

INCREASING SAFETY THROUGH DIGITAL INNOVATION



eVision creates digital work safety and efficiency solutions for Hazardous Industries. Innovative systems that improve the way companies operate on a global and local scale. Organisations like Shell, Borouge, BP, Yara, Maersk and many others utilize our industry-leading software.

these with advanced tools. Utilising eVision's solutions leads to major increases in safety, large efficiency gains (e.g. 20-40% increase in hands on tool time), accident reduction and improved situational awareness.

In essence, eVision's core solution (Permit Vision) combines Permit to Work with integrated (Task) Risk Assessment and Isolation Management, and supplements

For XXI World Congress 2017, eVision has captured some of the results it has measured over the years, from core insights to advanced innovation.

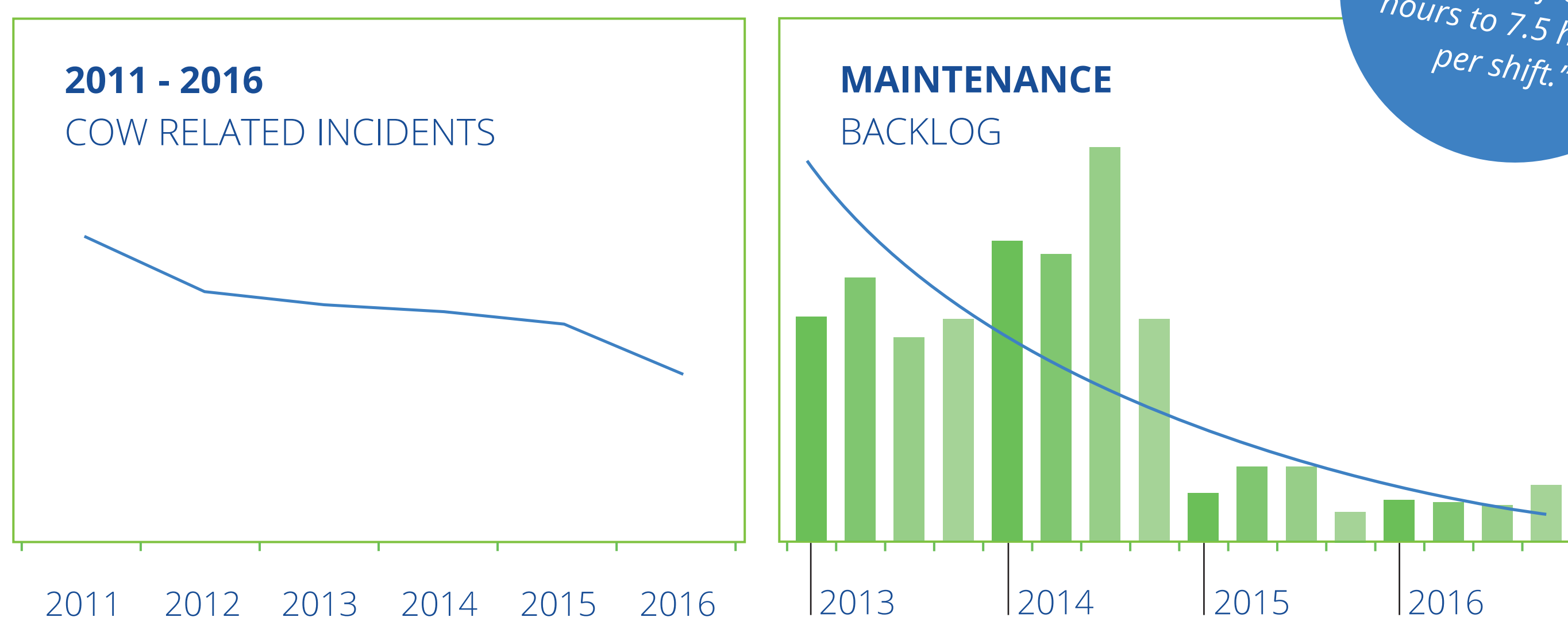
1 CORE PROCESS SAFETY IMPROVEMENT CASE

The benefits reaped from moving into the digital Permit to Work arena are significant and far-reaching. eVision has measured various client results. In this case, it concerns a full global enterprise-level deployment of Permit Vision, with eVision's software being used on 71 onshore and offshore assets as of 2017.

Results: safety-focused

By implementing eVision's integrated Permit Vision solution, the organisation could replace 150+ disparate procedures with a single-screen system. This resulted in:

- improved hazard recognition
- systematic risk assessments
- improved planning
- simplification of previously laborious processes



Leading to 32% decrease in Control of Work related incidents across 71 assets.

"Hands on Tool time has been increased from 4 hours to 7.5 hours per shift."

