Australian Government

Enhanced Electromagnetic Energy (EME) Program Telecommunications Usage Survey Report

Prepared for:
The Department of Infrastructure, Transport, Regional Development, Communications and the Arts.

June 2024

THE SCIENCE OF SAFE CONNECTION

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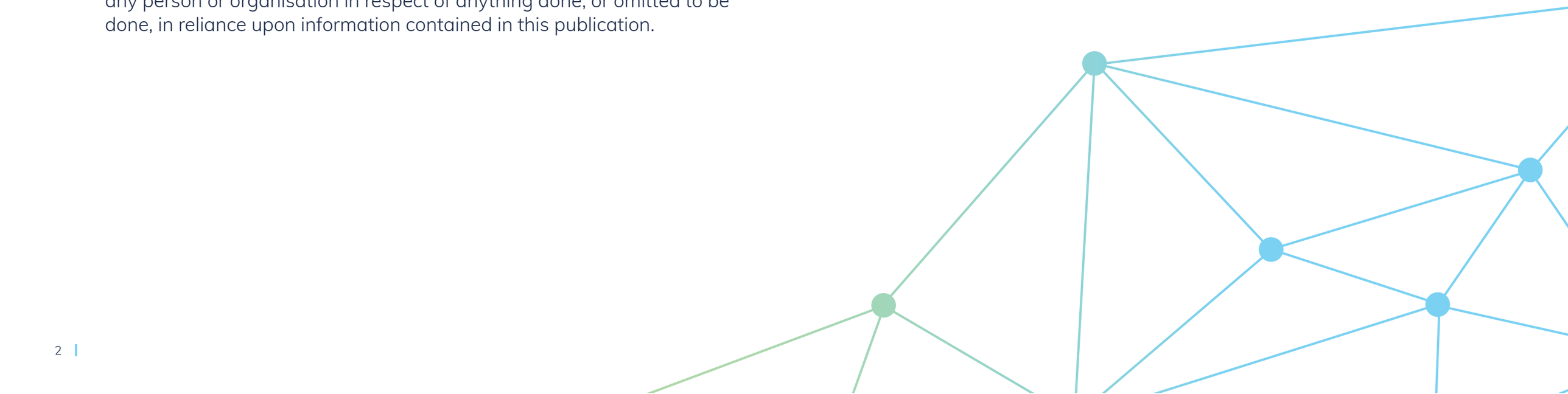

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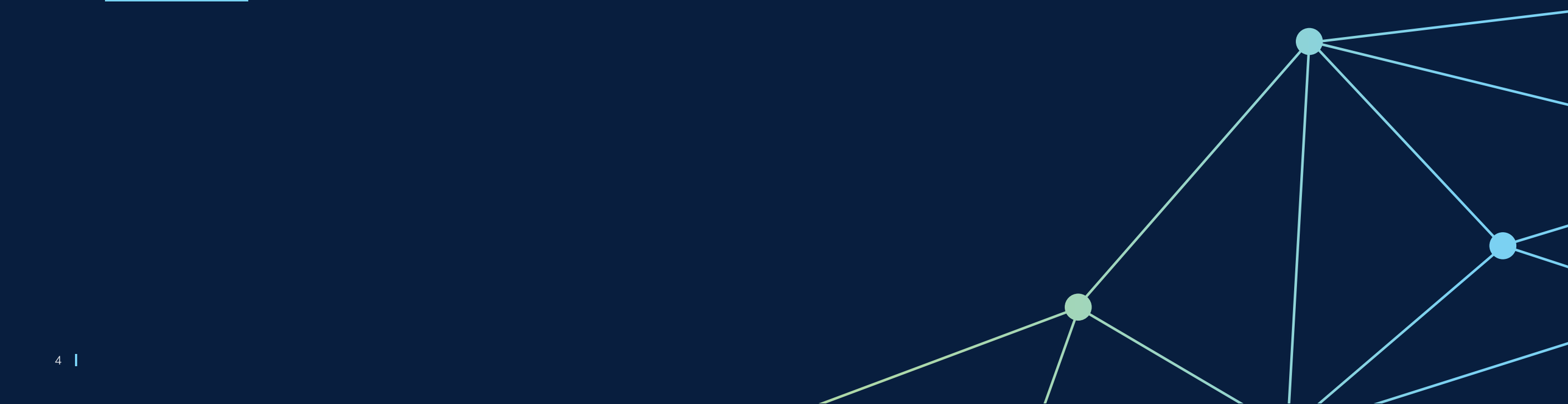
Overview and methodology



Abbreviations and terms

The abbreviations and definitions of terms listed below are provided in the context and scope of this survey.

Abbreviations used in the report

Abbreviation	Full description
Age brackets 18-26 26-42 42-65	 Australians aged between 18 years and 26 years old Australians aged between 26 years and 42 years old Australians aged between 42 years and 65 years old
ABS Census	Australian Bureau of Statistics Census
Wi-Fi	Wireless Fidelity
EME	Electromagnetic Energy

Definitions of terms

Term	Definition
Australians	A representative sample of the Australian population comprised of the following demographics: • 2,013 participants • Fifty-two per cent female, forty-eight per cent male • Between 18 years and 65 years old • From across each state and territory (ACT, NSW, NT, QLD, SA, TAS, VIC and WA).
Connectivity	The ability of devices, systems, or networks to establish communication and exchange data with each other, typically facilitated through wired or wireless means. Connectivity enables seamless interaction and collaboration between devices, allowing users to access resources, share information, and communicate across various platforms and environments.
Devices	Devices encompass a broad range of digital equipment, such as smartphones, tablets, smartwatches, medical readers, and security cameras.

Abbreviations and terms

Definitions of terms

Term	Definition
Infrastructure	Infrastructure relates to telecommunications equipment and facilities that enable interconnected hardware, software, and networks for the storage, processing, and transmission of digital data and services.
Laptop	A portable personal computer (PC) designed for mobile use, with connectivity options including USB, HDMI, Wi-Fi, and Bluetooth.
Mobile	Mobile refers to a portable device, such as a phone handset or computing device, that relies on wireless connectivity capabilities, such as Wi-Fi, Bluetooth, and cellular networks, to enable access to the internet, make calls, send messages, and run various applications.
Probability-Based Sample	A sample of individuals selected for a survey or study based on the principles of probability, ensuring that each member of the population has a known, non-zero chance of being included in the sample. This ensures the representation of the sample is reflective of the population.
Quantitative Results	Data or findings obtained through numerical analysis or measurement, providing objective information about the surveyed population's attitudes, behaviours, or characteristics.

Term	Definition
Representation	The extent to which a sample accurately reflects the characteristics or diversity of the larger population from which it is drawn, ensuring that findings or conclusions based on the sample can be generalised to the population.
Tablet/iPad	A portable computing device with functions similar to traditional computers but prioritise mobility, often used for tasks such as web browsing, multimedia consumption, e-book reading and gaming.
Telecommunications	The transmission of information over long distances using electronic means, encompassing various technologies and methods such as telephone networks, internet protocols, and wireless communication systems. Telecommunications enable real-time exchange of voice, data, and multimedia content between individuals, businesses, and organisations, facilitating global connectivity and collaboration.
Wireless	A technology that enables communication and data transmission without the need for physical wired connections, typically utilising radio waves or electromagnetic signals. Wireless technology facilitates mobility in various applications such as mobile phones, Wi-Fi networks, Bluetooth devices, and satellite communications, allowing for connectivity across different environments and devices.

About this survey report

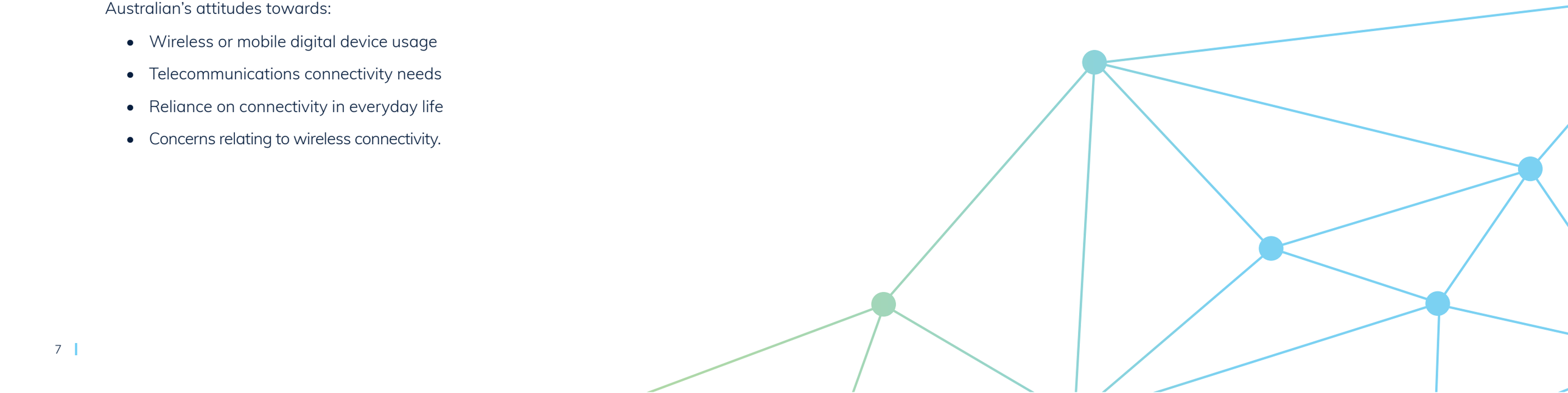
This telecommunications survey report provides information on Australians' attitudes towards and usage of telecommunications services and devices, with a particular focus on wireless networks.

Antenna Strategic Insights conducted a quantitative online survey on behalf of the Department of Infrastructure, Transport, Regional Development, Communications and the Arts.

Survey scope

Australian's attitudes towards:

- Wireless or mobile digital device usage
- Telecommunications connectivity needs
- Reliance on connectivity in everyday life
- Concerns relating to wireless connectivity.



