Introduction

Digital technologies provide the backbone of the modern Australian economy. The Australian technology sector provides an economic contribution of $122 billion, or 6.6% of GDP, making it the 6th largest contributing standalone industry.¹ Tech workers also earn 47% more than the average Australian worker and are 60% more productive. Tech services exports are worth $3.78 billion.² However, the AIIA views technology as an enabler across all sectors, so its true benefits and scale are in fact much larger, and embedded across core sectors like government, defence, agriculture, health and mining. COVID-19 has reinforced the critical role digital technologies play to support the Queensland economy, but has also driven the sector to make changes that would normally have taken years to implement in mere months.

If the tech sector were an industry it would make the sixth largest contribution to Australia’s GDP

Industry contribution to Australia’s GDP, Gross Value Add $B 2018

Twenty per cent of Australia’s population lives in Queensland, yet the state is home to only 13.5% of the tech sector workforce. Queensland, unfortunately, are the laggards of the technology sector in Australia and are not set up for the next generation of economic success.

If ever there were a time when the capabilities of the technology sector have been highlighted, it has been the COVID-19 pandemic. Millions of workers were able to carry on working, continue getting paid and keep their companies afloat through the power of technology.

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Many of these workers were also government workers transitioning to work-from-home arrangements. $130 billion in JobKeeper and raising the unemployment benefit – henceforth known as JobSeeker – by $200 per fortnight for over one million Australians who were suddenly out of work saw applicants urgently processed using existing technology capabilities that were in place with the ATO and with Services Australia. The speed with which these payments were processed in Australia led every other nation across the globe, who were employing similar emergency funding arrangements.

Just like power, water, transport and defence infrastructure, the technology infrastructure of our nation represents sovereign capabilities that are increasingly critical to both our survival and our success. We discuss the notion of sovereign capabilities and the digital backbone of our economy at length in our White Paper: Building Australia’s Digital Future in a Post-COVID World.

Yet, we also know of Queensland government entities which are unable to support work-from-home arrangements, due to decades-old policies of only purchasing desktop computers and human resources policies and agreements that cannot accommodate working-from-home in any case. There are many government systems that are unable to be easily accessed remotely, rendering them unusable, even if staff could work from home.

Within Australia’s digital inclusion index³, Queensland ranks 5th, behind VIC, NSW, ACT, and WA. North West Queensland is the technology dust bowl of Australia, ranked the worst area in Australia, behind only South West Tasmania. Queensland is often recognised as the most regionally-dispersed state in Australia, yet technology is not in the mix to capitalise on and support our regions. If ever there were an opportunity to support greater regional development, then technology surely must be one of the greatest available opportunities. We accept that government is scarred by certain technology projects of the past and that traditional technology policy and technology investment can be risky. However, standing still while the world moves past us is not the solution. Every other state is investing and moving forward and doing better than Queensland and the results are now becoming stark.

Whether it is Queensland punching well below its weight, with only 13.5% of the technology workforce while we house 20% of the population, as aforementioned, or Queensland not supporting our communities and being ranked 5th in Australian states in digital inclusion, or on many other measures, we are the technology laggards of Australia. These policies aim to support an incoming Queensland Government to address these issues, and we would welcome them becoming a higher priority.

Government Digitisation

As stated above, if ever there were a time when the technology sector capabilities have been highlighted, it has been the COVID-19 pandemic. Millions of workers were able to keep working, keep getting paid, and keep their companies afloat through technology, and importantly keep government services flowing seamlessly.

Yet, some government agencies were unable to support work-from-home arrangements, due to only having desktop computers and outdated 20th century analogue human resources policies and agreements. Simple things, like the ability for contracts to be formed with government through electronic signature, have never been fully addressed, which creates issues and delays, and in some cases still does, six months on since the start of the pandemic.

The Federal Government, amongst other examples, have provided the evidence of how important technology systems are by processing $130 billion in JobKeeper payments and hundreds of thousands of Jobseeker applications using their existing technology capabilities.

The Queensland government is estimated to pay out $1.83 billion annually in technology-related expenditure. The vast majority of this is categorised as being directed at Business-as-Usual (BAU) activities which are, in effect, the cost of keeping things running. This is not sustainable. Technology systems are indeed critical infrastructure, but are not comparable to bridges and roads in other ways. Bridges and roads do not get hacked by malicious overseas actors, they do not need to change in configuration every time there is a change in government policy or a new service to be delivered and the technology they support is not changing so rapidly that they need to be continuously upgraded.

