

Pilbara Summit, Karratha
Ricky Corker, Chief Executive Enterprise & Government, Vocus
25 June 2025, 11.55am

Engineering extreme efficiency in the Pilbara

Good afternoon. I'm Rick Corker, Chief Executive Enterprise & Government at Vocus.

It's great to be here in the Pilbara – it's my first time in this part of Australia. I've spent the last 30 years living overseas, so to be home back in Australia and exploring this great region is exciting.

Today I'll explain what Vocus does and what we contribute towards what is an amazing industry up here in the Pilbara.

Vocus is the second largest private fibre provider in the country. We have a long, strong history here in WA, and many partners that we work with here in the region. The region is close to our heart here at Vocus.

Mining's century of success

I wanted to talk today about the extraordinary success the Australian mining sector has had over the last century as well as some of the emerging challenges and how digital infrastructure will underpin the industry's future as we go forward.

Australia's mining industry has been the envy of the world, built on exceptional resource wealth, strong institutions, technology leadership and consistent profitability.

The Pilbara miners are renowned for being the most efficient iron ore miners globally, pioneering automation, autonomous trucks, driverless trains and transforming operations across the Pilbara.

This region leads the world in deploying technology at scale from Rio Tinto's Auto Haul network to BHP's Integrated Operations Centre, managing multiple sites remotely.

I do have to have a shout out to Richard for a fantastic tour at Rio yesterday – it really puts things in perspective when you see the sheer scale and size of the operations here in the Pilbara.

The world's largest robots are operating right here in this region, which is quite astounding.

This success matters. Mining contributes \$455 billion in exports, roughly 14% of our GDP as a country. That's amazing. We get 3 or 4% of that just from this region.



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It creates more than a million jobs both directly and indirectly, and of course iron ore underpins much of Australia's economic prosperity.

The confession of a non-miner

So I have to make a confession. I was listening to Brendan, Richard and Tim this morning and I suddenly realised, and I have to confess, I'm not a miner.

You might have guessed that by now. The closest I've come to mining is I grew up in North East Victoria on the upper 15 Mile Creek where I got to pan for gold when I was a kid.

The closest I've ever come to an automated machine is when I sat on my father's knee while I pretended to drive a Massey Ferguson around the farm. So I don't have a lot of mining experience.

But for the last 30 years, I've been working in the technology and telecoms industry around the world.

There are a lot of parallels between what the technology industry does and what the mining industry does.

We are symbiotic, we work very closely together to produce the amazing things that the Pilbara produces.

So I'm going to come at this not as a mining expert, but as someone who thinks about how technology enables the things that we need to do as an industry to continually improve.

Because the reality is the world is continuing to change.

Three forces shaping our future

I think there are three areas I'll touch on as we go forward to put this in some sort of context for you.

First is that we operate in a global economy. This is not just about Australia. We have competition from overseas and that's the same in any industry. Technology is much the same around the world.

Secondly, competition drives innovation and I think that's an important factor to consider.

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And **thirdly**, technology evolves at an amazing pace, quicker than we've ever seen before as we start to see the AI revolution and other things.

But technology for technology's sake doesn't help anyone. It's about using technology to deliver outcomes. How do we make change and deliver great outcomes, and how do we do that in partnerships? Because none of this can be done by ourselves.

A cautionary tale

There's a bit of a cautionary tale here.

The iron ore industry here is the best bar none, but our iron ore industry's success doesn't always translate into some of the parallel sectors.

Lithium prices plummeted 80% in late 2023. A number of Australian producers simply had to mothball their operations because they couldn't compete; couldn't make money continuing to extract the resource from the ground.

Meanwhile, Indonesian producers kept producing despite the drastically reduced price.

The same thing happened with nickel prices, which collapsed 50% in 2024.

This isn't about geology or resources. It's about global competition and the need to constantly innovate and to bring some of those efficiencies we see here in the Pilbara to the rest of the industry here in Australia.

Australia is never going to compete with the labour costs of a country like Indonesia or the low energy prices.

We can't replicate Chile's proximity to processing markets.

We compete primarily on one thing apart from the great people here in the Pilbara, that's extreme operational efficiency through world class technology and automation.

Our massive economic engine, which is the mining industry here in Australia, does face somewhat of an existential challenge as we go forward.

We must continue to use technology and automate or we'll become uncompetitive on the world stage. Things are tough out there, but we're doing great here.