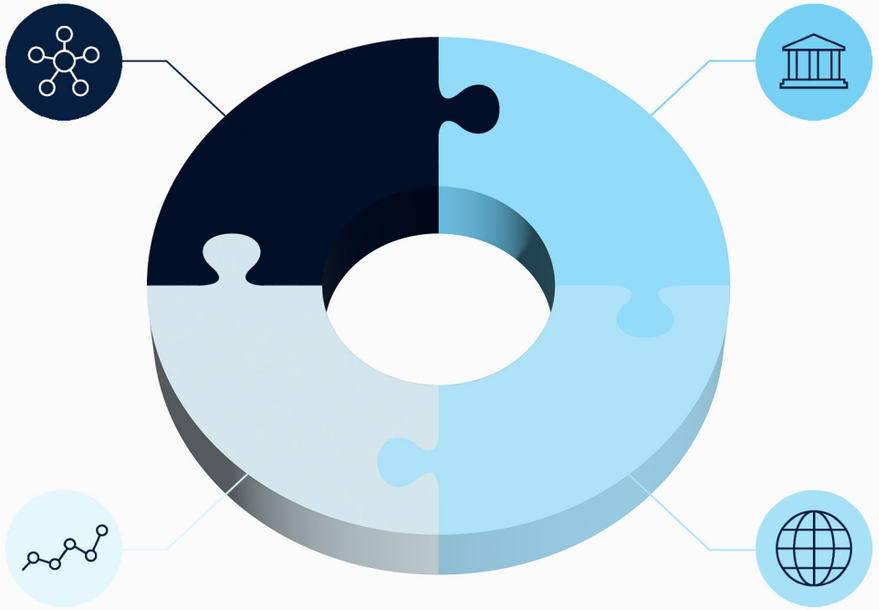
Methodology

The survey was conducted between 13 February and 3 March 2024.

The survey included national data collection, and respondents were sourced using an accredited online research access panel. Data was weighted for representation against the 2021 ABS Census.

Our approach

17 questions
Exploring the Australian population's digital habits.



N=2,013 sample
A combination of a general population n=1,1014 sample with n=999 booster sample in select areas across NSW, SA, VIC and WA.

Weighted data
Sample was weighted by age and gender according to the 2021 ABS Census to ensure representation.

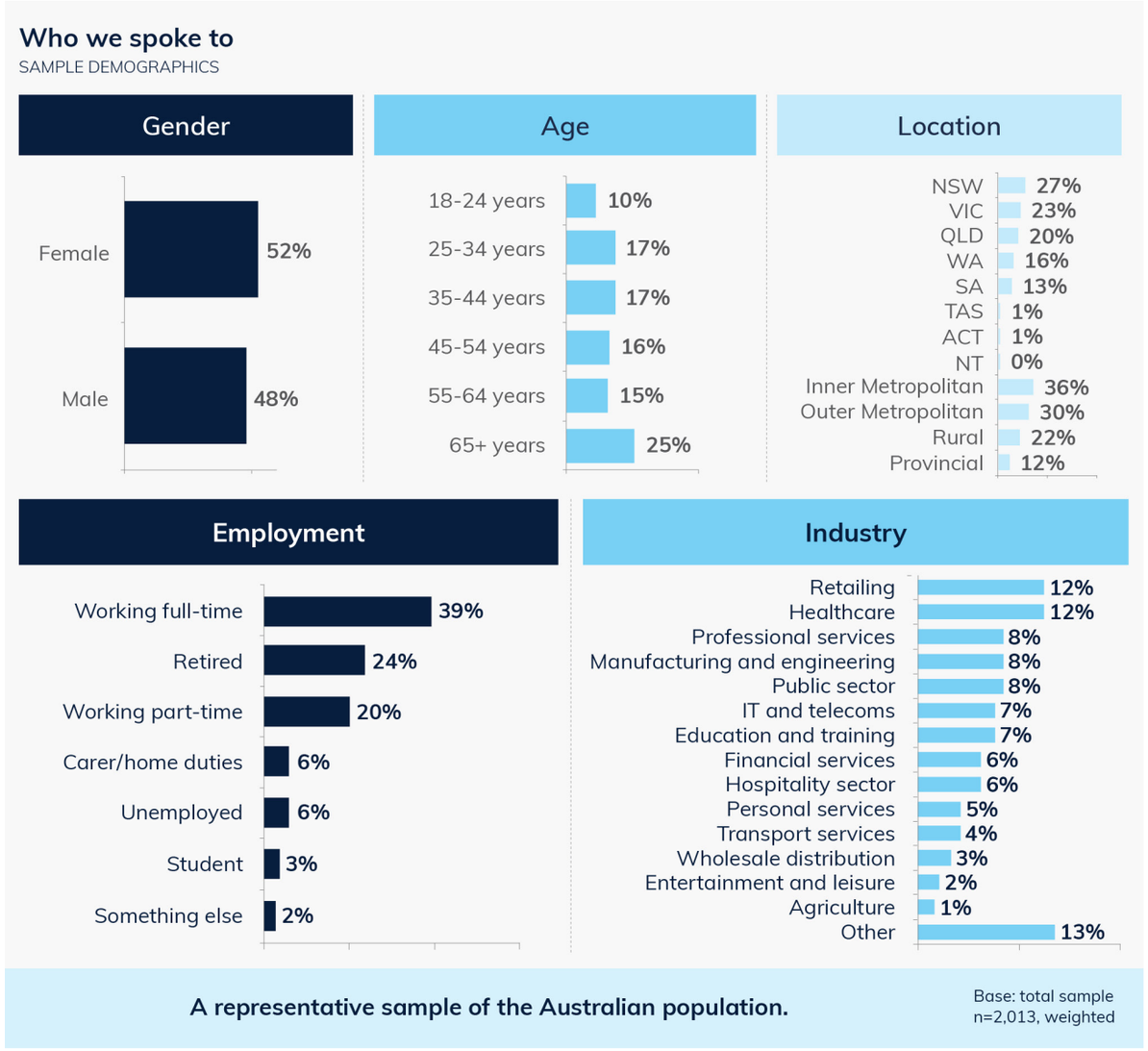
Nationally representative
Participation from Australians in all states and territories.

Sample demographics

The survey is based on a total sample of 2,013 participants from across Australia, divided into two segments.

- The first segment is the national demographic which included 1,000 individuals representing the total population's diversity in terms of age, gender, and location. Respondents in this group were selected from all states and territories.
- The second segment included 200 participants per state, or up to the maximum feasible number (totalling 1,000 individuals) focused on locations with imminent telecommunications deployments at the time of the survey.

This approach provided a comprehensive snapshot of opinions and characteristics across both broad national trends and localised perspectives.



Reading this report

When reading and interpreting the quantitative results of this report, please consider:

- All participants that completed the survey are referred to as Australians throughout the report. There is no specific discussion on the different segments.
- The top two responses (i.e. strongly agree and agree) and the bottom two responses (i.e. disagree and strongly disagree) of agreement scales (e.g. How much do you agree or disagree with...?) have been used for analysis.

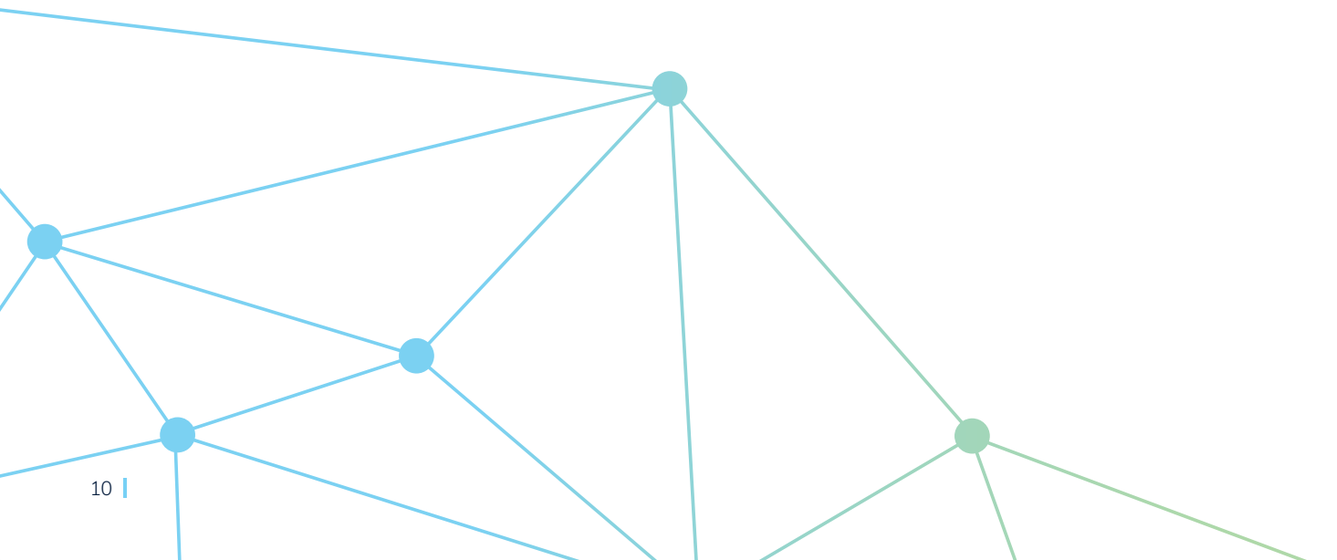
Rounding of numbers

Percentages are shown rounded to zero decimal places.

As rounding has been used in producing data tables and nets in analysis, some scales may not add to exactly 100%.

Chart labelling

Small percentage values (e.g. 2%) are not included in charts for readability.



Executive summary

The Telecommunications Usage Survey informs the Enhanced EME Program by providing data on Australians' needs and usage of telecommunications, and perceptions about the infrastructure and equipment that enables use of these services.

The survey results in this report highlight Australians' reliance on connectivity and its crucial role in everyday life.

Digital device usage

Most Australians (97%) use digital devices for work, leisure, and personal administration (paying bills, etc.). Over half (60%) spend three hours or more on their mobile phone every day.

The majority of Australians (71%) access Wi-Fi at home, work, and other public spaces.

Telecommunications connectivity needs

While most Australians (78%) feel that connectivity in their local area is good, nine in ten want better connectivity than what they currently experience.

