

## CASE STUDY

# BI PLATFORM DRIVES MAINTENANCE AND OPERATIONS PROCESS IMPROVEMENTS RESULTING IN A 26% EFFICIENCY INCREASE

This Oil and Gas operator in the North Sea has more than forty offshore assets in total, including both manned and unmanned installations. The joint venture wants to produce gas as safely and efficiently as possible. They realize that innovating their systems, tools and processes highly contributes to that overarching goal.

## OBJECTIVE: FROM DATA TO INSIGHTS TO ACTIONS

With the rollout of several tools and systems, the gas producer saw that the demand for connected data and insights was growing rapidly within the company. In addition, after having connected the data and generating insights, the company also realized that it needed a way in which those insights could be transformed into actions by end users. This would make the data, systems and tools more powerful as they could significantly improve the day-to-day work. As part of the role of Manager Equipment Care MaxGrip was asked to lead this project.

## APPROACH: AUTOMATION PLATFORM FOR BUSINESS INTELLIGENCE

The business intelligence (BI) tool that was developed, connected live data from several systems and sources such as the Enterprise Asset Management (EAM) system, Condition Monitoring system, production information, wells data, and others. The tool was then able to provide automated data extraction and processing activities. This delivers automated dashboards and business insights. To ensure that the resulting actions and improvements are valuable for the workforce on the ground doing the day-to-day activities, the tool was launched with process practitioners setting the functional requirements. This means that these process practitioners, usually the end users, could suggest additional functionalities or improvements based on their experiences. So, after starting out with a Minimal Viable Product (MVP) in 2018, the BI tool was expanded throughout the years based on the needs of the users.

## SUMMARY

### Challenge:

Connect data from maintenance and operations systems and sources to give end users actionable insights and improve efficiency.

### Approach:

Business Intelligence (BI) platform that connects live data, provide automated data extraction and process activities to provide automated business insights dashboards.

- Asset reliability reporting
- Maintenance execution: open work visualization
- Extended line of sight for Safety Critical Work
- Opportunity Scope Assessment

### Results:

- 26% man-hours saved in two years
- Global roll out to 70+ countries

The current platform has thirty active process practitioners from a variety of disciplines, e.g. Execution, Maintenance & Engineering, Operations, Wells. Some successful examples of use:

### **Asset Reliability**

The platform provides automated Bad Actor reporting and KPIs such as costs, deviations, MTTF, risk ranking and more. It is possible, for example, to show assets with lower risk but a relatively stringent Preventive Maintenance (PM) program. This could result in lowering the PM intensity and save time and money.

### **Maintenance Execution**

The open work visualization functionality provides maintenance teams with an overview of open work split by asset – location – work planner. This enables the team to improve work distribution, trend the processing of work orders over time and pinpoint bottlenecks in processes and to identify the increasing workload of individual planners in real-time.

### **Safety Critical Work**

The platform also provides an extended line of sight regarding maintaining safety critical assets. Because of the laborious process of manually downloading data, connecting and getting insights, the line of sight used to be seven days to assess future orders that need to be deviated because they are scheduled past the latest allowed finish date. The line of sight often proved not to be enough time to complete the deviation process. By automating this process, there are less 'last-minute surprises' due to work order deviations. The line of sight has been expanded to six months which allows for better planning and more work carried out in time.

### **Opportunity Scope Assessment**

The company uses two walk-to-work (W2W) vessels to execute maintenance on their unmanned installations. The schedule of these vessels is often disrupted by ad-hoc high priority corrective maintenance. The maintenance team must respond quickly with updated scope of work (opportunity scope). Instead of manually extracting data from various sources to create that overview, the platform was used to generate opportunity scope overviews based on algorithms that extract high priority work based on requirements set by the W2W team. Although it is in an early stage of maturity, users have already reported to save a lot of time this functionality.

## **RESULTS: 26% EFFICIENCY INCREASE AND GLOBAL EXPANSION**

With the examples mentioned above it is clear that the BI platform accelerates the maintenance and operations processes for this Oil & Gas operator and makes the way of working more efficient and effective. In fact, so far all of the improved processes due to use of the BI platform has increased efficiency with 26%, saving on man-hours in only two years. The client is very happy with the results and further expansion of the BI platform is underway. Furthermore, the platform will also be implemented worldwide at the company locations of the parties involved in this joint venture. That will result in a worldwide implementation in over seventy countries.

## **ABOUT MAXGRIP**

MaxGrip consultants enable organizations in asset-intensive industries to achieve continuous improvements on their asset performance, also using the power of Digital Transformation. MaxGrip embraces APM 4.0 with a maintenance track record of over twenty years in industries like Oil & Gas, Food & Beverages and Utilities & Infrastructure. We operate on all continents and have a global presence with our main offices in the Netherlands (HQ), USA, and Malaysia.

## **WOULD YOU LIKE TO KNOW MORE?**



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