



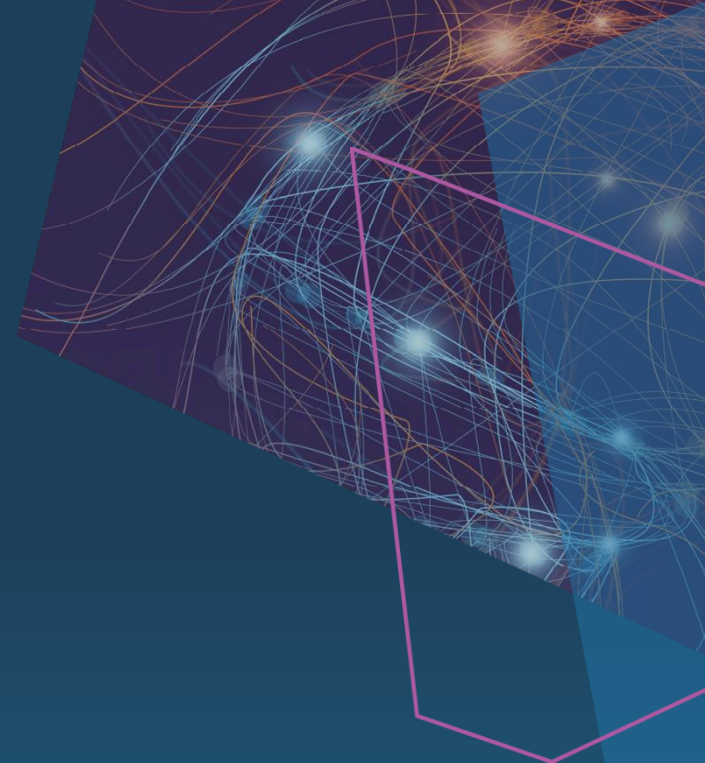
Australian Government
Department of Industry,
Science and Resources

National
Artificial
Intelligence
Centre

Impact of AI on the workplace

Donna Forlin | Trust Architect, National AI Centre

| industry.gov.au/NAIC





Acknowledgement of Country

Our department recognises the First Peoples of this Nation and their ongoing cultural and spiritual connections to the lands, waters, seas, skies, and communities.

We Acknowledge First Nations Peoples as the Traditional Custodians and Lore Keepers of the oldest living culture and pay respects to their Elders past and present.

We extend that respect to all First Nations Peoples.

National AI Centre mission

Accelerate positive AI adoption and innovation that benefits Australia's business and community.

