



The AMTA submission to:

The House of Representatives Standing Committee on
Communications and the Arts

Inquiry into co-investment in multi-carrier regional mobile
infrastructure

10 November 2022

About AMTA

The Australian Mobile Telecommunications Association (AMTA) is the peak national body representing Australia’s mobile telecommunications industry. It aims to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia. Please see www.amta.org.au

Contents

Introduction	3
5G – What is it and what will it enable?	4
The importance of spectrum	6
Land Access Costs.....	8
Initial costs	8
Ongoing costs.....	9
Land Aggregators	10
Deployment in Regional and Rural Areas	11
Mobile is vital during natural disasters and emergencies	13

Introduction

AMTA welcomes the opportunity to provide this submission to The House of Representatives Standing Committee on Communications and the Arts on its Inquiry into co-investment in multi-carrier regional mobile infrastructure.

AMTA notes that the Committee will:

- 1) Report on the costs, feasibility and public benefits associated with the deployment of
 - a. infrastructure which supports a single mobile carrier, and*
 - b. the various models for infrastructure which supports multiple mobile carriers;**
- 2) Report on community views on single carrier vs multi-carrier outcomes; and*
- 3) Report on examples of successful multi-carrier outcomes and their applicability in the Australian context.*

AMTA recognises the significance of this inquiry and appreciates the importance of establishing sound Government policy to provide affordable, quality mobile services to Australians living and working in regional and remote parts of our country. On behalf of its members, AMTA is pleased to be able to contribute its views to this inquiry.

Our submission covers five areas that will be of interest to the inquiry, as follows:

- 5G basics, what is it, what will it enable.
- The importance of sufficient radio frequency spectrum.
- Land access costs, including both initial costs and ongoing leasing costs.
- Opportunities for improving deployment of infrastructure and facilities.
- The importance of mobile services in natural disasters.

The nature of the Committee's inquiry is such that some of the information requested in the Inquiry is currently sensitive to some AMTA members. As such, AMTA's submission is limited to matters where a common industry view exists. AMTA also commends individual submissions made by its members to the Committee, to the extent that such individual submissions are consistent with the AMTA view.

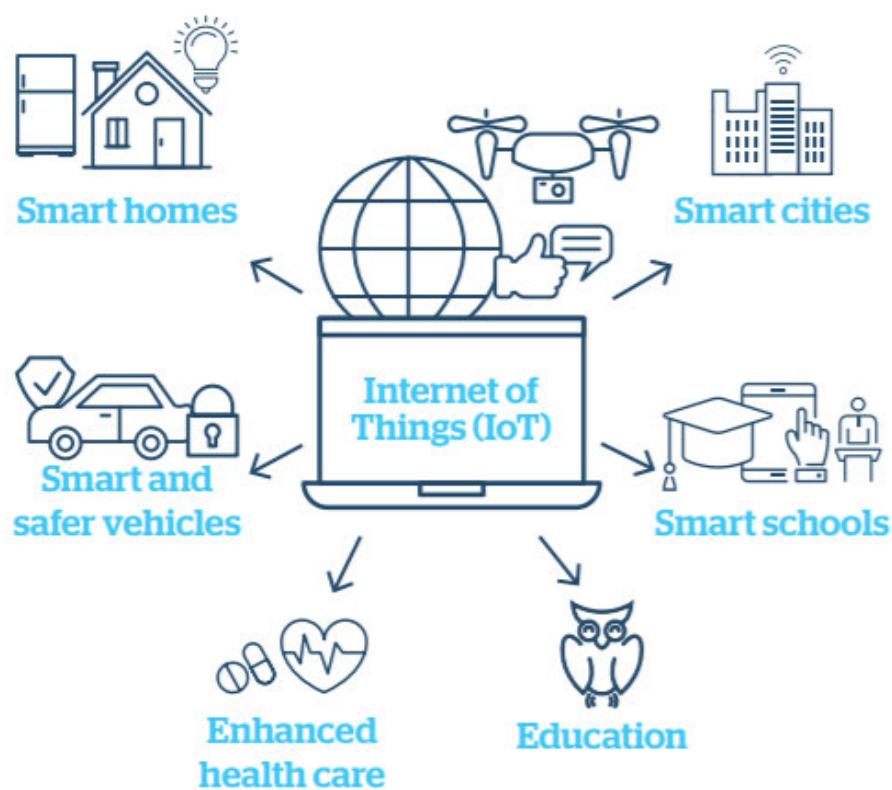
5G – What is it and what will it enable?

