⊞ Tech Council

Technology Council of Australia Roadmap to Deliver One Million Tech Jobs

Tech Council of
Australia
October 2021

The Technology Council of Australia has set three goals for the tech sector in Australia:

1. **Employ 1 million people in tech-related jobs by 2025, and 1.2 million by 2030**

2. **Contribute $250bn to GDP from tech-related activity by 2030**

3. **Make Australia the best place to start and scale a company**

The TCA has created a Roadmap to Deliver One Million Tech Jobs detailing the pathway for Australia to realise these goals. We now want to partner with governments, other industries and Australian communities to deliver on it.
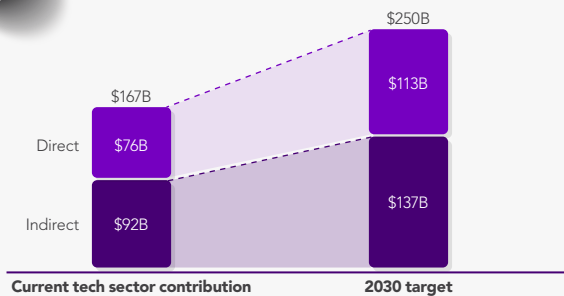
Defining Australia's Tech Jobs Opportunity

The Tech Council's targets are for the tech sector to contribute $250B to GDP by 2030, and employ one million people by 2025
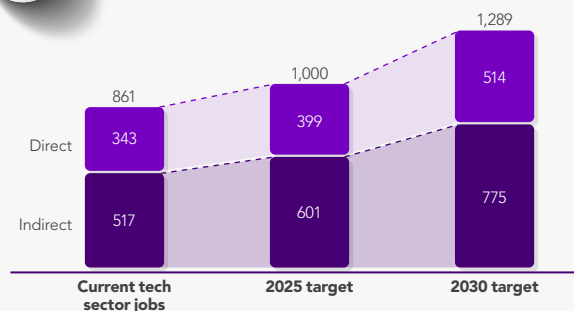
Economic contribution of the tech sector by 2030
$B, 2021 dollars, annual economic contribution of the tech sector

Tech sector employment by 2025 and 2030
'000, employed persons in the tech sector

- The Australian tech sector has become a critical part of the economy, contributing $167bn (8.5%) to GDP per year and 861,000 jobs
- There is an opportunity to increase the contribution and employment of Australia's tech sector, as other global peers such as Canada have a larger tech sector as a proportion of the economy
- The tech sector will contribute $250Bn and create 1.3m jobs, if Australia can match Canada's contribution

Notes: The direct tech sector refers to the gross value add of technology related industries such as internet publishing and broadcasting, internet service providers, web search portals, data processing, computer system design, e-commerce and telecommunications services. The indirect tech sector refers to the value of tech embedded in other industries.
Source: Accenture 2021, The Economic Contribution of the Tech Sector

Australia has experienced an unprecedented tech boom in the last ten years, creating around 100 tech companies valued at $100m+. Sixty-seven of those companies were formed in the last ten years. That means today the Australian tech sector is a pillar of the Australian economy, contributing $167 billion per annum to the GDP, and employing 861,000 people. This makes the tech sector equivalent to Australia's third largest industry, behind mining and banking, and Australia's seventh largest employing sector. Adoption of digital tech by small businesses and companies outside of the direct tech sector is also increasing rapidly.

To achieve the sector's full potential, and reach the tech sector's target of employing 1 million people in tech jobs by 2030 and contributing $250bn to GDP, Australia will need to:

- **Keep growing the pipeline of new tech start-up companies**, which will contribute 30,000 new jobs and an extra $7bn in value by 2030

- **Scale-up more early stage Australian tech companies**, which will contribute a further 65,000 jobs and $14bn in value

- **Create more large Australian companies and attract more high-value activity and investment in Australia by large global multinational companies**, which will contribute 75,000 new jobs, and $16bn in extra value

- **Accelerate tech job creation and investment by businesses outside of the tech sector** (e.g. banking, mining, manufacturing, retail), which will create an extra 258,000 new jobs, and $45bn in value