Adoption

Enable responsible AI adoption across industry



Creation

Grow a responsible, AI Industry in Australia

AI is changing how
businesses are thinking
about their future



93%

Agree that AI tools
drive cost savings
and improved
profitability

54% peer influence and technology literacy

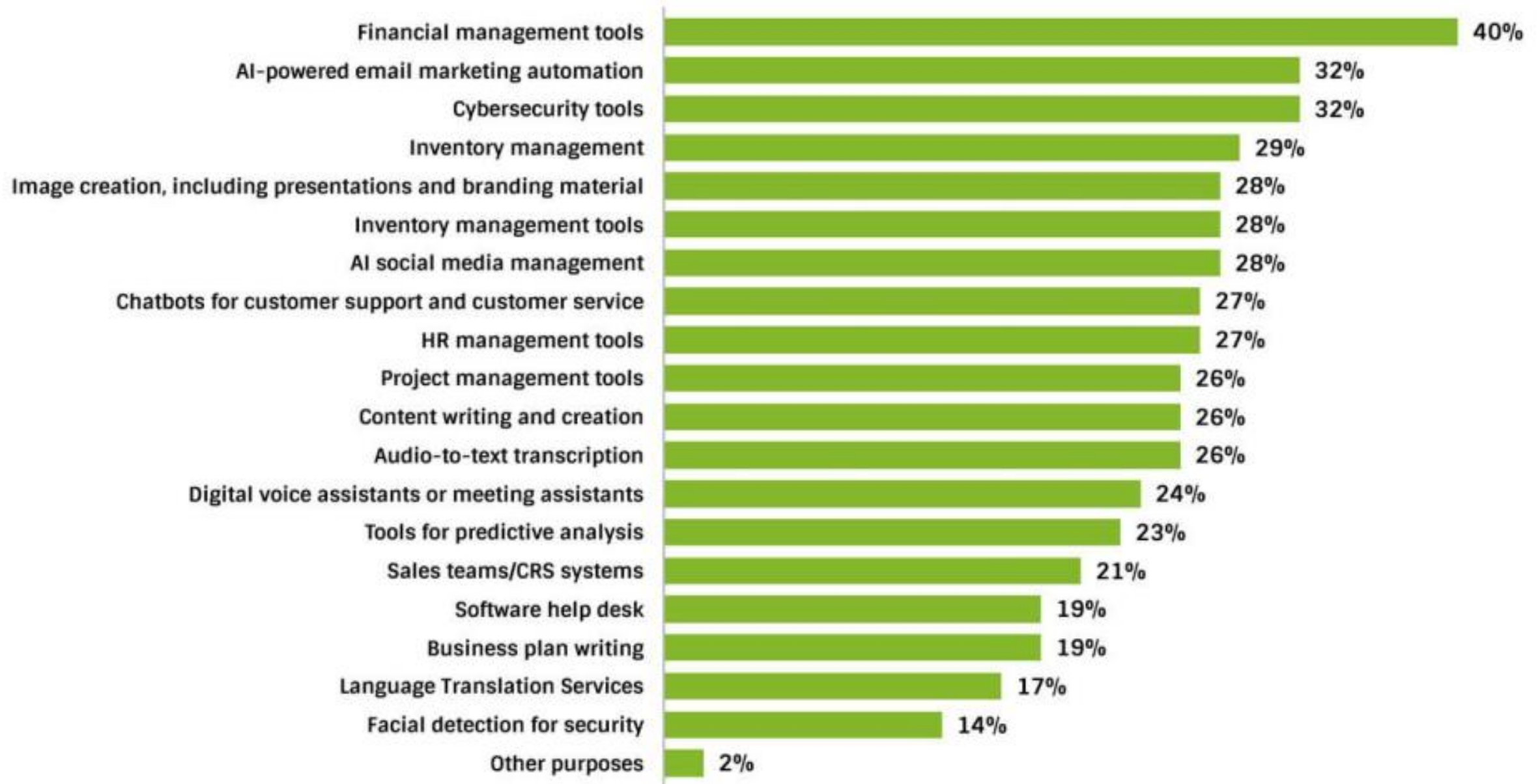
51% seeking time and cost savings

29% competitive pressures

26% inflationary pressures

25% high labour costs

19% lack of access to skilled labour



Q1. Which of the following artificial intelligence tools does your small business currently utilize for business purposes? (Please select all that apply), n=507 AI Users, +/- 4.4 PTS

Ferndale Food Group

AI to optimise production process

- AI-driven predictive maintenance, to predict equipment failures before they happen enabling proactive fixes.
- Reduces maintenance cost by between 25-30%
- Decrease frequency of breakdowns by 70-75%,
- Extends machinery life by 20-40% by addressing issues early
- Production lines run smoothly and efficiently, boosting overall productivity



How are Australian businesses using AI?

Content and marketing

- Creating proposal outlines for a client
- I've played with AI on marketing and email
- Photoshop tasks now take 5 mins instead of a day
- Helps with ideas for marketing copy
- Copy for websites and marketing materials
- Communications - synthesis and editing
- Conceptual ideation

Employee skilling and development

- Personalised employee training and upskilling through virtual assistants
- Team building, weekly riddle
- AI powered talent matching
- Automating resume screening tools, large volumes of resumes
- Using it for creating job descriptions

How are Australian SMEs using AI? (contd.)

Customer engagement and operations

- We submit to a lot of tenders, always working on them late, when there's a dull question to answer, I use Generative AI
- 24/7 customer support
- Sentiment analysis for client projects and continuous improvement
- Compare NDAs from client and our own and tell me the gap
- NPS score improvement. get better insights from sentiment analysis
- Customer onboarding through an AI agent
- Reviewing customer documents for validity
- Product management; forecast how much stock we need to hold
- Understanding inventory movements
- Looking at plants and making decisions on sugar levels and plant conditions

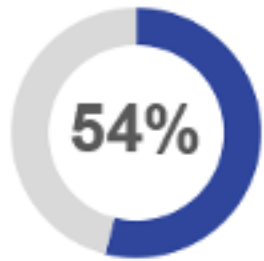
Australians most nervous globally about AI

% agree (31 country-average)

**Change
since Dec. 2021**

Highest

Lowest



Products and services using artificial intelligence have more benefits than drawbacks