5G is the 5th generation of mobile networks, a significant evolution from 4G networks. 5G is up to 100 times faster than 4G and it is creating greater opportunities for people and businesses.

5G is designed to meet the very large growth in data and connectivity needs of today's modern society such as the Internet of Things (with billions of connected devices), as well as tomorrow's innovations.

5G operates in conjunction with existing 4G networks but is now evolving to fully standalone networks. The rollout of 5G will help meet Australians' growing demand for more data, with the Australian Competition and Consumer Commission (ACCC) [reporting](#)¹ in June 2021 that the average monthly volume of data per mobile service in operation has increased by just over 3 GB in the year, an increase of 32%. This trend is set to continue with increasing demand for fast and high-capacity services for new use cases requiring ongoing network investment.

5G will enable enhanced mobile broadband, instantaneous connectivity to billions of devices, the Internet of Things (IoT) and a truly connected world. For communities, 5G will enable real-time connection of billions of devices to provide a safer and more efficient place to live.



For businesses and industry, 5G and IoT will provide a wealth of data, allowing them to gain insights into their operations like never before. Business will increasingly operate and make key decisions driven by data (e.g. parcel tracking), and innovate in different application areas including agriculture,

¹ ACCC Internet activity report for the period ending 30 June 2021 <https://www.accc.gov.au/regulated-infrastructure/telecommunications-and-internet/telecommunications-industry-record-keeping-and-reporting-rules/internet-activity-record-keeping-rule/december-2021-report>

smart farms and manufacturing. All of these will pave the way for cost savings, better customer experience and long-term growth.

AMTA commissioned Deloitte Access Economics to produce a report, [5G Unleashed²](#), to look at the economic impact 5G can have on Australia. Economic modelling in the report estimates 5G will increase productivity in Australia by \$67 billion by 2030 based on the current trajectory for adoption. However, an additional \$27 billion in productivity benefit can be realised by accelerating the adoption of 5G by business. That is, a 40% uplift in economic benefit over nine years, if 5G technology adoption is maximised.

² Deloitte Access Economics, 5G Unleashed: Realising the potential of the next generation of mobile technology <https://amta.org.au/5g-unleashed-deloitte-access-economics/>

The importance of spectrum

With the demand for mobile data growing at 32% per annum, mobile network capacity has to be augmented continually. Broadly speaking this can be done by adding more radio frequency spectrum to existing sites, or by splitting sites. Splitting sites is where a mobile network operator will take an existing area covered by one site and then split it into three or even five sites, this is a very costly activity in terms of time and capital. In fact, it would be uneconomic to meet the mobile data demand without having the timely availability of sufficient spectrum.

Mid-band spectrum is crucial to 5G deployment and ultimately to Australia reaching its [Digital Economy Strategy 2030](#)³ and broader economic goals. AMTA commissioned a report by Coleago Consulting, “[IMT spectrum demand – Estimating the mid-band spectrum needs in the 2025-2030 time frame in Australia](#)”⁴. Coleago illustrated the point well stating, “If additional mid-band spectrum is not made available, this would require extreme cell site densification. For example, for Sydney 138 additional outdoor small cells per km² are required to deliver the same capacity as an additional 757 MHz.” This would equate to 15,221 additional small cells for Sydney alone.

MNOs need to have contiguous spectrum holdings across the frequency bands and contiguous frequencies across geographical areas to deliver both high 5G speeds and coverage. Regional areas present a slightly different problem for network operators. In regional areas lower band spectrum is highly desirable. The lower the frequency the further a radio signal will travel, so the 700, 850 and 900 MHz spectrum bands are important in reaching people in regional and remote areas. However, the quantity of spectrum available in these lower bands is 10’s of times less than mid-band spectrum, and 100’s of times less than high frequency mmWave spectrum. It is therefore important to take every opportunity to allocate lower band frequencies to mobile use when they are freed.

The ACMA is working on freeing up approximately 84 MHz of 600 MHz spectrum by improving the efficiency of broadcast TV in Australia. It is vital for regional Australians that this freed spectrum is assigned to mobile use to allow mobile operators to augment capacity in regional and remote areas.

