



Case Study

How Aurizon created more confident, qualified train drivers with Immersive Learning



Aurizon, **Australia's largest rail freight operator**, incorporated Compono's Immersive Learning solution into its driver training program, improving the overall competency of trainees and **reducing its reliance on operational assets by 50%**. Aurizon achieved a return on investment on the project in under two years, and now has the technology platform to introduce further innovation and improvements to its training programs.

"In terms of results, we more than met our original objectives. We estimated a return on investment within three years and we achieved that in less than two. But more importantly, the feedback from our trainees is that with the VR familiarisation phase, the transition from the classroom to real life is so much easier than it used to be, and they have so much more confidence."

TIM PEASE, MANAGER CAPABILITY AND DEVELOPMENT, AURIZON



www.aurizon.com.au

INDUSTRY

Rail Freight Transport

HEAD OFFICE

Brisbane, Australia

YEAR FOUNDED

2004

PEOPLE (FTE)

4,825

Aurizon is a top 100 ASX company (ASX: AZJ) and Australia's largest rail freight operator, each year transporting more than **250 million tonnes of Australian commodities** across an extensive national rail and road network.



Aurizon has a lot of demand for qualified train drivers as a result, which the organisation develops internally by holding approximately **20 train driver schools** per year. In the past, a significant proportion of Aurizon's driver training program required practising on operational equipment. That **often resulted in delays while waiting for equipment availability**. It also had a negative impact on revenue by taking assets out of operational use.

To improve the speed to competency for trainees and generate cost savings by reducing its requirement for operational assets, Aurizon embarked on a project to leverage next generation virtual reality (VR) or immersive learning in its driver training school.

“We knew that with new technology there was a potential to reduce our reliance on operational assets by 50%, and we strongly believed that enhancing our training schools was going to produce better, more capable trainees,” said Tim Pease, Manager Capability and Development, Aurizon.

Aurizon engaged a third party to shortlist potential training technology providers, and selected Compono and its Immersive Learning solution based on proven success and track record of delivery in similar industries, as well as Compono's prioritisation of instructional design, passion for innovating and local development team.

Working together in initial workshops, **Aurizon and Compono built a common understanding of each other's worlds** – the rail industry and VR training technology and design.

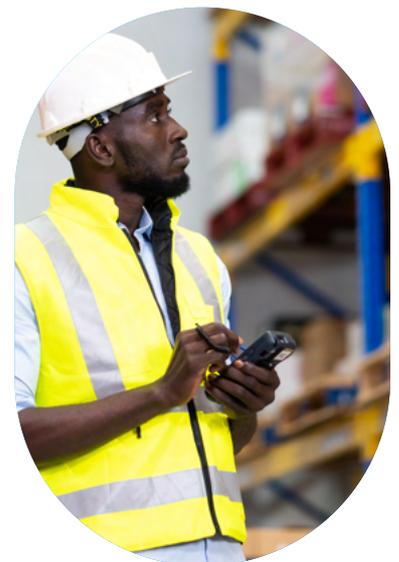
“Our first scope of work was basically a discovery document; here are all your processes, how you do things, how you train, and here are the learning outcomes you're trying to achieve through that training. That was helped by several site visits, taking the Compono team into our operating yards in Central Queensland to familiarise them with our locomotives and wagons, the shunting operations, and our train drivers and all their operating processes,” explained Pease.

“That gave us a great picture of exactly how things work from a process perspective and was a great foundation for the design phase.”

With a diverse set of operational equipment around Australia – different classes of locomotives and wagons, different yards and environments – Aurizon realised that it would be too difficult and too expensive to create a complete digital twin of its entire operations. The preparatory process work gave the business the opportunity to make decisions on how to make the experience engaging for the trainees, what level of granularity to apply and where it was critical for the digital world to match the physical one.

Aurizon and Compono first developed a pilot for the shunt school, introducing the VR shunting resources in **10–15-minute sessions to help overcome any initial hesitancy from trainees**. There were very positive early signs of adoption.

“By the end of it, we couldn't get our trainees out of the headsets. That was the moment when we thought, ‘wow, this is something that is going to reinvigorate our trainees to want to learn and practise, and put what they've learned in virtual reality out into the real world,’” said Natika Dendle, Project Manager, Aurizon.



To complete the work on the shunt school, the Immersive Learning project had to cater for a lot of complexity, using the transport and logistics industry (TLI) national units of competency and assessment criteria as benchmarks across 13 VR activities.

Undertaking the gold presentation of the solution in Compono's VR lab gave the project team direct access to the developers to fix issues in real-time, with Aurizon's technical trainers completing final review and sign-off in the room. That rapid success was a cause for celebration.

"After sign-off, we all had a chance to let off steam and have some fun with a bit of VR boxing!" said Dendle.



After six months to complete the VR shunt school, Aurizon and Compono had 12 months to deliver the VR components for driver school. Aurizon's trainers are very experienced drivers, many having driven their specific class of locomotive for 30 years or more. **The virtual trains and wagons created by the development team had to find the right balance between generic and specific elements** to meet the trainers' expert expectations and relate to what they were seeing and experiencing in the learning environment.

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"When our people moved from the classroom out into the yard for the first time, they knew what to do and **our trainers were amazed**, because that's usually their most intense time when they need to help our trainees. The confidence they have is not just noticed by our trainers, but also by our assessors when they come to sign off our trainees as fully qualified shunters or drivers."

Pease also believes that there are ‘endless’ possibilities and exciting future opportunities with Aurizon’s new suite of virtual assets.

“In no way have we fully leveraged the assets that we have built. **There’s still more we can do in the driver school** with different simulations. For example, there are things we just can’t train for now, like how to respond in an emergency scenario. We can also **use new scenarios to reinforce radio protocols** – something that’s critical to get right 100% of the time, or it could lead to a safety incident,” he concluded.





What's next?

For more information on how Compono can help your business contact us at info@compono.com

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