

# Drivers of Change: Meeting the Energy and Data Demands of AI Adoption in Australia and New Zealand

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Report prepared for Pure Storage, Inc.

UTS Institute for Sustainable Futures

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**UTS and ISF acknowledge the Gadigal People of the Eora Nation, the Boorooberongal people of the Dharug Nation, the Bidiagal people and the Gamaygal people upon whose ancestral lands our university stands. We would also like to pay respect to the Elders both past and present, acknowledging them as the traditional custodians of knowledge for these lands.**

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## About the authors

ISF is an independent research institute within the University of Technology Sydney. We conduct transdisciplinary, project-based research in line with our vision of creating positive change towards sustainable futures.

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# Executive Summary

It is argued that the internet and mobile internet triggered the Third Industrial Revolution and that artificial intelligence (AI) technologies are fuelling a Fourth Industrial Revolution.<sup>1</sup>

This raises the question, what do we know about the sustainability impacts of AI deployment?

With funding from Pure Storage, the UTS Institute for Sustainable Futures investigated answers to this question by conducting a survey of those closest to the development and deployment of AI technologies: IT managers.

This research followed on from our 2023 study, *Data Centres and Sustainability in Australia*, that sought, via survey of sustainability professionals, to understand the challenges and opportunities to address IT and Data Centre sustainability risks. The context for the study was an emerging awareness on sustainability consequences of the growth of data centres. A key finding was that sustainability professionals either had insufficient or no sustainability-related data from Data Centre service operators but believed that organisations cannot reach sustainability goals without significantly reducing Data Centre energy usage.

In this study, an online survey of Australian and New Zealand IT managers from 16 April to 12 May 2024 sought to understand awareness of likely increased energy use from AI applications.

Key results from the survey include:

- AI technology is becoming part of everyday practice. Overall, 72% of respondents had either already adopted or were piloting AI technologies. Only 5% have no plans to deploy AI technology for the next 3 to 5 years.
- IT managers are concerned about increased energy consumption for AI needs, with 68% of respondents indicating that they had at least some concerns. Only 11% stated they have no concerns at all.
- When asked how much energy consumption would increase on AI deployment a picture of uncertainty emerged with 11% of respondents believing it would treble, 8% that it would double, 15% believing it would increase by over 50% and 53% indicating that they were unsure.

On further synthesis of the survey, three key findings emerged:

***Finding 1: AI is here to stay with the majority of respondents either implementing or piloting AI technologies. IT managers are concerned about energy consumption increasing due to AI adoption with significant uncertainty on the overall impact.***

***Finding 2: Business growth is the main priority for IT managers. Despite sustainability responsibilities being allocated to IT managers they are relatively less engaged in energy and sustainability issues.***

***Finding 3: IT managers understand that to meet ESG goals IT infrastructure is critical. They are considering a range of options to offset AI energy usage with a focus on energy efficiency and green energy but are not considering limiting AI usage. Employee skills in AI technology are the most overlooked issue when it comes to AI deployment.***

## Future research

An online survey was utilised in this study to identify broad issues but was limited in exploring the above issues in more detail. It is recommended additional research be conducted to address the following gaps:

- Significant uncertainty around the energy implications of AI. A lack of understanding on energy implications of AI may lead to investment decisions that are not fully informed.

- Low level of understanding, motivation and barriers facing IT managers with respect to energy, sustainability and AI infrastructure/management.
- Potentially limited availability and uptake of mechanisms that support IT managers to communicate and engage on sustainability issues.

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# Introduction

With funding from Pure Storage, the UTS Institute for Sustainable Futures (UTS-ISF) sought to investigate the impact of the deployment of artificial intelligence (AI) technologies on sustainability by conducting a survey of those closest to the development and deployment of AI technologies: IT managers.

This research followed on from the UTS-ISF study, *Data Centres and Sustainability in Australia* (May-June 2023) which sought to understand the challenges and opportunities to address IT and Data Centre sustainability risks via a survey of sustainability professionals. The context for that research was an emerging awareness on sustainability consequences of the growth of data centres.

According to the International Energy Agency, Data Centres and data transmission networks accounted for 0.9% of energy-related GHG emissions. Global Data Centre electricity use in 2021 was 220-320 TWh, or approximately 0.9-1.3% of global final electricity demand.<sup>2</sup> Collectively, it is estimated that CO<sub>2</sub> emissions from software-related activities account for 4-5% of global emissions.<sup>3</sup> By 2040 it is estimated that software-related CO<sub>2</sub> emissions may account for 14% of the world's carbon footprint.<sup>4</sup>

The 2023 report identified that growth in the use of Artificial Intelligence (AI) has the potential to increase demand for Data Centre services, however, the degree to which is difficult to estimate. At the time, research indicated significant uncertainty on energy use of ChatGPT due to factors including a lack of reporting.<sup>5</sup>

The key insight 2023 survey of sustainability professionals was that sustainability professionals either had insufficient, or no sustainability-related data from Data Centre service operators. However, 81% of sustainability professionals indicated that the demand for data management would increase with 77% agreeing, or somewhat agreeing, that organisations cannot reach their sustainability goals without significantly reducing Data Centre energy usage.

## Research purpose

This study sought to understand if organisations understand the current state of AI deployment, organisation readiness in deploying and scaling up IT infrastructure, the impact of AI on sustainability and challenges faced in achieving sustainability KPIs.

The objective of the research is to provide an evidence base to inform improvements in Environmental and Social Governance (ESG) and sustainability initiatives. The research questions for the study were as follows:

- What is the understanding of the current state of Artificial Intelligence (AI) deployment?
- What is the state of readiness in deploying and scaling up Information Technology (IT) infrastructure for AI purposes?
- What degree of impact does AI deployment have on sustainability?
- What challenges are faced in achieving sustainability KPIs with respect to AI deployment?

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# Results

## Findings

***Finding 1: AI is here to stay with the majority of respondents either implementing or piloting AI technologies. IT managers are concerned about energy consumption increasing due to AI adoption with significant uncertainty on the overall impact.***

The use of AI technology is becoming part of everyday practice. Overall, 72% of respondents had either already adopted or were piloting AI technologies. Only 5% have no plans to deploy AI technology for the next 3 to 5 years.

When asked about increased energy consumption for AI needs, 68% of respondents indicated that they had at least some concerns. Only 11% stated they have no concerns at all.

When asked how much energy consumption would increase on AI deployment a picture of uncertainty emerged with 11% of respondents believing it would treble, 8% that it would double, 15% believing it would increase by over 50% and 53% indicating that they were unsure.

***Finding 2: Business growth is the main priority for IT managers. Despite sustainability responsibilities being allocated to IT managers they are relatively less engaged in energy and sustainability issues.***

A key driver for IT managers is business growth with 90% of respondents indicating it as one of their top 3 priorities.

A third of respondents were key decision makers with 36% of respondents having authority to influence sustainability initiatives and 43% involved in a sustainability team or implementing sustainability or ESG initiatives or goals.

Respondents ranked sustainability and ESG (38%) as one of their top three overlooked issues.

