

# FENNEX

## Behavioural Based Safety Solution Digital Solution (BBSS™)

*An Industry-First Digital Solution  
Transforms a Critical HSE program for a  
Leading Offshore Drilling Contractor*

**Noble Corporation**



### CASE STUDY



### AT A GLANCE

**Who:** Nobel Drilling, Offshore Drilling Contractor  
**When:** 2020  
**Scope:** Digital solution combining artificial intelligence (AI) & machine learning (ML) optimises safety observation program across global fleet.

**BBSS™** increased engagement by **30%**, reduced program cost by **70%**, and saved **15,000** man-hours per year.

### INTRODUCTION

Through successful collaboration with Noble Corporation, Fennex developed an industry-first cloud-based digital solution (BBSS™), combining advanced artificial intelligence and machine learning technologies to optimise the safety observation program across the offshore global offshore fleet.

The previous inefficient workflow involving manual entries from paper cards and time-lagging forms and reports was transformed into an efficient, automated system, with real-time analytics and live transparent dashboards of critical safety indicators to aid decision making and improve operational performance.

The **BBSS™** has been successfully developed and deployed across the global fleet in just 12 weeks, delivering significant efficiencies.

### CHALLENGES

Behavioural based safety observation programs are designed to improve workplace safety culture by encouraging employees to practice safe behaviour, while recognizing and mitigating risks.

However, existing methods to execute the safety observation program are becoming increasingly burdensome, time-consuming and inefficient, relying on data collection using paper cards, with manual entries to generate reports and spreadsheets that are then stored and shared for updates and analysis; turning most safety data trends and insights into lagging indicators.

**Noble Corporation** team identified an opportunity to leverage digital technology to optimise the safety observation program across their offshore and onshore locations, however, no appropriate solution was readily available. Many digital solutions fail to address industry-specific challenges, and the increasing complexity of the rigorous safety management processes have made the effective application of data-driven technologies significantly harder.

And for organizations with varying levels of digital readiness across a diverse global operations, leaders are more cautious to implement solutions that are not-fit-for purpose, at risk of jeopardizing the consistent execution of the critical HSE program.

## SOLUTION

Through successful collaboration with the Noble Corporation IT and HSE teams, Fennex specialists developed a cloud-based intuitive digital solution, leveraging **Artificial Intelligence (AI) & Machine Learning (ML)** technologies to fully digitise and automate the safety observation process across their global fleet, delivering a powerful central platform to easily capture, track, report and analyse critical safety trends.

To allow for varying levels of digital readiness across a **diverse global workforce**, the **BBSS™** solution uniquely combines physical and digital forms of safety observations inputs into an automated live streaming cloud-data platform: via mobile Apps using smart phone or tablet, a web-based access from PC, and paper-based cards; providing the foundations of an **all-inclusive solution**.

By scanning a **QR code** unique to the location or offshore installation, all employees, including customers and third-party, can submit a safety observation through a secure access using a mobile tool **in seconds**. All mobile Apps are designed with offline capabilities, so at-risk or unsafe conditions can be reported anywhere at any time.

Additionally, specific paper-cards were designed for automated digital conversion using unsupervised machine learning algorithms, ensuring **full adoption** and seamless scale-up global deployment, regardless of digital readiness or location of operations.

To unlock further collaboration capabilities, the **BBSS™** is designed to digest safety observation inputs in the user's first-language before translating information into English from **30+ languages**: creating a powerful safety reporting tool across international teams, helping to reduce cultural barriers and **maximising engagement**.



## RESULTS

**In just 12 weeks, BBSS™** has been developed and successfully deployed across twenty offshore assets, re-invigorated the corporate safety observation program across Noble's workforce, transforming their global operational visibility with real-time analytics and live transparent dashboards detailing critical safety trends & indicators.

Hailed as ground-breaking by the Noble team, the **BBSS™** digital solution ticked crucial boxes in improving safety culture, delivering significant efficiencies and reducing environment impact:

- ✓ **Engagement:** Boosted participation in safety reporting by **30%**.
- ✓ **Speed:** Data and analysis enables deeper insights, leading to **quicker decision** making to mitigate risks and prevent hazards.
- ✓ **Sustainability:** **500,000** paper cards eliminated each year.
- ✓ **Efficiency:** Cut program overall cost by **70%** and saved **15,000** man-hours each year.

*"Having such an innovative tool that works for our offshore teams, customers and contractors is a significant asset and an advantage for any high hazard industry."*

**HSE Director, Noble Corporation.**

Fennex Ltd  
2nd floor, 40 Union Terrace,  
Aberdeen, AB10 1NP  
**T:** (+44) 1224 611833  
**E:** [info@fennex.net](mailto:info@fennex.net)

[www.fennex.net](http://www.fennex.net)