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Why monopolies stifle innovation

Let me bring you to the second point, competition.

Competition drives innovation and one of the challenges I think that the Pilbara has had over the years is that there hasn't been a lot of competition on the infrastructure side of things.

Now this is not to beat up our friends at Telstra. They've done an amazing job and I think the networks they've built in this region have been fundamental to enabling a lot of the technologies that you already use today in this region.

But I would challenge that competition is always great. Competition drives innovation and drives competitive pricing.

Bringing competition to the Pilbara will hopefully enable more of the mines to take up digital services and tools to help them improve operational efficiency.

So I'm pleased to say that competition has arrived.

Things are changing.

Vocus is very much now a part of the Pilbara.

Vocus's Project Horizon network is now delivering the first competitive fibre connectivity option in this region.

This 2,000 kilometre network provides 38 terabits per second of capacity with low latency connectivity back into Perth, Darwin and Singapore.

Now I know what you're thinking.

Here's another telco executive asking me to buy capacity on his cable.

And you'd be right.

If you could just go and see the guys from the team out there at the Vocus booth, we'll take your orders straight away.

Joking aside, it's part of our digital infrastructure and it's what's going to enable extreme efficiency and operational resilience as we go forward.



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Project Horizon: building economic infrastructure

Project Horizon represents more than telecommunications infrastructure – it's economic infrastructure.

It will break the connectivity monopoly that's constrained the region's potential for too long.

This matters because digital infrastructure determines what is possible in terms of automation, AI deployment and operational efficiency and the impact extends far beyond mining.

Our fibre backbone will be used to connect ground stations for low Earth orbit satellite systems and will be used by enterprises and communities across the region.

They provide connectivity when cyclones or other natural disasters affect traditional ground based infrastructure.

Working with our partners NEXTDC and their Pilbara data centres, along with our solution partners who specialise in implementing LEO satellite connectivity in ruggedised environments, we're creating a comprehensive digital ecosystem right here in the Pilbara.

Our Horizon cable system can deliver 400 gigabits per second of bandwidth to your sites and to your employees.

We can share that capacity across your vast sites using private 4G and 5G networks.

This is going to help support your autonomous vehicles, your real time AI optimisation, your worker asset and safety tracking and connectivity in underground tunnels as well as on the surface and below.

Technology that solves actual problems

This brings me to the third point.

Technology is great, but not for its own sake – we're trying to solve real world problems here.

So I'll talk about some of the things that we're focused on in terms of technology capability, but also how are we applying that to solve real world problems in the mining sector.



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Let me talk a little about private 4G and 5G. It's a private wireless network. What we've seen here in this region is that some of our customers have really struggled to build these private networks. That's not because of the technology, but it's about how do you apply that technology specific to a region like the Pilbara.

A lot of the world's mobile network technology comes out of Europe. And here in the Pilbara we're probably about as far away from Europe as you can get.

Those mobile network radios designed in Europe? They're not always engineered to be resilient to the Australian climate straight out of the box.

Similarly, we have seen examples of where tech suppliers have tried to save some money by putting consumer grade routers in autonomous vehicles.

The dust, the vibration, the hard work they're doing, they lasted about a week.

You can imagine what the economic impact is of taking an autonomous truck out of service to replace a \$500 modem because it wasn't built for the rugged environment miners work in.

Technical expertise matters when maintaining private networks, and this has become extremely specialised and very hard to find.

At Vocus, we focus on managing networks for customers so they can concentrate on the core business of getting rocks on ships.

We know that modems for mining vehicles need special, ruggedised manufacturing. We understand that antennas need military grade specifications and we've learned these lessons by deploying more than 25 networks on three different continents.

We don't lock in with a single vendor. We partner with multiple vendors to make sure that we deliver best in breed solutions depending on the environmental needs.

Starlink's game-changing potential

We've talked about fibre, we've talked about private LTE and private 5G.

There's something else that Vocus does extremely well and that's work with the satellite LEO providers who now provide extremely fast satellite connectivity.

Vocus is one of the biggest providers of low Earth orbit ground stations in the world, with 30 in operation or under construction in Australia alone.



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Last week, we announced Australia's first Layer 2 integration with Starlink, creating what we call a private highway over satellite networks.

What this does is it allows customers like critical infrastructure operators like power, water and gas utilities to use Starlink as a completely private network.

