



# Cisco Australian Digital Readiness Index 2020

Building societal resilience through digital investment

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# Cisco Australian Digital Readiness Index 2020

## Building societal resilience through digital investment

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# Foreword

Digital readiness is the key to societal resilience.

When we released the *Cisco Australian Digital Readiness Index 2018* two years ago, it provided a rare insight into the components that contribute to building a digitally capable nation, and created a platform to encourage business and government leaders to double down on these investments to maximise future returns.

Little did we know that two years later the value of those investments would be repaid many times over by providing Australia with a robust and comprehensive digital capability that has played a critical role in our response to the COVID-19 crisis.

While the pandemic has exacted a high economic and social toll, its consequences would have been much greater had Australia not already made significant investments in digital readiness.

For example, the deployment of high-speed national network infrastructure has meant many organisations can keep their staff both safe and productive by enabling them to work from home. That same infrastructure provides a vital connection for thousands of students who participate in remote learning and has become the backbone for remote health consultations, keeping many of the frontline responders safe.

Likewise, investments in digital skills mean businesses and government agencies have been able to accelerate their rollout of digital services, including bricks and mortar restaurants and retailers who have switched to e-commerce-based solutions to continue trading.

The *Cisco Digital Readiness Index 2020* measures seven components of digital readiness, and Australia scored highly across all seven.

The investments will play a vital role in helping Australia navigate through the post-COVID-19 world, but further work is needed if we are to achieve the productivity uplifts necessary to bring Australia out of recession and ensure we remain competitive. Cisco's global research has always shown a high correlation between digital readiness and economic prosperity, and other nations are stepping up their investments accordingly.

Continued investment in digital infrastructure is essential, and we applaud the Australian Government's announcement of an additional \$3.5 billion investment in the National Broadband Network. As ongoing investments in 5G mobile networks demonstrate, the race to deploy faster and more pervasive networks is never over.

But this infrastructure will only deliver to its full potential if we invest in building the skills of our people to use, create and defend digital services. In addition to the need for ongoing support of the higher education sector, Cisco has also joined forces with TAFE Directors Australia and our partner Optus to call on the Australian Government to assess the growth in technology-intensive jobs requiring sub-degree level qualifications, to help the TAFE sector more rapidly prepare for and respond to anticipated demand. We have also called for funding of the development and delivery of micro-credential digital programs to help in the reskilling and upskilling of workers displaced by recent developments.

Australian industry has a desperate and growing need for people equipped for a dynamic, digitised world, including having general digital skills that helps businesses to move up the value chain as industries further automate. Development of 'blue tech' or digital trade skills will be vital to meeting those needs.

Critically, we must also be sure to not lose sight of the need for the outcomes of these investments to be shared equitably across Australia.

The *Cisco Australian Digital Readiness Index 2018* highlighted significant gaps in digital capability that exist within Australia. While this year's report shows states and territories have changed their rankings in specific categories, the overall story still tells of a digital divide. Equitable access to digital services and training represents the 21st century equivalent of the age-old Australian concept of giving everyone a 'fair go', and the COVID-19 crisis has highlighted the importance of continued investment to ensure those communities that are least served digitally today do not experience additional hardship from future events.

At Cisco, we are committed to building Australia's digital readiness, as a partner to government and industry, and through direct investments in the Australian community. Our efforts include investments in skills development through our Cisco Networking Academy program, in conjunction with tertiary and vocational training institutes, and through the funding of research positions at Australian universities and research centres under our Country Impact Plan.

Digital readiness is the key to economic prosperity, but it is also critical to building societal resilience. Only by continuing to invest in our digital capabilities can we maximise the benefits in the good times and ensure we are best placed to manage the future crises that will inevitably come our way.

**Ken Boal**, Vice President,  
*Cisco, Australia & New Zealand*

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# Introduction

Digital readiness is a defining characteristic of successful 21st century societies.

Digital readiness is a defining characteristic of successful 21st century societies. It describes the level of capability that a society possesses for extracting value from digital technology and its capacity to share those benefits equitably. It also provides a proxy for numerous other societal traits such as overall economic performance.

The *Cisco Global Digital Readiness Index* was first released in 2017 as a means of examining and comparing the digital readiness of 118 countries, using a holistic framework that measured seven different components of a country's capabilities and investments.

After its publication, a separate research project was commissioned to look at the digital readiness of Australia specifically with detailed analysis of individual states and territories. This was released as the *Cisco Australian Digital Readiness Index 2018*.

In 2019, the global research project was updated, with the number of countries featured raised to 141 and some adjustments made to the metrics used to improve the robustness of the model. The research for Australia's states and territories was subsequently updated for 2020 and provides the basis for this report.

These results highlight the benefits that flow from past investments and identify areas that warrant additional attention for 2020 and beyond. While changes made to the metrics mean that some comparisons across the years are inexact, they paint a broad picture of the differences in performance in each component of digital readiness for every state and territory over the two-year period.

The *Cisco Australian Digital Readiness Index 2020* provides both a snapshot of Australia's evolving digital capability and acts as a guide for government and industry relative to where additional investments are needed to ensure Australia continues to develop as a digitally capable and inclusive society.



# Global Digital Readiness

The digital readiness of a country is determined by examining seven components.

The digital readiness of a country is determined by examining seven components. These are standardised and summed to obtain an overall digital readiness score measured out of a possible total of 25 points. The seven components are:



fig 1.1 Seven components used to measure Digital Readiness

The score for each component is derived using metrics which have been selected based on their representation of key components that contribute to each area of readiness and their ability to be compared across all countries examined.

Together they create a holistic model that incorporates components such as community, health, education standards, rates of investment, and technology uptake. For example, basic needs is a featured component due to its contribution to a person’s long-term education outcomes and their ability to develop advanced digital skills. Similarly, measuring a country’s investment in technology infrastructure and adoption rates describes its ability to utilise digital skills for economic benefit.



The *Cisco Global Digital Readiness Index 2019* measured these components across 141 countries, and uncovered three stages of digital readiness:

**Activate:** The lowest stage of digital readiness, indicating the need for interventions that target basic needs as a foundation for building more advanced digital readiness capabilities.

**Accelerate:** A moderate stage of digital readiness with ongoing requirements for investment in basic needs but demonstrating potential for benefits through improvements in other areas, such as ease of doing business. The breadth of countries included in the Accelerate group saw it subsequently split into two classes – Accelerate Low and Accelerate High.

**Amplify:** The highest stage of digital readiness, showing significant existing benefits and great potential for further uplift from additional investment in infrastructure and higher-level skills development.