Australia can achieve these targets by growing its direct and indirect tech sectors, particularly the contribution of large tech firms
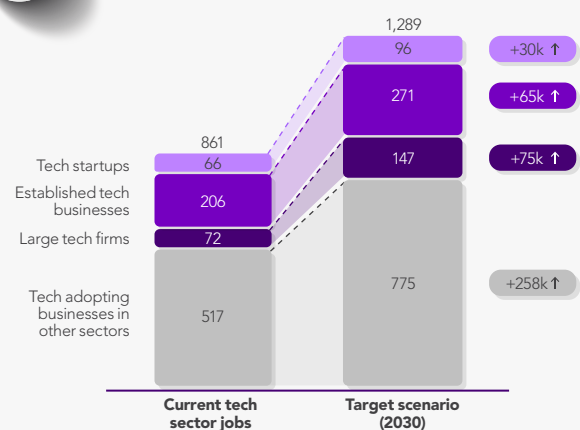
Size of the tech sector by 2030
$B, economic contribution of the tech sector
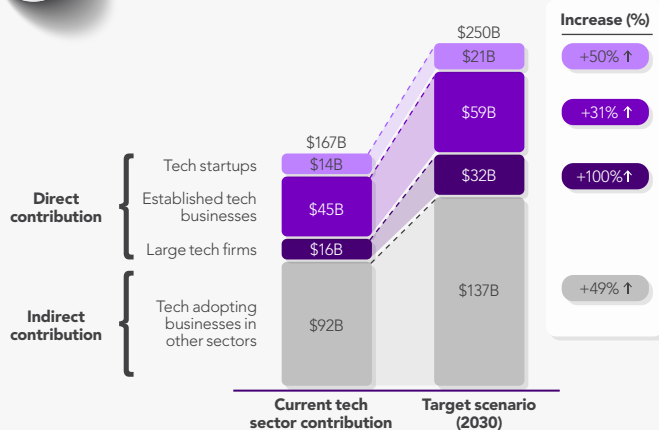
Tech sector employment by 2030
'000, employed persons in the tech sector

Notes: Tech startups are defined as businesses with annual turnover <$2m, large tech firms are defined as businesses with >200 employees, and remaining direct tech businesses are classified as established tech businesses. 1. The Australian, 'Best time in history' for Aussie tech scene, as $5bn deals create 20 tech unicorns

Source: Statistics Canada, Business counts with employees; Statistics Canada, Employment by industry; ABS, Australian Business Counts by employees; ABS, Australian Business Counts by turnover; Accenture 2021, The Economic Contribution of the Tech Sector.

To meet the Tech Sector's goals for one million jobs, industry, government and communities need to partner in three areas.

1. Get more Australians into tech-related jobs

The TCA's goal is to employ 1 million people in tech jobs by 2025, and 1.2 million people in tech jobs by 2030. That will create an additional 742,000 tech jobs by 2030 compared to today.

The biggest and most urgent risk to the goal of employing one million people in tech sector jobs by 2025 is acute labour shortages facing the tech sector. That means we must act now to ensure we can fill the new tech jobs we're creating in Australia over the next four years.

To get 1 million people employed in tech sector jobs by 2025, we need an additional 286,000 workers to join the sector.

To meet this ambitious target, reskilling and upskilling workers must become the primary way tech jobs are filled. 146,000 Australians will need to transition into the tech sector via reskilling and upskilling from other roles. That includes an additional 60,000 Australians that would not otherwise transition. Attracting, recruiting and reskilling these Austalians into the tech sector must be the top priority for the tech industry, workers, governments and the training sector.

Training young people to enter the sector is also critical. An additional 12,000 students will also need to enter the tech sector workforce to meet the 2025 target of employing one million people in tech jobs. This is on top of the 86,000 workers and 56,000 students that are already forecast to enter the sector in a BAU jobs trajectory.

The most significant driver of additional tech workers is upskilling and reskilling workers from other roles

Projected tech sector jobs in 2025
Number of tech sector workers, '000

☐ Required uplift from policy reform   ■ Business-as-usual prediction

861	-147	56 / 12	60 / 86	21 / 52	1,000 / 93 / 907
Existing tech jobs (2021)	Tech workers retiring/leaving the tech workforce[4]	New graduates with tech-related qualifications (university and VET)[1]	Existing workers upskilling or reskilling into tech roles[3]	Newly arriving skilled migrants in tech roles[2]	Projected tech jobs (2025)

To reach one million jobs by 2025, there will need to be an **additional 93,000 tech workers** above our 2025 business-as-usual prediction. Some of these additional workers can come from increasing the number of graduates and migrants with tech skills. However, the most significant driver available is in **reskilling and upskilling workers from other roles** into tech roles.

Getting more Australians into tech sector jobs is a good deal for workers, as tech jobs are high paid, secure, and flexible.

The tech sector is also an industry prepared to give anyone a go. Forty-two percent of workers in the tech sector do not have a university degree. Opportunities in the tech sector for those without a university education are better than comparable industries – entrants with Vocational Educational Training (VET) generally only experience a 3% pay gap relative to university graduates, compared to a 17% gap for VET educated entrants in other comparable high-paying industries. It is also a culturally diverse industry, with 31% of workers speaking a language other than English.