This significantly reduces the need for additional security usually needed for satellite solutions and allows Starlink to become part of your own network architecture.

This is a huge development for critical infrastructure operators and miners who simply can't allow their critical control systems to be exposed to the internet.

This means remote sites connected by Starlink can now maintain the same security profile as the ones that have direct fibre.

Underground innovation at Granny Smith

So what are some of the things our customers are actually using this technology for?

Goldfields Granny Smith Underground mine operates 1.4 kilometres below the surface.

They told us they were facing a critical challenge. They were effectively operating in the dark. Now of course they did have lights, but from an information perspective, very much in the dark.

The control room on the surface lacked real time information on the location of vehicles, equipment and staff underground.

We worked with Australian innovator METSTech to custom engineer radio amplifiers optimised for underground uplink performance.

This was crucial because underground operations need to send data up as well as they need to receive information down from the surface.

The result is Australia's first and largest production underground private LTE network spanning 42 kilometres of tunnels and reaching 1.4 kilometres down.

Since GPS signals don't reach through rock, we've also built a Bluetooth beacon system dotted throughout the tunnels at every 150 metres to provide underground positioning.

Goldfields tell us this network has transformed their operations. The positional awareness provided by the network allows vehicles to move through tunnels more



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safely, with full awareness of other vehicles approaching, provides tracking of where people and assets are throughout the mine, and of course that's a huge safety improvement.

Autonomous road trains in action

Above ground, Mineral Resources' Onslow iron ore project showcases automation at scale.

Our private mobile network covers an entire mine and 150 kilometres of private road haulage, enabling the world's largest autonomous road trains, 120 vehicles, hauling 330 tonnes each to travel kilometres fully loaded without any humans at the wheel.

Roy Hill is our first customer on our Horizon cable, connecting with 100 gigabits of capacity. This provides their 2000 mine site employees with metro quality connectivity, enabling them to make video calls home and maintain their mental wellbeing.

This isn't a luxury, it's essential for employee satisfaction and retention in remote operations.

For operational efficiency, this connectivity also supports Roy Hill's market leading use of AI across maintenance, commercial operations and safety monitoring.

Why the edge matters

These deployments highlight why locally processed capability is crucial for extreme efficiency.

True edge computing isn't just on premise service, it puts processing power where decisions need to happen on trucks, on drill sites and in crushers.

But edge computing still needs high capacity backhaul to connect systems. It needs both local processing and cloud connectivity. It's not a case of either or.

The key is you don't want data shuffling backwards and forwards between Sydney and Perth for processing.

Our strategic partner NEXTDC has built two data centres here in the Pilbara region in Newman and Port Hedland, specifically designed with the natural resources industry in mind.

While they're outstanding co location facilities, they're more than that.



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They're connecting infrastructure for the nation's network fabric. Vocus provides connectivity to both facilities, providing dual path connectivity into the Horizon network across the Pilbara.

Horizon provides protected Figure 8 connectivity and connects to our Darwin Jakarta Singapore cable system, our Northwest cable system and Australian Singapore cable system, giving operations in the Pilbara low latency connectivity into Asia.

Beyond mining: community connection

Technology is extremely important, of course, but it provides purposes much broader than the mining industry alone.

Our investments extend far beyond industrial applications.

The same fibre and satellite networks supporting autonomous trucks are capable of connecting schools, health facilities and community centres.

The ground stations we're building for satellite networks serve both enterprise customers and local residents.

This infrastructure enables projects like Kaya Hub to connect regional communities for the first time, bringing educational and economic opportunities to areas that traditionally have been digitally isolated.

The choice before us

At Vocus we're investing more than \$1.5 billion in digital infrastructure across Australia and around the world.

We're building networks that support both autonomous operations and community development, creating the foundation for regional prosperity up here in the Pilbara.

The coming years will determine whether Australia remains at the forefront of operational excellence.

Competitors are not waiting.

The technology exists and the expertise exists.



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We can choose to lead through extreme efficiency or gradually lose ground to more technically advanced competitors who understand that digital infrastructure enables competitive advantages.

At Vocus, we've made our choice – we're building the networks that enable extreme efficiency.

We're supporting regional, social and economic development.

The future of Australian mining, our collective future, depends on the decisions we make today about digital infrastructure and automation.

Let's make sure we make the right decisions and let's make them quickly.

Thank you.