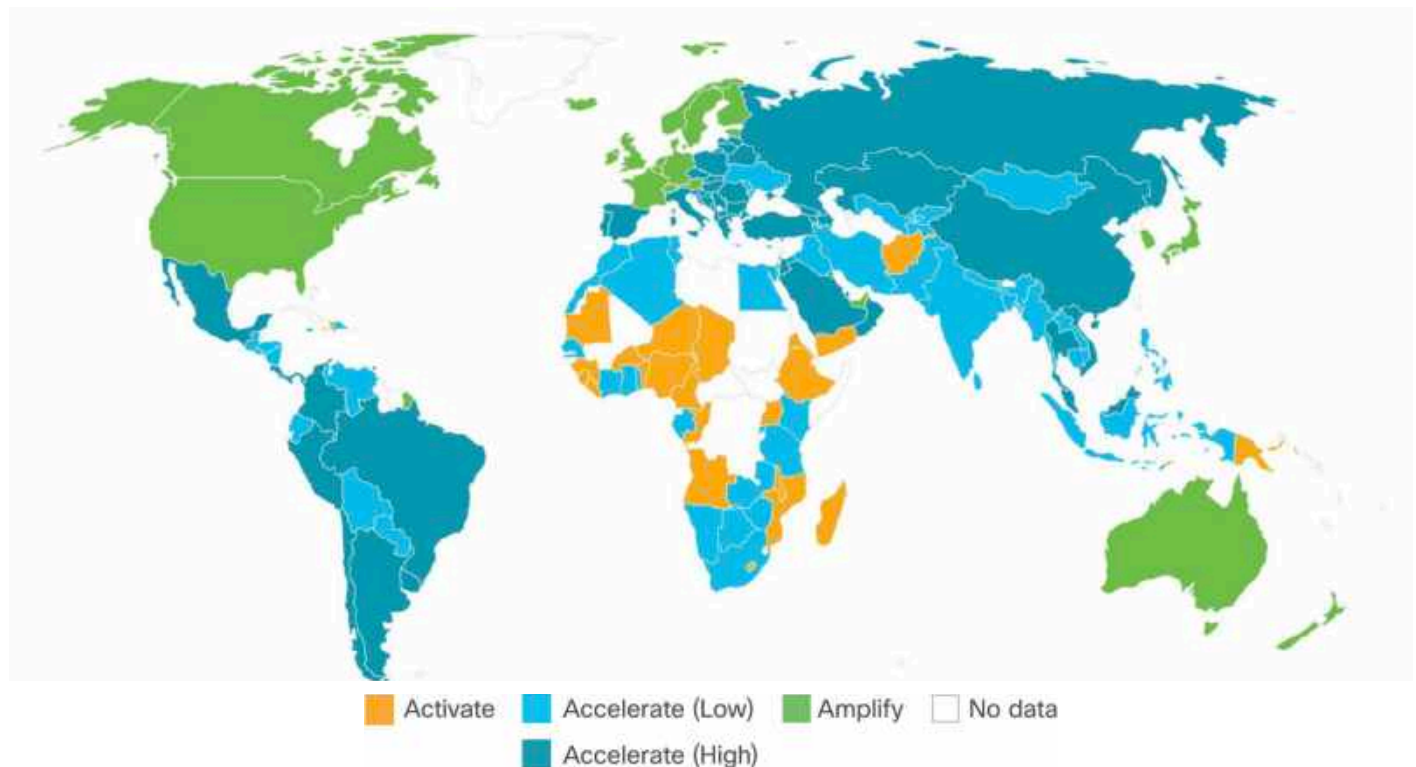


fig 1.2 State of Digital Readiness by country

In 2017, Australia scored highly across all seven components of digital readiness and ranked in Amplify group with an overall score of 17.34 out of a possible 25. This placed Australia among global leaders including the United States of America, Singapore, and numerous European nations, and demonstrated Australia was well positioned to enjoy the ongoing benefits of digitalisation.

In 2019, Australia's digital readiness score increased from 17.34 to 17.89 out of a possible 25 points. However, while Australia retained its global Amplify ranking in 2019, its ranking fell two places to 12th. This outcome should be seen in consideration of two countries added to the global list – Iceland and Luxemburg – as both had scores that placed them higher in the Amplify category. Without their inclusion Australia's score would have been sufficient for it to retain its 10<sup>th</sup> place ranking.

It is also worth noting that the 2019 results saw Singapore advance to the number one position globally, overtaking the United States, which dropped to third position with the inclusion of Luxemburg in second place. This was again despite the United States maintaining its score across most components of digital readiness.

These results clearly show the highly competitive global environment and the importance of continued investment to retain and develop Australia's overall state of digital readiness.



# Australia's comparative readiness

Digital readiness is the key to societal resilience

Examining Australia results for the two global reports shows a story of consistent performance. Australia scored particularly well in *Business and Government Investment*, where our global ranking rose from 21st to 18th due to a significant increase in score from 1.14 to 1.87 out of a possible 3 points.

The addition of new countries had a significant impact on Australia's ranking for *Start-up Environment*, as Luxembourg and Iceland ranked first and third, respectively. This was the only component of readiness for which Australia's score declined year on year.

Australia also experienced a decline of four places for *Technology Adoption*, from 16th to 20th, despite our score rising from 1.45 to 1.62 out of a possible 3 points.

These results highlight the need for ongoing investment in building the capability of organisations to utilise technology to drive improved outcomes, and point to more work being needed to accelerate technology adoption as a means of boosting productivity, which will prove vital as Australia strives to emerge from the post-COVID-19 recession.

And despite Australia's multi-billion-dollar investment in the National Broadband Network, it still dropped one place for *Technology Infrastructure*. This result was due in part to a change in the individual metrics used to derive this score, as well as the inclusion of Iceland and Luxembourg. But again, this highlights the need for continued investment in the nation's technological foundations to remain globally competitive.

The 2019 global results showed the continued high correlation between digital readiness and per capita Gross Domestic Product (GDP), with high GDP countries such as Singapore, the United States, and Luxembourg all ranking in the top ten. This further reinforces the

importance of building digital readiness as a key factor in ensuring economic prosperity and the value that flows through building a prosperous, robust and agile society that can create improved outcomes and manage sudden changes.

## Breakdown across states and territories

Australia's inclusion in the Amplify cohort places it firmly amongst the leading nations. But examination of the results at a state and territory level tells the story of an ongoing digital divide and the need for continued investment to build a more digitally inclusive society. Several changes were made to the metrics that comprise each component of digital readiness. These changes were made to both improve the robustness of the model, and to maximise comparability between locations.

The *Cisco Australian Digital Readiness Index 2018* told a story of a nation digitally divided, and that story remains true for 2020, with the Australian Capital Territory (ACT) retaining its ranking as the most digitally ready state or territory in Australia and the Northern Territory (NT) once more being ranked last.

Thankfully, however, that gap has narrowed, with the score for the NT rising from 4.80 out of a possible 25 points to 6.43 in 2020. Combined with changes arising from the use of different metrics, the gap between the NT and ACT as measured in total points has closed from 16.34 in 2018 to 11.21 in 2020. This indicates that successful interventions can improve a state or territories' readiness and gives support for continued investment.

Across the rest of the country overall rankings remained relatively consistent between the 2020 and 2018 reports, with some jostling for position amongst the states and territories. The relative closeness of scoring for many components meant that even relatively small changes in scores had an impact to overall rankings.

To assist with comparisons, three stages of digital readiness have been defined: Amplify High; Amplify Medium; and Amplify Low.





## Amplify High

While the ACT retained its lead position in the Amplify High group, its overall score declined from 21.14 to 17.64. This was partly due to changes in the metrics used, which saw the ACT drop from first to fifth position for *Ease of Doing Business*. New South Wales' (NSW) strong start-up ecosystem and ongoing government support saw it overtake the ACT to lead for *Start-up Environment*, but its overall score was weighed down by a comparatively poor showing for *Technology Infrastructure*, where it fell from third to seventh place.

## Amplify Medium

Changes in position saw Victoria (VIC) narrowly miss inclusion in the Amplify High group, instead dropping back to Amplify Medium. This was despite Victoria lifting its performance for *Start-up Environment* to overtake the ACT.

Western Australia (WA) retained its position as the fourth most digitally ready state or territory in Australia. This was despite it losing ground for *Ease of Doing Business*, where it moved from third to sixth place. However, WA improved its ranking *Technology Infrastructure*, where it rose from seventh to fourth.

In 2020 Tasmania (TAS) entered the Amplify Medium group for the first time and was ranked fifth overall, due in part to a massive leap from sixth to first position for *Technology Infrastructure*, and its score was bolstered in *Ease of Doing Business*, where it jumped from fifth place to lead the nation, and in *Technology Adoption*, where it climbed from seventh to fifth place. Tasmania's leap forward came despite it dropping back significantly for *Business & Government Investment*, from third to seventh place.

Queensland (QLD) moved back into sixth position overall, despite making gains in *Basic Needs* and rising from sixth to third place for *Technology Adoption*. This is due to other states gaining.

## Amplify Low

This year's result saw South Australia (SA) move back into the Amplify Low group, despite its overall score jumping from 10.98 in 2018 to 12.13 in 2020. This is due to other states making gains in this area. SA made significant progress in *Ease of Doing Business*, rising from sixth to third place, and in *Technology Infrastructure*, where it moved from fifth to third.

