



aiia

australian information
industry association

AIIA SURVEY

DIGITAL STATE OF THE NATION 2023

JUNE 2023

DIGITAL STATE OF THE NATION 2023: AIIA MEMBER SURVEY

One of the AIIA's greatest strengths is its large and varied membership base. Our members cover the entire spectrum of the tech ecosystem, from start-ups and sole operators, SMEs through to multinational corporations. Member organisations encompass a broad base of technology solutions including telecommunications, cloud, data centre and infrastructure, systems integration, cyber security, hardware and software platforms and management consultancy.

For the fourth year running, the AIIA has surveyed the tech sector to better understand the issues faced by industry. This aids in policy development and representation, but also critically enables us to communicate the key issues to government. In addition, the AIIA is proud that we have over 200 individual members actively engaged across our State & Territory Councils and Policy Advisory Networks, fruitfully devoting their time and expertise to strengthening the industry.

Our national Policy Advisory Networks (PANs) include:

- Digital Skills
- Cyber Security
- Federal Government
- Domestic Capabilities
- Environment, Sustainability and Governance
- Health
- Legal

Through our State and Territory Councils, there are additional sub-PANs that focus on issues in their respective jurisdictions.

Overview and Methodology

The 2023 survey included the same questions from the previous years to enable the AIIA to gauge changes in response over time, but includes additional questions where new issues have emerged, including questions on sustainability and net-zero carbon emission reduction goals.

Those who responded to the AIIA survey self-identified as predominantly professional services, software, data centres, telecommunications and cloud- and web-hosting businesses.

In market
March-April 2023



14%
sole
operators



22%
MNCs



36%
SMEs



6.5%
Public
Sector




21%
Large Australian
Company

SUMMARY AND KEY FINDINGS




Record level of concerns over the **economy** at 41% affecting **business confidence**, with business reducing their intentions to hire.

The **skills deficit** remains the **most significant handbrake** on **sector growth at 44%**, however, access to finance has emerged in 2023 as a key issue with **25% now concerned up from 7%**.




Government is improving its understanding of the important of technology ('**tech**') to the broader economy.




Cyber security and Artificial Intelligence ('AI') skills are most in demand in 2023, with AI skills hardest to find in Australia.

Concerns over increased government regulation and red-tape increased 14% for the tech sector



83% of respondents indicated that **reducing** company **carbon footprint is important**, however 58% **do not collect data** on carbon emissions by their organisations.



INTRODUCTION

A large number of statistically significant shifts have taken place for the tech sector and overall economy over the past 12 months, according to the AIIA member survey.

A global economic slowdown, an inflationary fiscal environment, the ongoing climate crisis, significant layoffs in the tech sector across the Western world, the collapse of the Silicon Valley Bank and geopolitical instability are some of the accents characterising the operating environment for the AIIA's members in 2023.

The survey data shows that business confidence in 2023 has been dented due to increased economic uncertainty, which is reflected in reduced intentions to hire and grow headcount. However, as a counterpoint, many businesses still expect solid revenue growth. While revenue is holding up for many, business confidence is nevertheless wavering overall, affecting hiring patterns.

As in previous years, a consistent theme is lack of skills in Australia serving as a handbrake on growth for many companies and members, reinforcing previous surveys that VET and university graduates are not job-ready, with the vast majority requiring further training. Supporting anecdotal evidence from member engagement shows that this disproportionately impacts on SMEs, with larger companies generally able to afford to hire and train graduates, who can take six to 12 months to become productive or client-ready in the workplace. This highlights the importance of reverse-engineering industry needs in higher education and VET contexts, and boosting work-integrated learning, including in the SME context.

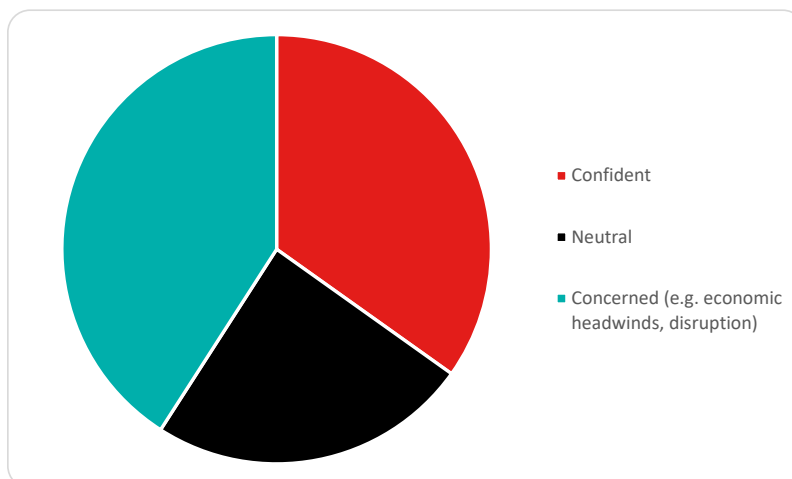
The two most in-demand skills are those of cyber security and AI, with the latter skills the hardest to find in Australia. Increasing supply of appropriately skilled Australian workers through expedited skilled migration, improved pathways to permanent residency, providing reskilling and career shift opportunities, including to women returning from the workforce and neurodiverse individuals, critical tech and ICT literacy from preschool to high school and beyond, and investing in nimble and industry-responsive models for apprenticeships and internships will be vital pieces of the puzzle as we seek to fill skills shortages.