***Finding 3: IT managers understand that to meet ESG goals IT infrastructure is critical. They are considering a range of options to offset AI energy usage with a focus on energy efficiency and green energy but are not considering limiting AI usage. Employee skills in AI technology are the most overlooked issue when it comes to AI deployment.***

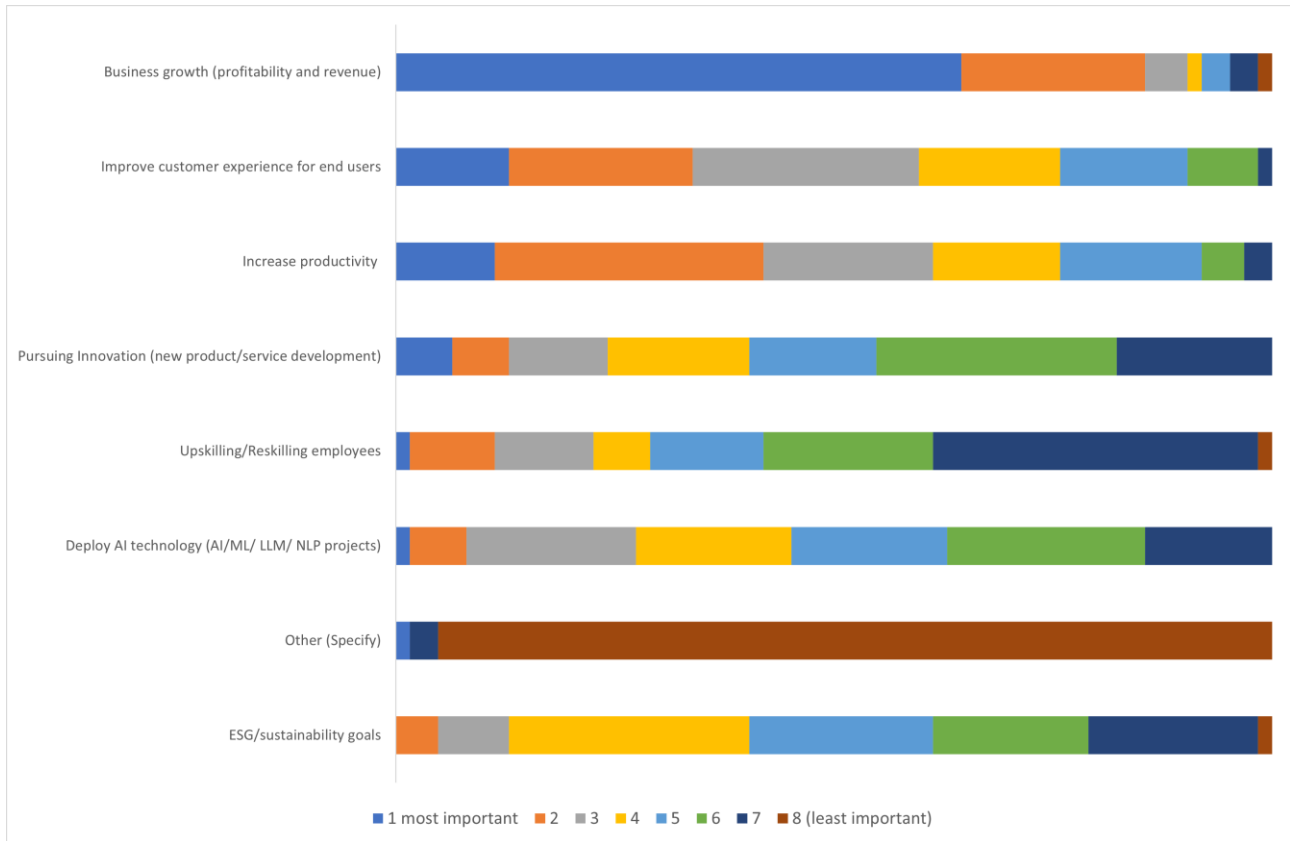
When considering energy use of AI technology, IT managers are focused on energy efficiency or green energy more than reducing energy consumption overall. Among the measures taken or planned by respondents' organisations to offset AI energy usage, 23% are focused on optimising the use of equipment, and 18% are investing in green energy. Only 4% have adopted the strategy of limiting AI usage to offset energy consumption.

IT managers understand that to meet ESG goals, IT infrastructure is critical (69% strongly or somewhat agreeing). A key issue is that AI deployment is putting pressure on budgets (67% strongly or somewhat agreeing).

Respondents ranked employee skills in AI technology (58%) as the most overlooked issue when it comes to deploying AI technologies.

## What are the top priorities for your organisation over the next 3 years?

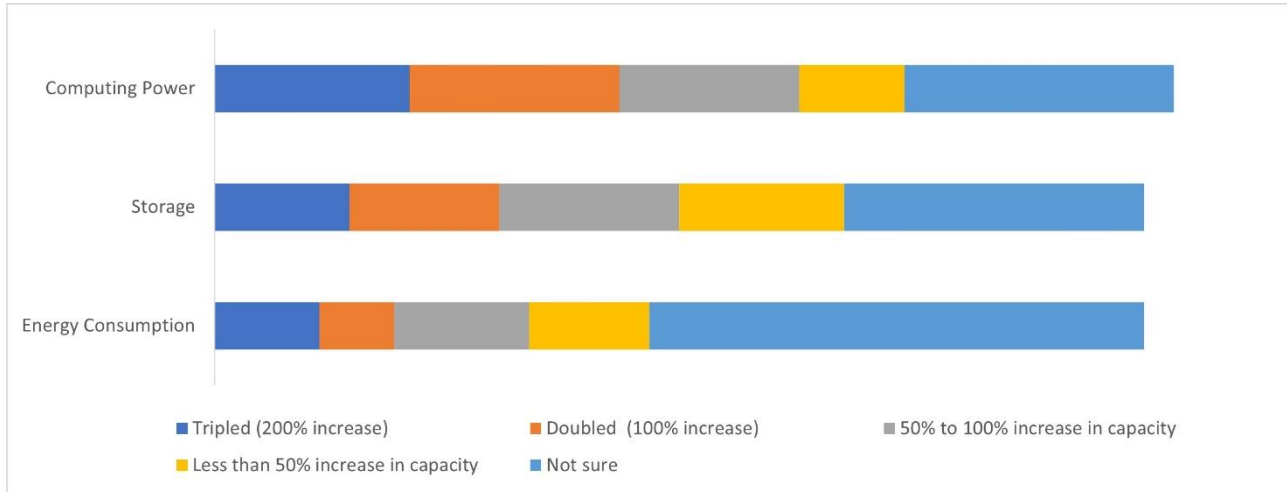
A key driver for IT managers is business growth with 90% of respondents indicating this is one of their top 3 priorities. Improving customer experience for end users (60%) and increasing productivity (61%) were identified as the highest other top three priorities. ESG issues by contrast only had 13% of respondents identifying it as a top three priority.





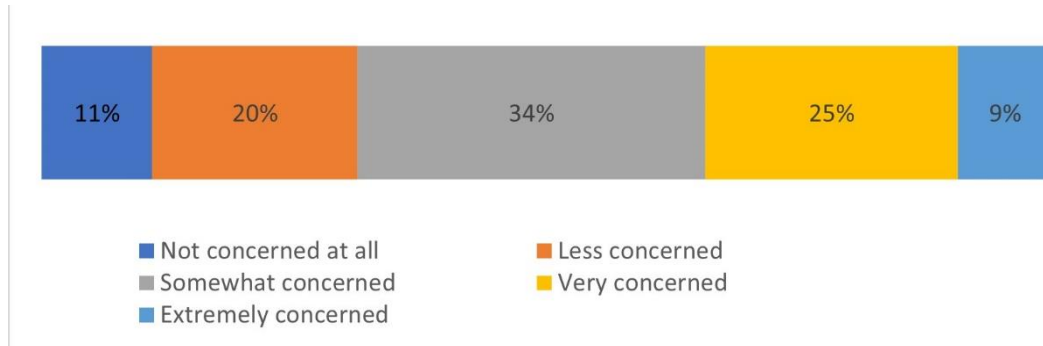
## How much has the need for each of the following components increased or will increase on AI deployment?

When asked how much energy consumption would increase on AI deployment a picture of uncertainty emerged with 11% of respondents believing it would treble, 8% that it would double, 15% believing it would increase by over 50% and 53% indicating that they were unsure.