And while the NT retained its ranking as Australia's least digitally ready state or territory, it did make strong progress in *Business & Government Investment*, rising from sixth to third place. The NT was also able to make modest gains in *Human Capital*, where it moved from third to second place.

### State & Territories

- 2 Amplify High
- 4 Amplify Medium
- 2 Amplify Low

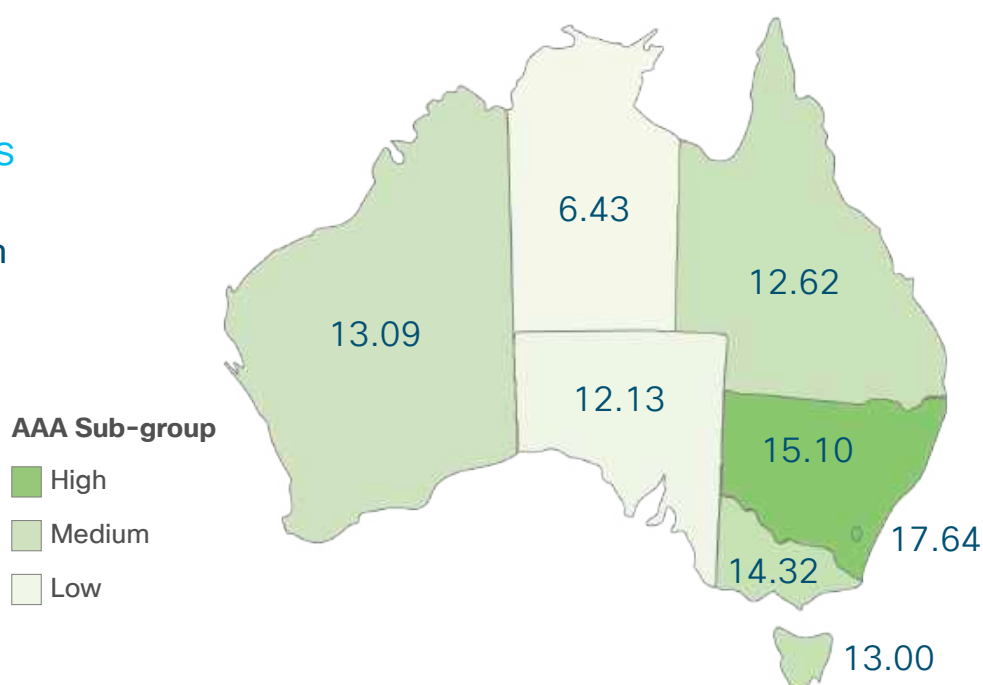


fig 1.4 Amplification groups by state/territory

# State and Territory Analysis

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# Australian Capital Territory

## Capitalising on Digital Readiness

As the seat of the Australian Government, the Australian Capital Territory (ACT) enjoys the benefits of a highly educated workforce, and its urbanised population creates advantages in relation to access to infrastructure. This is attributed to the ACT retaining its lead place in 2020 as Australia's most digitally ready state or territory.

The ACT scored well in *Basic Needs*, and its position as the centre of government contributed to its first-place rank for *Human Capital*, *Technology Adoption* and *Business & Government Investment*. The ACT has both the highest score for post-school qualifications and for government expenditure per capita on research and development.

Where the ACT struggled, however, was in *Ease of Doing Business*, where it moved from first to fifth place. The ACT scored highest nationally for the metric of small and medium business (SMB) confidence, but having a high percentage of workers engaged in the public sector led to the ACT scoring seventh for the metric of business density.

The ACT also witnessed movement in its score for *Start-up Environment*, moving from first to third, despite it having the highest score for the metric of trademark and patent applications per capita. While the ACT was ranked second for venture capital investment per capita, the amount invested was only slightly more than half of that seen in first-placed NSW.

These findings indicate that some work is still to be done by the ACT government in terms of attracting and fostering new business and leveraging its highly educated workforce for business creation.

## ACT

Ranking

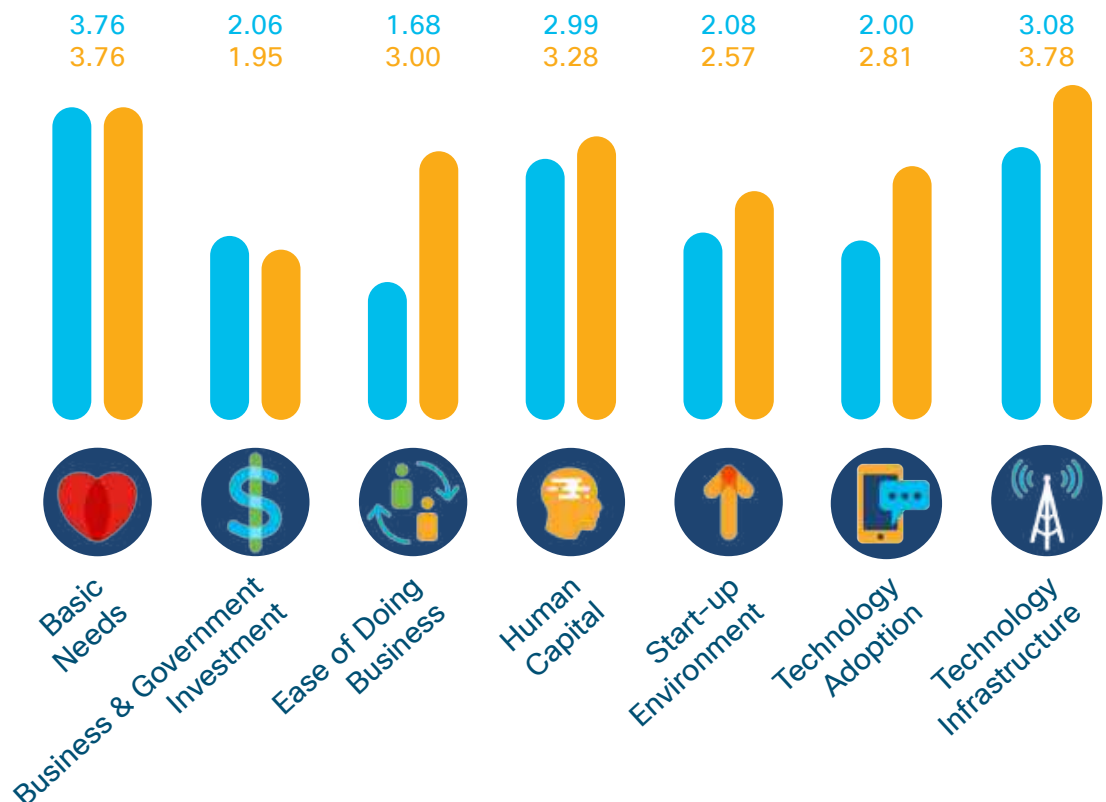
#1

DRI 2020

17.64

DRI 2018

21.14







# New South Wales

## Building Start-up Leadership

New South Wales (NSW) moved ahead of Victoria (VIC), to claim second place in digital readiness.

This progress was due in part to an improved result for *Start-up Environment*, where NSW climbed into the lead position off the back of a good result for per capita venture capital investment. The strong showing for start-ups is in line with NSW being the home of high-growth companies such as Atlassian, Canva, and WiseTech Global, coupled with solid community support in the form of incubators and accelerator programs, and significant state government backing.

This will be boosted in coming years through creation of the Sydney Innovation and Technology Precinct, which throws down a clear challenge to other states and territories in terms of start-up infrastructure investment.

Additional projects such as the Western Sydney Aerotropolis and Regional Science Hubs are also helping to build momentum, as is the pioneering work of the NSW Department of Customer Service and its use of digital technology to improve service outcomes for NSW citizens.

However, more work needs to be done in fostering *Technology Adoption*, where the state's ranking fell from fourth to sixth. Furthermore, NSW's ranking for *Technology Infrastructure* fell from third to seventh. This was partially due to a weak showing for metrics such as the spread of electric vehicle (EV) charging stations and use of renewable energy. It should be noted that the NSW Government will be investing in additional broadband infrastructure through its \$100 million Gig State project, which aims to improve the price, quality of service and choice of internet services for regional NSW.