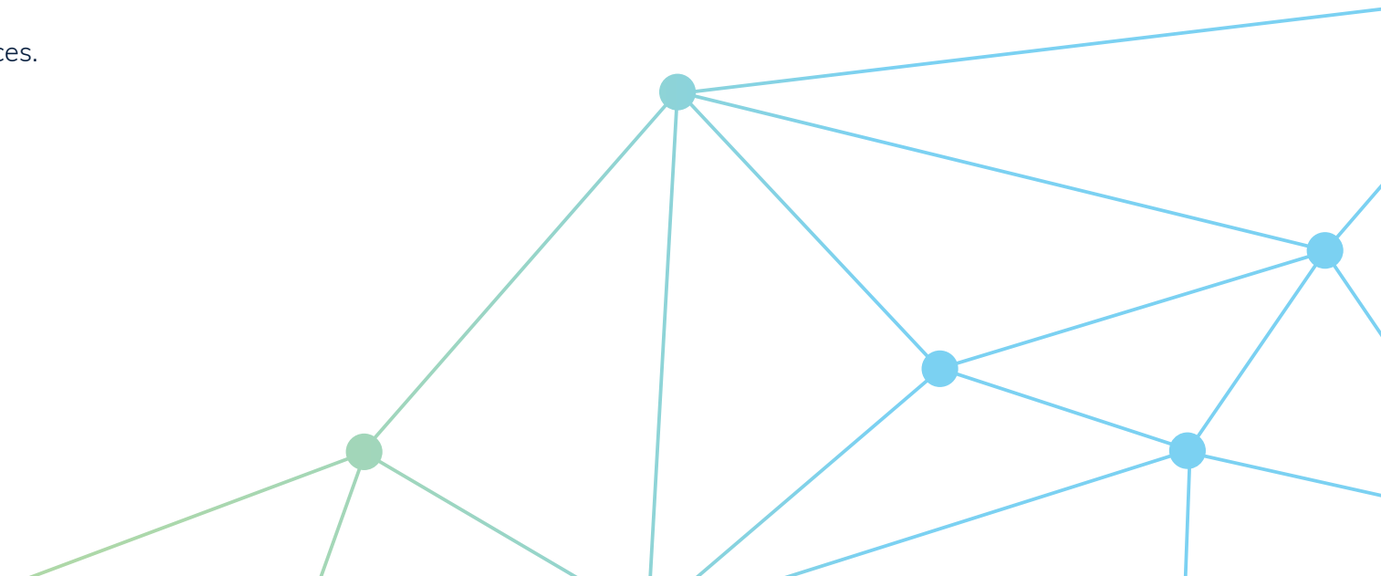
Almost one in three Australians experience limited or no network coverage, and a large portion agree that poor wireless connectivity has a big impact on their personal (44%) and professional (35%) lives.

Reliance on connectivity

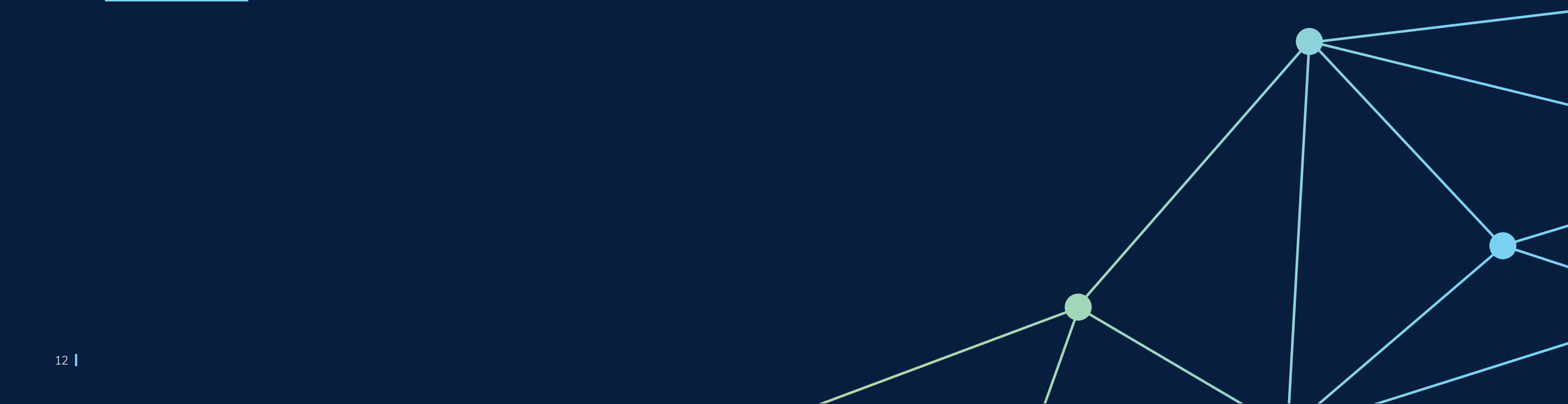
Almost half of Australians (47%) see wireless and mobile connectivity as a key factor in where they choose to live, and almost all Australians (95%) see it as crucial for keeping in touch with family and friends. Additionally, almost all Australians (90%) see it as crucial for enabling access to essential services, like 000.

Concerns

While some Australians (4%) noted perceived health concerns related to wireless technology, including 5G, one in five Australians were focused on the need for better connectivity.

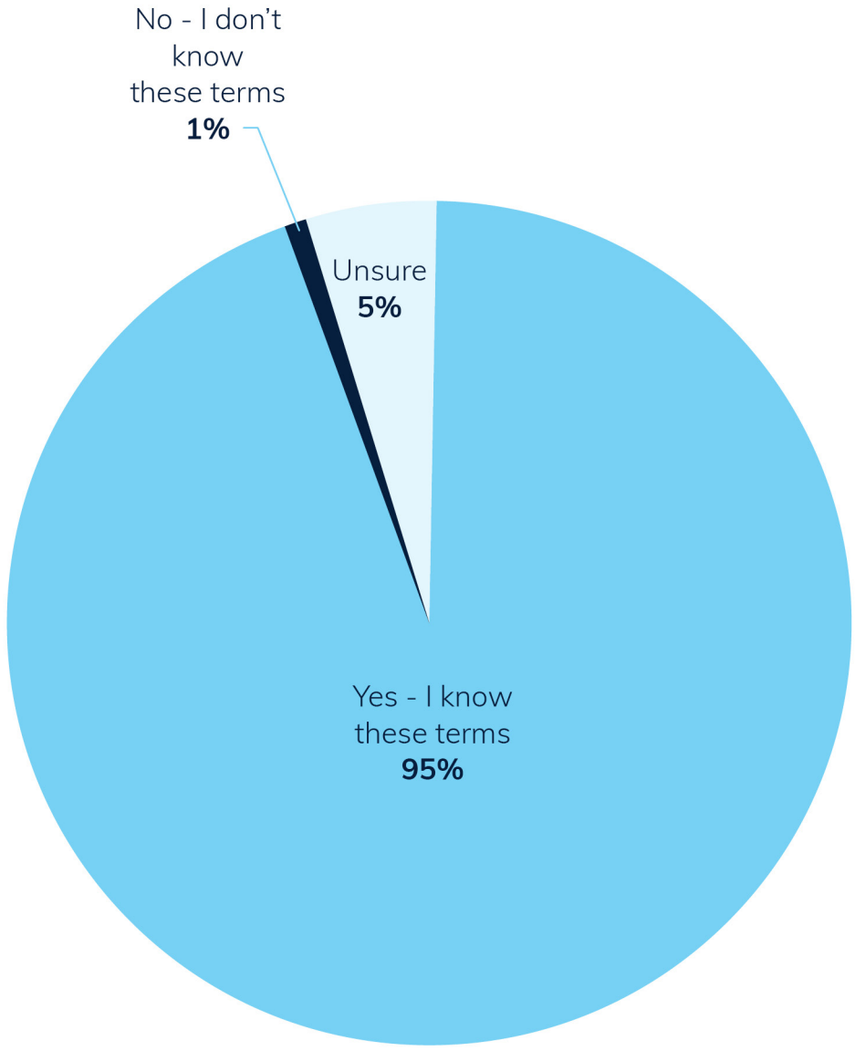


Digital device usage



95% of Australians know what we mean by Wi-Fi, mobile and wireless connectivity

Q1 - Are you familiar with the terms Wi-Fi, mobile connectivity and wireless connectivity?



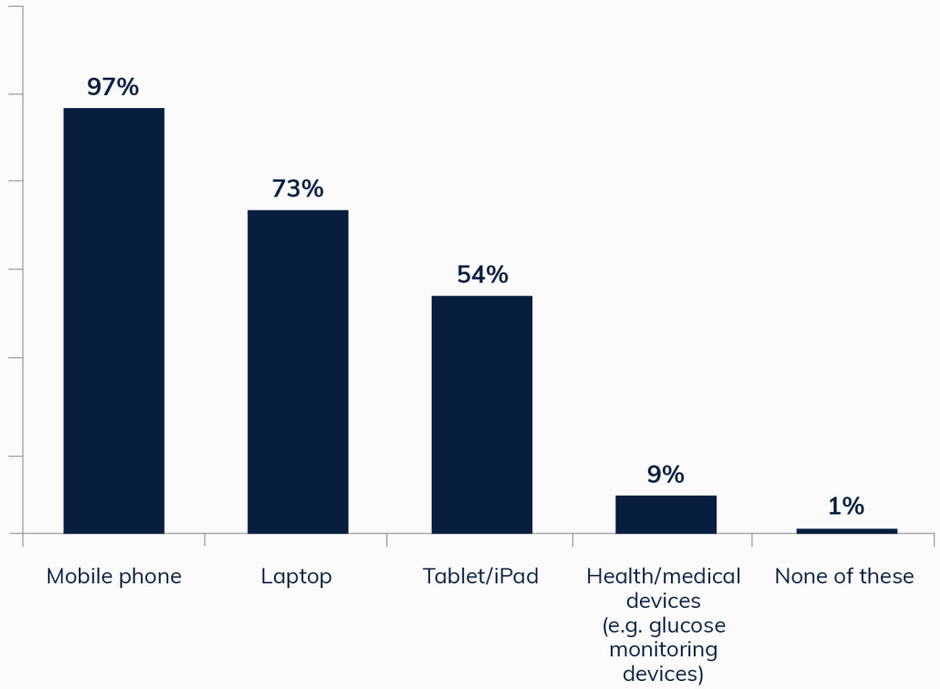
Almost all Australians use a digital device

Q2 - Think about digital devices that rely on wireless or mobile connectivity/Wi-Fi to function. Which of the following devices do you use?

Ninety-nine per cent of Australians use a digital device of some sort.

Key findings:

- Ninety-seven per cent of Australians use mobile phones.
- Seventy-three per cent use laptops.
- Fifty-four per cent use a tablet or iPad.



Mobile phones top the list, with laptops and tablets common.