The continued escalation of member concerns as to the growing red-tape and regulatory compliance burden on the tech sector reaffirms the AIIA position that government needs to be better coordinated in how to regulate the sector and introduce a Council of Tech Regulators.

RESULTS FROM KEY QUESTIONS

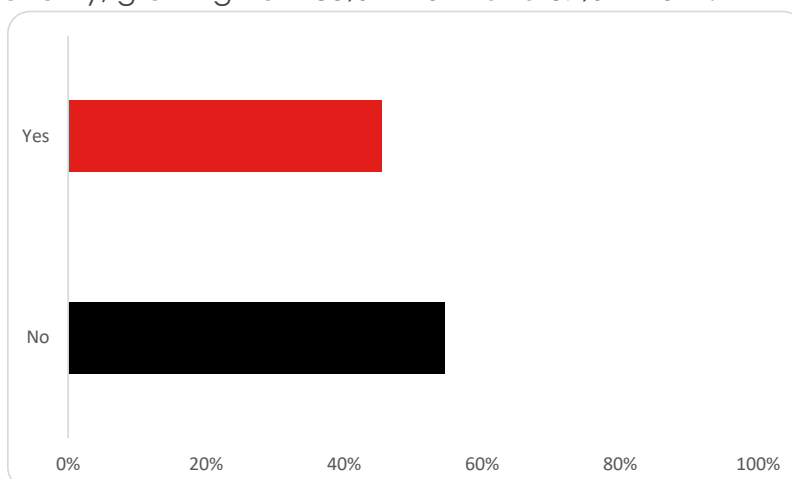
In terms of the future of the Australian economy are you:

For the first time in three years, the largest category of responses from members were 'concerned' (41%) about the economy, ahead of 'confident' and 'neutral'. In 2022, this number was 28% concerned and in 2021 only 15%.



Do you think Federal and State Governments understand the importance of ICT to the Australian economy?

2023 saw the highest positive response to the question, with 45% of respondents believing Australian governments at both Federal and State levels are understanding the significance of the tech sector to the economy, growing from 35% in 2021 and 37% in 2022.



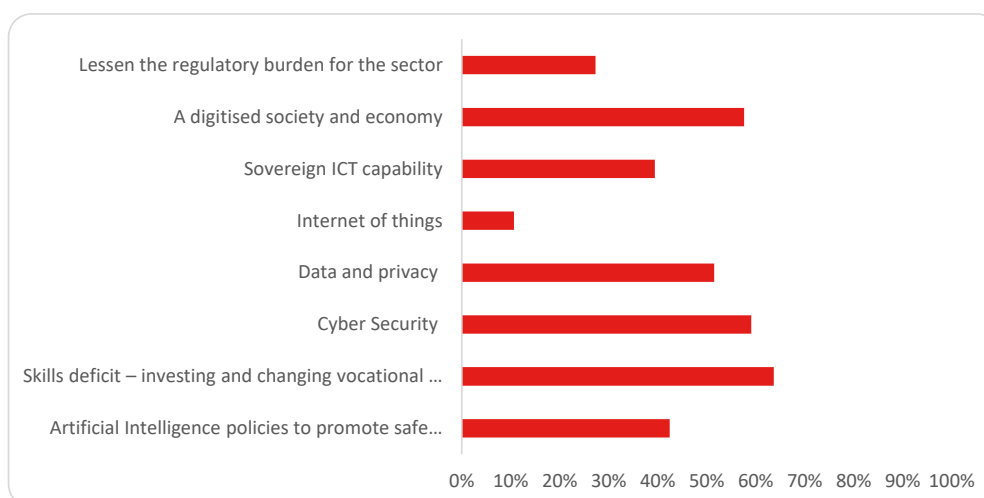
What do you think governments could do to improve their understanding of and approach to ICT related opportunities and challenges?

The largest area of focus over the past three years has been increasing industry engagement by government, but the data shows a concerning trend that members are now expressing escalating concerns in relation to the identification and removal of red-tape and administrative burdens. In 2021 this was ranked at 41% and in 2023 it came in at 55%. This is a worrying trend for business and could relate to increases in layers of tech regulation across the economy as well as concerning trends in procurement, such as government seeking unlimited cyber insurance in contracts.

With respect to IT policy, where do you think the government (State or Federal) should focus?

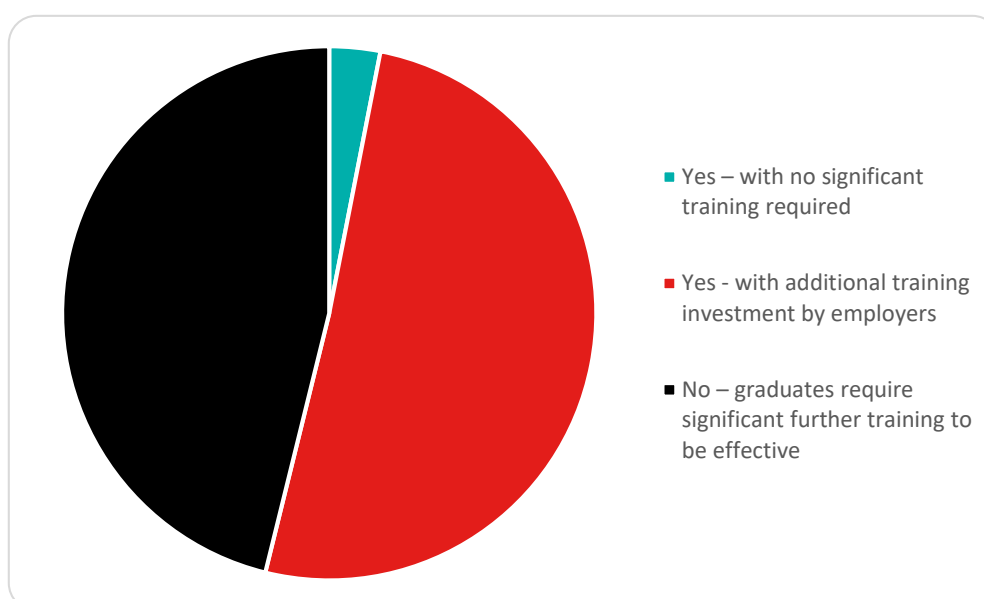
The proportion of respondents indicating they wish to see AI policies to promote safe and fast adoption as a priority focus has grown from 31% in 2021 to 42% in 2023.