## NSW

Ranking

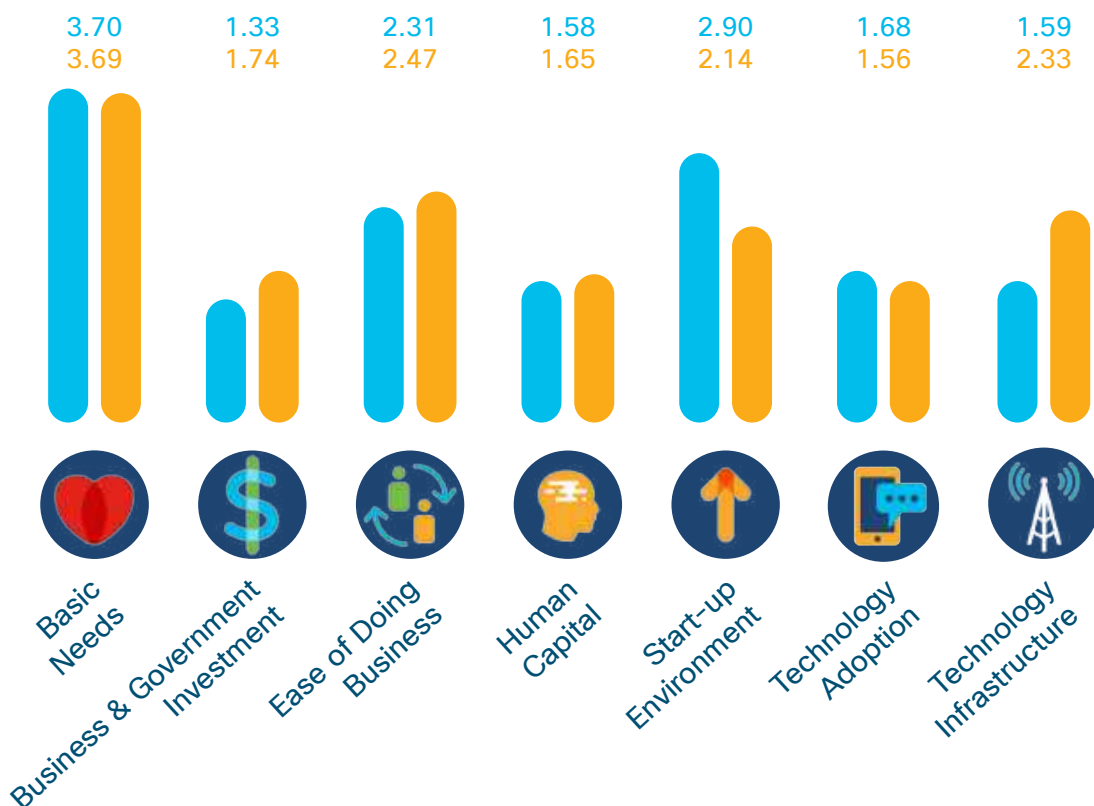
# #2

DRI 2020

# 15.10

DRI 2018

# 15.58





# Northern Territory

## Building Foundations for Growth

This year's score for the Northern Territory (NT) shows some progress has been made in improving digital readiness, but also indicates much more work is required before citizens will enjoy the same level of digital opportunities experienced in more populous states.

This year's result saw continuing problems in *Basic Needs*, where the NT was ranked last due to poor results for infant mortality and life expectancy, and for its high rate of homelessness.

However, the impact of efforts to improve outcomes in the NT, particularly in education, present hope for future improvement. The NT witnessed significant gains in *Business & Government Investment*, in part due to it reporting the highest level of government expenditure per student (on an FTE basis). NT also moved into second place for *Human Capital* due to its young population and high rate of labour force participation. Per capita business expenditure on Research & Development (R&D), however, was ranked the lowest in Australia, and the NT came last for *Ease of Doing Business* and *Start-up Environment*, highlighting the Territory's ongoing problem in attracting and retaining entrepreneurs and new businesses.

More work is also needed to boost the Territory's *Technology Infrastructure* and *Technology Adoption*, where it ranked eighth for the second time. In this instance the NT's low population density works against it, producing poor results in the metrics of EV charging stations and the availability of 4G services.

NT

Ranking

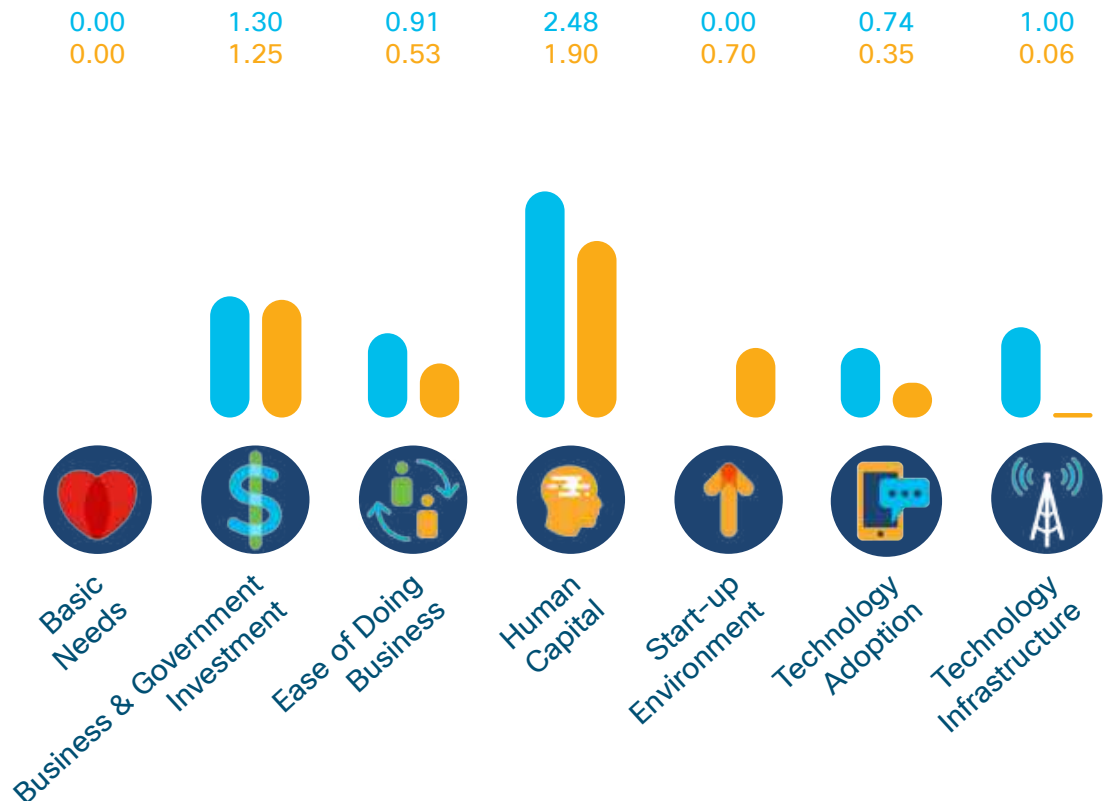
#8

DRI 2020

6.43

DRI 2018

4.80





# Queensland

## Investing for Future Readiness

Queensland (QLD) reported a mixed scorecard for the *Cisco Australia Digital Readiness Index 2020*, falling from fifth to sixth ranking overall, but making gains in some key components.

The highlight was Queensland's leap from sixth to third position for *Technology Adoption*, which was helped by the inclusion this year of smartphone ownership as a metric (for which Queensland tied first with the ACT). But as with the 2018 Index, Queensland scored last out of all states and territories for *Business & Government Investment* and ranked seventh for *Ease of Doing Business*. It also retained its fourth ranked position for *Start-up Environment*.

However, numerous private and public investment initiatives hold the potential for significant improvement, including projects such as Cross-River Rail and the potential for redevelopment of the Woolloongabba precinct, as well as ongoing technology-focused development in outer metropolitan and regional areas such as Springfield and the Sunshine Coast. A new undersea international broadband cable landed on the Sunshine Coast is also being used as a springboard to attract investment to that region, which will be home to an AustCyber Cyber Security Innovation Node.