Base: total sample n=2,013, weighted

Australians and their digital device habits

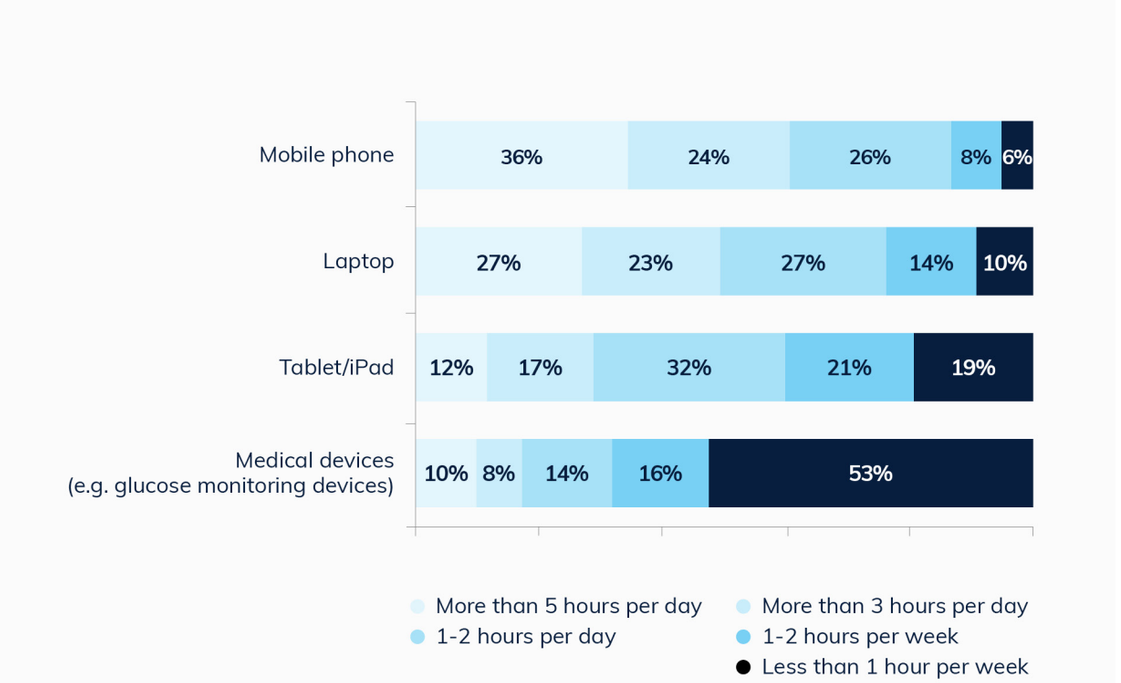
Q3 - How much time do you spend on your digital devices?

More than a third (36%) of Australians spend more than 5 hours each day on their mobile phones, with just over a quarter (27%) spending the same amount of time on their laptops.

Just under a third of Australians (32%) spend 1 to 2 hours a day on their iPads or tablets.

Key findings:

- Sixty per cent of those who use their mobile phones more than 3 hours a day are aged 26 and under.
- Thirty-four per cent of those who use their laptop more than 5 hours a day are aged between 43 and 58 years old.



A quarter of those with a laptop spend more than five hours a day.

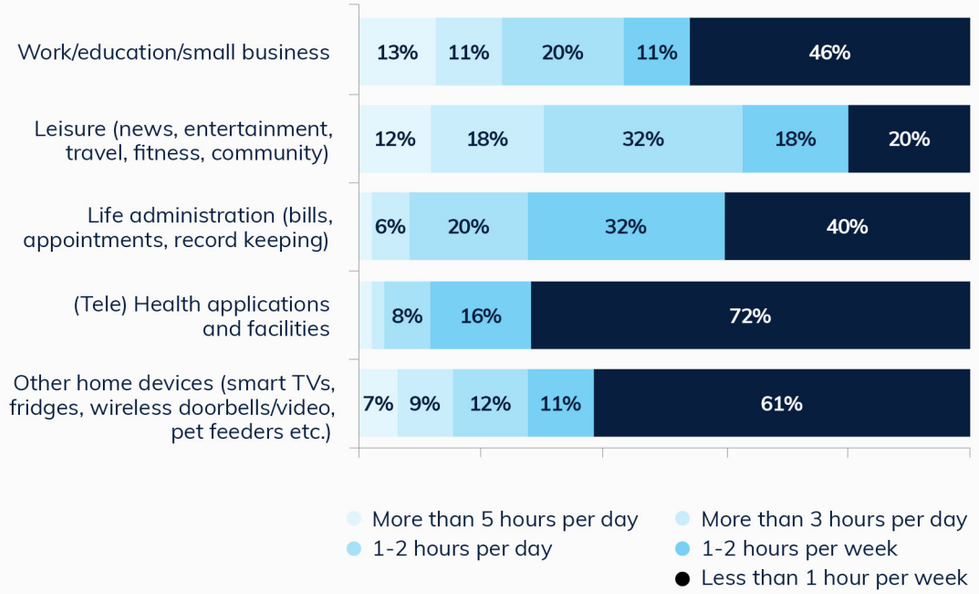
Base: total sample
n=2,013, weighted

Work and leisure are the focus of their mobile phone usage

Q4.A - What activities are you using your mobile phone for and how often?

Key findings:

- Of those Australians that spent more than 5 hours a day on their mobile phone, they used it mostly for work, education and leisure purposes.
- Thirty per cent of Australians are spending 3 hours or more on their mobile phones for leisure.
- Twenty-four per cent of Australians spend 3 hours or more on their mobile phones for work or education purposes.



Work and leisure are the focus of their usage of their mobile phones.

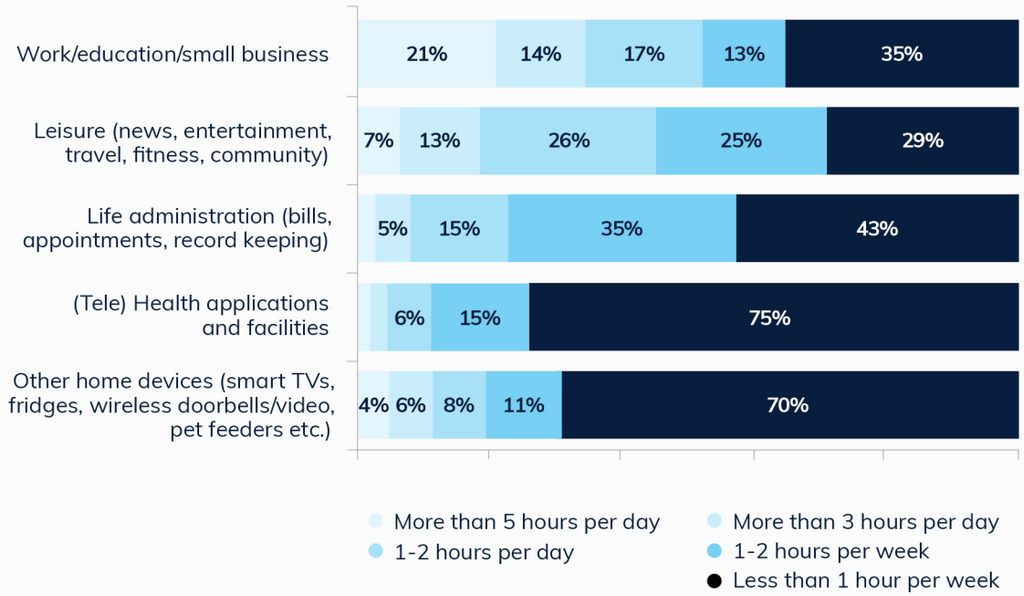
Base: mobile phone users =1,965, weighted

Laptops are mainly used for work and educational purposes

Q4.B - What activities are you using your laptop for and how often?

Key findings:

- The number of Australians who spent more than 5 hours a day on their laptop used it mostly for work and education purposes.
- Thirty-five per cent of Australians are spending 3 hours or more a day using their laptop for work or study.
- Twenty per cent of Australians spend 3 hours or more using their laptop for leisure purposes.



A greater focus on work and education for their laptop.

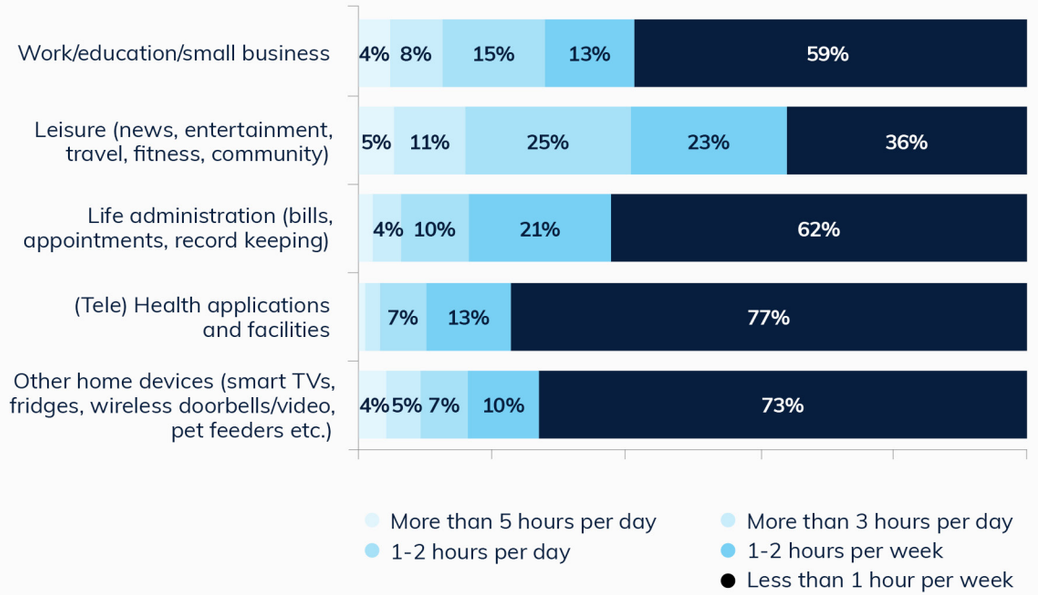
Base: laptop users n=1,538, weighted

Tablets and iPads are used more often for recreation purposes

Q4.C - What activities are you using your tablet/iPad for and how often?