The skills deficit is the major concern of members, but interestingly reached a peak last year of 73% and dropped back to 64% this year, but still remains higher than 56% from 2021. The next-largest area of IT policy that respondents indicated government needs to focus on was cyber security at 59%, 4% higher than 2022.



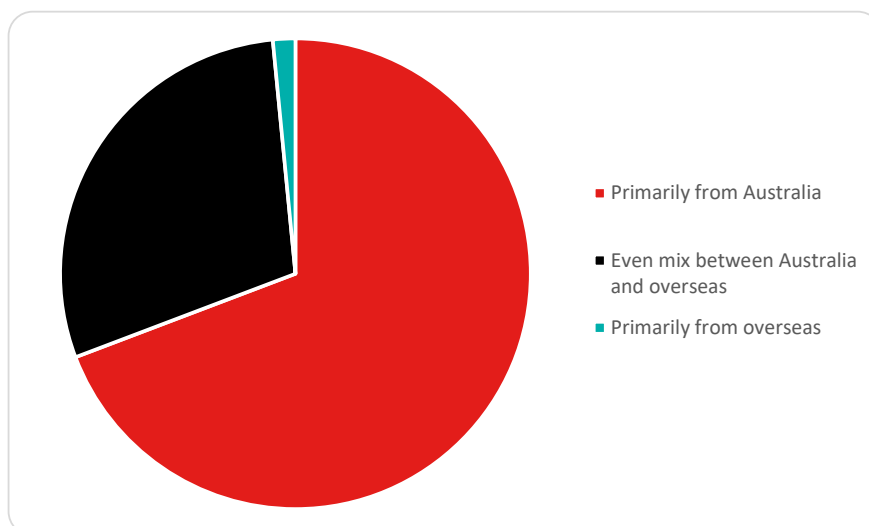
In relation to our VET and Higher Education system, do you feel that they are producing job-ready candidates for the ICT sector?

There is consistency in responses from members that our education system does not produce job-ready workers each year.



Do you expect to be hiring staff from Australia or from overseas?

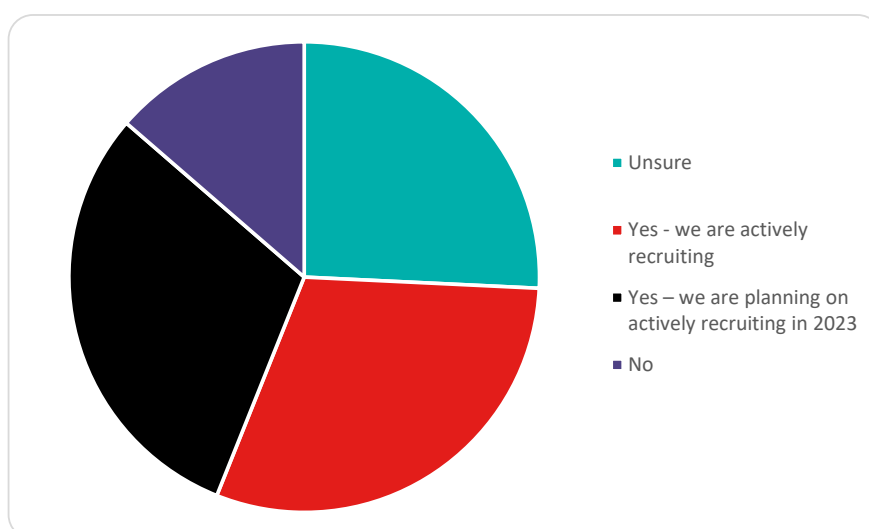
The response over the past three years has moved around in terms of domestic or overseas sources of talent. In 2021, 85% of hires were solely from Australia, which dropped to 64% in 2022 and in 2023 increased to 69%. In a follow-up question about the driver for hiring from overseas, 61% indicated hiring from overseas was due to domestic skills shortages, with only 17% stated that it was due to labour costs (in 2021 this number was at 50%, so this is a major shift).



Are you looking to hire and grow FTEs in 2023?