AMTA has produced a policy position paper “[Spectrum for 5G and Beyond](#)”. In this paper AMTA is calling on Government to set a target of 8 GHz in total spectrum for mobile use by 2030. AMTA’s 8 GHz target includes:

- low-band spectrum (sub 1 GHz) which is critical for providing a coverage layer due to its propagation properties that enable both wide area and in-building coverage. Importantly, usable low-band spectrum is the scarcest spectrum resource. The GSM Association notes that low-band spectrum is important for bridging the digital divide between urban and regional areas by creating greater equality of broadband connectivity.
- high-band spectrum, also known as mmWave, spectrum (24-100 GHz) which provides very high throughput over shorter distances. It is effective in addressing areas with very high traffic density and extreme peak data rates, for example, stadiums, urban public transport hubs or public squares.

³ Australian Government Digital Economy Strategy 2022 Update

<https://digitaleconomy.pmc.gov.au/sites/default/files/2022-03/digital-economy-strategy-2022-update.pdf>

⁴ Coleago Consulting Ltd, IMT spectrum demand, Estimating the mid-band spectrum needs in the 2025-2030 time frame in Australia. <https://amta.org.au/wp-content/uploads/2021/12/Coleago-Report-Demand-for-mid-bands-spectrum-in-Australia.pdf>

- Mid-band spectrum (1-7 GHz) is considered the ‘heavy-lifter’ for 5G and the position paper identifies it as a critical priority for Australian mobile network operators to deliver the requirements of 5G in our cities and regions.

The table⁵ below represents where AMTA consider the delta of spectrum can be assigned to deliver on the 8 GHz target.

Type of spectrum	Quantum (per MNO)	Timeframe	Priority bands
Low-band	80-110 MHz	2028-2030	600 MHz
Mid-band	At least 300 MHz; At least 500 MHz	By 2025 By 2030	3.4 – 4.2 GHz; 4.5/4.8 GHz; Upper 6 GHz
mmWave	2 GHz	By 2030	40 GHz

⁵ AMTA Policy Position Paper, Spectrum for 5G and Beyond Page 5
<https://amta.org.au/amta-calls-on-government-to-set-spectrum-targets/>

Land Access Costs

Affordable access to land is crucial to the supply of mobile telecommunications services. The costs associated with accessing land can broadly be broken into two categories:

- 1) initial costs, including planning applications and permits; and
- 2) ongoing lease costs.

While AMTA is unable to provide specific cost information (AMTA does not acquire land or deploy mobile infrastructure), AMTA is able to provide broad information on the factors that influence these costs in regional areas.

It would benefit the ability of our members to extend mobile coverage in regional Australia for the Federal Government to attend to land access costs as a policy matter (to the extent the Commonwealth has jurisdiction over state/territory and/or local council planning approval).

Initial costs

The initial costs associated with establishing any new site include: site surveying; permits; planning approval; and the costs associated with notifying interested and affected parties. Planning application costs will vary between locations, and in some cases can be higher. Part of the reason for this is that a 'desktop' assessment can be conducted in urban areas, whereas rural locations are more likely to require site visits and surveys.

Furthermore, a significant cost associated with establishing rural sites is the need to construct a road and electricity transmission from the closest public road to the site. These costs are generally significant compared to sites in urban areas. These costs are also unavoidable as a road is required to safely transport construction materials initially and then facilitate safe access for maintenance activities in the future.

In some instances, there are additional costs associated with heritage or environmental overlays, or with accessing Aboriginal land. These additional costs come in the form of additional search and survey works to ensure compliance with regulation, and in some cases, site reselection. The additional costs may also include travelling to consult with community stakeholders and Traditional Owners. Another factor that may significantly impact time, cost and access to services are objections raised after planning approval has been made. For example, a local council may approve a planning application, to subsequently have objections raised or site construction impeded. When this occurs, it adds delay and requires additional stakeholder engagement and consultation. These delays not only increase the time it takes for a regional community to access improved mobile services or enjoy competitive choice for services, they also add to the cost a network operator incurs in establishing a site.

Finally, aspects of the Mobile Base Station Deployment Code may now be out of date which may add unnecessary costs when notifying Interested and Affected Parties.⁶ AMTA and its members understand the importance of community and stakeholder engagement, and indeed, the Deployment Code was developed by industry members to facilitate full engagement with the community in a timely and efficient manner. However, it is acknowledged that some aspects of the Deployment Code are now dated, for example, advertising in a local newspaper. AMTA and its members consider there may be scope for a review of the Deployment Code, to see if refinements

⁶ C564:2020 Mobile Base Station Deployment Code. <https://www.commsalliance.com.au/Documents/all/codes/c564>

can be made to ensure the community is well engaged on deployment matters in a more efficient manner.