Key findings:

- Much like mobile phone and laptop usage, Australians that are spending more than 5 hours a day on their iPad or tablet are using it for work, study and leisure purposes.
- Sixteen per cent of Australians are spending more than 3 hours a day on their iPad or tablet for leisure purposes.
- Twelve per cent of Australians spend 3 hours or more on an iPad or tablet for work or study purposes.



Like their mobile phones, a more even split between work and recreational usage.

Base: tablet/iPad users n=1,115, weighted

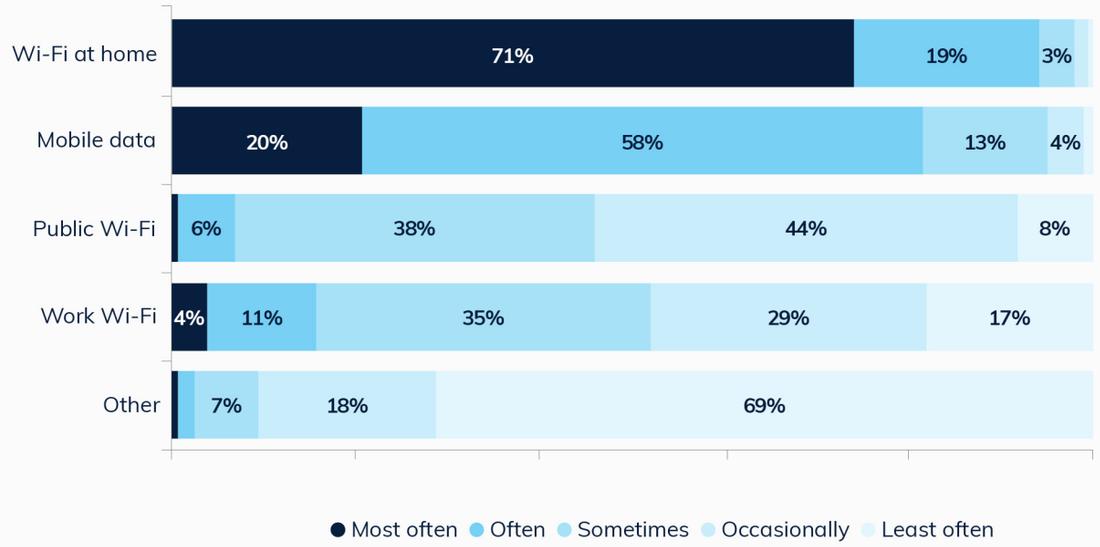
Home Wi-Fi is used most often by Australians

Q5 - Please rank the following Wi-Fi/wireless or mobile connectivity types based on which ones you use the most?

When asked to rank the Wi-Fi/wireless connectivity type most used, 90% of Australians identified home Wi-Fi as the type they **often** use, with 71% identifying home Wi-Fi as the type they use the ***most often***.

Key findings:

- For mobile data, 78% of Australians **often** use this type of wireless connectivity with 20% identifying mobile data as the type they use ***most often***.
- Australians have a love-hate relationship with public Wi-Fi, with 44% indicating they use it. Of this, just over 6% use public Wi-Fi **often**, compared with 43% noting this as the type of connectivity used ***least often***.
- Only 4% of Australians identify work Wi-Fi as the type of connectivity they use ***most often***, with 11% identifying it as the type they use **often**.



Mobile data the most common alternative, with work and public Wi-Fi comparatively minor.

Base: total sample n=2,013, weighted

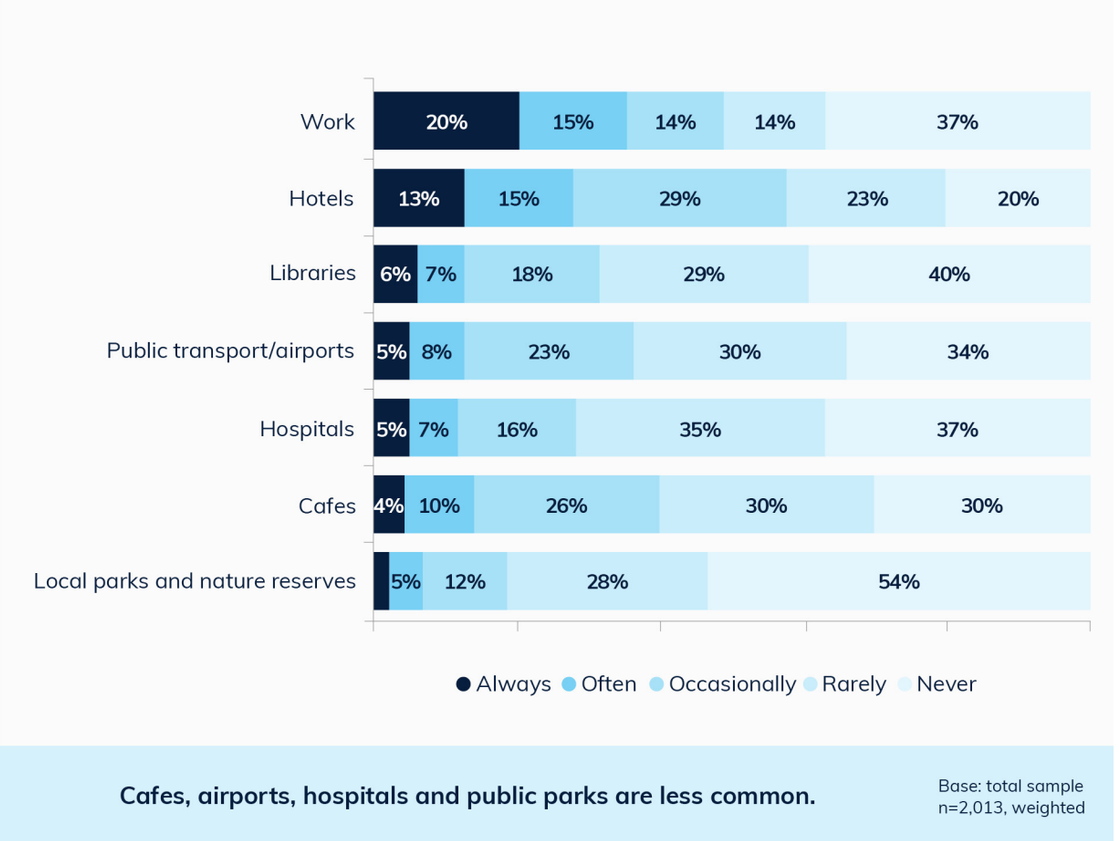
Workplaces and hotels are the most common public spaces for Wi-Fi usage outside the home

Q6 - In which of the following public places do you use free/public Wi-Fi?

When asked where they use free or public Wi-Fi, 35% of Australians said they use their work Wi-Fi, and 28% said they use hotel Wi-Fi.

Key findings:

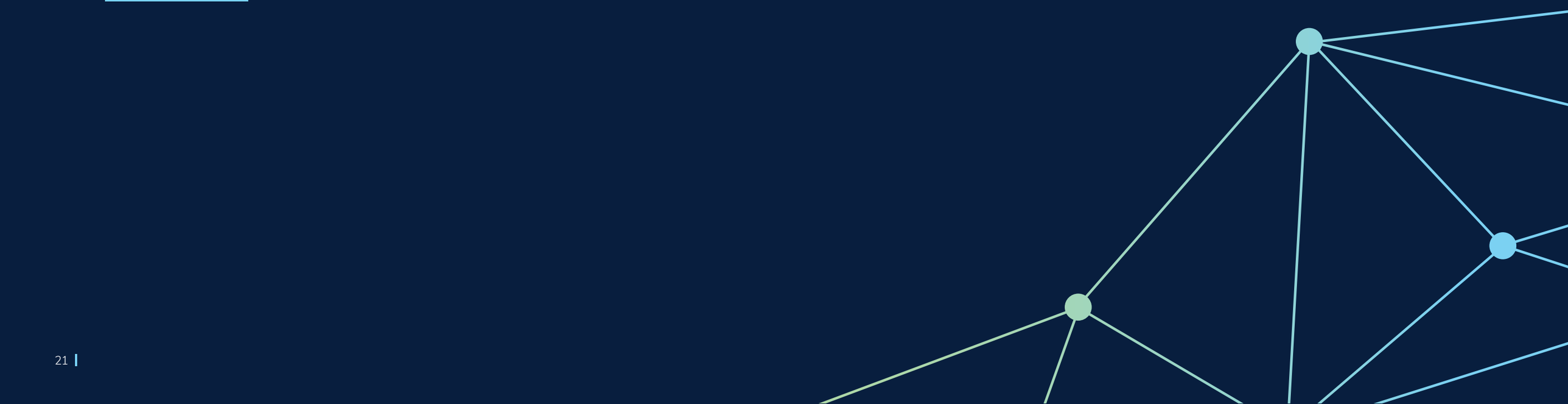
- Thirteen per cent of Australians often use the free or public Wi-Fi offered by their local library, on public transport or at airports.
- Fourteen per cent of Australians often use the free or public Wi-Fi available at cafes.
- Free or public Wi-Fi in local parks and nature reserves is the least used, with 82% of Australians saying they rarely use it.



Cafes, airports, hospitals and public parks are less common.

Base: total sample
n=2,013, weighted

Telecommunications connectivity needs



Most Australians think mobile phone connectivity in their local area is good

Q7 - How would you describe connectivity/reception in your local area when it comes to phone calls as well as mobile data?

When asked to describe the quality of mobile connectivity/reception in their local areas, 76% of Australians described their mobile phone connection (voice) as **good** or **very good**. Additionally, 78% of Australians described their mobile data quality as **good** or **very good**.

Key findings:

- Of the 26% of Australians who described their mobile phone connection as **very good**, a third (33%) were aged between 59 to 77 years old.
- There are 12% of Australians who describe their mobile phone connection as **poor** to **very poor**.
- There are 9% of Australians who describe their mobile data as **poor** to **very poor**.
- Just over 20% of Australians identify the quality of their mobile connection or mobile data as ***neither poor*** nor **good** or as **poor** or ***very poor***.

Around three-quarters see it as 'good' or 'very good' for each.