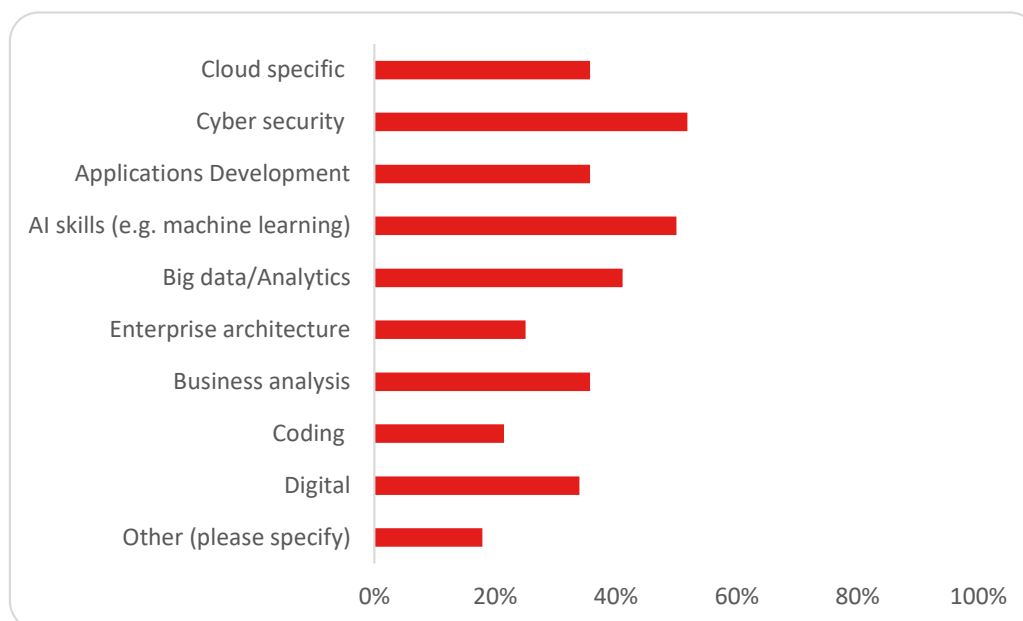
This question produced interesting results connected to economic uncertainty for the broader economy.

In 2022, 76% of respondents were either actively hiring or intending to hire staff and in 2023 this has dropped to 60%, with the 'unsure' figure of 26% more than double results of previous surveys.



In terms of specific skills of the future, which skills will you look to be hiring in 2023?

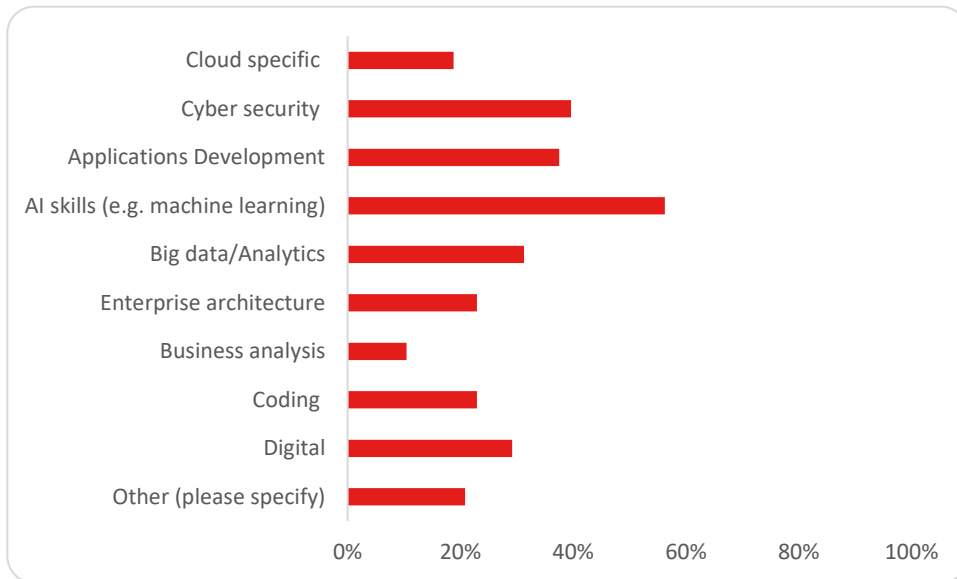
As cloud technology becomes more entrenched across the economy and businesses, the need for specific cloud skills has dropped each year from 60% in 2021, 40% in 2022 and 36% in 2023. An interesting area of growth has been AI skills at 50% (the second-highest with Cyber skills number one at 52%) compared to 36% last year and only 28% in 2021. Cyber security's pole position is testament to the pressing urgency of making businesses cyber-secure given the explosion in threats and attempted breaches of Australian citizens' data by sophisticated state and non-State actors, prominent data breaches in 2022, increased penalties for businesses introduced by the Albanese Government, the proposed removal of the SME exemption from the Privacy Act 1988 and a new Cyber Security Strategy being developed to take the country out to 2030 with an ambition to become the most cyber-secure nation in the world within the next seven years.



The Survey also continues to outline the important role AIIA members have in re-skilling workers for the jobs of the future with 67% indicated they are currently doing this and another 19% saying they will invest in workforce skilling in the future.

Data also shows that approximately 50% of respondents (47% in 2023 and 51% in 2022) have outsourced some roles globally due to lack of skills. When asked which skills were unavailable in Australia, AI skills were the biggest mover, up from 21% last year to 56% in 2023. Cyber security skills were the next highest area of outsourced capability at 40% (up 7 percentage points from last year).

What were the skills unavailable in Australia?