And while Queensland held its ranking of fifth for *Human Capital*, future years may see the benefit from the state government's investment in two new large schools in inner Brisbane, both being built in conjunction with universities.

QLD

Ranking

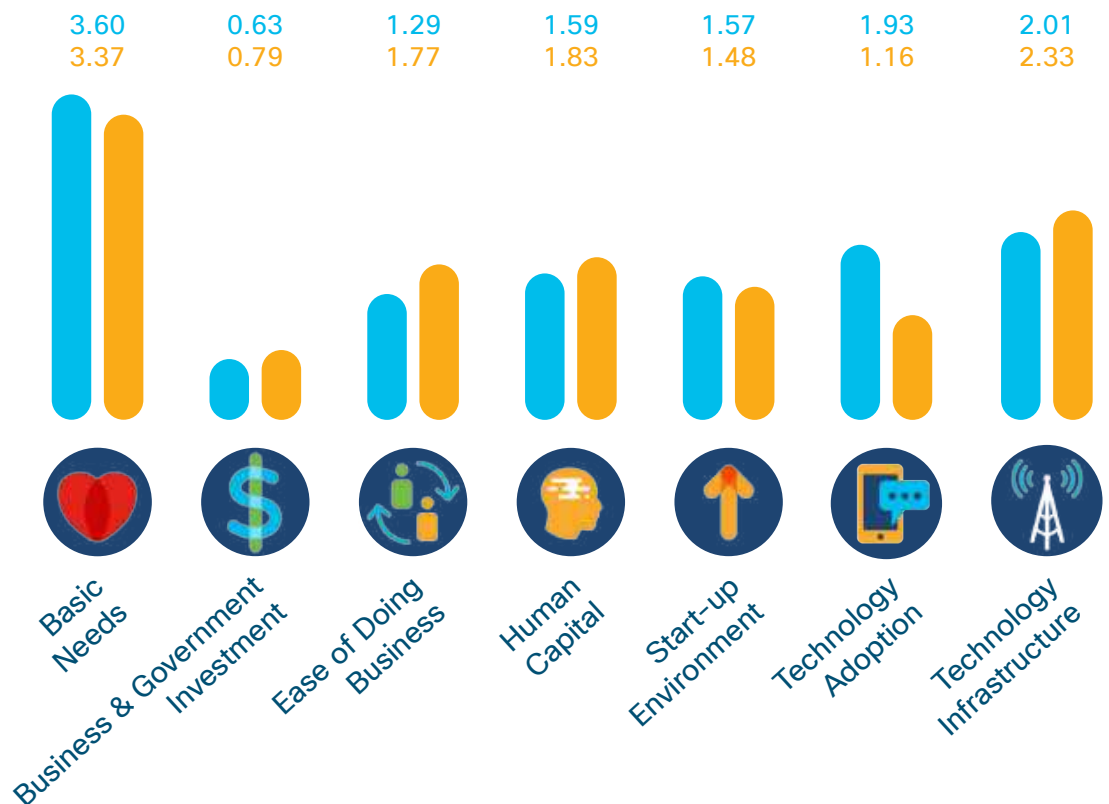
#6

DRI 2020

12.62

DRI 2018

12.74







# South Australia

## Creating an Innovative Environment

While South Australia's (SA) overall position of seventh was a step down from 2018, the state nonetheless increased its overall score by 1.15 points – the third largest increase of any state or territory. This was in part due to a significant uplift in its score for *Ease of Doing Business*, where it moved from sixth to third rank off the back of relatively high SMB confidence and the second strongest five-year business survival rate in Australia.

South Australia also moved up one rank to fifth position for its *Start-up Environment*, while its ranking for *Technology Infrastructure* climbed two places to third. This is likely to be boosted in coming years through government investment in defence science and manufacturing capabilities, as well as significant state government support for innovation precincts in conjunction with local universities. The Tonsley Innovation Precinct and its focus on advanced manufacturing is expected to provide the springboard for new businesses and job creation, and aligns well with progress already made in South Australia's *Technology Infrastructure* and *Start-up Environment*.

However, South Australia struggled in *Human Capital*, partly due to it having the lowest youth population in Australia and the lowest percentage of population with post-school qualifications, as well as the second lowest labour force participation rate. This requires immediate attention if South Australia is to capture the benefits of investments in its innovation and start-up sector.