Ongoing costs

The other major cost component of accessing land is the ongoing leasing costs. A common experience amongst mobile network operators is that the cost of accessing Crown Land is often several times higher than the cost of accessing private land (in comparable geographic areas).

The NSW Independent Pricing and Regulatory Tribunal (**IPART**) recently released its Report on the *Review of rental arrangements for communication towers on Crown land*.⁷ The IPART Report found that the rates charged to telecommunications users “...need to be updated to reflect recent market prices for sites on private land.”.

The IPART Report makes recommendations regarding the charges for access to Crown land for the purposes of installing telecommunications infrastructure. While these recommendations are a step in the right direction, they could go further to facilitate efficient mobile infrastructure. The IPART recommendations include:

- Co-users within the same footprint of the original site should pay no annual rental fee and only 50% of the original application fee. For co-users who require an increase in the land access, rent should be based only on their additional land footprint and be calculated using the same per metre squared basis and rates as rents for primary users.
- The current low-density category should be disaggregated into three new categories: Low, Remote and Very Remote. This would, for example, result in a reduction of over 90% (\$8,289 should be reduced to \$508 per annum) for land leasing costs in remote areas.

By disaggregating the single low-density category into the three new categories and implementing the recommended changes to co-user charges, IPART estimates the telecommunications industry would save close to \$4.3m per annum in regional areas in NSW alone.⁸

A significant opportunity also exists for State and Territory Governments, and their respective land agencies, to provide more guidance that is specific to leasing of land for telecommunications infrastructure. For example, the Victorian State Government recently released a ‘Telecommunications Infrastructure Provisions Review Action Statement’. It contains a specific action that it will, “Develop and publish a checklist and guidance to create more transparency around processes for Crown Land leases. Develop a checklist to support telecommunications providers to assess leasing requirements for different types of Crown Land sites. This will include guidance material about how to assess items in the checklist.”.

⁷ NSW IPART Report on the Review of rental arrangements for communication towers on Crown land. Available at <https://www.ipart.nsw.gov.au/documents/final-report/final-report-review-rental-arrangements-communication-towers-crown-land-november-2019>

⁸ Ibid, Table on p.7.

Land Aggregators

Land aggregators such as AP Wireless⁹ and Landmark Dividend¹⁰ procure land rental contracts through telecom tower buyout schemes.¹¹ By taking out options on land where mobile base station towers are built, especially private land, aggregators are tying up land and pushing up costs for both tower companies (Tower Cos) and mobile network operators (MNOs). The impact of this behaviour can be higher in regional and rural locations, where land plot size is larger and there is limited choice of alternative providers of land.

Many land aggregators are well supported, with some major pension funds backing their investments. Low interest rates over recent years have resulted in land aggregators speculating on land in regional and rural communities ahead of towers being built. In this scenario, when a site is identified for a future mobile base station, the land aggregator already has a contract in place with the underlying landowner. This enables the land aggregator to negotiate lease arrangements with the Tower Co or MNO. This has the potential to further increase land rental costs in regional and rural locations in the future.

AMTA does not have a recommendation to overcome the effect land aggregators are having on land leasing costs. AMTA simply mentions this activity as a factor which leads to increased leasing costs.

⁹ AP Wireless: <https://www.apwireless.com.au/>

¹⁰ Landmark Dividend: <https://www.landmarkdividend.com/lump-sum-payment-benefits/>

¹¹ A telecom tower buyout scheme is where the Land Aggregator pays a lump-sum to the property owner in exchange for the right to receive the ongoing site rent from the carrier moving forward. For more details, see: <https://www.apwireless.com.au/what-we-do/what-is-a-telecom-tower-lease-buyout/>

Deployment in Regional and Rural Areas

AMTA notes there is a second tranche of activities looking to review the Powers and Immunities afforded to telecommunications operators under Schedule 3 of the *Telecommunications Act 1997*. We do not propose to comment on these activities in our submission; we simply note that they are occurring.

State, Territory and local government preparedness will assist in the timely and cost-effective deployment in regional and remote areas. AMTA's *State and Territory 5G Infrastructure Readiness Assessment*¹² (Readiness Assessment Report) is a resource to help governments and the communities they represent prepare and make provision for timely infrastructure deployment and improvements to mobile service.

The Readiness Assessment Report contains several best practice examples of where State and Territory government planning procedures are effectively and efficiently paving the way for mobile infrastructure deployment through more consistent and streamlined planning processes. It also highlights 21 reform opportunities where planning regulations and processes in each State or Territory could be improved to facilitate better and more efficient infrastructure deployment. These opportunities reflect current regulatory best practice in one or more existing State/Territory jurisdiction.