Base: total sample n=2,013, weighted

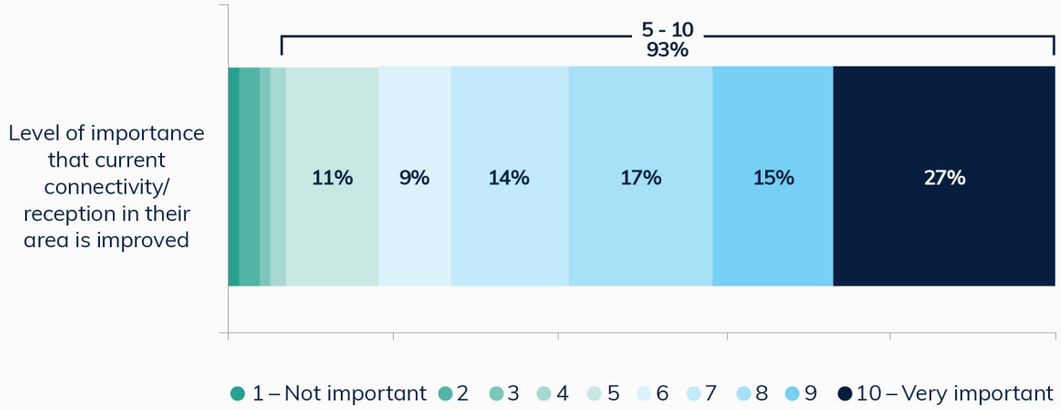
Nine in ten Australians want better connectivity

Q8 - How important is it that current connectivity/reception in your area is improved?

While more than 75% of Australians believe the connectivity/reception in their local area to be **good** or ***very good***, they also noted a desire for their connectivity experience to be enhanced.

Key findings:

- Ninety-three per cent of Australians want to see an improvement in the coverage/connectivity in their local area.
- Twenty-seven per cent of Australians say it is ***very important*** their current connectivity and reception is improved.



More than nine in ten Australians want better connectivity than they currently experience.

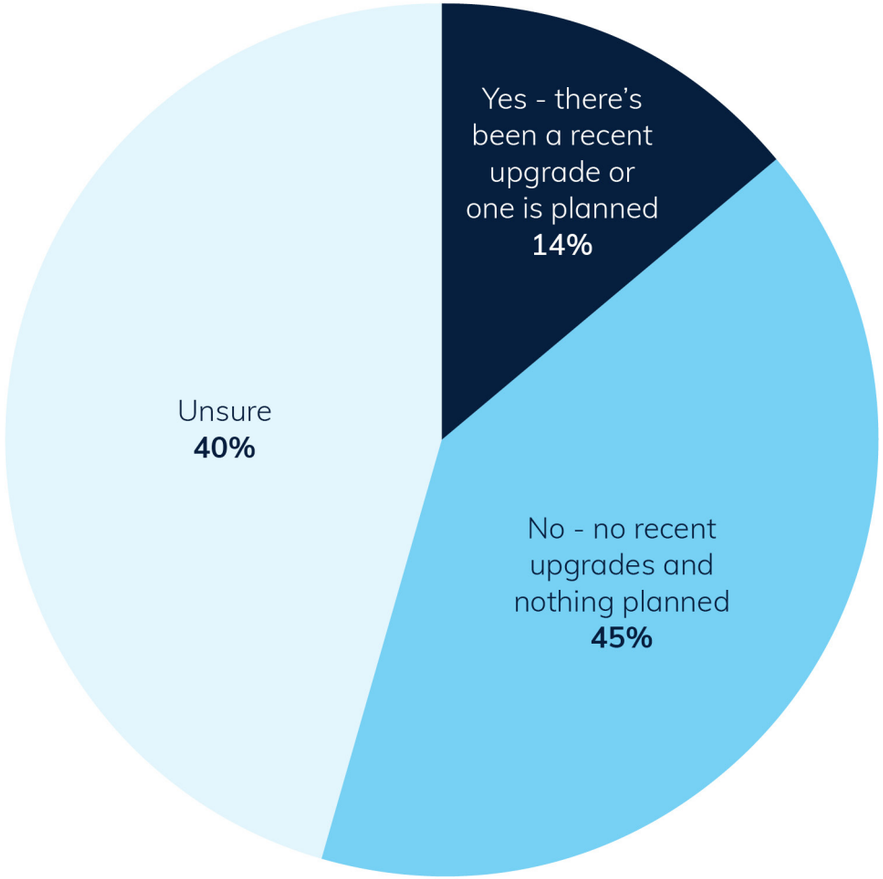
Base: total sample n=2,013, weighted

Around one in seven Australians are aware of any recent or planned upgrades to telecommunications in their local area

Q9 - Do you know if there are any recent or planned installations of, or upgrades to, existing telecommunications infrastructure in your local area?

Key findings:

- Eighty-five per cent of Australians were either unsure or unaware of any recent or planned upgrades to telecommunications in their local area.
- Forty-five per cent of Australians believed there had been no recent upgrades and no planned upgrades in their local area.



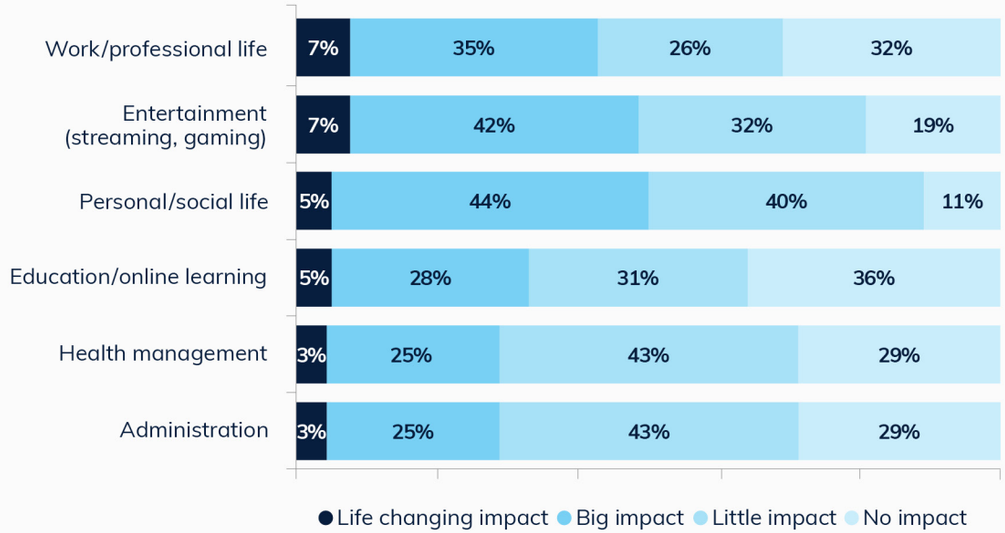
Almost half of the Australian population agree poor wireless connectivity impacts their lives

Q10 - Please define how much of an impact poor wireless mobile connectivity has in your life when it comes to the following activities?

The top three areas in Australians' lives that poor connectivity impacts are personally, how people access entertainment, and professionally.

Key findings:

- Thirty-five per cent of Australians indicated poor wireless connectivity has a big impact on their **professional life**.
- Forty-four per cent of Australians indicated poor wireless connectivity has a big impact on their **personal life**.
- Poor wireless connectivity has a big impact on how 42% of Australians access **entertainment** including gaming and streaming activities.
- A third of Australians (33%) note that poor connectivity significantly impacts their ability to access **education and online learning**.



A pronounced impact both on professional and personal aspects of their lives.

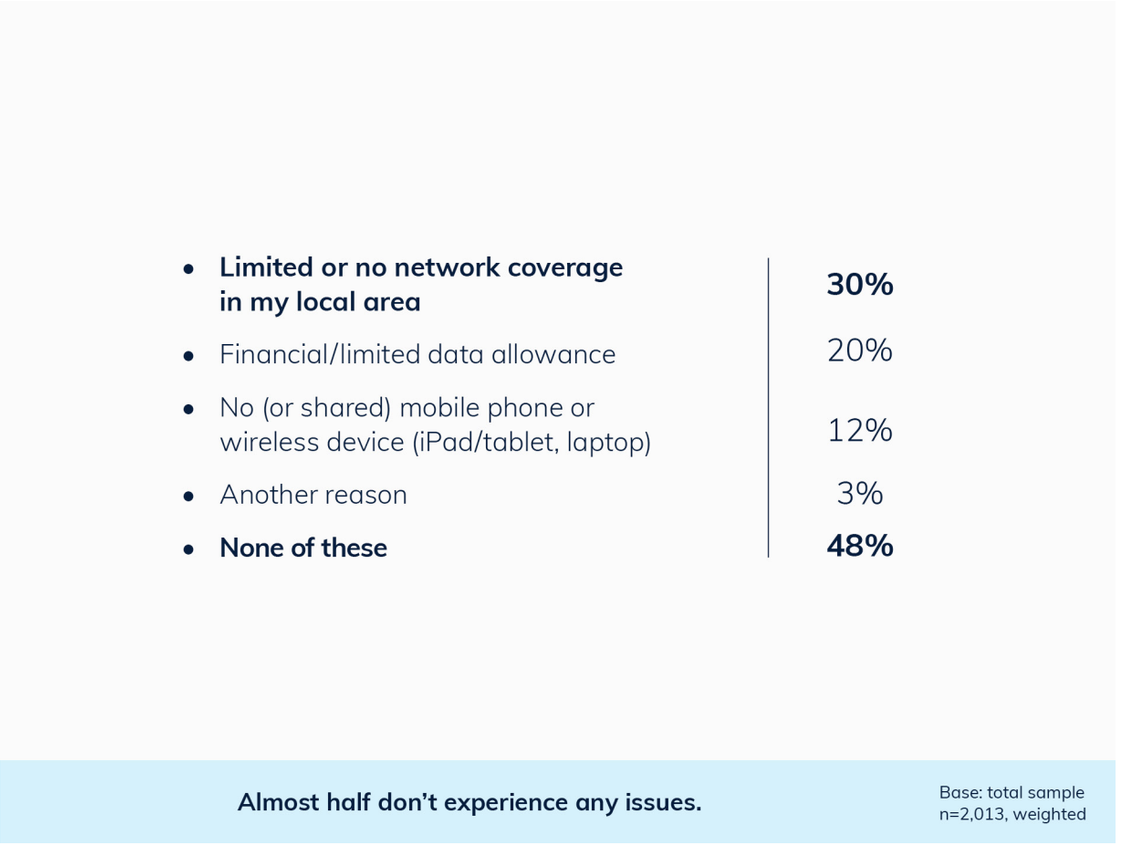
Base: total sample n=2,013, weighted

Almost one in three Australians regularly experience limited or no network coverage

Q11 - Which of the following prevents you from accessing regular wireless or mobile connectivity?