Technology infrastructure, in order to keep pace, needs not just maintenance; it needs renewal and re-investment. This has been lacking now for many years. A reasonable benchmark is for 50% of spend to be directed towards BAU, freeing up 50% for renewal and reinvestment, to keep pace with government’s own policy delivery requirements, staff and citizen expectations and support the improved digitisation of Government services.

Queensland does have a cloud-first policy, aimed at moving on-premise infrastructure and in-house licensing to more cost-effective and more agile alternatives available from the market. This is also a pathway to spending less on BAU costs. Purchasing cloud services requires moving from financing IT with capital to financing with operational expenditure. Government budgeting does not support this effectively. Buying software licences and hardware uses capital. The use of capital allows asset life to be extended, pushing

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expenditure into the future, and artificially reducing short-term expenditure. This comes at a risk to the fragility of the systems and stalls any renewal and re-investment agenda. It subsequently makes any ultimate renewal step even bigger. The cost is never dealt with; it is only deferred. This phenomenon is taking place in Queensland.

The use of operational expenditure requires regular and continuous commitment and reduces the discretion available to delay costs from year to year. However, in many cases, it is cheaper. It also directs government staff towards renewal and re-investment work by relying on external services for standard BAU maintenance activity.

A further constraint is the lack of visibility on progress against policies, such as the cloud-first policy. Regular reporting on cloud adoption, IT expenditure, BAU vs. renewal and re-investment and supporting measures, once made public, would help generate progress and accountability for delivery against policy. It would also help industry to support government’s objectives.

RECOMMENDATION:

1. That the Queensland Government adopt a target of 50% or less of its IT expenditure being spent on running existing operations by 2024;

2. That the Government publish its whole-of-government and departmental BAU ICT spend, and its mix of spend between BAU and renewal/reinvestment (and supporting metrics) on an annual basis.
Queensland Government SME Procurement Policy

The AIIA supports the intent and ambition behind the ICT SME participation scheme policy, but does not believe it has been effective in building Queensland ICT SME capacity.

In a post-COVID economy, strong and resilient local ICT capabilities are vital to the functioning of local and national critical industries and the state economy. Government has a key role to play as a major buyer of ICT to build local SME capability and foster the next successful national and international tech company.

It is pleasing that new rules came into effect on 1 July 2020 for a 25% target for all categories of procurement including ICT, moving to 30% by 30 June 2022. The government is now working on the details to achieve these targets.

RECOMMENDATION:

The AIIA calls on an incoming Queensland Government to boost the local ICT industry and realise its 30% SME target by 2022 by:

- Creating a whole-of-government digital SME marketplace where all contracts under $500,000 must be procured and information on the marketplace performance is published twice a year;
- Publishing, on a quarterly basis, how many direct-sourced contracts have been procured up to the current $500,000 threshold;
- Confirming minimum total ICT spend of 30% on SMEs by 2022;
- Allocating 2% of ICT budgets towards funding proof of concepts and innovative solutions from the local SME market; and
- As part of the above, twice a year, holding ICT SME “pitch days” involving leading agency buyers including but not limited to health, education and emergency services representatives.
Regional Industry Priorities and Industry Development

REGIONALISATION

The AIIA believes that a digital backbone and post-COVID changes will lead to a regionalisation of business and the workforce in those states that successfully support this change. The AIIA agrees with the digital inclusion index that national momentum and coordination is required and that tackling the geographic and social challenges will require state-based, regional and local initiatives with strong engagement strategies.

The amount of working-from-home has grown exponentially and the tyranny of distance, requiring domestic and international travel, has been effectively challenged by the adoption of technology. Additionally, most organisations are looking to reduce their bricks-and-mortar footprint in favour of virtual workplaces. Reduction in travel time reduces greenhouse gas emissions, wear and tear on roads and infrastructure, which are significant outcomes given that delays to future investment in and maintenance of traditional infrastructure are likely.

Reduction in overheads allows regional workforces to be adopted at an increased level. The corresponding economic lift in regional areas will also improve the socio-economic outcomes for those regional areas. Now is the time to invest wisely in regional areas, capitalising on the Post-COVID-19 world and leveraging the technological change that has rapidly adopted in the COVID-19 environment to ensure Queensland is not left behind.