+3 ppt



Indonesia



France, USA



Products and services using artificial intelligence make me excited

N/A



Thailand



Sweden



Products and services using artificial intelligence make me nervous

+12 ppt

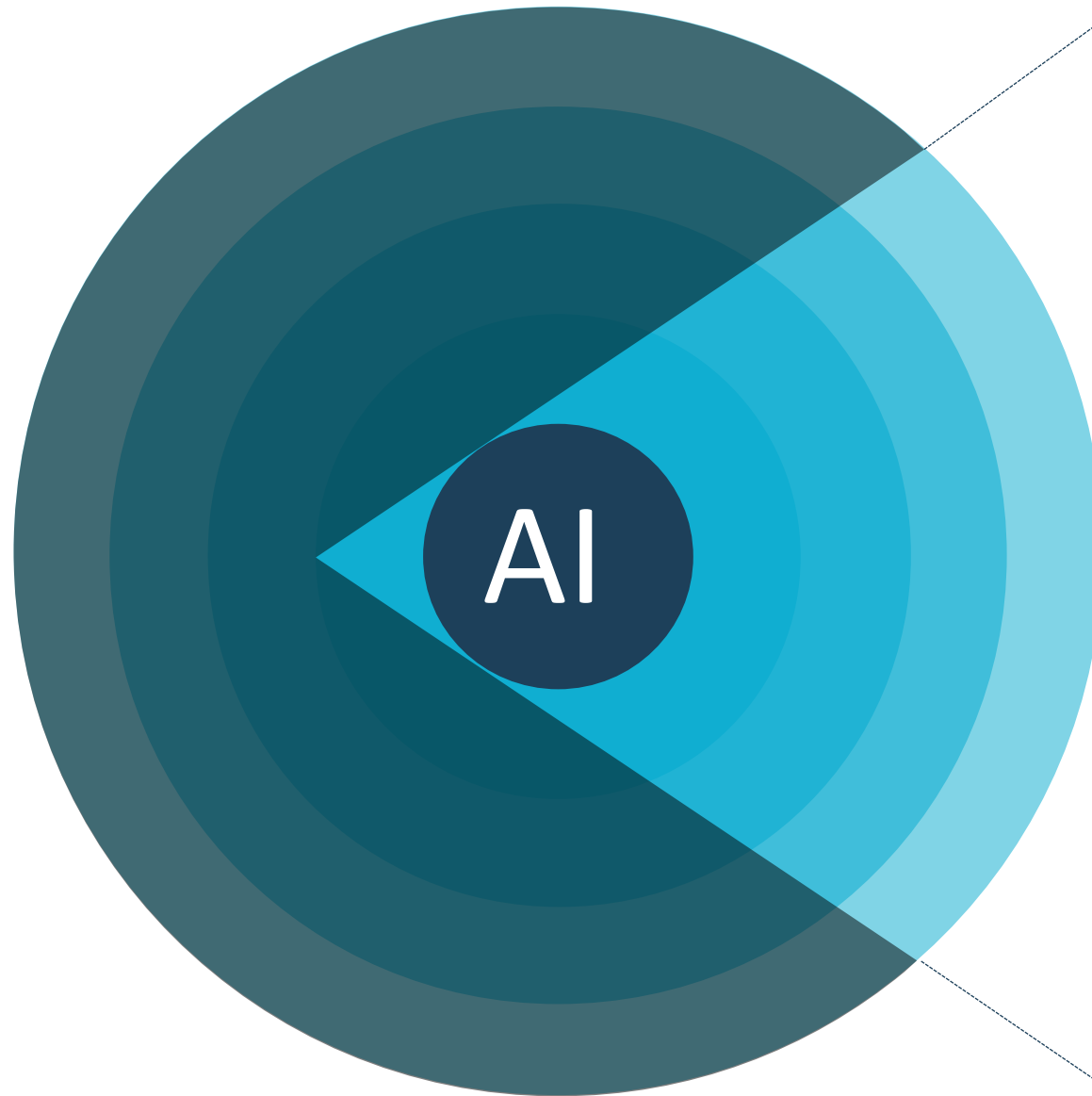


Australia



Japan

The AI frontier is Trust



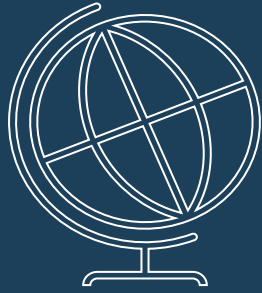
Responsible AI Index: Belief vs Action

Competitive differentiation

Agreement With Statements About AI Performance		Principle	Actions Taken
81%	Our AI systems generate quantifiable benefits to humans, society and the environment that outweigh the costs.	HUMAN, SOCIAL AND ENVIRONMENTAL WELLBEING	Identified and assessed the risks and opportunities for human rights. 22%
77%	Our AI systems are designed to be human-centered at their core.	HUMAN-CENTRED VALUES	Reviewed underlying databases for potential bias. 23%
79%	We have robust systems and processes in place to <u>minimise</u> the likelihood of our AI systems causing unfair treatment of individuals, communities or groups.	FAIRNESS	Reviewed AI algorithms for potential bias. 26%
84%	Our AI systems comply with relevant privacy and security regulations.	PRIVACY PROTECTION AND SECURITY	Hired technical consultants or professionals. 24%
84%	Our AI systems are designed to be safe and to not harm or deceive people.	RELIABILITY AND SAFETY	Monitored outcomes for customers or employees. 25%
84%	We are able to transparently show and explain how algorithms work.	TRANSPARENCY AND EXPLAINABILITY.	Developed supporting materials to explain the AI inputs and decision-making processes. 26%
80%	We have a timely process in place to allow people to challenge the use or outcomes of our AI systems.	CONTESTABILITY	Set up recourse mechanisms. 23%
85%	Our leadership can be held accountable for the impact of their AI systems.	ACCOUNTABILITY	Engaged your business leadership on the issues around RAI. 23%
82%	Average agreement with statements about AI performance	58 point	Average of RAI Actions taken 24%

Source: Responsible AI Index by Fifth Quadrant and Gradient Institute

... and it's reshaping the jobs
and skills needed



Global shift in skills and jobs

From 2023 – 2028

23% of global jobs will change

69 million new jobs will be created

83 million eliminated

These changes attributable to