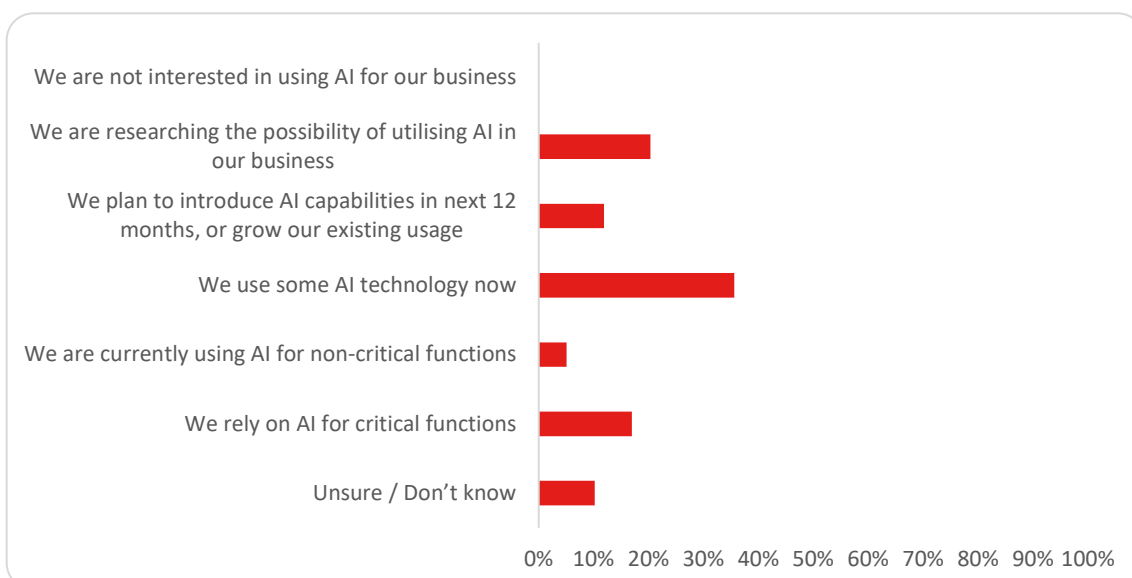
With respect to AI technologies in your business, how do you use/plan to use AI capability?

This question and responses have shifted significantly over the past three years, showing that AI is becoming more widely accepted and adopted across the tech industry.

The trend data shows that more businesses are using AI in their business and are planning to use the technology in their business, while the 'unsure' response has almost halved from 19% to 10%.

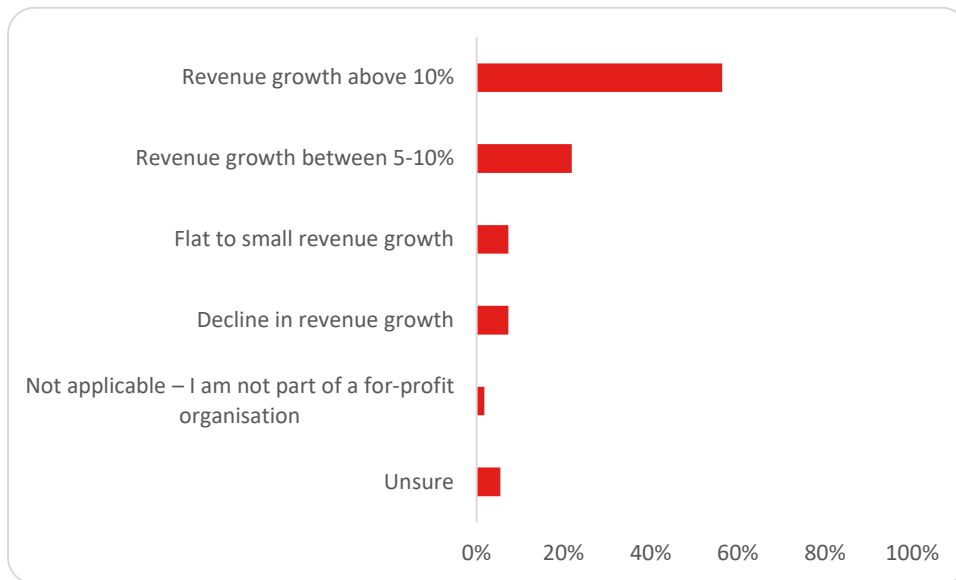
The businesses that currently use AI technology has risen from 27% in 2021 to 36% in 2023 and the number of those planning to introduce AI tools into the business has grown from 5% in 2021, 4% last year and 12% in 2023; a three-fold increase.

36% of members surveyed indicated that they use some AI technology now.