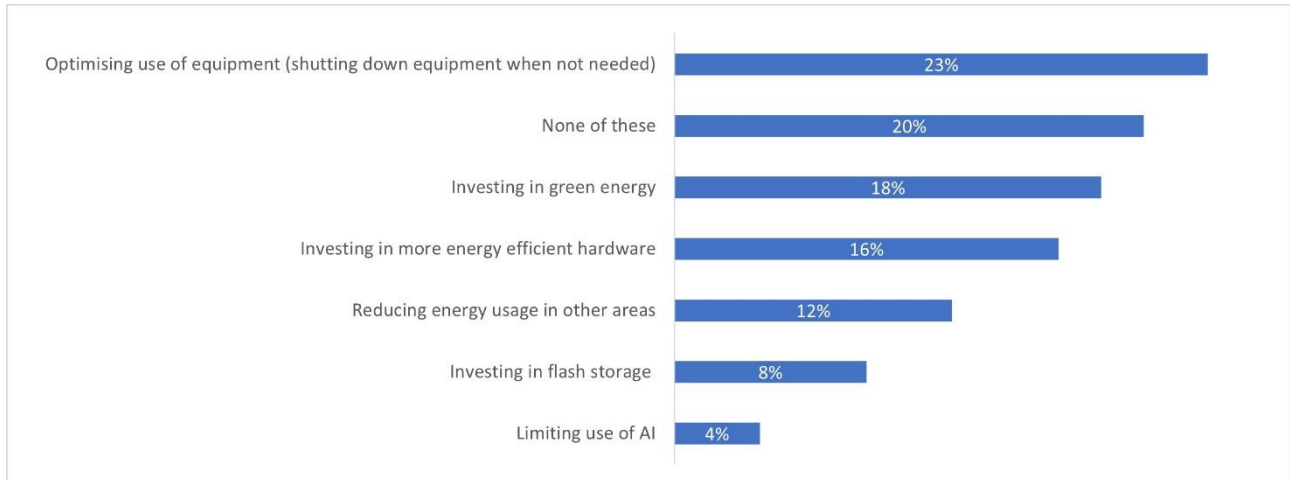
## How concerned are you about AI's need for increased energy consumption when it comes to meeting your ESG goals?

When asked about increased energy consumption for AI needs, 68% of respondents indicated that they had at least some concerns. Just 11% stated they have no concerns at all.



## What measures has your company taken (or plans to take) to offset the energy used by AI?

Among the measures taken or planned by respondents' organisations to offset AI energy usage, 23% are focused on optimising the use of equipment, and 18% are investing in green energy. Additionally, 16% invest in more energy-efficient hardware and 8% invest in flash storage. Only 4% have adopted the strategy of limiting AI usage to offset energy consumption.

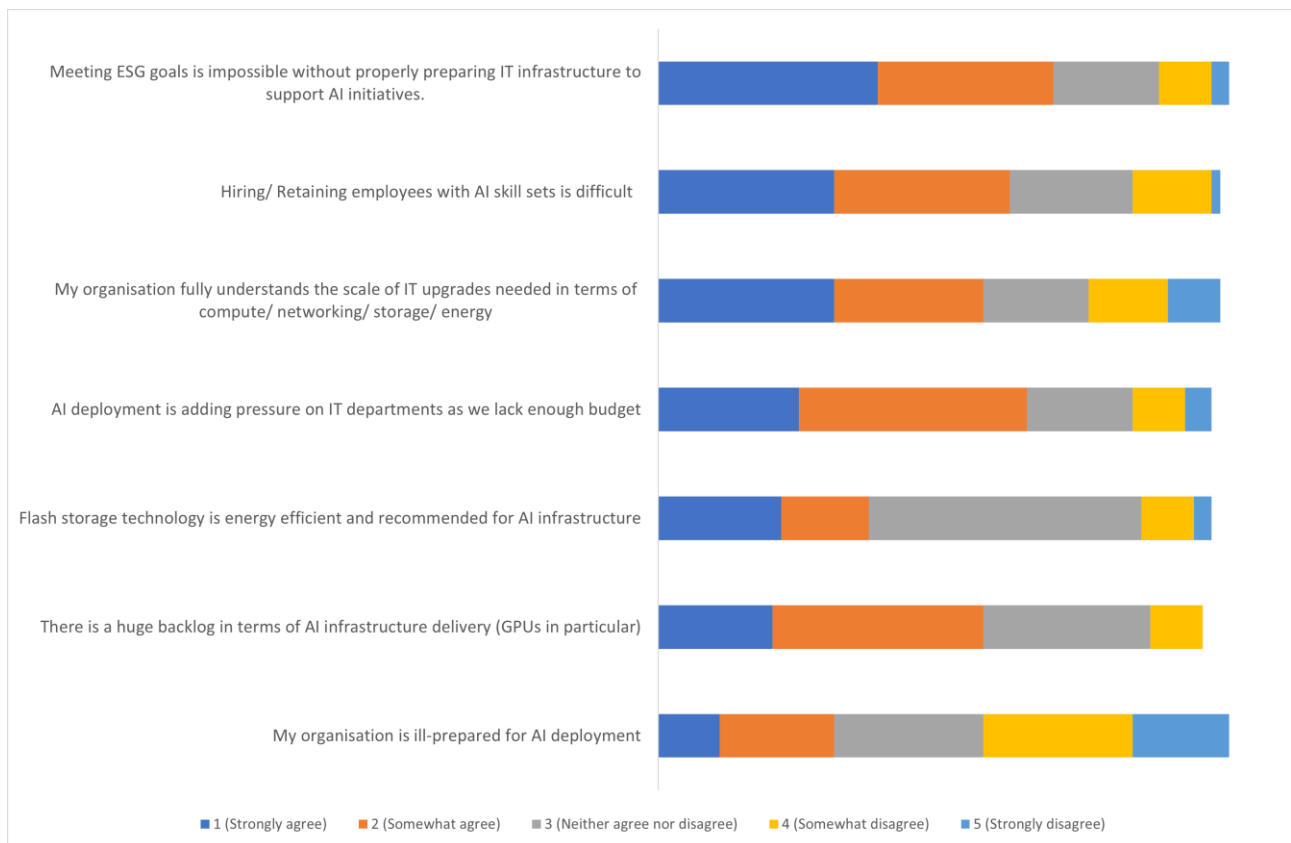


## How strongly do you agree or disagree with each of the following statements?

IT managers understand that to meet ESG goals IT infrastructure is critical with 69% respondents either strongly or somewhat agreeing to the statement 'Meeting ESG goals is impossible without properly preparing IT infrastructure to support AI initiatives.'

A key issue is that AI deployment is putting pressure on budgets with 67% strongly or somewhat agreeing to the statement 'AI deployment is adding pressure on IT departments as we lack enough budget'.

Additionally, a majority agreed that hiring employees with AI skills poses significant challenges, and they recognize the substantial scale of IT upgrades required within their organizations. In contrast, opinions were more evenly split regarding the energy efficiency of flash storage, with respondents showing a neutral stance on this aspect.