The tech industry also provides outstanding opportunities for women seeking a mid-career change, or who are looking for new avenues to return to the workforce following the downturn as a result of the pandemic. Women are mostly likely to join the tech sector mid-career. When they do, it often accelerates their pay, skills and opportunity, while providing a flexible work environment. Further, women joining the tech sector at an entry level have a gender pay gap half that of women entering comparable paying industries.

Making sure there are pathways for all Australians to enter tech sector jobs is a priority for the TCA.

Jobs and skills recommendations

What the industry commits to do:

- **Set a goal of employing one million people in tech sector jobs by 2025, and 1.2 million by 2030**

- **Help reskill 60,000 early and mid-career Australians to enter the tech sector** in the next 4 years

- **Employ people from a broader range of training and educational backgrounds** who have core skills needed by the sector (e.g. statistics, sales) and can be efficiently upskilled to make them ready for tech sector jobs

- **Develop a cross-economy tech workforce strategy** in partnership with other industries

What we recommend governments do:

- **Adopt the tech sector's 1 million tech sector jobs** by 2025 and 1.2 million by 2030, goals and work with industry to enable the goals to be met

- **Partner with industry to grow the pipeline of workers and pathways** into tech sector jobs, including by reskilling 60,000 Australians to work in the tech sector by 2025 and having 12,000 extra graduates enter the Tech workforce for the first time by 2025

- **Support the tech industry's cross-economy tech sector workforce strategy**, and work collaboratively with industry and training sectors to help workers and students train, reskill and enter tech work, including from non-tech sectors and non-traditional training courses

- **Continue to help the industry attract high-skilled and specialised talent** through targeted skilled migration programs

2. Increase investment and funding

To grow more companies and create more jobs, Australia needs to increase the amount of investment available to the tech sector. This funding enables companies to employ more staff, develop new products, and to expand globally via exports.

Australia's biggest market gap versus similar economies is in creating and attracting large tech sector firms. We therefore need to make it easier and more attractive for Australian and foreign investors to invest in the sector to help our local companies grow into global success stories, while remaining headquartered in Australia.
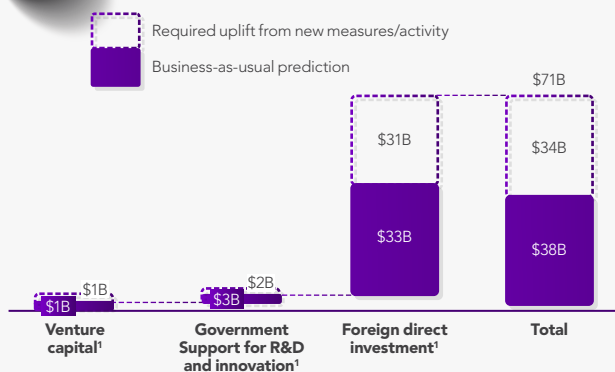
We also need to attract more high-value multinational company activity to Australia (e.g. regional R&D, engineering and product development hubs and expansion into new technologies, such as quantum and space).

Increasing investment – especially from FDI – is critical to growing Australia's local tech sector
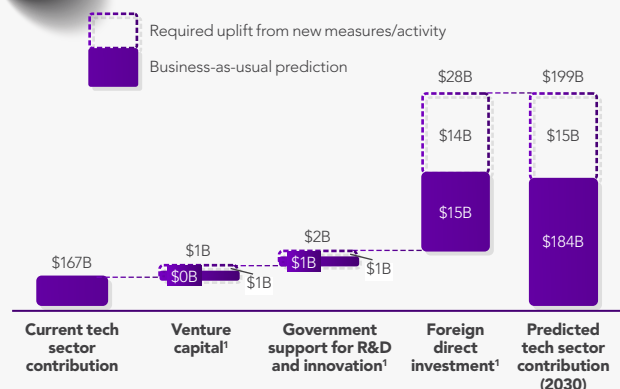
External investment in the tech sector in 2030
$B AUD

- Required uplift from new measures/activity
- Business-as-usual prediction

	Venture capital[1]	Government Support for R&D and innovation[1]	Foreign direct investment[1]	Total
Required uplift	$1B	$2B	$31B	$34B
Business-as-usual	$1B	$3B	$33B	$38B
Total				$71B