As the Readiness Assessment Report notes, planning instruments like A Code of Practice for Telecommunications Facilities in Victoria ('The Victorian Code') and the New South Wales ISEPP recognise the critical nature of the infrastructure, and that this infrastructure should be dealt with in the same or similar manner as other critical utility infrastructure such as water and electricity. These planning instruments are designed to ensure that there is a consistent approach and regulation state-wide, rather than allowing councils to adopt their own varying regulations and policies. They also recognise that, subject to relevant performance criteria, there are telecommunications facilities outside those defined federally as 'low impact' which do not need to be the subject to the development assessment process.

AMTA recommends that other States and Territories follow the lead of NSW in introducing exemptions akin to those in Division 21¹³ and Schedule 3A¹⁴ of the *NSW State Environmental Planning Policy (Infrastructure) 2007* (NSW Infrastructure SEPP) (which has recently been incorporated into the ***SEPP (Transport and Infrastructure) 2021*** (TISEPP)). Originally introduced in 2010, the NSW Infrastructure SEPP allows for towers up to 50m high to be built in rural areas as a complying development. There are strict conditions¹⁵ which must be met to qualify for the planning exemption. However, where a site meets these conditions, it can save several months of planning process leading to timely and cost-effective deployment of regional and rural mobile coverage.

¹² AMTA 5G Readiness Assessment report. <https://amta.org.au/wp-content/uploads/2021/06/AMTA-5G-Readiness-Report-Digital.pdf>

¹³ NSW State Environmental Planning Policy (Infrastructure) 2007. <https://legislation.nsw.gov.au/view/html/inforce/current/epi-2007-0641>

¹⁴ Schedule 3A is available at: http://www6.austlii.edu.au/cgi-bin/viewdoc/au/legis/nsw/consol_reg/sepp2007541/sch3a.html. See Part 2, Clause 5.2.

¹⁵ Part 2 Clause 5.2 of Schedule 3A requires: *If the tower is located on land in Zone RU1, RU2, RU3 or RU4 or an equivalent land use zone, the tower must not--*
(a) be located within 100 metres of a Zone R1, R2, R3, R4, R5 or RU5 or equivalent land use zone boundary, and
(b) exceed 25 metres in height (including telecommunications facilities) where located between 100 and 150 metres from a Zone R1, R2, R3, R4, R5 or RU5 or equivalent land use zone boundary, and
(c) exceed 50 metres in height (including telecommunications facilities), where located more than 150 metres from a Zone R1, R2, R3, R4, R5 or RU5 or equivalent land use zone boundary.

There are additional 'best practice' examples in the Readiness Assessment Report that directly improve the ability of the mobile carriers to cost-effectively deploy network infrastructure in regional areas in a timely manner.

For example, in Victoria, telecommunications facilities funded, or partly funded, by the Commonwealth through the Mobile Black Spot Program or by the Victorian Government were provided with exemptions from the need to provide notice of the application, and the decision of council could not be appealed by third parties. This approach did not negate the need for councils to assess these proposals against the planning scheme provisions, and the applications were still able to be refused by council. However, when it comes to mobile blackspots, this approach removes the potential for a single objector to appeal a council decision and delay provision of service to a community for up to 9 months. The approach also recognises the widespread community benefits from facilities funded under these programs in under-served areas of Victoria.

Mobile is vital during natural disasters and emergencies

In 2020, the Royal Commission into National Natural Disaster Arrangements highlighted the vital role mobile services play during natural disasters by enabling information to be shared between emergency agencies and with the community.

5G applications have the potential to improve our resilience and recovery from natural disasters, including by improving disaster monitoring and warning systems through the unique capabilities of this high capacity, low latency technology.

Power outages are the main reason mobile services are disrupted during and after natural disasters and the mobile industry has invested in back-up battery power, generators, cells on wheels and other temporary facilities in recent years. In addition to that, it is critical that we have redundancy of power supply in our mobile networks as well as priority access to mains power to reconnect communities as soon as possible in the event of a loss of power.

With the ongoing weather events and natural disasters, the availability of critical mobile communications networks is vital for people in life-threatening situations. Development and effort is being expended on the hardening of this infrastructure by both industry and Government to improve the availability in times of emergency. In particular AMTA welcomes the \$400M the Federal Government allocated in the recent budget over 5 years from 2022–23 to support the resilience of communication services and the roll out of mobile base stations to improve highway and underserved community mobile coverage.