Key findings:

- While 48% of Australians do not experience any issues accessing wireless or mobile connectivity, 30% of Australians say they have limited or no network coverage in their local area.
- Twenty per cent of Australians say cost is a barrier to accessing wireless or mobile connectivity (e.g. limited finances, limited data allowance on plans).
- Twelve per cent of Australians say they share or do not have a device to access wireless or mobile connectivity (e.g. mobile phone, laptop, iPad, tablet).



Almost half don't experience any issues.

Base: total sample n=2,013, weighted

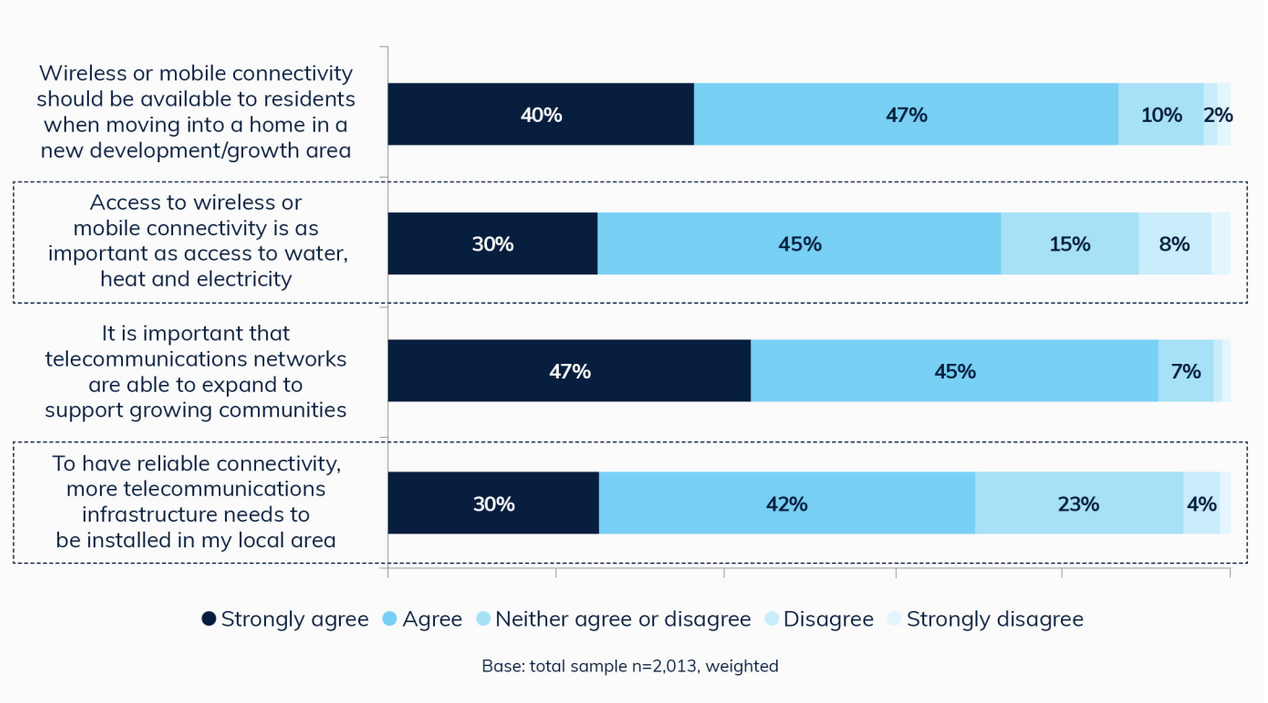
Almost one in three Australians feel telecommunications is equal to other utilities and more infrastructure is needed in their area to provide reliable connectivity

Q12 - How much do you agree or disagree with the following statements?

Three-quarters of Australians see wireless or mobile connectivity as an essential service, similar to other utilities like water and electricity.

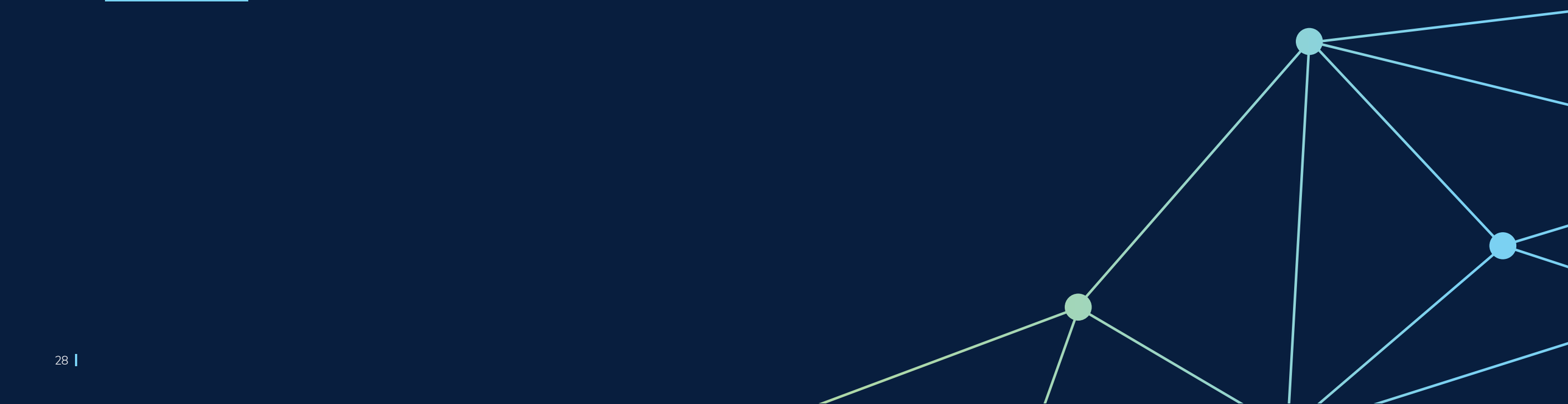
Key findings:

- Eighty-seven per cent of Australians think wireless or mobile connectivity should be available to them when moving into a home in a new development or growth area.
- Ninety-two per cent of Australians think it is important telco networks are able to expand to support growing communities.
- Twenty-seven per cent of Australians disagree with the 72% of Australians who think more infrastructure is needed in their local areas to provide more reliable connectivity. Of this 27%, only 4% strongly disagree with the need for more infrastructure.



Base: total sample n=2,013, weighted

Reliance on connectivity

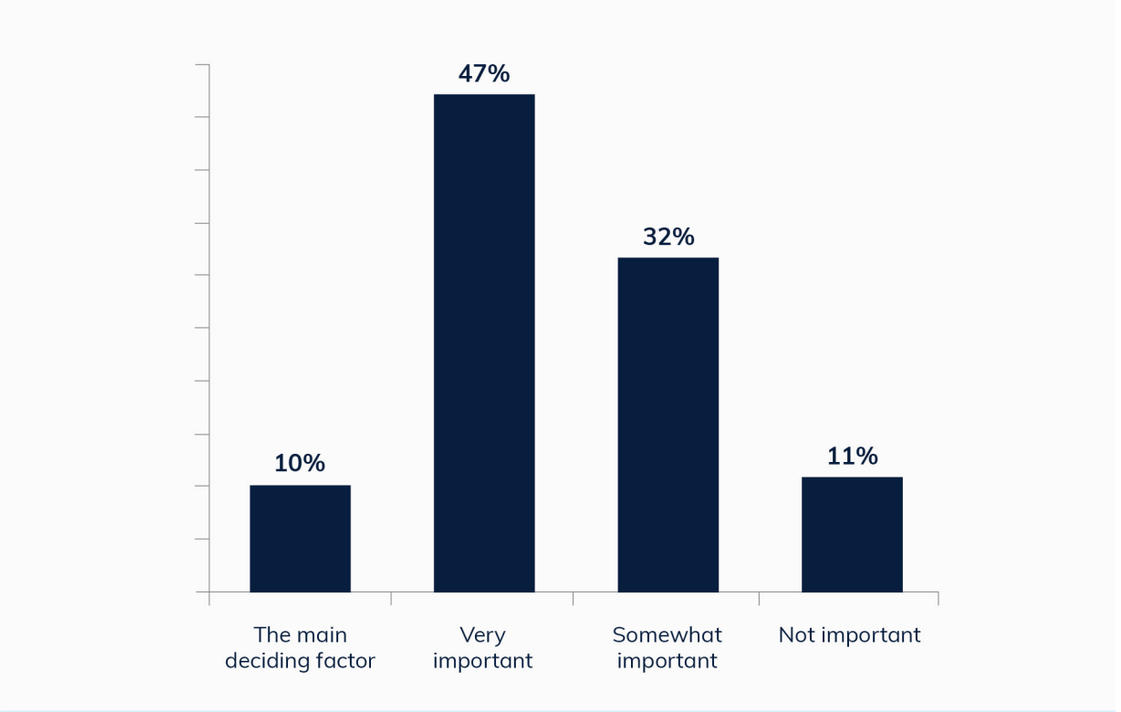


Almost half the Australian population consider wireless or mobile connectivity as an important factor in choosing where to live

Q13 - How important is the quality of wireless or mobile connectivity as a determining factor in your choice of where to live?

Key findings:

- One in ten Australians consider wireless or mobile connectivity as a main deciding factor of where to live.
- Of the 47% of Australians who said it is very important, just over half (55%) are aged between 18 to 42 years old.



One in ten see it as the main factor.

