyt

Brytlyt is a global market leader with a mission to transform the way organisations obtain value through data. We innovate and create next-generation technology solutions for our clients, to solve tomorrow's data problems as well as today's.

Brytlyt is the fastest and most advanced GPU accelerated database in the world – with a comprehensive analytics visualisation workbench with in-database deep learning and AI capabilities. The platform seamlessly integrates with your existing systems to accelerate your workloads and empower speed of thought analytics for billion-row datasets.

We work with global partners in a range of sectors including TIBCO, Accenture, IBM, Nvidia.