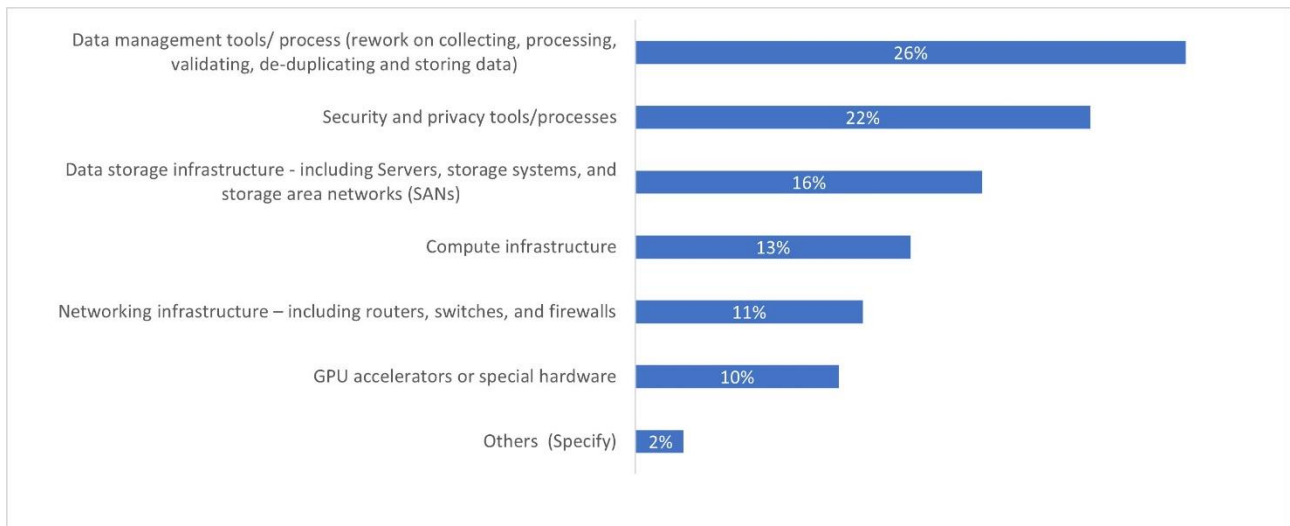
## Has your organisation adopted any AI technologies (AI/ML/ GAI/LLM models)?

Overall, 72% of respondents had either already adopted or were piloting AI technologies. More than half (52%) of respondents stated their organisations have already adopted AI technologies in a few business functions/departments with 27% piloting AI technologies trials. Among them, 17% are still investigating potential uses of AI for their organisation. Only 5% have no plans to deploy AI technology for the next 3 to 5 years.



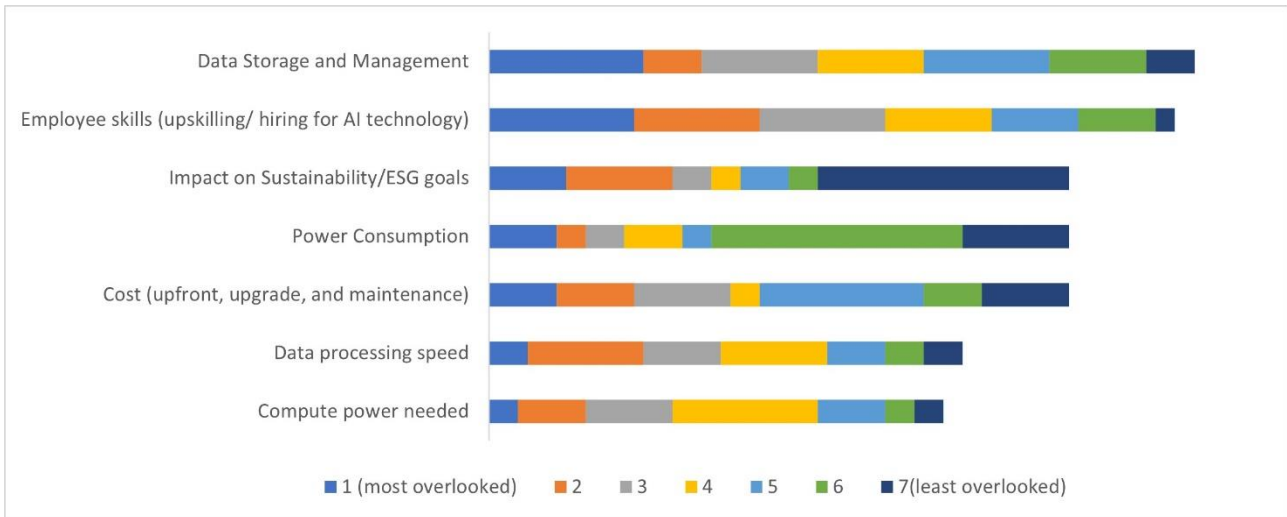
## Which areas of your IT infrastructure require or are expected to require upgrades to support AI adoption?

Approximately one quarter (26%) of the respondents believe data management tools and processes require upgrading for AI adoption. Additionally, 22% expect upgrades in security and privacy tools and processes. Less important are the need for infrastructure upgrades (16%), computer infrastructure (13%), networking infrastructure (11%) and GPU accelerators or special hardware (10%).



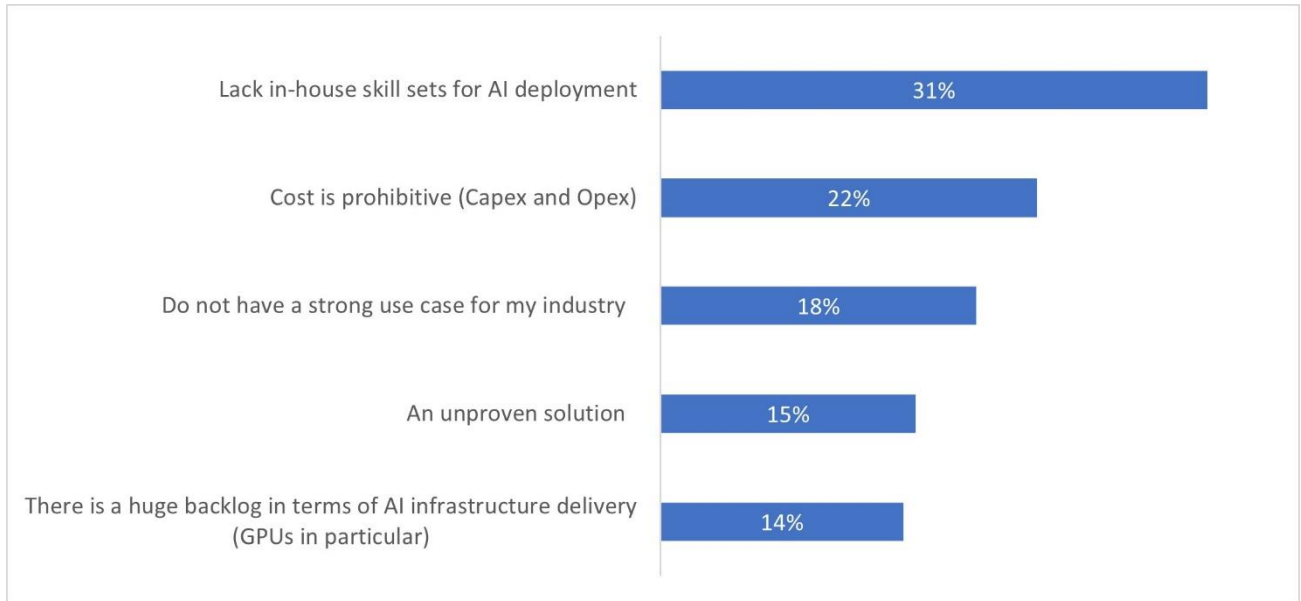
## Which areas are most overlooked when adopting and implementing AI?

Most respondents believe that data storage and management, as well as employee skills in AI technology, are the most overlooked areas in AI adoption. Respondents ranked data processing speed (49%) and data storage and management (47%) as one of their top three overlooked issues with employee skills in AI technology (58%) rating as the most overlooked issue. Respondents ranked sustainability and ESG (38%) as one of their top three overlooked issues, but also ranked it as the least overlooked issue (43%).