SA

Ranking

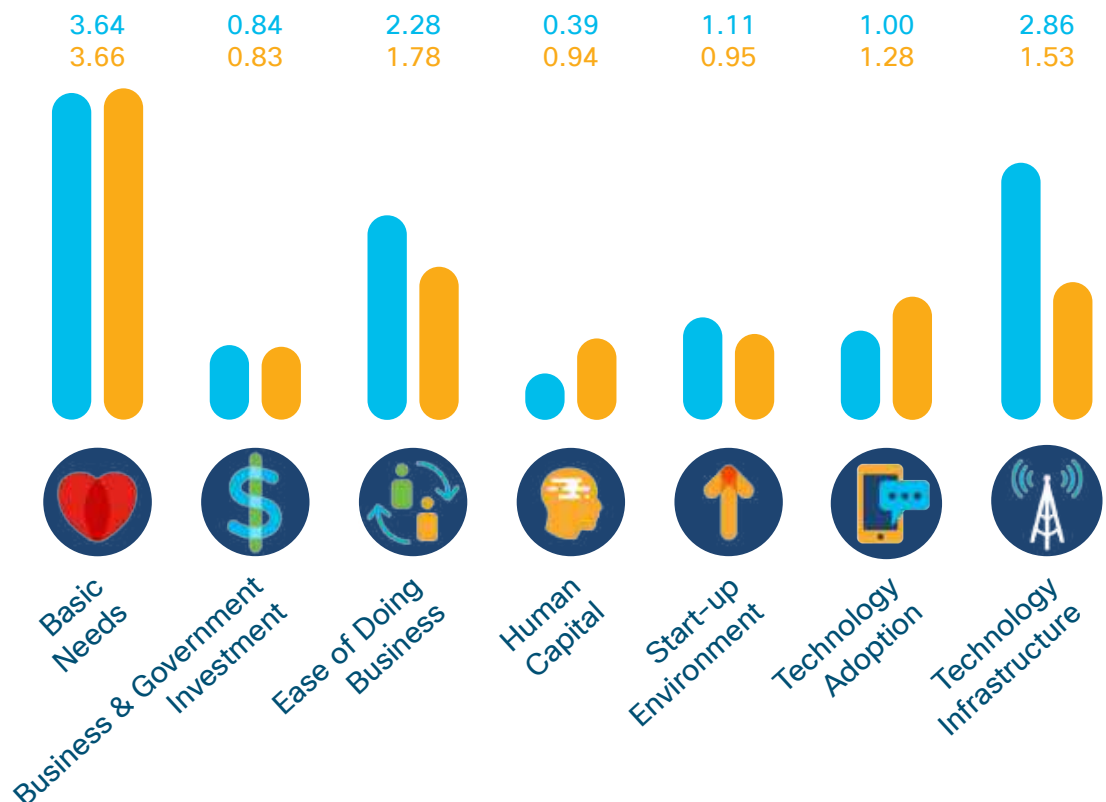
#7

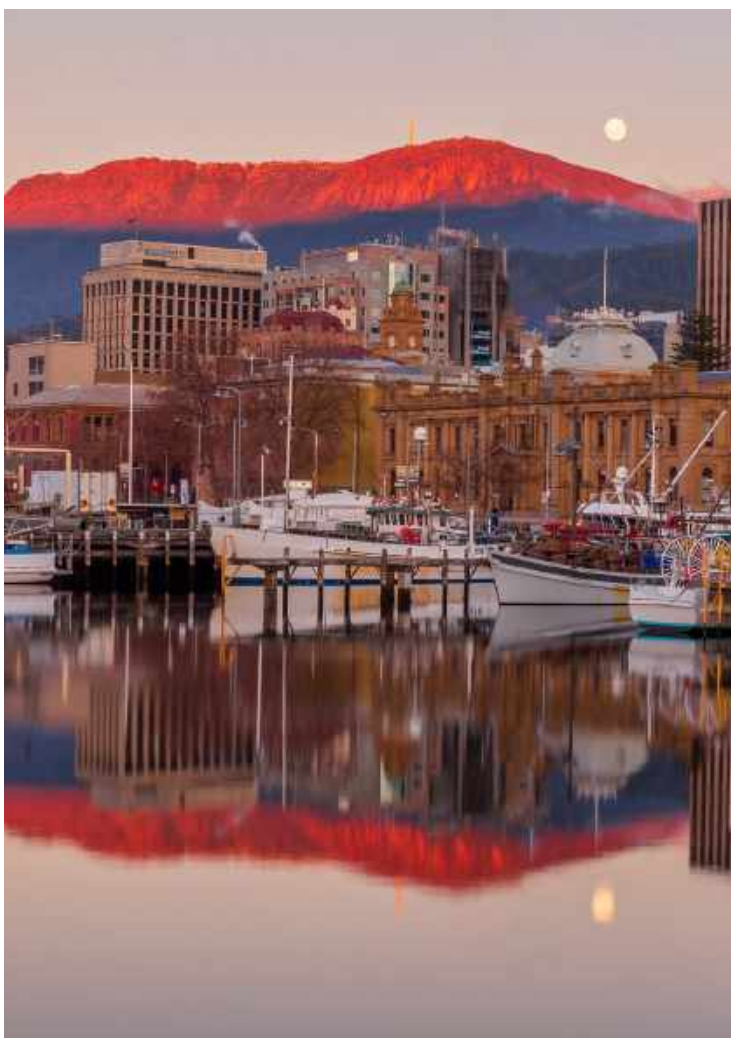
DRI 2020

12.13

DRI 2018

10.98





# Tasmania

## Encouraging Business Investment

Tasmania (TAS) was the standout success story for the *Cisco Australian Digital Readiness Index 2020*, leaping from seventh to fifth place with an improvement in its overall score of 3.35 points (the highest of any state or territory), moving it ahead of South Australia and Queensland. Tasmania's strong result was due in part to it rising from fifth to first place for *Ease of Doing Business*, with the state enjoying the highest five-year business survival rate and having the highest support amongst SMBs for government policies, and the second highest rate of SMB confidence.

Tasmania scored well for *Technology Infrastructure*, moving into first place, although this was partially due to a change in metrics which saw greater emphasis on renewable energy. Tasmania also benefited from its early engagement with the National Broadband Network, with 99.9 per cent of premises ready to connect. This in turn bodes well for continued improvement in *Technology Adoption*, where Tasmania moved from seventh to fifth place.

These gains came despite Tasmania falling from third to seventh rank in *Business & Government Investment*, which came about due to it having the second lowest per capita level of business expenditure on R&D. This indicates further investment will be needed if Tasmania is to hold on to its gains.

# TAS

Ranking

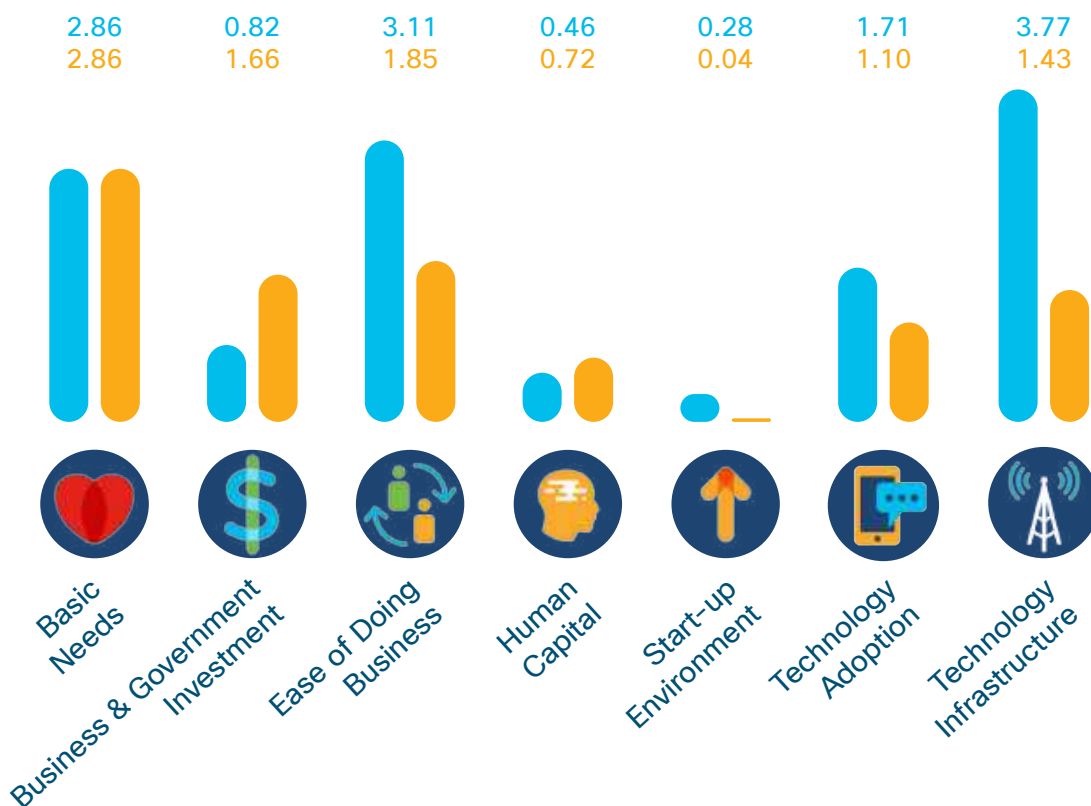
# #5

DRI 2020

# 13.00

DRI 2018

# 9.65





# Victoria

## Building Human Capital

Victoria (VIC) saw a slight shift in digital readiness for 2020, with a drop in its score from 16.07 to 14.32. This decrease was sufficient for it to lose its second ranked position to long-time rival NSW and move to third position which came about primarily due to drops in scores for *Technology Adoption* and *Technology Infrastructure*.

Victoria did however report strong performance improvement in its score for *Start-up Environment*, which rose from 2.04 to 2.25, and was sufficient to see it overtake the ACT and move into second place behind NSW. This result reflects the ongoing activity of LaunchVic in supporting business creation, as well as the impact of ecosystem partners such as the York Butter Factory. And while NSW might have the stronger reputation for incubating start-ups overall, Victoria remains home to many of the country's digital business success stories, including REA Group, seek, carsales.com.au and Envato.

Victoria's fourth place ranking for *Human Capital* came despite Victoria ranking second for post-school qualifications and third in scores in mathematics. This score may be bolstered in future years by programs such as the Victorian Department of Education's Connected Learners Program, which has seen the Department invest in upgraded Wi-Fi and the doubling of internet speeds for rural schools, while also introducing new virtual conferencing and collaboration tools across all government schools.

Significant opportunity exists to lift *Technology Infrastructure*, where Victoria fell from fourth to sixth place, through greater investment in sunrise technologies such as electric vehicles and smart transport systems, as well as in renewable energy.

