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Q & A with Mike Hendry, chief digital officer, Steel & Tube

[HERA](https://www.hera.org.nz/) member, Steel & Tube is one of the oldest and largest providers of steel products and solutions in New Zealand. It sources, processes and distributes steel products to customers across New Zealand through its national network and also makes steel products to order on a project basis.

The company has expertise across a broad range of sectors, from residential to commercial construction, large infrastructure products, manufacturing, rural and bespoke design.

HERA spoke to Chief Digital Officer, Mike Hendry, about the future of the steel and construction sectors and the opportunity and challenges the company faces.

**How are you finding current business conditions?**

While demand growth for steel has been strong, macro conditions have been challenging with global supply chain constraints, a higher pricing environment and Covid-19 lockdowns and restrictions.

The key focus for our team has been to maintain availability of product and high levels of service for our customers while navigating the current market conditions.

We have seen strong growth in demand over the past year across a range of sectors and are fortunate to have a significant pipeline of secured contract work in place across the country.

The residential construction market remains strong, particularly in Auckland, and government investment is driving large infrastructure projects across the regions.

Commercial construction activity has been increasing and manufacturing expanding which is also driving up demand for steel products and solutions. Market conditions look to remain positive.

**How has your company been impacted by the pandemic?**

Our scale, diversity across a range of sectors and the ability of our team to adapt to new working conditions have helped to offset the impacts of the pandemic and the current challenging market conditions.

We are very proud of our team and their efforts which have ensured we can keep providing our customers with the essential steel products that are a critical part of New Zealand’s ‘built’ environment.

**Where do you see potential growth for your company?**

Our strategy is centred around our customers, with our focus on making it easier for our customers to do business with us.

We are always looking for ways to work smarter, using technology and great thinking to enable a better business.

We already have the broadest range of steel products and solutions in New Zealand and continue to look for ways we can better meet our customers’ needs, whether that be through better customer service, digital offering or expanding our product offer.

**Staff retention – how easy is it and do you have enough?**

We are lucky to have a great team of 800+ people working at Steel & Tube across the country who have been committed to our turnaround journey.

There is no doubt there’s competition for talent in the market but our team has been passionate about being part of our success story.

We have record engagement levels and are investing significantly in our training, development and keeping our people safe.

This has helped mitigate attrition, increasing payrates and border restrictions on skilled migrants.

**Talking technology and Industry 4.0 – is your company taking this on board?**

Steel & Tube is making significant investments in Industry 4.0 initiatives. This includes:

* Supply chain integration with electronic message structures and data sharing with both suppliers and customers;
* Manufacturing integration to optimise production processes;
* Investments in product identification from supply to installation to streamline handling efficiencies and provide end to end product traceability.

**What sort of 4.0 technologies has your company adopted and what are some of the benefits you are seeing as a result?**

* Extensive use of standards-based messaging formats between trading partners. This drives operating efficiency and improves quality.
* Digital twin technologies in our manufacturing operations – 3D modelling for estimation and detailing large build projects is the standard approach for Steel & Tube Infrastructure Projects.
* Extensive use of Azure Cloud services for the development and delivery of new Industry 4 capabilities.
* Ongoing and expanding cyber security programme with emphasis on supply chain resilience and data protection. These are standards-based approaches (C.I.S and NIST based) with the goal of providing appropriate controls of customer, product, financial and employee data. Like every company, we are seeing increasing complexity and risk in the cyber security environment.
* Use of new Digital platforms in our health and safety areas to allow rapid control of HS&E events and nonconformance (Intelex).
* Investigating extension of our existing online e-commerce.

**What are your future plans in this space? Will you be investing more to achieve ultimate connectivity?**

* Improved data flow to customers (product data, pricing, freight visibility, etc).
* Traceability and end to end product identification from receipt to manufacture, delivery and disposal.
* Manufacturing and WMS optimisation utilising Digital Twins, Workflow Automation, and advanced analytics and AI based monitoring platforms.
* We have a continual improvement philosophy and will continue to invest to add the best connectivity for our business.

**What steps is your company consciously taking to help mitigate climate change?**

Steel & Tube are staying abreast of new innovation in the steel industry and are supportive of steel’s transition to a low-carbon future. We have appointed a dedicated Sustainability resource to champion our strategy and drive our sustainability projects

We are continually looking at ways to improve our operations and reduce our carbon emissions.

Our operational initiatives are focused on material efficiency, recycling, reducing energy use, reducing vehicle emissions.

We have implemented measuring and monitoring of waste and scrap and a Freight Efficiency Programme is underway.

Our national network has been optimised to ensure efficient delivery of products to customers and we are using leading edge technology to optimise material and labour use during manufacture.

We also continue to advocate for a holistic cradle-to-cradle or circular economy approach to measuring carbon emissions.

We can’t continue to trash our buildings to landfill. We must reuse, repurpose and recycle our valuable materials and move to a circular economy.

That is what counts and what makes a real difference. It is also where materials like steel which has a 85% recycling rate in New Zealand stand out.

Steel is infinitely recyclable without product degradation and is easily reused and repurposed, it generates minimal construction waste, and renewable energy sources available in New Zealand are used for making steel.

*HERA is a non-profit research organisation dedicated to serving the needs of metal-based industries in New Zealand.*

*It is the industry stimulus for research, innovation and development, delivering a trusted national centre for design, manufacturing technology and quality assurance.*

*Want to become a member? Visit* [*www.hera.org.nz*](http://www.hera.org.nz)*.*