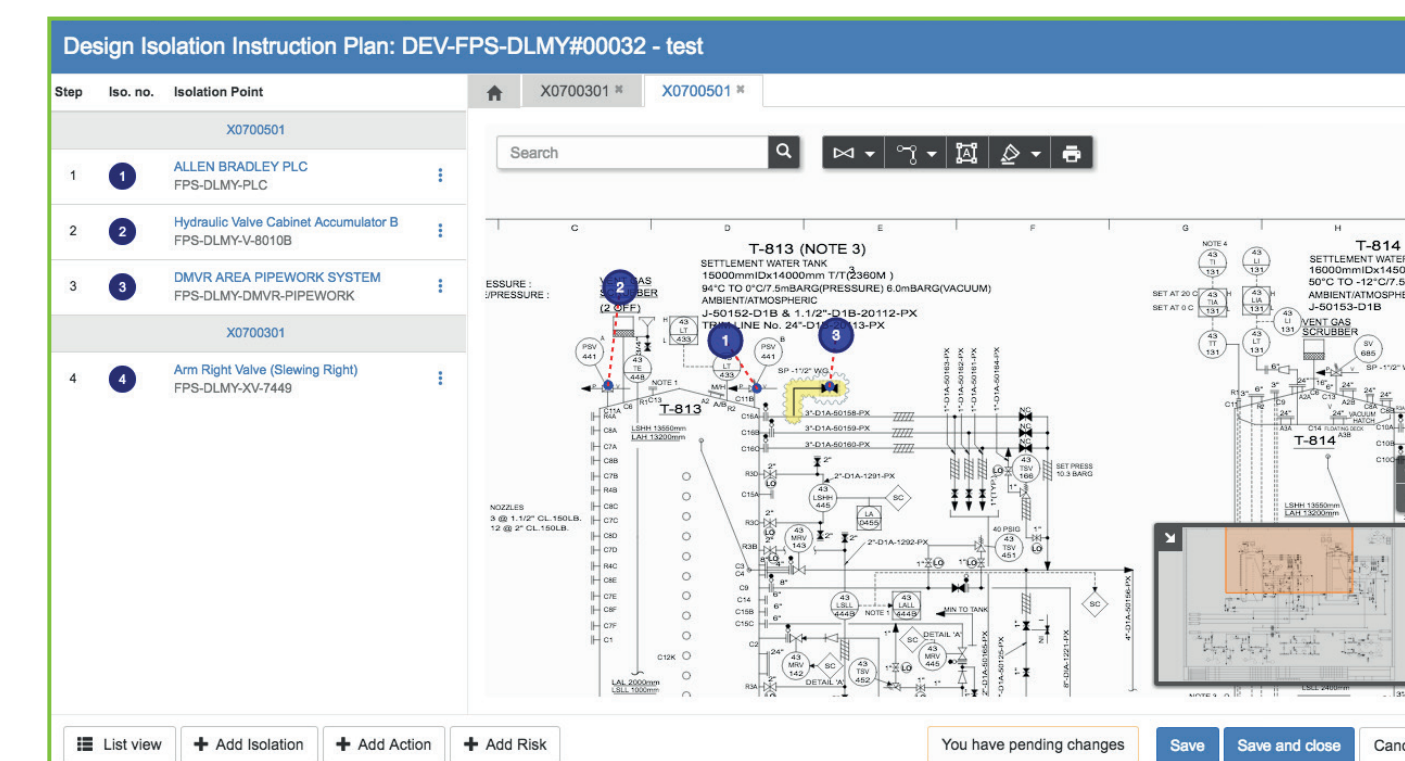
eVision's Control of Work system positively impacted the client's maintenance efficiency on various levels, including:

Results: efficiency-focused

- Due to streamlining maintenance preparation processes and enabling a better-informed workforce, more maintenance is now performed in the same shift, reducing maintenance backlog. At certain sites, Hands on Tool time has been increased from 4 hours to 7.5 hours per shift;
- A smaller workforce is now required to perform maintenance in the same timeframe, leading to cost savings due to less contractors required.

Innovation highlight: interactive P&ID

Besides improving safety and Hands on Tool time, this client also implemented eVision's world-first interactive P&ID solution. eVision iP&ID addresses the many challenges of isolation preparation, by integrating P&IDs directly and digitally into the Permit Vision isolation process.