RECOMMENDATION:

That the Queensland Government adopt a target of developing regional ICT to grow faster than the national average, measured against the digital inclusion index, to recover lost ground, particularly in North and North West Queensland.

Meaningful, time based-measurable quotas are required for successful and sustainable strategy execution. AIIA would welcome opportunity to work with the Queensland Government to develop a framework to achieve the above policy goal.
ECOSYSTEMS

Boosting investment in the regions away from the South East Corner would enable more people to work remotely and improve access to goods and services, leveraging strong regional players with aligned incentives. Post-COVID-19, there is already a shift in people’s preferences and migration from Sydney and Melbourne to Queensland. Co-ordinating the movement and/or creation of industry, at scale, will require incentives and planning to capture businesses and eventually ICT ecosystems into the state.

The economic benefits of creating jobs in an economic ecosystem is widely studied and documented. Every dollar earned in an ecosystem has a 3-5 times multiplier effect in the community. Importantly, the seeding works best in creating a holistic, integrated ecosystem, not the planting of individual entrepreneurial seeds, where many may sprout with the support of sustenance and wither soon after.

“An ecosystem is defined as a dynamically stable network of interconnected firms and institutions within a bounded geographical space. It is proposed that representing regional economic networks as ‘ecosystems’ provides analytical structure and depth to theories of the sources of regional advantage, the role of entrepreneurs in regional development, and the determinants of resilience in regional economic systems.”

A consortium of Industry and Government in NSW is planning a Silicon Valley-style hub near Central Station, Sydney. By clustering interdependent technology firms and labour, the vision is to build a digital ecosystem whose network effects benefit the participants. Queensland must create a similar consortium to foster collaboration between start-ups, small firms, research bodies and universities. Government-led, this consortium must proactively plan to grow and retain skilled labour, attract skilled labour and develop ICT capabilities that are all aligned to the aim of increasing the labour force and prosperity of the state. AIIA considers that a similar approach in Queensland would lead to the desired outcomes.

RECOMMENDATION:

That a Queensland Consortium be established to develop an ICT ecosystem – a private-public partnership (PPP) involving attraction of cornerstone corporate actors, in conjunction with government, allied to skills building and research in collaboration with Universities and TAFEs, and the building out of the SME locally based players to ensure the supply chain leaves as much money in Queensland as is possible, developing capability that services Australia and the globe.

AIIA would welcome the opportunity to work with the Queensland Government to develop a framework to achieve the above policy goal.

Philip E. Auerswald and Lokesh M. Dani, The New Oxford Handbook of Economic Geography
ADVANCE QUEENSLAND

Advance Queensland has been the vehicle for growing the Queensland economy. The current model sees strong investment in the university sector, and others, to grow start-ups. Many of these investments fail to materialise for many different reasons. One such reason is that these start-ups lack a real ecosystem in which to grow and thrive. AIIA considers it is time to move to the next phase of investment in Advance Queensland, with new policy design that creates commercial ecosystems. Such ecosystems are most easily built by attracting large organisations that become growth multipliers. Initiatives to support organisations such as Rheinmetall’s Military Vehicle Centre of Excellence (MILVEHCOE) and Boeing are the first steps in a longer journey. Maximising these investments requires incentives to align SMEs, universities, supply chains and the labour force. This can be grown equally in regional and urban areas.

AIIA’s position is that the aim of government should not just be investing in order to create a finite number of jobs. Government must create a platform of skills that can be leveraged to export capabilities out of the state to bring new sources of revenue to Queensland. In the technology-based world in which we live, ICT sits at the foundation of nearly every business as a strategic enabler. Focussed investment around ICT, the building of “sovereign systems" and retained intellectual property in Queensland should be a mandatory consideration underpinning any investment proposition that Advance Queensland pursues.

Currently, the vast bulk of graduates from James Cook University and TAFE move to Brisbane or other parts of Australia or overseas for work. Retaining those skills in the region will see an economic multiplier effect in those regions. Coupled with tackling specific problem areas for government (anchor revenue) and the growing of a SME ecosystem to provide all the needs of that cluster or ecosystem, the effects upon such a regional area would be dramatic. This could and should support specific targets for inclusion of First Nations people, improving not only economics but health and welfare outcomes in these communities.