## What are the key barriers to AI adoption now or in the future?

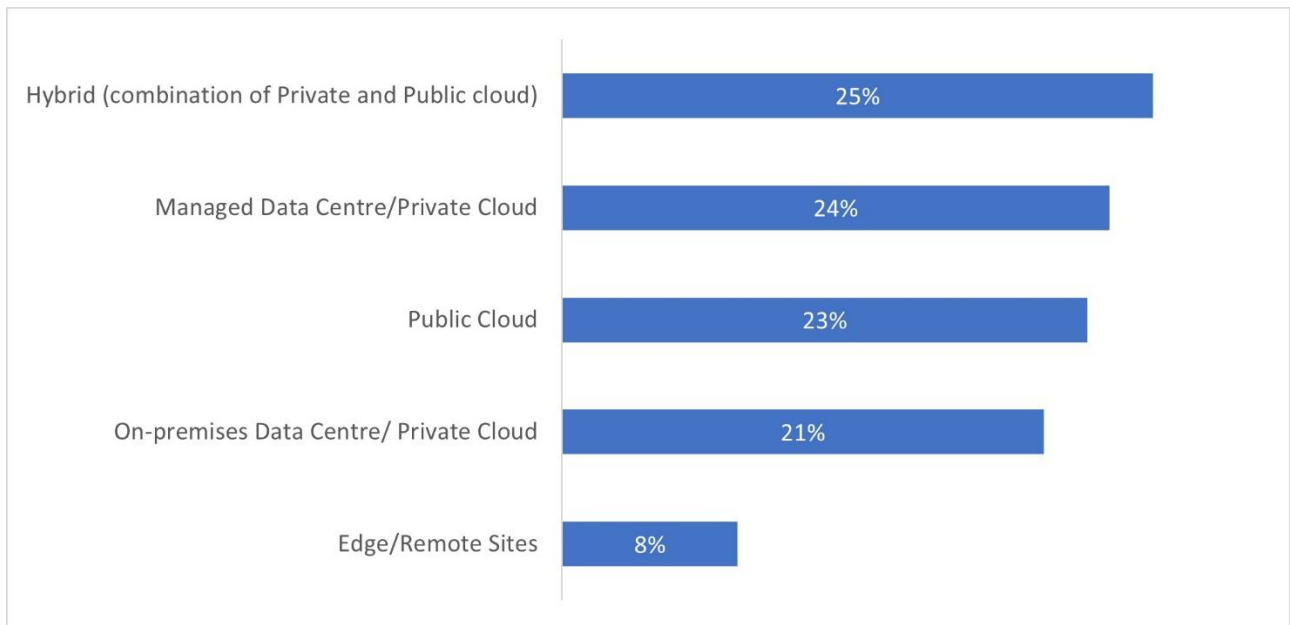
31% of respondents identified a lack of in-house skill sets for AI deployment as a key barrier to AI adoption. 22% see the costs as prohibitive and 18% believe AI does not have a strong use case for their industry. 15% think AI being an unproven solution is the key barrier, and 14% see a huge backlog in terms of AI infrastructure delivery.





## In which environment are you running or planning to run AI workloads/applications?

There is an almost even distribution of AI workloads and applications across a hybrid environment (combining private and public clouds) (25%), managed data centre/private clouds (24%), public clouds individually (23%) and on-premises data centre/private clouds (21%). However, only 8% of the respondents mentioned using edge or remote sites for their AI workloads.



## Survey response rate and demographic information

The results of the survey are described further in this section across the following categories:

- Response rate
- Artificial intelligence management
- Energy demands from artificial intelligence applications
- Survey demographic information

### Response rate

In total 169 responses were received. However, there was a large proportion of respondents who chose not to participate or did not complete the survey, as follows:

- 12% chose not to participate (20 responses)
- 50% chose to participate but did not complete the survey (84 responses)
  - 29% did not complete any survey questions (49 responses)
  - 21% completed some initial questions 1-4 (35 responses)
- 38% completed the survey (65 responses)

This varied response rate was in contrast to the 2023 Data Centres and Sustainability survey which captured 100% completed responses (109 responses) in the same timeframe.

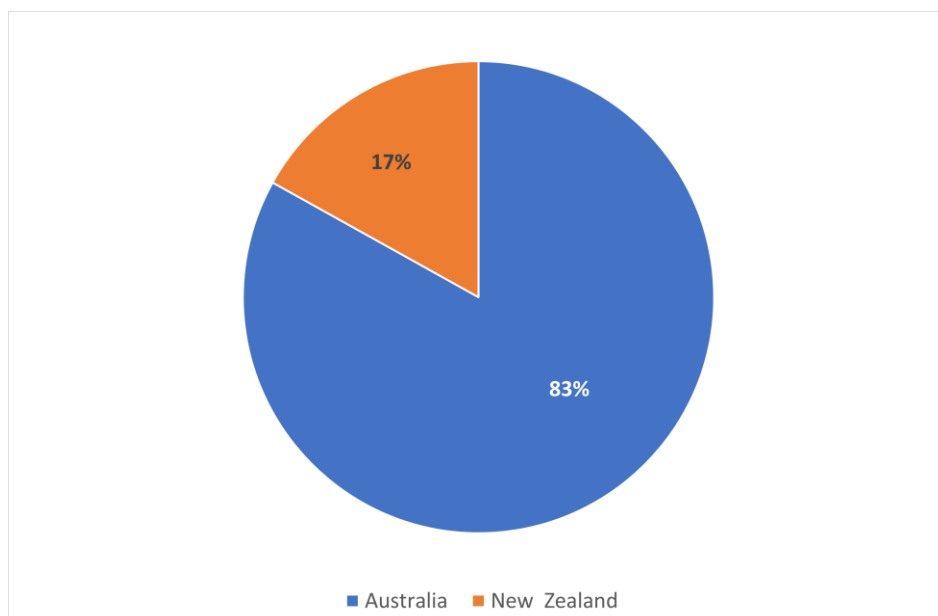
The survey applied a participation filter, where participants were advised that they survey was for IT managers who work for organisations in Australia and New Zealand. If a participant did not answer yes to this question the survey was terminated.

This lower response rate may be attributed to:

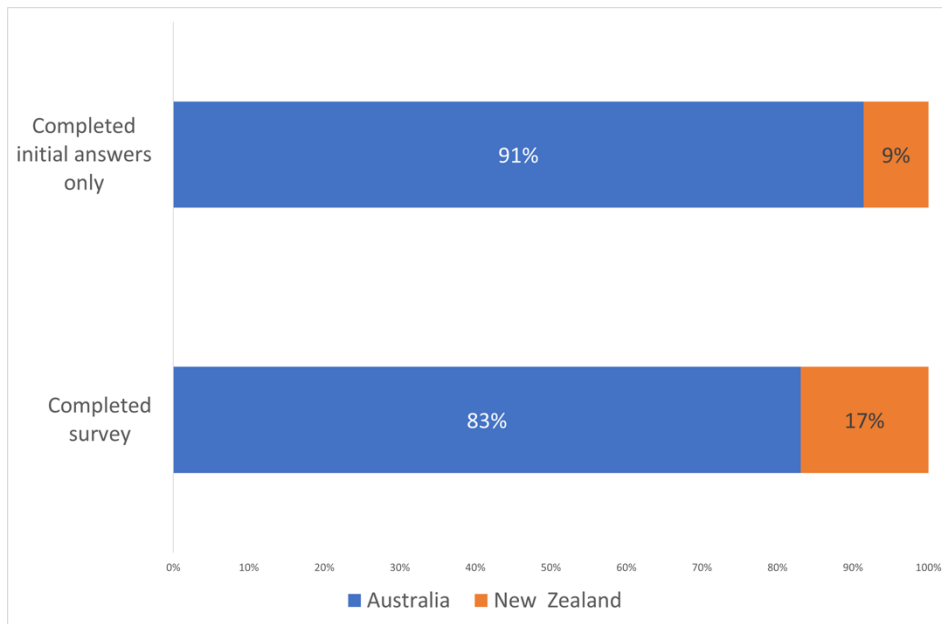
- The different audience the survey was aimed towards i.e. IT managers compared to corporate sustainability managers
- The survey being distributed to participants in New Zealand in addition to Australia
- The survey being distributed around holiday periods e.g. school holidays and Anzac Day holiday in Australia

### Survey demographic information

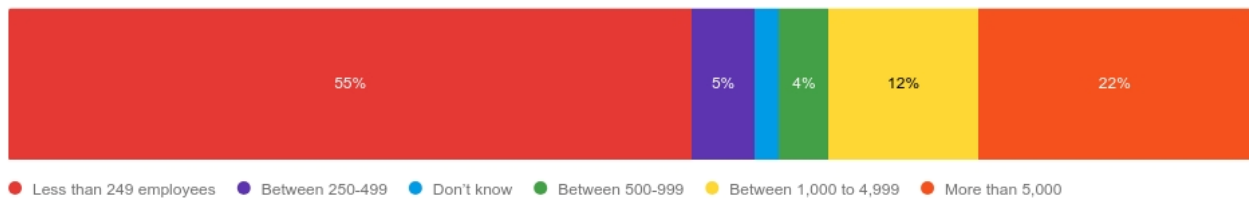
Of those respondents who completed the survey, the majority were from Australia (83%) with a smaller proportion from New Zealand (17%).