Base: total sample n=2,013, weighted

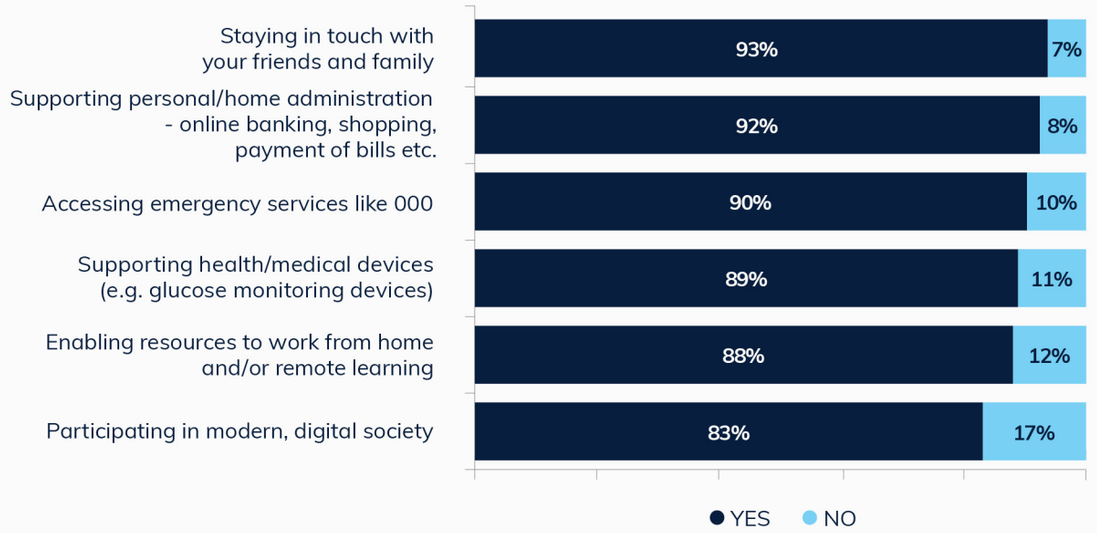
Almost every Australian sees wireless and mobile connectivity as crucial for keeping in touch

Q14 - Do you think wireless or mobile connectivity is crucial for the following?

Less than a fifth of the Australian population (17%) disagree that wireless and mobile connectivity are crucial for participating in today's modern, digital society, with 83% confirming it to be the case.

Key findings:

- Ninety per cent of Australians think wireless or mobile connectivity is crucial for accessing emergency services like 000.
- Similarly, 89% of respondents think wireless or mobile connectivity is crucial in supporting health and medical device.
- Of the 93% who think wireless or mobile connectivity is crucial for staying in touch with family and friends, 95% of respondents were female.
- Ninety-five per cent of respondents aged between 18 and 42 identified wireless or mobile connectivity as crucial for life admin and for enabling resources to work and learn remotely.



More than three-quarters see it as a crucial for participating in modern society.

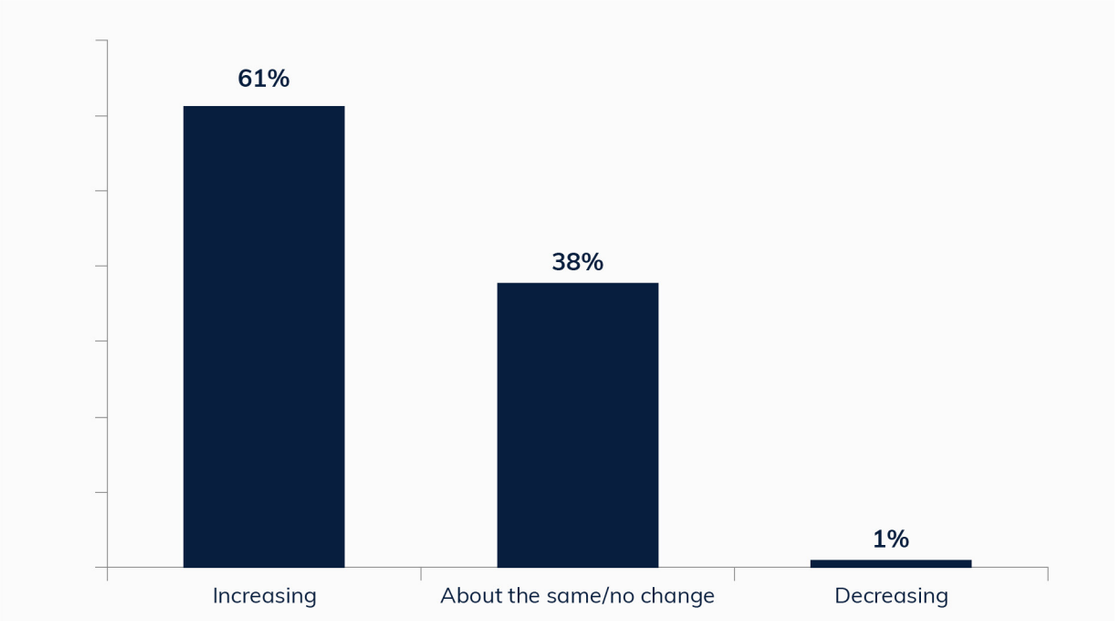
Base: total sample n=2,013, weighted

More than half of the Australian population see their reliance on wireless or mobile technology increasing in the next five years

Q15 - How do you foresee your reliance on wireless or mobile connectivity evolving over the next 5 years?

Key findings:

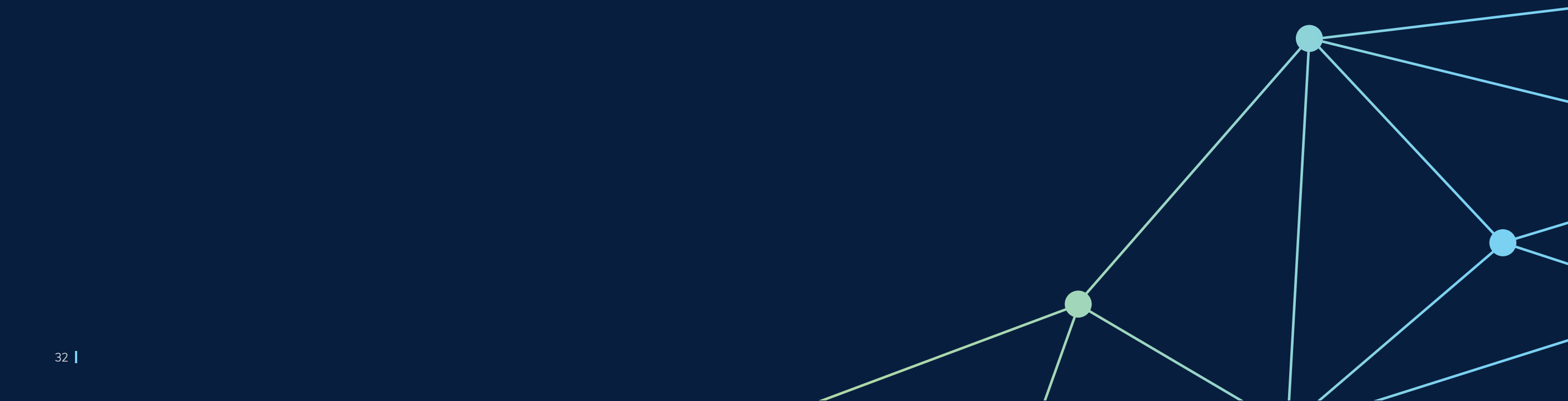
- Seventy-two per cent of those who said that they see their reliance **increasing** were aged between 18 and 26 years old.
- Forty-seven per cent of those who said that they see their reliance **staying the same** were aged between 59 and 77 years old.



Only 1% see it as decreasing.

Base: total sample
n=2,013, weighted

Concerns

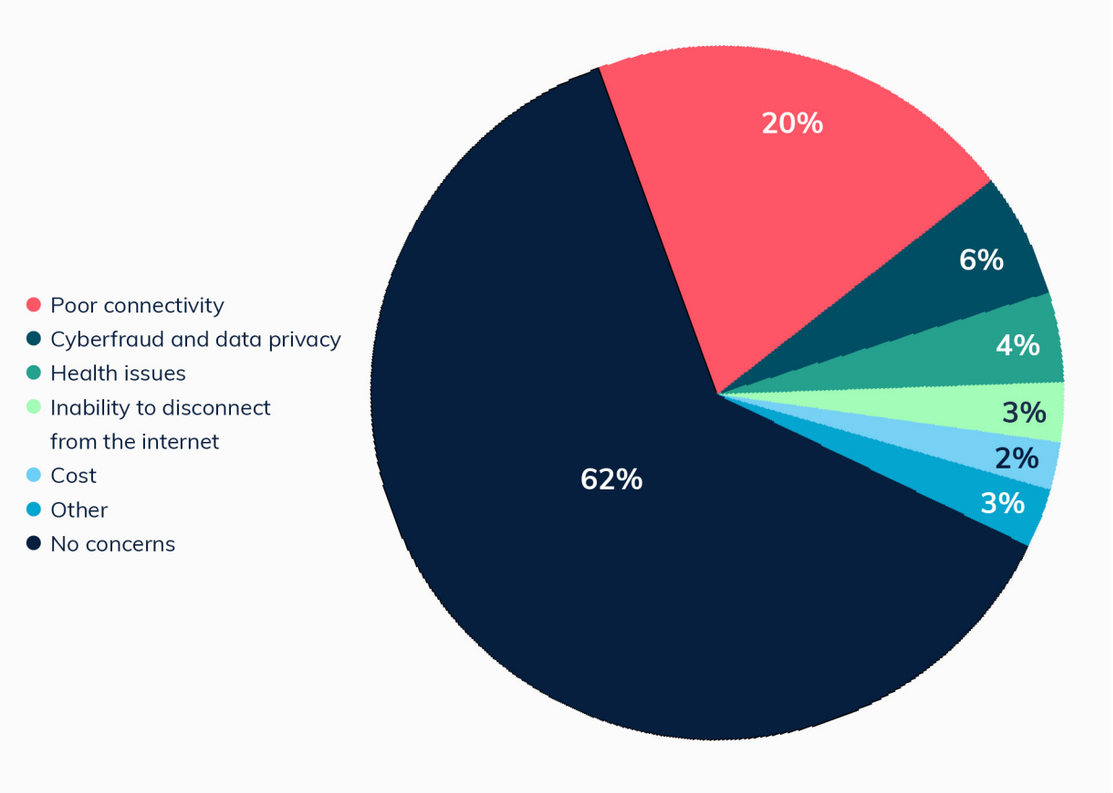


One in five Australians identified the need for improved connectivity as their most prominent concern

Q16 Open-ended question - Are there any negative aspects you believe to be associated with wireless or mobile connectivity?

Key findings:

- No negative aspects were noted by 62% of the participants.
- Poor wireless connectivity was the most prominent issue identified as a concern by Australians (20%).
- Four per cent of Australians expressed concerns about perceived health effects associated with wireless or mobile connectivity, with a further 3% concerned about their inability to “disconnect” from the internet.



No concerns noted for almost two-thirds of participants.

Base: total sample n=2,013, weighted

Australian Government

Contact us

For more information, please get in touch: eme@communications.gov.au