RECOMMENDATION:

That the government develop incentives to attract “cornerstone" ICT ecosystem head offices in order to create pull and clustering. Governments around the country and around the world have been utilising such incentives to motivate growth. Favourable payroll taxes, free / reduced land and buildings costs, per head subsidies for generating employment and the multiplier effect of that employment are just some of the ways investment could be targeted to bring the right kind of large corporate actors to all parts of Queensland around which to build a holistically planned ecosystem. These incentives should be coupled with clearly defined outcomes targeted at generating the benefits outlined for local industry and the local economy.

The AIIA would welcome opportunity to work with the Queensland Government to develop a framework to achieve the above policy goal.
**Dedicated Digital Minister**

Digital and Technology requirements for both government and citizens will continue to expand in the coming decades, with demand and investment will increase in this space. Technology roles to support this investment and growth do not typically require people to work in a capital city, and indeed Queensland has a significant opportunity to grow its portion of the nation ICT workforce much higher than the current 13.5%, to match its population and grow to beyond, to 25% if possible. Queensland’s lifestyle, climate, and opportunities to reskill its workforce create high levels of upside.

It is now the right time to appoint a dedicated digital minister with funding, who would report to the Premier and sit within the Cabinet. This role could consolidate the currently fragmented and subordinated approach and provide focus to tackle the modernisation of technology services within government, the modernisation of the delivery of citizen services across government, Cyber Security and the Advance Queensland portfolio to drive innovation and economic growth in Queensland.

**RECOMMENDATIONS**

That the Queensland Government:

1. Create a new dedicated Digital Minister with the focus, portfolio and budget to drive the policy recommendations here and for the government;
2. Formalise the creation of a Service Queensland policy, framework and funding model to increase agencies adoption and support the acceleration of delivery of digital services for Queensland citizens;
3. Replicate the funding model used by NSW, and created 10 years ago, which has made NSW a leader in citizen services delivery. This requires significant long-term thinking that is focused on creating outcomes for citizens.
SKILLS

For Queensland to build a digital future, we need to invest in our people to ensure they have the skills required and that Queensland is not left behind.

The skilled workforce required to respond to these future needs was lacking pre-COVID-19. The effects of the pandemic have only served to exacerbate this gap. Despite the impact of the economic slowdown, salaries in the Australian technology sector continued to rise in the last six months, demonstrating that these skills are critical for the future of Queensland and represent an opportunity to take advantage of the growth in these sectors.6

These skill requirements are pervasive across industry, government, IT workers and non-IT workers. There are industry members of the AIIA willing and able to support the transition of the workforce.

RECOMMENDATIONS:

That the Queensland Government:

1. Allocate funding to schools for training both students and teachers on digital skills, with a particular focus on underprivileged institutions and indigenous communities.
2. Increase funding to support and accelerate the current Queensland Government-funded trials for micro credentialing programs and expand to include Queensland government technology workers.
3. Work with AIIA to develop an industry partnership to create the AIIA Digital Skills Guild. Through our membership, the AIIA will work with key service providers – our members – to create a program of curriculum and training in the latest technologies at no cost for government employees. Several large ICT organisations have already committed to providing material to support this initiative.
4. Target to train 50% of the IT workforce in Queensland Government with basic new skills by 2022 through the AIIA Digital Skills Guild.
5. Target to offer training to 100% of non-IT workforce staff interested in reskilling, enabling new career pathways through the Digital Skills Guild by 2022.


AIIA Queensland Pre-Election Policy Statement
About the AIIA

The Australian Information Industry Association (AIIA) is Australia’s peak representative body and advocacy group for organisations in the digital ecosystem. Since 1978 AIIA has pursued activities to stimulate and grow the digital ecosystem, to create a favourable business environment for members and to contribute to Australia’s economic prosperity.

We do this by delivering outstanding member value by providing a strong voice of influence; building a sense of community through events and education; enabling a network for collaboration and inspiration; and developing compelling content and relevant and interesting information.

Our members are diverse and truly represent the diversity of the Australian tech ecosystem and include Australian SMEs and larger technology, telecommunications and infrastructure and cloud companies as well as hyper-scale cloud and multi-national software and SAS providers.

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