



Network Site Visit Case Study

Rocklabs
Digitising the Continuous Improvement Cycle

INDUSTRY 4.0
Network

POWERED BY

CallaghanInnovation
New Zealand's Innovation Agency

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Company Profile

Since 1975, Rocklabs has been a global innovator in the sample preparation equipment field, supplying a wide variety of equipment for the mining of gold, silver, platinum, iron and palladium. Early achievements in the mining and exploration industries created a platform for the development of equipment designed specifically for commercial and mine site laboratory environments. Whilst still being world leaders in these sectors, Rocklabs have continued to enhance our core products and adapt them for virtually any endeavour requiring world-leading sample preparation equipment.

Rocklabs are based in Mangere, Auckland where they form the Scott Automation Centre of Excellence for Mining, including the design, engineering and manufacture of cutting-edge sample preparation machinery.

Background

Rocklabs had been operating its Engineering Change Requests and Health and Safety Reporting through manual paper-based process. Both processes are central to the continuous improvement culture that Rocklabs has been fostering over the past few years. The existing mechanisms weren't providing quick enough feedback and improvement loops for the shopfloor team in particular. To maintain engagement, it was necessary to decrease the administration associated with reporting.

Engineering change requests are predominantly focussed on product and manufacturing process improvement, identifying parts and sub-assemblies that can be modified to increase the quality and efficiency of the process. For example, notifying engineering of obsolete components being kitted to jobs from stock that

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may require updated drawings to be supplied to suppliers. Historically, these had been carried out through an extensive paper process requiring the physical movement of paper forms at least six times, as well as regular filing, printing and scanning making the overall process inefficient.

Health and Safety reporting, both hazard identification and incident reporting, forms the backbone of the iterative continuous improvement approach that Rocklabs takes to looking after its teams. Previously, paper-based forms were required to be printed off, after identifying the correct form from a list of almost forty and then completed manually. The time taken for the form to be read and acted on by the necessary leaders was inefficient, and in some cases, it could take days for a report to be read and an investigation to begin. This lag reduced the efficacy of the process and the engagement of team members to report hazards and incidents in the first place.

The Solution

In terms of Health and Safety, the operations manager at Rocklabs and Scott Automation Group Health and Safety Manager reviewed several digital solutions to reduce the lag in reporting and make reporting easier and faster for employees. After considering multiple options they engaged Evotix to deploy their web-based app solution. To support the uptake of the new system training was put in place for all employees to physically trial the software and interact with it before providing feedback for adjustments to be made to optimise it for Rocklabs purposes. In addition, QR codes were placed at handy location making it very quick and easy for employees to access the web app as required. The app has supported much greater hazard reporting and as a knock-on effect, a reduction in incidents. Historical issues about how to

conduct monthly safety audits and walks and report them appropriately disappeared as Rocklabs were able to separate out hazard reporting from safety audits making their data analytics and trend analysis more important.

Further to the efficiency improvement the roll out has allowed the disparate sites that form the Scott Automation group to report consistently giving better insights to performance and opportunities. Beyond efficiency, the robust nature of the app, providing reminders for actions to be closed and audits to be carried out, helps the leadership team stay on top of their requirements providing a better experience to the team that submit results. Overall, this has generated an organic benefit to the business with a big uptake in collaboration and implementing solutions globally, not just locally.

For engineering change requests, the process has improved dramatically by introducing electronic forms accessible on the shopfloor, which are automatically collated into a database for resource allocation to completing requests and reporting on progress, will full traceability and a closed loop feedback system to ensure that the originator of a request hears first-hand about the change that has been made. The key to the success of this system was to trial basic versions initially with one or two people before iterating to more complete solutions over time. Framing the development in the trial format gave people the confidence to give it a go and be open with feedback, rather than feeling like a change had been imposed on them.

Ultimately changes to both these processes are just two small examples of how Rocklabs have taken the initiative internally to improve processes and adopt technology solutions to improve efficiency and communication, all whilst providing good quality data to provide insights on progress over time.

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Key takeaways

- Having a small number of people with lower digital literacy in the business is not a good reason to stop the business moving forward with adopting digital solutions. We should look for ways to improve the digital literacy where needed or provide alternative options for this minority. If we stop moving forward and adopting solutions, we inadvertently frustrate the wider workforce who are keen to adopt new solutions.
- Framing changes in a trial format initially helps to smooth the transition and reduce opposition.
- Moving to digital formats for processes doesn't just increase efficiency and reduce paper, it also increases the ability to report and identify trends and opportunities.



About the site visits and Industry 4.0

The purpose of the Demonstration Network is to drive uptake of Industry 4.0 technologies among New Zealand manufacturers with the aim of increasing their productivity and global competitiveness. The Network of Site Visits (NSV) are part of the [Industry 4.0 Demonstration Network](#), which also includes a mobile showcase and smart factory showing cutting-edge industry 4.0 technologies in action. The NSV takes selected companies through a fully-funded assessment process to help them accelerate their own journey towards Industry 4.0, and sees them share their knowledge with other manufacturers.

Further questions?

To find out more please contact the EMA or Frank Phillips at LMAC

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