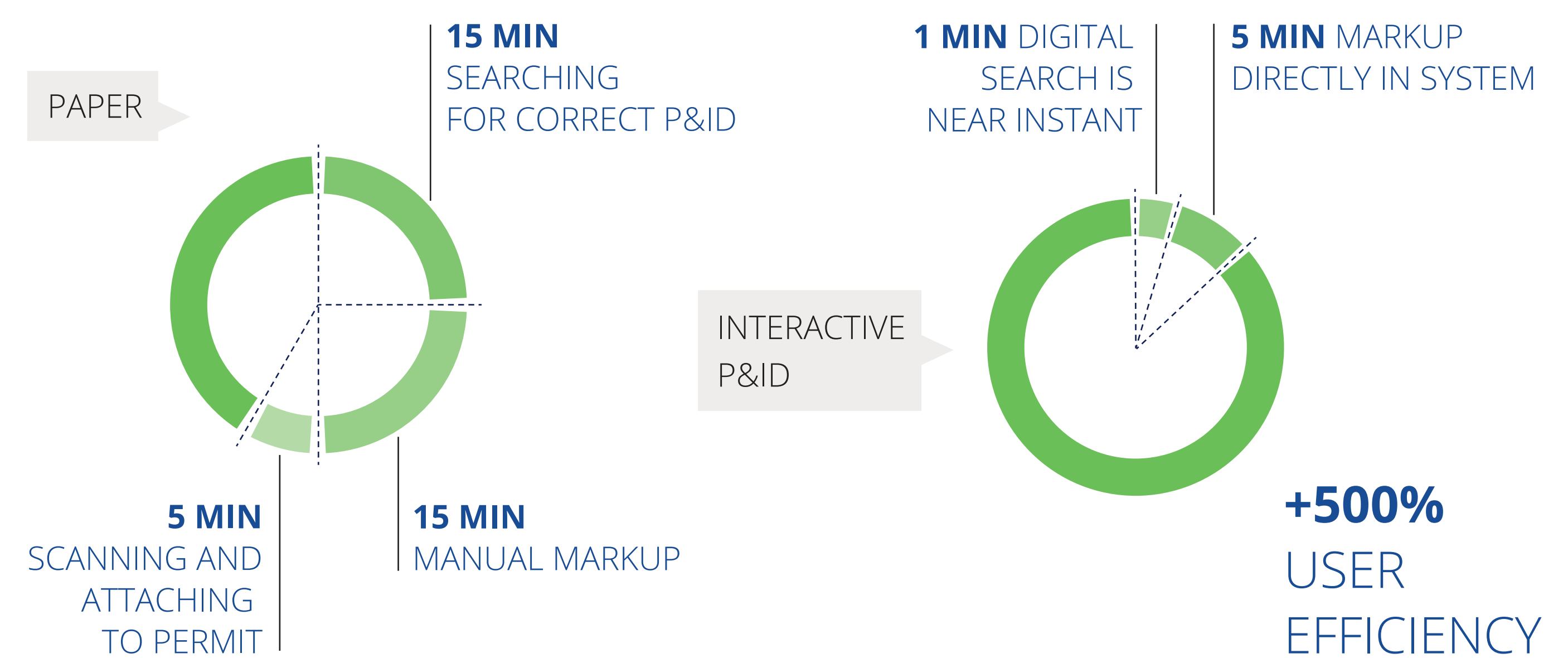


"Replacing disparate procedures with eVision's Control of Work solution led to a 32% decrease in Control of Work related incidents across 71 assets."

Key benefits while using iP&ID

- Find relevant P&IDs and equipment by simply typing in part of the P&ID or equipment name
- Add isolation points and actions directly on the digital P&ID
- Mark up the schematic with predefined ISO symbols; use colors and text to highlight changes
- Print out or save the schematic as PDF, allowing for flexible sharing and up-to-date documentation

PAPER VS INTERACTIVE P&ID



2 SHUTDOWN PLANNING: SAFETY AND EFFICIENCY GAINS WITH ORACLE PRIMAVERA INTEGRATION

Asset owners need to execute their turnarounds as effectively and efficiently as possible. Integrated solutions are essential to improve Shutdown/Turnaround strategy, operations execution and financial performance. Therefore, eVision has joined forces with Oracle Primavera, ensuring safe execution and effective planning of thousands of low and high risk work permits, isolations and risk assessments.

Large scale risk mitigation

Taking an integrated approach to Shutdowns/turnarounds, combining Permit to Work, Isolations and Risk Assessment with planning, is instrumental in mitigating the large-scale risk of a shutdown/turnaround.

Turnarounds for a large plant consist of the execution of thousands of maintenance activities during a relatively short time span. Integrating Control of Work and Planning delivers the following benefits:



Planning phase: optimised scheduling

- During shutdown planning, permits and isolation plans can be pre-prepared and attached to each planning step, for clear oversight of work, efficient execution, and reduced waiting time during turnaround.
- All permits per step in the workflow are visible in a graphical overview, ensuring full supervision of possible permit conflicts (SIMOPS, Operational Risk) supporting appropriate decision making and permit authorisation.
- Because Risk Assessments are performed beforehand, Permit Vision can offer unprecedented insight into cumulative risk at all times.
- Through permit and work conflict detection, SIMOPS can be coordinated more effectively, which leads to a significant reduction of planning conflicts.

Execution phase: control of work

- By combining an advanced planning tool with electronic Permit To Work, safe and structured cooldown sequences can be drafted, and plant reinstatement occurs in a faster, more controllable and safe manner.
- By tightly integrating work packs with planning, workforce competency (part of Permit Vision) and equipment, capacity can be coordinated on a far deeper level than before. Moreover, efficiency and effectiveness increase tangibly.
- Information is constantly gathered in real time in order to flag issues on-site. This allows the schedule to be re-optimised continuously.
- RFID: Tracking people, equipment, and material leads to clearer oversight of what is happening within your asset. Mobility: allows operators to sign permits/isolations on location via mobile devices, greatly increasing Hands on Tool Time and asset utilisation and decreasing travel times.