Let's get moving

2019 was the year to get on board with Project i-TRACE. Bonnie Ryan from GS1 Australia highlights the importance of standardising the capture of data and is calling on the rail industry to get moving on digitalisation.

The Australian rail industry is preparing to digitalise the management of rail assets for increased efficiency around the network and to move more customers and freight in cities that are becoming more congested.

Bonnie Ryan, director of freight, logistics, and industrial sectors at GS1 Australia said the entire transport sector acknowledges that a critical focus should be on data regulation. Rail operators and suppliers are increasingly appreciating the benefits that digitalisation brings and understanding the dangers of ignoring its possibilities.

GS1 barcode numbers issued by an authorised GS1 organisation are unique, accurate, and based on current global standards. GS1 Australia works with key stakeholders in the Rail industry in order to improve supply chain management and the use of standards and processes both locally and globally. Through an industry-wide initiative pioneered by GS1 Australia and the Australasian Railway Association, Project i-TRACE is enhancing the digitalisation of operational processes.

THE YEAR TO GET MOVING
2019 was regarded as the year of implementation for Project i-TRACE. The traceability initiative firstly involves standardising the capture of data relating to all assets and materials in the rail industry, and by doing so, ensures a critical foundation upon which the rail industry can build

its digital capabilities.

"Last year it was time to get on board, now we need to get moving," Ryan said. Despite current restrictions and challenges in the current economic market, she said the industry is still active and bringing its business needs to the forefront of discussions. The ARA Project i-TRACE rail industry group is aiming to improve supply chain efficiency and visibility of operations by developing and adopting GS1 global standards. Ryan said the industry group is collaborating to determine how businesses can best navigate through the current climate and what further engagement and support is needed to help the rail suppliers adopt data capture technologies.

Communication is key, according to Ryan, in spreading the message that technologies including barcoding and RFID tagging will be fundamental components to a more efficient business and industry. The Project i-TRACE industry working group are further discussing how the industry is progressing with implementation. Ryan said measuring progress is underway. Operators will be surveying their suppliers in an effort to see where they are at with Project i-TRACE implementations. There is a need to instil a sense of urgency to action GS1 standards.

INDUSTRY ADOPTION
Project i-TRACE has at its core a focus on traceability. Ryan said i-TRACE will be

implemented as an enabler for systems and is a very important part of the future of the rail business.

The Australian Transport and Infrastructure Council has affirmed the critical role the freight sector plays in providing essential supplies and services. Rail freight services stretch across state borders, servicing finely tuned supply chains across the nation and are the gateway to global markets. Ryan said it's more critical than ever to review efficient supply chain management.

Ryan said for the rail, freight and logistics industry it has been business as usual, however unprecedented demand and restrictions to regular operations has allowed open-minded thinking towards better risk management and safety procedures. She said from conversations with executives in the rail sector, more companies are open to talking about technology initiatives that will help deliver business objectives in the long-term.

"We are engaged with all of Australia's major rail operators. They all have representatives that sit on the Project i-TRACE industry work group and they're all very committed to better control their assets, reduce costs and enhance productivity," Ryan said. Major operators have different work to do than suppliers, as organising their systems to accept new data that they haven't had before can be a challenge. Ryan said that operators can learn from one another to see the benefit of enhanced digital

Including standard barcodes now will improve future projects.

capabilities, but they're all at different stages and have internal processes and data systems to review first.

V/Line was one of the first to adopt and implement i-TRACE in its supply chain processes to help achieve improved productivity outcomes.

"V/Line was early to adopt GS1 standards and continue to see success, however I'm proud to say that all major operators also have their own plans and projects after rapid adoption last year," Ryan said.

WHAT STAGE IS THE RAIL INDUSTRY AT?
Ryan said the rail industry can learn from other sectors such as the retail and food industry, who are charging ahead with industry-wide standards, guidelines and solutions.

"Rail is different because movement of fast-consumer goods doesn't apply. However, you don't see pens and paper in major food retailers' supply chains. Rail needs to build on its digital capabilities," Ryan said.

With significant rail infrastructure investments earmarked for a range of projects across the country, embedding i-TRACE in the early construction phases in these projects is critical to delivering cost benefits over the life cycle of the asset, and avoiding the need to

retrofit digital capabilities at a later stage.
BUILDING RAIL'S INDUSTRY CAPABILITIES
Ryan said rail is adopting technology including machine learning, artificial intelligence, and autonomous trains. She said the back-end systems and data management needs to be as impressive as railway innovation.

Australasian rail industry manufacturers, suppliers and service providers want to see investments in infrastructure innovation and that will improve the efficiency of the wider network.

Ryan said in order to deliver front-end innovation, having a good digital grounding will be critical to effectively exploiting these capabilities.

"The rail sector knows the importance of digital capabilities, and that's why operators and suppliers are engaged in i-TRACE," Ryan said.

She understands due to the scale of operations in the rail sector, the process of implementing global standards is a progressive working task.

"There will be a tipping point in a few years. i-TRACE will no longer be a project but will be business as usual," Ryan said.

A critical steppingstone to build on rail's digital capabilities will be building an appropriate digital framework.

Ryan adds not all data is equal, people can be sceptical about where it comes from and if it's accurate so the only way to trust data is to have good governance and a framework so that you can measure data quality. The accuracy and validity of the data plays a crucial role in furthering downstream technological innovation.

"Having good governance, framework and set of standards in which to apply and adhere to gives the industry the platform to achieve success," Ryan said.

Right now, Ryan is encouraging operators and suppliers to identify materials, register with GS1 and put the unique GS1 compliant codes on materials and products.

"That is essentially the first step, to begin the alignment of data," Ryan said.

Ryan is proud to see rail working towards end to end traceability. i-TRACE benefits include improved maintenance and repair operations, reducing costs by automating operational procedures and improving traceability which is fundamental for through life support operations. 🚄

Rail suppliers are looking to standardise their labels.