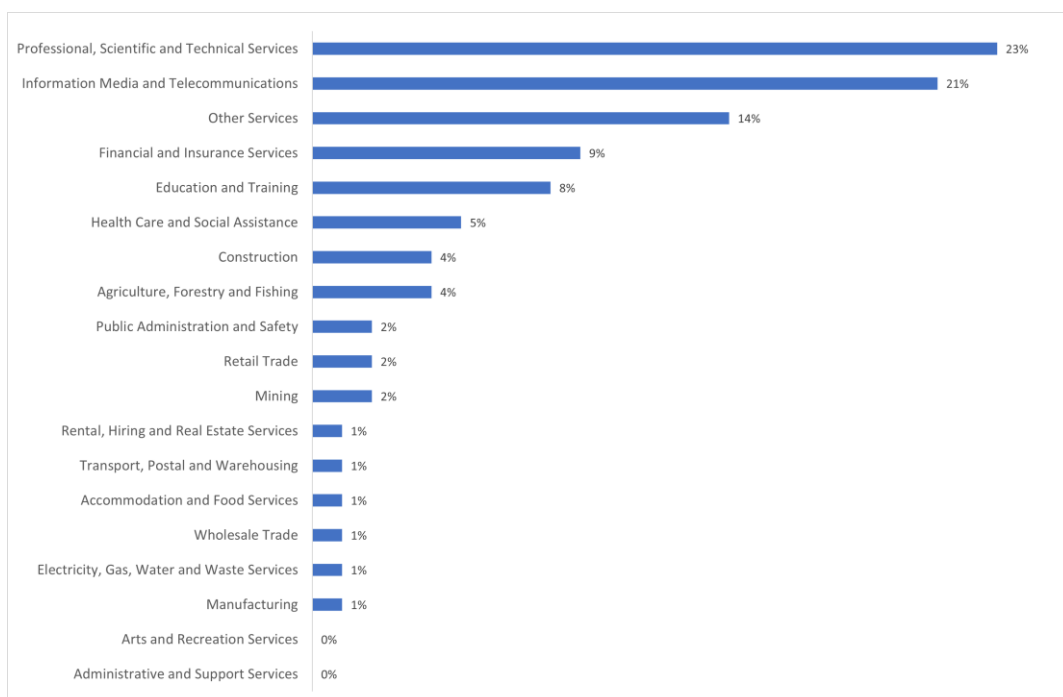
There were a proportion of respondents who only completed some of the survey, similarly, there were a small percentage of respondents from New Zealand in this category.



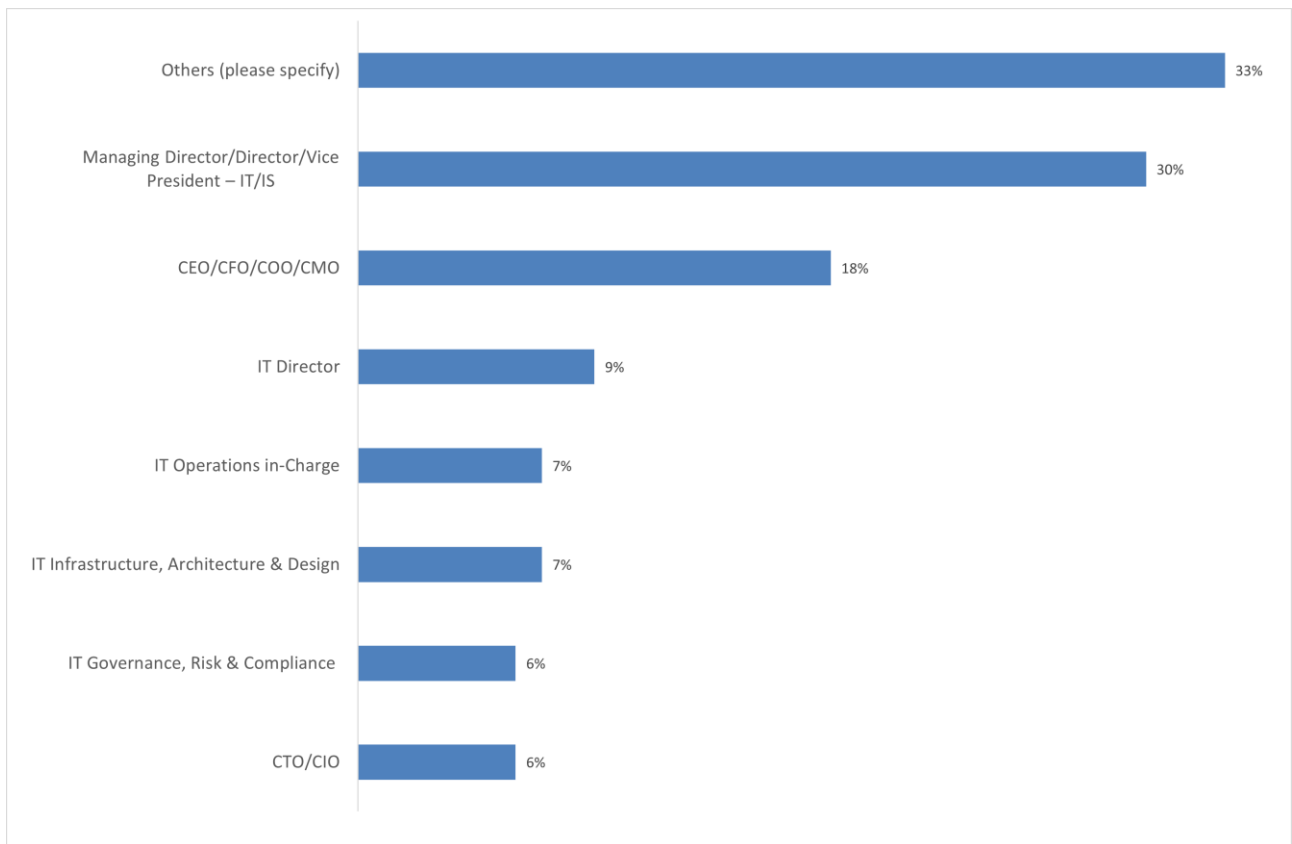
Over half of the respondents (55%) were from small organisations with less than 249 employees, followed by very large organisations (22%) with more than 5000 employees and the remaining respondents were from variety of sizes of organisations.



A broad cross section of organizations from 17 industries responded to the survey. The largest number of respondents came from professional, scientific and technical services (23%), information, media and telecommunications (21%) and other services (14%).



33% of respondents had a role that was self-assessed as 'other'. This may capture a range of IT roles such as sales and programming. Over a third of respondents were in management or C-suite roles in their organisation.