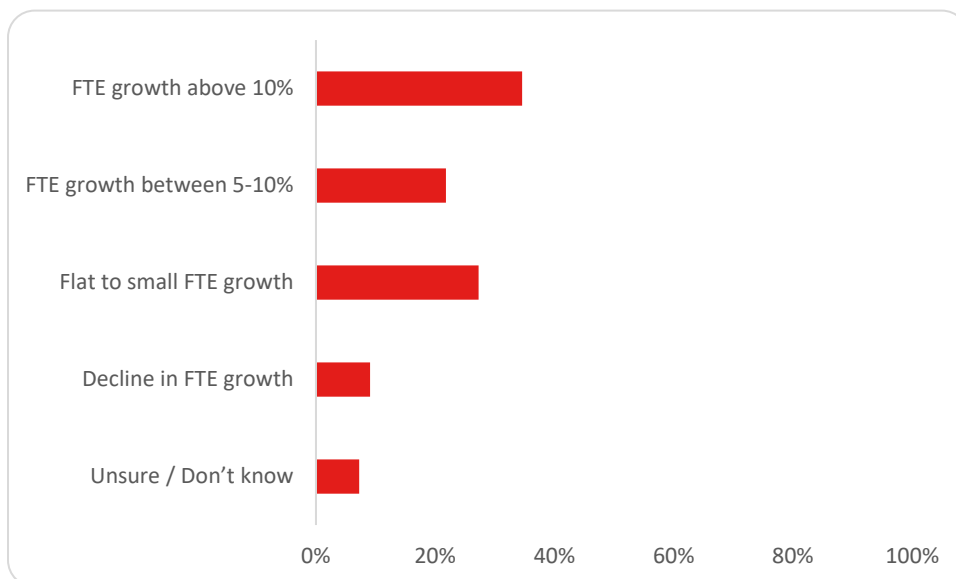
In terms of your own business, looking at 2023, do you see:

Despite the concerns over economic headwinds shown in the 2023 survey responses, a record-high 56% of business still indicated revenue growth above 10%. There was a slight increase of those indicating a decline in revenue growth, but this result is not statistically reliable for the purposes of drawing firm inferences.



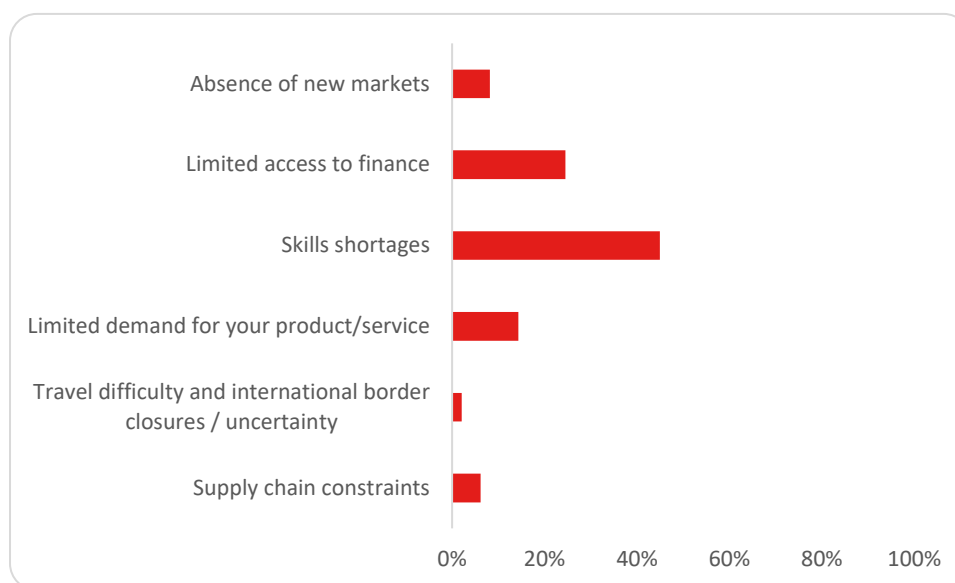
When asked about FTE growth, there was a clear drop in sentiment and intention from 2022 across the results, indicating concerns around business conditions and reductions in hiring patterns.

In 2022, 63% of respondents were looking to grow FTEs, compared to 57% in 2023.



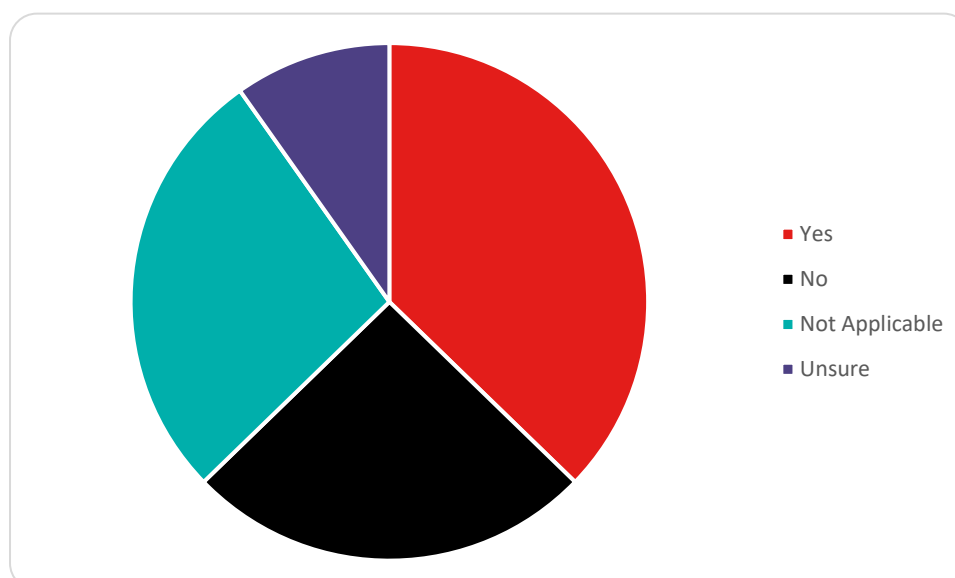
What do you see as the main barrier to expanding your business?