Contribution to GDO in 2030
$B AUD

- Required uplift from new measures/activity
- Business-as-usual prediction

	Current tech sector contribution	Venture capital[1]	Government support for R&D and innovation[1]	Foreign direct investment[1]	Predicted tech sector contribution (2030)
Required uplift		$1B	$2B	$14B	$15B
Business-as-usual	$167B	$0B	$1B	$15B	$184B
Additional		$1B	$1B		
Total				$28B	$199B

The greatest jobs and economic growth contribution will come from industries outside the direct sector. This could be worth 258,000 new tech jobs, and $45bn in extra growth by 2030. However, today Australia ranks in the bottom third of OECD countries for domestic capital investment in technology across the economy. Matching global peers would unlock $14bn in economic contribution. To achieve this, businesses will need to increase their investment in software, data, AI, cloud computing, analytics, equipment and other tech related capital.

As the accelerated rate of tech adoption has shown in the pandemic, this will also help these sectors stay competitive, respond to customer needs, create flexible workplaces, increase their productivity, and create more jobs.

Australia can get a double economic dividend by growing our global advantage in making software for the small and medium enterprise (SME) market. Australia and New Zealand are global leaders in creating tech designed for SMEs, such as accounting software products like Xero and MYOB, rostering software such as Deputy, graphic design software such as Canva, payments innovations such as Afterpay and tyro, and WH&S software such as SafetyCulture.

SME tech is a rapidly growing market segment which is delivering some of Australia's most successful tech companies, creating thousands of jobs, and significant new export revenues. It also benefits Australian small businesses, who get to be the first customers in the world to access these products and services. This helps them cut down on their red tape and costs, grow their business, and get more time back to spend on their business and with their families.

By making Australia the best place in the world to launch and scale a company making SME tech, we can also make Australia one of the best places in the world to launch and grow a small business in any sector of the economy.

Growth and investment recommendations

What the industry commits to do:

- **Keep founding new tech start-up companies**, which will contribute 30,000 new jobs and an extra $7bn in value by 2030
- **Invest in, and scale-up, more early stage Australian tech companies**, which will contribute a further 65,000 jobs and $14bn in value
- **Create more large Australian companies and make the internal case within large, global multinational companies to attract more high-value activity and investment in Australia**, contributing 75,000 new jobs, and $16bn in extra value
- **Make Australia amongst the top five countries in the world for producing SME software and tech**

What we recommend governments do:

- **Address early-stage company funding gaps**, creating more 'shots on goal' for high-potential companies
- **Make it easier for Australian and foreign investors to invest in high-potential Australian firms, and to attract more global firms to locate high-value activities in Australia**, e.g. product development, local R&D and APAC regional service and sales hub
- **Support tech investment and take-up** by Australian businesses across the economy to lift productivity and competitiveness

Make Australia a certain, attractive and low-risk place to invest and innovate

Australia can be one of the world's leaders in creating and adopting new tech products. To do this, we need a regulatory environment that is proportionate and predictable for investors, innovators and consumers, interoperable with other jurisdictions, and that consistently follows a set of best practice regulatory principles.

Australia's stable government, strong economy and track record of early consumer adoption of tech makes us an ideal market to lead on a sensible approach to the regulation of emerging products, services and industries, particularly in a period of geopolitical unrest globally.

Making Australia a leader in digital economy regulation will have a direct economic benefit. Modelling by Accenture shows that economies that are leaders in digital economy regulation grow on average by 6.3% per year. Countries that are medium performers grow by 4.3%, while laggards at regulation grow by 2.9%. Australia is currently sitting between a laggard and medium performer. If we become a medium performer, we will hit our $250bn growth goal by 2030. If we became a digital economy leader today - and got the corresponding growth bounce - we would achieve our goal of tech activity contributing $250bn to GDP by 2027 - three years early.

Regulation recommendations

What the industry commits to do:

- **Work with governments to co-design and follow best practice regulatory principles** and behaviours to encourage investment and build consumer confidence, including when introducing new products and services.

- **Undertake research to identify and quantify the segments of the tech sector where Australia is globally distinctive** to help build our global profile as a destination for investment and talent

What we recommend governments do:

- **Make Australia a new economy regulation leader** by encouraging the safe and early introduction of new products and services with fit-for-purpose, internationally interoperable regulation and by consistently applying best practice regulatory principles. The principles we propose are that policy and regulation should be:
  - Informed and coordinated
  - Proportionate
  - Timely
  - Consistent and interoperable
  - Have a bias to innovation and growth
- **Once these are in place, build a global reputation for being one of the most certain and safest places to invest and innovate in tech** by running a brand identity campaign highlighting Australia's global strengths in tech and safe and certain regulatory environment.

Thank you.

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