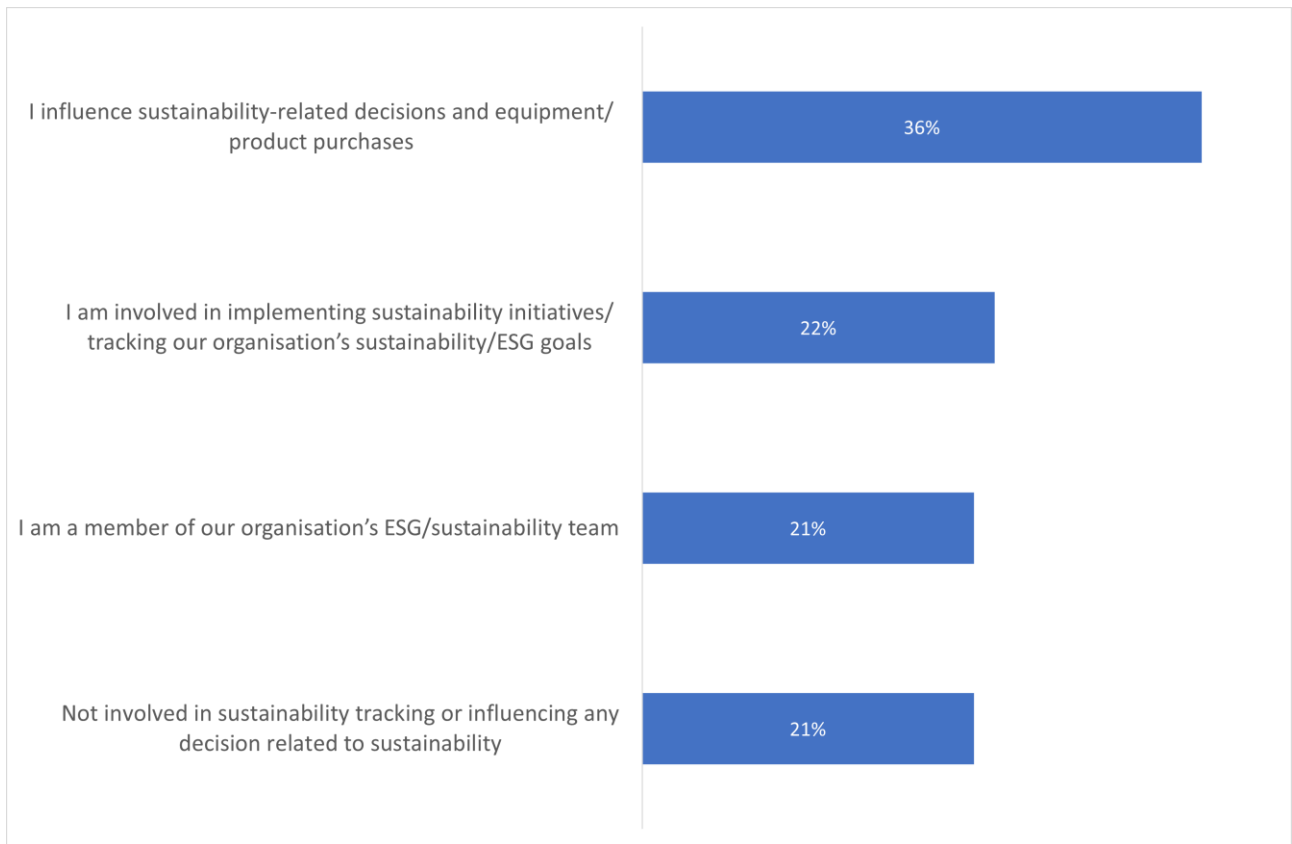
## What is your involvement in Information Technology (Hardware, Software and supporting services)-related purchase within your organisation?

When asked about their role in purchasing of IT approximately two thirds of respondents were key decision makers generally (34%) and for purchasing IT (30%) and one third was involved in solutions implementation.



### Are you involved in sustainability-related initiatives within your organisation?

36% of respondents had authority to influence sustainability initiatives, 43% were involved in a sustainability team or implementing sustainability or ESG initiatives or goals and a quarter were not involved in sustainability at all.



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# Methodology

## Survey design

This research project gathered data via an online survey on the characteristics and awareness of AI deployment, Information Technology (IT) infrastructure and sustainability. The survey targeted a cohort of IT managers in Australia and New Zealand. IT managers have responsibility for managing Data Centres and other IT infrastructure, are responsible for decision making with respect to AI investment, planning and energy management. They may also be responsible for identifying ESG risks or reporting to corporate sustainability KPIs and can represent small or large private or public institutions.

The survey was developed with 16 key questions, approximately 7-10 minutes in duration, covering:

- demographic information such as sector, organisation type and size,
- consideration and management of AI in the organisation such as role (sustainability-related), infrastructure, adopted technologies and priorities
- energy consumption of AI in the organisation, measures to address and barriers to AI adoption

The survey was a combination of multiple choice, Likert scales and open-ended response questions. See **Appendix A** for the full survey instrument.

The survey was approved via an internal UTS-ISF Ethics process and included a consent form for participation and a clear description of anonymity and the output of survey results. The survey was built and distributed using Qualtrics software.

## Survey distribution

The survey was launched on 16 April 2024 and closed on 12 May 2024.

A targeted call-to-action campaign combining digital advertising (LinkedIn advertising), organic social media and direct mail-outs was used to distribute the survey. The statistics of the campaign are as follows, demonstrating engagement with the survey and inbox messages:

Survey advertisement (5 x versions, targeted to appear in LinkedIn feeds):

- 203,550 impressions
- 376 clicks
- \$1,438.88 spent

Inbox message advertisement:

- 28,406 sends
- 16,479 opens
- \$1,914.43 spent

A total of 65 responses were received.

The survey was not intended to be representative or comprehensive and instead provided a snapshot of the views of a self-selected cohort of respondents who are IT managers. The total population IT managers is unknown. As the primary recruitment method was via LinkedIn, respondents are largely limited to the sub-set of professionals who use LinkedIn.

There are limitations with conducting an online survey. Recruitment of respondents can be challenging, and this was particularly the case with IT managers despite the widespread distribution of the survey through LinkedIn. When comparing our previous survey of sustainability professionals on data centres, there were more challenges recruiting IT managers. There may be several reasons for this including that the allocation of sustainability responsibilities is an addition to existing responsibilities.

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## Sources of information

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<sup>1</sup> <https://courier.unesco.org/en/articles/fourth-revolution>

<sup>2</sup> <https://www.iea.org/reports/data-centres-and-data-transmission-networks>

<sup>3</sup>

<https://stateof.greensoftware.foundation/insights/software-emissions-are-equivalent-to-air-rail-shipping-combined/>

<sup>4</sup> <https://hbr.org/2020/09/how-green-is-your-software>

<sup>5</sup> <https://www.technologyreview.com/2022/11/14/1063192/were-getting-a-better-idea-of-ais-true-carbon-footprint/>



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# Appendix A – Survey instrument

## IT and Data Centre ESG in the Age of Artificial Intelligence

### Introduction

This survey is being undertaken by the Institute for Sustainable Futures (ISF) at University of Technology Sydney with funding from Navigate Corporate Affairs Pty Ltd (acting for Pure Storage Inc.)

#### About the research

As Artificial intelligence is adopted across sectors, the appetite of organisations for compute, storage, networking, and energy will increase. While many organisations have already deployed AI across business functions, some are still in the early stage of adoption in the APAC region.

In this study we are looking to understand if organisations understand the current state of AI deployment, organisation readiness in deploying and scaling up the IT infrastructure, impact of AI on sustainability and challenges faced in achieving their sustainability KPIs.

The objective of the research is to provide an evidence base to inform efforts to improve initiatives to improve sustainability.

#### About the survey

The survey seeks to understand awareness amongst Australian and New Zealand IT managers of likely increased energy use from artificial intelligence applications.

The survey should take 7- 10 minutes to complete and it broadly covers:

- Demographic and industry characteristics
- Artificial intelligence management
- Energy demands from artificial intelligence applications

The survey will be open until 28 April 2024 (Note: this was subsequently extended to 12 May 2024).

#### Who should complete the survey?

This survey is intended for IT managers in Australia and New Zealand.