new technologies and

the **green transition**.

Source: The World Economic Forum : Future of Jobs Report 2023 (May 2023).

AI-driven workforce transformation (WEF, 2023)

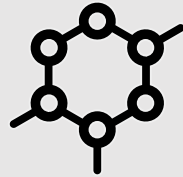
Top 10 fastest growing jobs

1. AI and Machine Learning Specialists
2. Sustainability Specialists
3. Business Intelligence Analysts
4. Information Security Analysts
5. Fintech Engineers
6. Data Analysts and Scientists
7. Robotics Engineers
8. Electrotechnology Engineers
9. Agricultural Equipment Operators
10. Digital Transformation Specialists

Top 10 fastest declining jobs

1. Bank Tellers and Related Clerks
2. Postal Service Clerks
3. Cashiers and ticket Clerks
4. Data Entry Clerks
5. Administrative and Executive Secretaries
6. Material-Recording and Stock-Keeping Clerks
7. Accounting, Bookkeeping and Payroll Clerks
8. Legislators and Officials
9. Statistical, Finance and Insurance Clerks
10. Door-To-Door Sales Workers, News and Street Vendors, and Related Workers

AI is changing the critical skills needed



500~ skills replicable by Generative AI

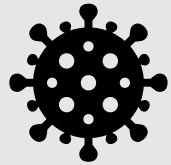
- Communication & media skills: Writing, Editing, Documentation, Translation, Video, Photography, Music, Content Creation
- Business & industry skills: Financial Reporting, Email Marketing, Data Analysis
- People skills: Time Management Tools



800~ skills exclusively performed by people

- Communication & media skills: Oral Presentations, Influencing
- Business & industry skills: Entrepreneurship, Maintenance and Repair, Military Strategy
- People skills: Leadership, Teamwork, Negotiation, Problem-Solving, People Management, Relationship Building, Creativity, Emotional Intelligence

Generative AI is replacing tasks not jobs



DISRUPTED

↑ GAI Replicable skills
↓ Exclusively people skills

Administrative Clerk
Customer Service Rep
Content Manager
Telemarketers
Legal Associate
Librarian
Bank Tellers



AUGMENTED

↑ GAI Replicable skills
↑ Exclusively people skills

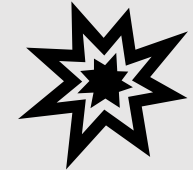
Data Analyst
Marketing Manager
Software Engineer
Nutrition Consultant
Cashier
Sales Manager
Founder



INSULATED

↓ GAI Replicable skills
↑ Exclusively people skills

Teacher
Dancer
Counsellor
Construction Specialist
Real Estate Agent
Optometrist
Medical Doctor

