Innovation the key to fast-tracked 5G roll-out

13 July 2021 – TPG Telecom has harnessed the power of innovation to deliver fast-tracked infrastructure upgrades that will roll-out 5G services sooner to its customers.

On a never-before scale, antennas, radio equipment and cabling are now being pre-assembled onto prefabricated steel frames and subjected to rigorous testing in high tech radio chambers on the factory floor before being delivered to mobile tower sites where they are hoisted into place as a single assembly.

The new way of working dubbed '5G Smart Module' has been developed by TPG Telecom in partnership with steel fabricators Site Pro 1 and radio frequency experts Vecta Labs and will see hundreds of sites across Australia being upgraded to 5G in coming months.

Advantages of the new process include:

- Reduction in the time towers are off air due to upgrades
- Higher levels of equipment testing than can be conducted in the field, leading to an enhanced network experience
- Reduction in staff working at heights while exposed to the elements
- Increased packaging recycling

The 5G Smart Module has a key role in TPG Telecom fast-tracking its 5G mobile rollout, with 1,600 sites in the planning and design phase.

It will also assist in the company's overall efforts to reduce its carbon footprint and allow for better waste management control in the factory assembly process, allowing 23 tonnes of cardboard, three tonnes of Styrofoam and three tonnes of thermoplastics to be recycled every year.

By reducing work time at tower sites there is also less use of heavy machinery and lifting equipment, reducing fuel use and slashing greenhouse gas emissions.

"This new way of working has replaced what has been the industry norm for many years," TPG Telecom Chief Executive Officer, Iñaki Berroeta said.

"Now we no longer need to assemble tower equipment in the field piece by piece or carry out testing on the tower itself, reducing the time it's offline to only a few hours.

"This is a great outcome for our customers and allows us to rollout 5G to our customers at a much faster pace."

The testing of pre-assembled antennas in the factory is far more advanced than TPG Telecom can do in the field, improving the overall network performance and extending the life of its sites.

Some of TPG Telecom's mobile towers reach heights of 30 metres or more, and the innovation is reducing the length of time the riggers need to work on elevated platforms, towers or rooftops, while exposed to the elements.

"This new way of working is helping to ensure the safety and welfare of people on site, which is another important benefit of this innovation," Mr Berroeta said.

View our 5G Smart Module video https://youtu.be/eqVT3dbjn8w

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Background

TPG Telecom's 5G network is rolling out to selected areas in Sydney, Melbourne, Brisbane, Adelaide, Canberra, Perth, the Gold Coast, Newcastle, the Central Coast and Geelong.

5G is available in more than 650 suburbs across these major metro areas and we currently have around 1,600 sites in the planning and design phase. Our current plan is to cover 85% of the population in the six most populous cities (Sydney, Melbourne, Brisbane, Adelaide, Perth, Canberra) with our 5G network by the end of 2021.

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