#### How your responses will be used?

ISF will prepare a report of survey findings that we will distribute publicly. We will not identify individuals or organisations with survey responses when reporting the results of the research i.e. your responses will be aggregated and reported anonymously.

You will have the option to provide your email address at the end of the survey to receive the research outputs (a report). Email addresses will not be used for any other purposes and will be stored separately from survey results to maintain de-identification of survey results. Your responses will assist with addressing research gaps into the current state of AI deployment, organisation readiness in deploying and scaling up the IT infrastructure, the impact of AI on sustainability and challenges faced by IT organisations in achieving sustainability KPIs.

#### Research ethics

Studies undertaken by the Institute for Sustainable Futures have been approved in principle by the University of Technology Sydney, Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research you may contact:

ISF Ethics Coordinators, (ISF-Ethics@uts.edu.au, +61 2 9514 4950) or the ISF Responsible Academic, Dr Jeremy Kohlitz (Jeremy.kohlitz@uts.edu.au, +61 2 9514 4950).

You may also contact the UTS Ethics Committee through the Research Ethics Officer (+ 61 2 9514 9772, Research.Ethics@uts.edu.au). Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

#### Consent

To complete the survey, please ensure that you have read the information on this page and if you agree to participate, please indicate this below. You are free to withdraw from the survey at any time.

- I have read the Participant Information above. I understand the purposes and processes of the research as described in the Participant Information.
- I freely agree to participate in this research project as described and understand that I am free to withdraw without affecting my relationship with the researchers.
- I understand that the research data gathered from this project will be published in a form that will not identify me in any way.
- I understand that the information I provide may be quoted in the report, however the quote will not be attributed to me as an individual.

To complete the survey, please ensure that you have read the information on this page and if you agree to participate, please indicate this below.

#### Participation filter

This survey is for IT managers who work for organisations in Australia and New Zealand.

#### Demographic information

The following questions are about the organisation you work for.

Q1) Where does your organisation operate?

- Australia
- New Zealand
- Both Australia and New Zealand

Q 2) How many employees are working globally for your organisation? Select only one.

- Less than 249
- Between 250-499
- Between 500-999
- Between 1,000 to 4,999
- More than 5,000

Q 3) Please select the main industry your organisation operates in. Select only one.

- Agriculture, Forestry and Fishing
- Mining
- Manufacturing
- Electricity, Gas, Water and Waste Services
- Construction
- Wholesale Trade
- Retail Trade
- Accommodation and Food Services
- Transport, Postal and Warehousing
- Information Media and Telecommunications
- Financial and Insurance Services
- Rental, Hiring and Real Estate Services
- Professional, Scientific and Technical Services

- Administrative and Support Services
- Public Administration and Safety
- Education and Training
- Health Care and Social Assistance
- Arts and Recreation Services
- Other Services

Q 4) What is your designation/role in your organisation?

- CEO/CFO/COO/CMO
- CTO/CIO
- Managing Director/Director/Vice President – IT/IS
- IT Governance, Risk & Compliance
- IT Infrastructure, Architecture & Design
- IT Director
- IT Operations in-Charge
- Others (please specify)

### **Management of AI**

The following questions are about the consideration and management of AI in your organisation.

Q5) What is your involvement in Information Technology (Hardware, Software and supporting services) related purchase within your organisation?

- I am the key decision maker for purchasing hardware/software/supporting services in my organisation
- I influence decision making
- I am involved in implementing solutions and measures
- Not involved in decision making or implementation

Q 6) Are you involved in sustainability-related initiatives within your organisation?

- I am a member of our organisation's ESG/sustainability team
- I influence sustainability-related decisions and equipment/ product purchases
- I am involved in implementing sustainability initiatives/ tracking our organisation's sustainability/ESG goals
- Not involved in sustainability tracking or influencing any decision related to sustainability

Q 7) What are the top priorities for your organisation over the next 3 years? Please rank your top 3 priorities, with 1 being the most important.

- Business growth (profitability and revenue)
- Increase productivity
- Improve customer experience for end users
- ESG/sustainability goals
- Deploy AI technology (AI/ML/ LLM/ NLP projects)
- Pursuing Innovation (new product/service development)
- Upskilling/Reskilling employees
- Other (Specify)

Q 8) Has your organisation adopted any AI technologies (AI/ML/ GAI/LLM models)? Choose an answer that indicates your organisation's current state of AI adoption

- Already adopted AI technologies in a few business functions/ departments

- We are piloting AI technologies/ Trialling projects
- We are finding information and gauging potential use cases of AI for our organisation but not adopted AI yet
- We have no plans for deploying AI technology in the next 3 to 5 years

Q 9) In which environment are you running or planning to run AI workloads/applications?

- On-premises Data Centre/ Private Cloud
- Managed Data Centre/Private Cloud
- Edge/Remote Sites
- Public Cloud
- Hybrid (combination of Private and Public cloud)

Q 10) Which areas of your IT infrastructure require or are expected to require upgrades to support AI adoption? Please select all that apply.

- Data management tools/ process (rework on collecting, processing, validating, de-duplicating and storing data)
- Data storage infrastructure - including Servers, storage systems, and storage area networks (SANs)
- Networking infrastructure – including routers, switches, and firewalls
- Security and privacy tools/processes
- Compute infrastructure
- GPU accelerators or special hardware
- Others (Specify)

Q 11) Which areas are most overlooked when adopting and implementing AI?

Please rank, with 1 being the most overlooked area.

- Data Storage and Management
- Data processing speed
- Compute power needed
- Employee skills (upskilling/ hiring for AI technology)
- Cost (upfront, upgrade, and maintenance)
- Power Consumption
- Impact on Sustainability/ESG goals

Q 12) How much has the need for each of the following components increased or will increase on AI deployment? Choose one option for each component.

- Computing Power
- Storage
- Energy Consumption
- Options:
- Tripled (200% increase)
- Doubled (100% increase)
- 50% to 100% increase in capacity
- Less than 50% increase in capacity
- Not sure
- No idea

## **AI Energy Consumption**

The following questions are about the energy consumption of AI in your organisation

Q 13) How concerned are you about AI's need for increased energy consumption when it comes to meeting your ESG goals?

- Extremely concerned
- Very concerned
- Somewhat concerned
- Less concerned
- Not concerned at all

Q 14) What measures has your company taken (or plans to take) to offset the energy used by AI? Please select all that apply.

- Investing in more energy efficient hardware
- Investing in flash storage
- Optimising use of equipment (shutting down equipment when not needed)
- Investing in green energy
- Limiting use of AI
- Reducing energy usage in other areas
- None of these

Q 15) How strongly do you agree or disagree with each of the following statements?

Strongly agree (1), Somewhat agree (2), Somewhat disagree (3), Strongly disagree (4).

- Meeting ESG goals is impossible without properly preparing IT infrastructure to support AI initiatives.
- My organisation is ill-prepared for AI deployment
- My organisation fully understands the scale of IT upgrades needed in terms of compute/ networking/ storage/ energy
- Hiring/ Retaining employees with AI skill sets is difficult
- There is a huge backlog in terms of AI infrastructure delivery (GPUs in particular)
- Flash storage technology is energy efficient and recommended for AI infrastructure
- AI deployment is adding pressure on IT departments as we lack enough budget
- Without proper IT infrastructure AI deployment will run into trouble (project delays, ineffective results, shut down projects mid-way)

Q 16) What are the key barriers to AI adoption now or in the future? Select all that apply.

- Cost is prohibitive (Capex and Opex)
- Lack in-house skill sets for AI deployment
- Do not have a strong use case for my industry
- An unproven solution
- There is a huge backlog in terms of AI infrastructure delivery (GPUs in particular)

### **Survey Submit**

To receive a copy of a report examining the findings from the survey please provide your email address. Email addresses will not be used for any other purposes and will be stored separately from survey results to maintain de-identification of survey results.





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