Whilst skills shortages remained the number one inhibitor to business growth in Australia, consistent with last year's figure of 44%, the largest and most significant change members indicated was that of limited access to finance, with concerns rising from 7% last year to 25% this year. This resounds with a global reduction in appetite for investment and capital-raising following discrete shocks, including as a result of the Silicon Valley Bank collapse in early 2023.



If you are a domestic ICT company, are you actively looking to grow your business by expanding offshore or increasing exports?

From the data, Australian businesses are still looking at overseas markets for expansion (37%) but the number has fallen from 44%, indicating that there is more of a focus on growing the domestic business or a correlation with the difficulty in accessing capital and finance for expansion activities.

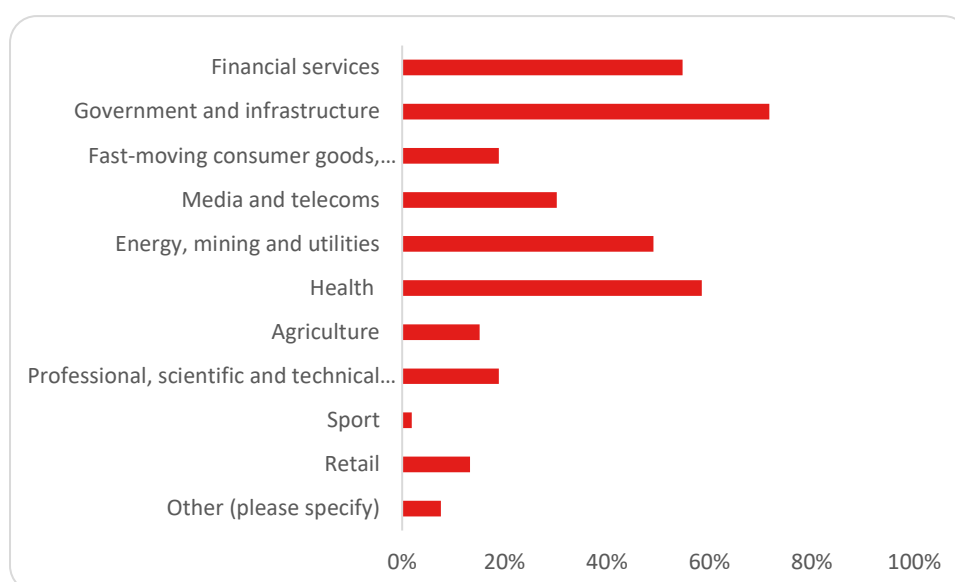


Are R&D tax incentives important to your business?

In terms of R&D incentives and their importance to members, this remains an important tax treatment, with 44% indicating its importance to their business, which is unchanged from last year.

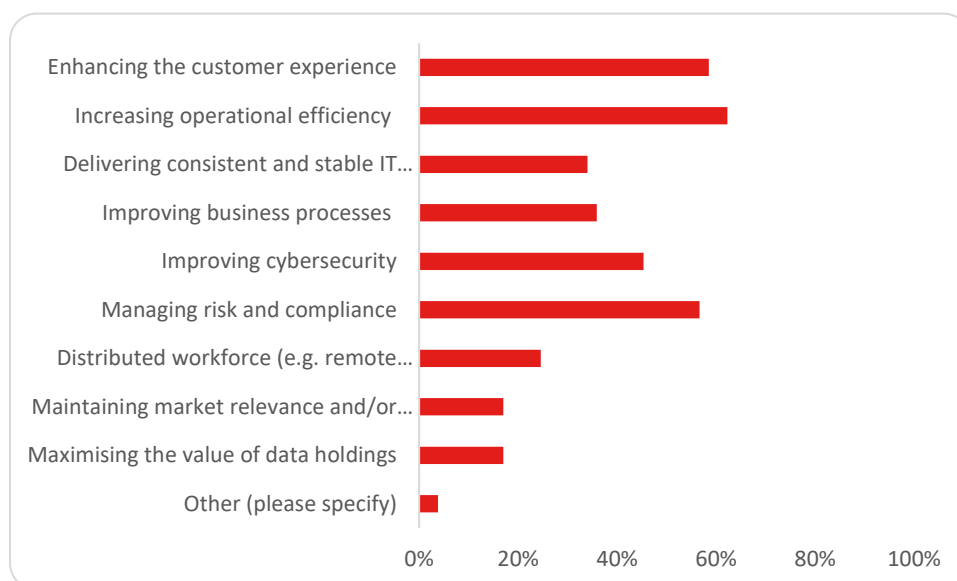
Which industry sectors do you expect will have the greatest adoption and growth (buyers) of ICT in 2023?

Looking at trend data, AIIA members believe that government will be spending less overall, even though it will continue to be a major procurer of ICT. However, the figure associated with 'government and infrastructure' has dropped by 8% to 72%. Fast-moving consumer goods (FMCG) showed a 5% decline from 2022, with media and telecommunications increasing by 8% and Health dropping 5%.



What factors do you see driving this adoption in those selected industry sectors?