VIC

Ranking

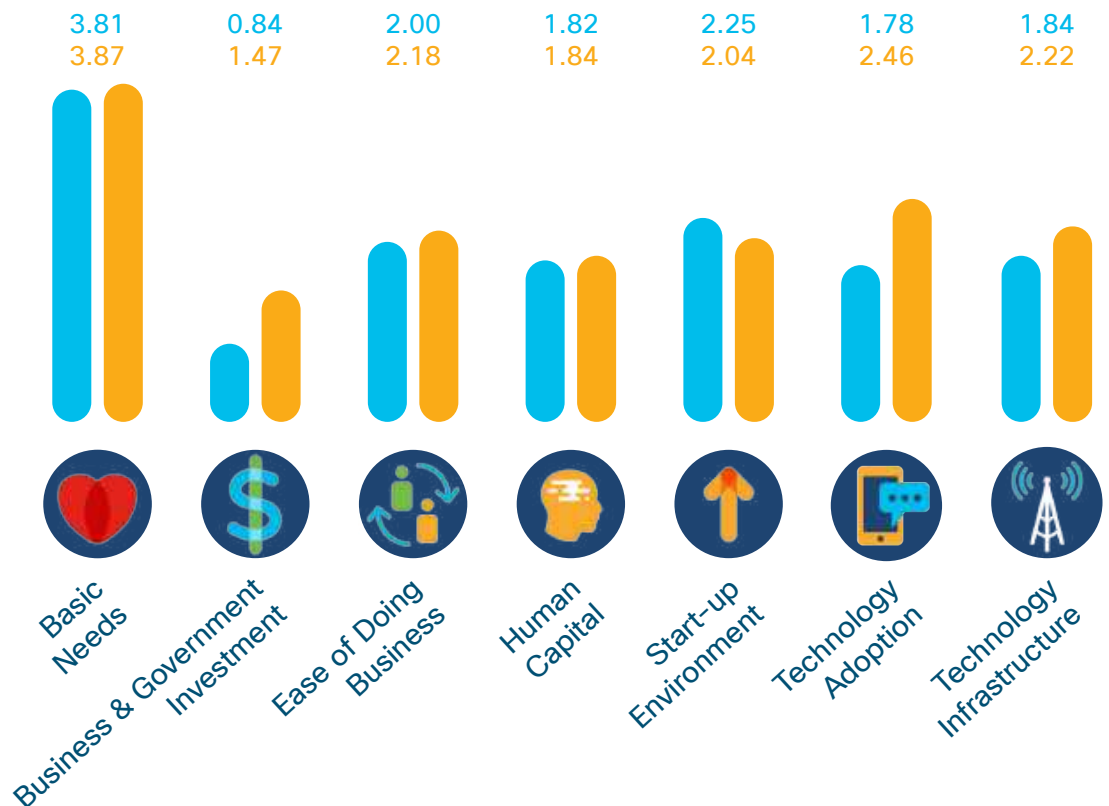
#3

DRI 2020

14.32

DRI 2018

16.07







# Western Australia

## Mining Digital Success Stories

Western Australia (WA) retained its fourth ranked position for 2020, despite the ups and downs of the mining industry that tend to drive its overall economy. WA recorded gains in *Technology Infrastructure*, where it moved from seventh to fourth place, but dropped from third to sixth place for *Ease of Doing Business* due to low SMB confidence and low SMB support for government policies.

WA also recorded a slight improvement in its ranking for *Technology Adoption*, and further uplift may come about should industry generally learn from the pioneering work in the resources sector in the use of technologies such as the Internet of Things, automation, and Artificial Intelligence. The efforts of the state's higher education institutions will provide a multiplying effect here, especially innovative programs such as the micro-credential program created by Curtin University that seeks to provide training in more accessible ways.

This suggests there is more work to be done by the government to ensure that the know-how being developed in the resources sector can be spread across other industries. Future gains should also flow from the clear priorities that the WA state government has set in relation to the innovation economy, human capital and health and wellbeing, including policies designed to improve access and equity, and to ensure all citizens and businesses benefit from a thriving economy.

Realising these gains will, however, require ongoing investing in network infrastructure to help cover the vast distances and ensure that the benefits of ongoing innovation policy flow to all corners of the state – a requirement that has been shown clearly with the recent travel restrictions imposed in response to COVID-19.

