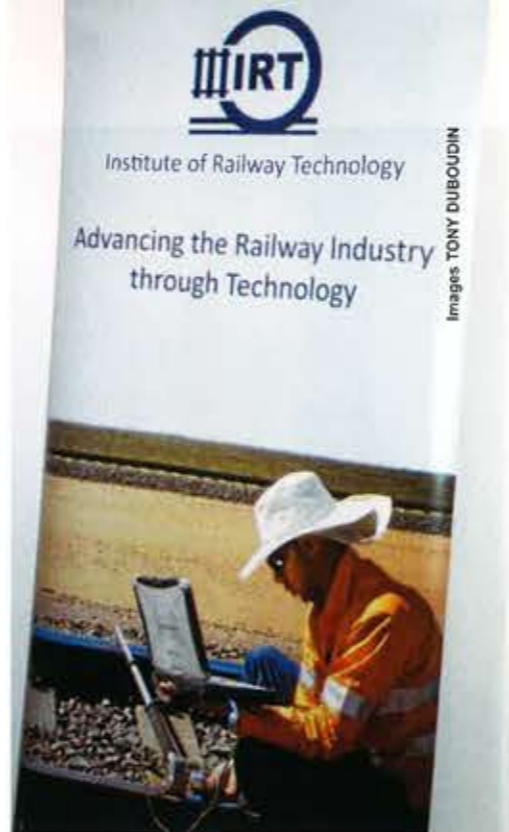




+ Guests network at drinks before the event.



+ **LEFT** Andrew Spink, executive general manager – passenger for Downer Rail. **CENTRE** CEO of the Australasian Railway Association Danny Broad addresses the audience. **RIGHT** Ravi Ravitharan, director of the Institute of Railway Technology, was one of the key organisers of the event.



Images TONY DUBOUDIN

Never a better time to be a rail engineer



TONY DUBOUDIN

The rail industry is a seller's market as far as engineers are concerned, with companies bidding strongly for the right skills.

That was the message that emerged from 'Shaping the Future of Railway' hosted by Monash University's Institute of Railway Technology (IRT).

The industry-student engagement event was held at the Australia Synchrontron adjacent to Monash University's main campus in the Melbourne suburb of Clayton.

With 18 speakers from across the industry the event was designed to encourage engineering students to look at rail as a career option as well as highlight the fact that rail was not an old-fashioned, dirty industry but was high-tech and at the leading edge of technology in a number of areas.

Andrew Spink, executive general manager – passenger at Downer Rail, summed it up well, indicating the growth of rail and its usage when he pointed out that Victoria's regional operator V/line's patronage had risen from seven million to 19 million in 10 years.

"Companies are bidding for skills," Mr Spink said.

Alan Martin, director of engineering and program services with Victoria's Level Crossing Removal Authority, outlined the scope of the authority's task over the coming years and the opportunities it opened up.

He said the authority had completed the removal of 10 crossings, had 16 under construction, five at the design stage and seven more promised, and had another six earmarked for removal in the future. Mr Martin said the removals were being driven by the growth in passenger numbers.

Metro Trains Melbourne had spent \$75m upgrading the system and was installing high-capacity signalling to increase capacity, Paul O'Halloran, direc-

tor of engineering for Metro Trains, told his audience.

He said Metro Trains had hired 49 graduate engineers since 2011, including six in 2017.

Bombardier Transportation's head of quality and LEAN manufacturing Australia, Anne Koopman, emphasised the scope and size of the company's work in Australia and the opportunities in opened up for graduates.

She said Bombardier's main projects included Queensland's next generation rolling stock, Vlocity trains for V/line, Melbourne's E Class trams and the Gold Coast light rail.



Ms Koopman pointed out that most of the work involved was being undertaken in Australia and not offshore and praised politicians for making every effort to ensure jobs remained here. "Politicians are on board to keep these skills here in Australia, she said.

Michael Rogers, group manager of rail engineering with John Holland, said his company had hired 154 engineers in 2017 but this was not enough. He pointed out that, unlike many things, infrastructure could not be built overseas, which meant local engineers were always needed.

He said rail was now a much more sophisticated industry. "We build infrastructure projects... It's not just a case of just pouring concrete; we design, construct and maintain infrastructure."

The need for engineers to help run the world's largest tram network was the message from Catherine Eymin, director of infrastructure at Yarra Trams (Keolis Downer). "We need all the engineer-

ing talent we can get," Ms Eymin said.

She said 75 per cent of the Yarra Trams network operated in a shared environment with traffic, which posed special challenges.

The good news for jobs continued with Torben Fink-Jensen, customer director (Victoria and South Australia) with Alstom, who said the company hired 20 graduates in 2017 and was looking to hire a similar number in 2018.

He said Alstom would need more engineers to cope with projects such as the Sydney light rail, which the company was building, as well as the driverless trains for the Sydney Metro project.

The scope of the graduate engineering program run by Metro Trains Melbourne was outlined by Adrian Pacheco, who joined the three-year program in 2014 after graduating with a Bachelor of Engineering in aerospace engineering. Since then Mr Pacheco has rotated through several areas of the business, including the operations, maintenance, construction and engineering divisions, giving him a wide range of experience of rail projects including station upgrades, overhead wiring renewals, signalling upgrades and rolling stock technical projects.

The CEO of the Australasian Railway Association (ARA), Danny Broad, put the size of the local industry in perspective, pointing out that it was the sixth-largest in the world with more than 44,000km of track and on the passenger side carried 2.5 million people a day on 17 million train trips each week.

Mr Broad said that with the Australian population predicted to double by 2050 to 45 million, the freight tasks would also double and "it can't all go on the roads; we need rail."

He said there was a huge skill shortage and the ARA was working to grow the skills base.

In his summing up, Ravi Ravitharan, director of the Institute of Railway Technology, which hosted the event, said rail offered huge opportunities for graduates to work worldwide.

Mr Ravitharan said IRT had worked with and assisted 150 organisations since it was set up in 1972.

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