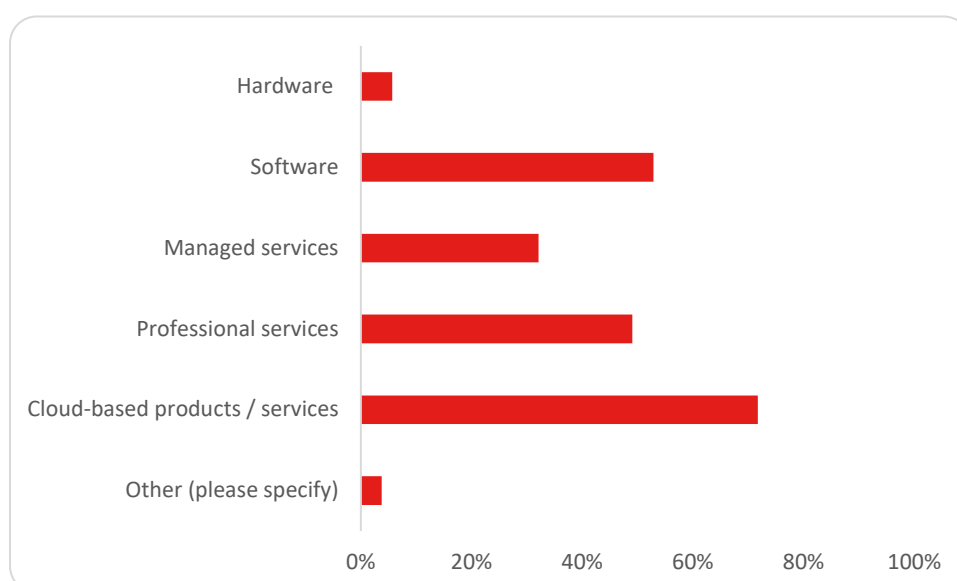
Looking at statistical movements from last year, 'managing risk and compliance' as a factor driving adoption in particular industry sectors over others increased in responses from 41% to 57%, with investment issues associated with managing a distributed workforce dropping from 34% to 25%.



What products and/or services will these industry sectors be primarily acquiring from the market?

The survey data and change in 12 months observed in relation to this question highlight two factors; firstly, concerns in the economic outlook and where discretionary IT spend will occur and, secondly, the rapid adoption of cloud (IaaS, PaaS and SaaS) services across the economy in previous years.

AllA members cover the full spectrum of ICT services, so the insights are relevant. Hardware dropped from 12% in 2022 to 6% in 2023, with software rising 8% and managed services and professional services both dropping by 7% and 8%, respectively. Cloud-based products exhibited a slight increase of 4% to 72% and remained, second to software, the principal product or service that respondents expected would be acquired from industry.

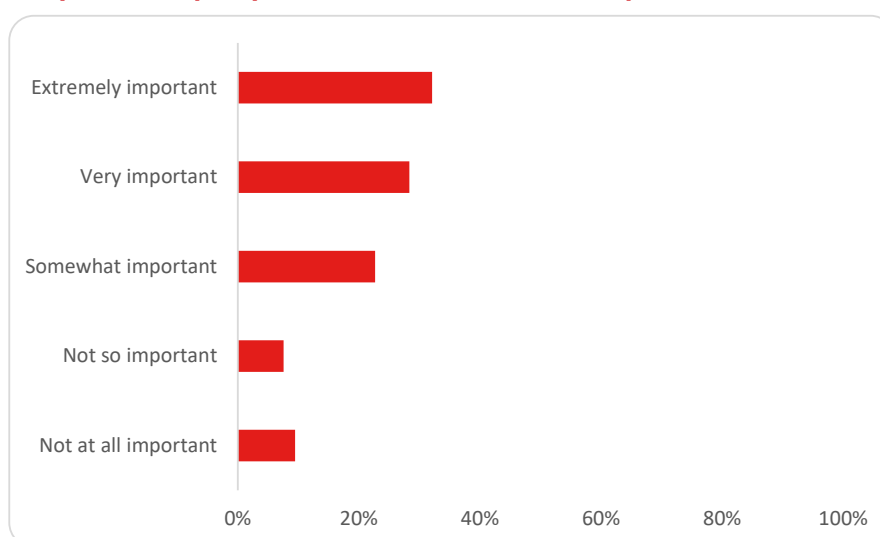


INDUSTRY APPROACH TO NET-ZERO CARBON GOALS

For the first time, the 2023 survey asked new questions on carbon reduction views and intentions. The data showed that, for the majority of tech companies (83%), reducing the carbon footprint of their business was important, however, there is a crucial gap in the ability to execute upon these intentions, with only 58% of responses to another question stating their companies collect data or measure their own carbon emissions .

The majority of companies surveyed also believe that governments should do more to measure its on carbon impacts of procurements (74% stating yes to this question).

How important is it to your company to reduce its carbon footprint?



CONCLUSION

Despite the global headwinds facing the tech sector, digital technologies, telecommunications, and tech-focused academia and research remain the engine room of Australia's digital economy, which is the foundation of our future prosperity.

These Survey results show that cyber security is an urgent priority for both the economy at large and the tech sector. Further, critical technologies such as cloud and artificial intelligence are becoming more deeply deployed within tech sector operations and services.

Survey results show that while governments are increasing in their understanding of the significance of tech and innovation, governments need to be investing in cyber security uplift, SME support, digital skills and job-readiness at every stage of the digital ecosystem and its pathways. Amidst uncertain economic headwinds and a reduced appetite to provide capital, government's role as a co-investor with industry through public-private partnerships such as the National Reconstruction Fund will be an important provider of certainty and stimulation for early-stage entrepreneurs, innovators and researchers, as will industry commercialisation programs.

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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Australian Information Industry Association

For further information please contact the Policy and Advocacy team at the AIIA at policy@aiaa.com.au.