WA

Ranking

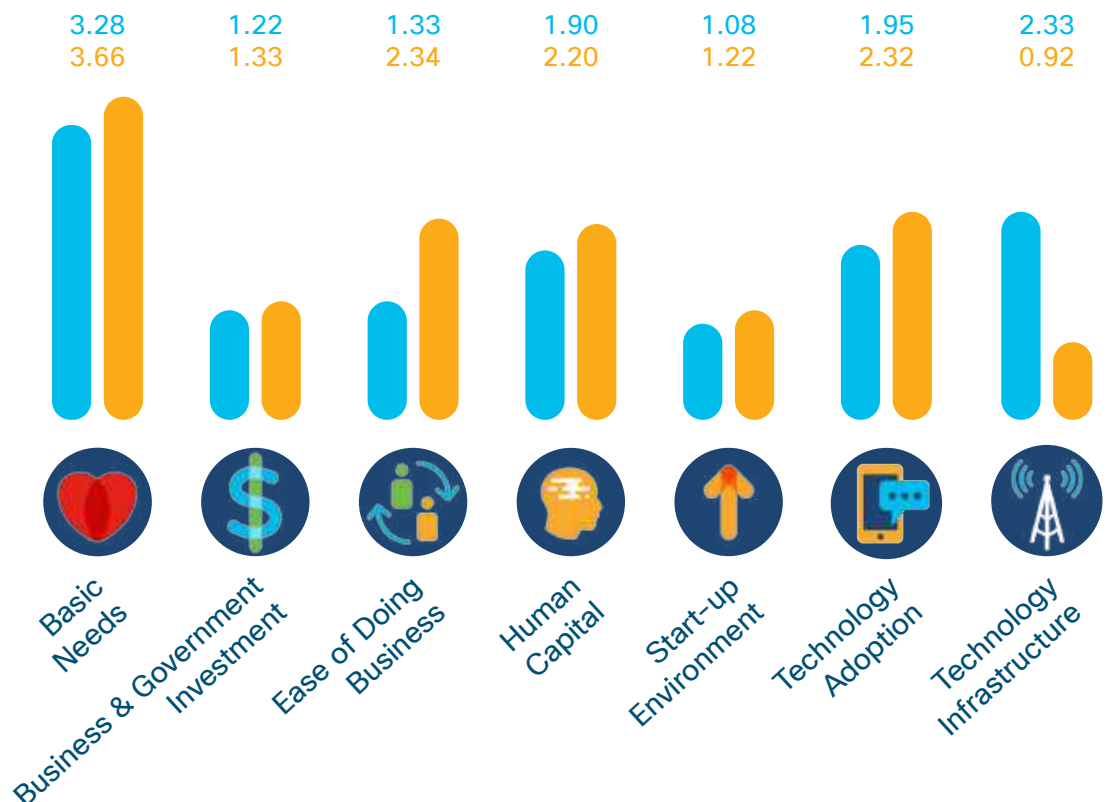
#4

DRI 2020

13.09

DRI 2018

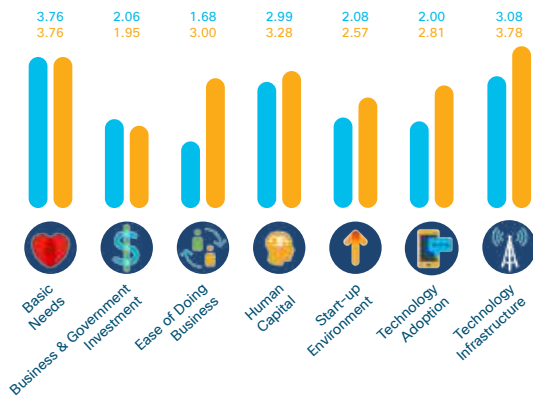
13.99



# Summary of Results

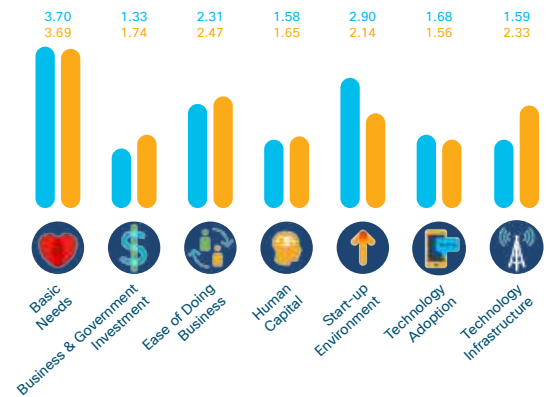
## ACT

Ranking  
**#1**  
DRI 2020  
**17.64**  
DRI 2018  
**21.14**



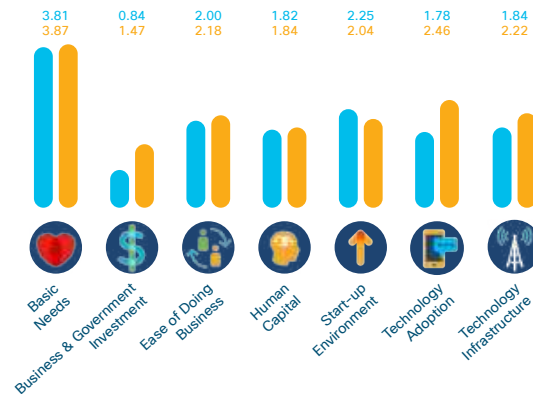
## NSW

Ranking  
**#2**  
DRI 2020  
**15.10**  
DRI 2018  
**15.58**



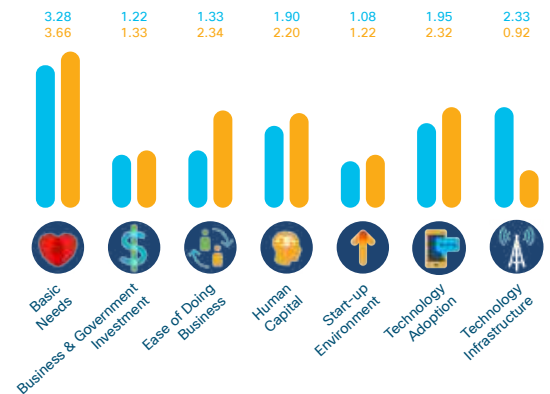
## VIC

Ranking  
**#3**  
DRI 2020  
**14.32**  
DRI 2018  
**16.07**



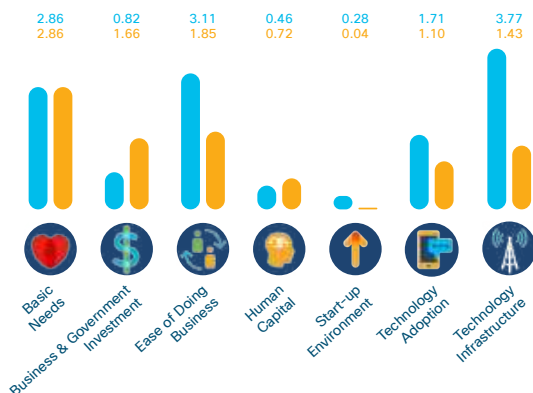
## WA

Ranking  
**#4**  
DRI 2020  
**13.09**  
DRI 2018  
**13.99**



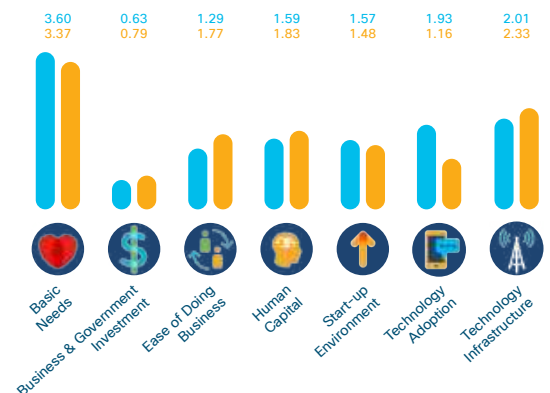
## TAS

Ranking  
**#5**  
DRI 2020  
**13.00**  
DRI 2018  
**9.65**



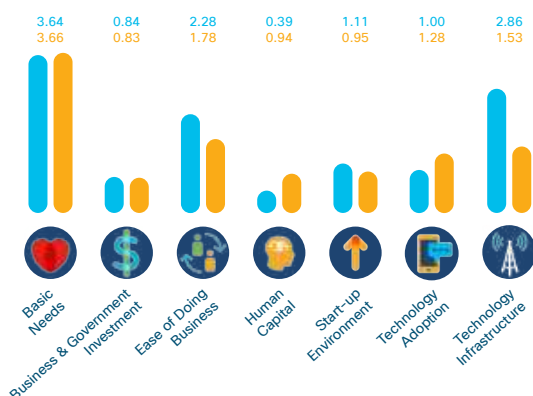
## QLD

Ranking  
**#6**  
DRI 2020  
**12.62**  
DRI 2018  
**12.74**



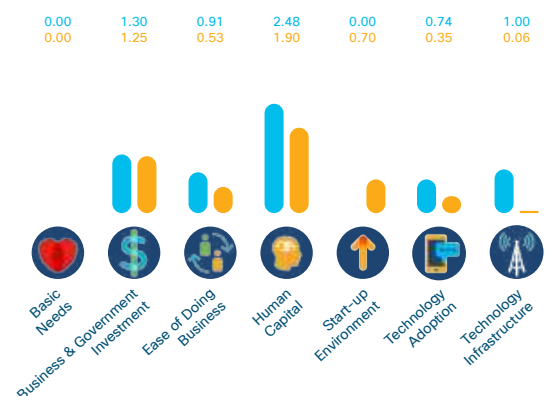
## SA

Ranking  
**#7**  
DRI 2020  
**12.13**  
DRI 2018  
**10.98**



## NT

Ranking  
**#8**  
DRI 2020  
**6.43**  
DRI 2018  
**4.80**











## Conclusion

While many states and territories made good progress in lifting their Digital Readiness Index performance for 2020, the results demonstrate the continued need for ongoing activity to maximise the benefits of investments made so far to ensure they are shared across Australian society.

As the COVID-19 crisis and subsequent lockdowns have shown, having a strong digital capability is critical for building an adaptable and resilient society. Many organisations were only able to continue functioning through the crisis due to their existing investments in digital infrastructure and capabilities. This can be seen clearly in Victoria, where the Department of Education's investment in wireless networking and collaboration technology from Cisco proved vital in delivering distance learning to tens of thousands of students.

Now, as Australia begins to cautiously emerge from the crisis, it enters into an era of heightened business and social uncertainty. With the Australian Federal Government having announced the greatest budget deficit since wartime, and the long-term outlook for economic growth appearing grim, Australia will need to maximise every advantage to improve economic performance and citizen outcomes, especially if it is to lift overall productivity levels.

Investments in digital readiness provide a clear mechanism for doing this. Specifically, this means improving efforts in the development of *Human Capital*, to ensure the workforce has the skills needed to design and deliver strong digital outcomes for business and government over the long term, as well as being able to defend this digital infrastructure. This includes the need for investment in so-called 'blue tech' skills in the TAFE sector, and the development of micro

credential programs that can rapidly upskill workers with new digital capabilities. It also means lifting levels of *Technology Adoption* in the short term to ensure that organisations can utilise the tools available to them to drive the greatest possible benefit. New industries such as renewable energy will play a key role in job creation and will require a highly digitally literate workforce, including digitally skilled trade workers.

Investments in digital readiness will provide immediate benefits for the post COVID-19 economy, and they will pay dividends in the long term by seeding capabilities that will ensure Australia retains or builds on its position in comparison to international peers.

These investments will also serve to help close Australia's digital divide. In the 2018 report we examined the notion of the digital divide within Australian society and discussed the need for investment in digital readiness as a mechanism for ensuring that the digital dividend is spread evenly. While Australia has made some steps towards narrowing the gap, more work remains to be done, and the COVID-19 crisis has highlighted the urgency of that work.

In short, digital readiness is a key factor in building a resilient society. COVID-19 is unlikely to be the last crisis that Australia faces this decade, and our ability to respond to future crises and minimise their impact will greatly depend on the investments we make in digital readiness.

It is vital that all elements of Australian society – government, business and individuals – work together to build our digital future – and take shared responsibility for ensuring that Australia's digital future is one where all people can feel happy, safe and prosperous.