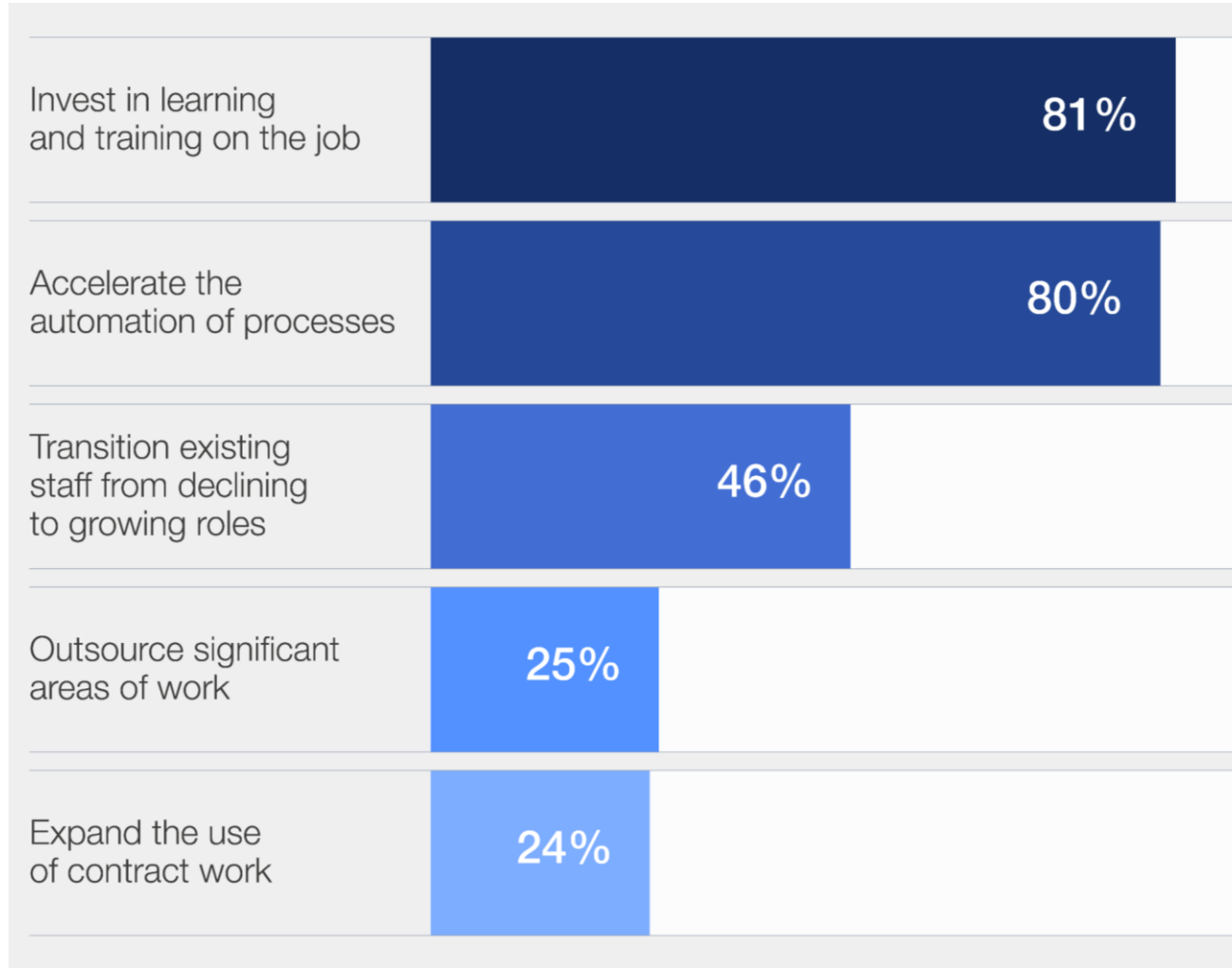


NEW

Emerging new roles

AI System Auditors
AI Content Creators
Data Curators
AI Governance
AI Ethics
Trust Architect
Prompt Engineers
AI Personality Designer

Global approaches to AI workforce reshaping



In Australia:

>80% of AI skills are outsourced or externally supported

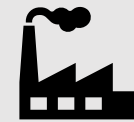
Source: Australia's AI Ecosystem Momentum, National AI Centre, March 2023

And if we get this right...

Four key sectors of the Australian economy that are poised to benefit the most from Generative AI:



Healthcare



Manufacturing



Retail



Financial services

\$45B - \$115B

Annual value added by 2030

Source: Tech Council of Australia (2023), Australia's Gen AI Opportunity

AI Adoption Depends on Trust



Develop shoulder to shoulder with the people who are actually going to use these things. If it impacts a customer, you develop it also with customers. If it impacts a planner, you develop it with planners and you explain it to them... [then] the technology becomes more than just a vague tool and really more of something that you can trust and rely on”

Sander Stomph, Head of Operational Excellence at KLM

Source: MIT Sloan and BCG - Cultural Benefits of AI - 2021

But you need employees to
be engaged and involved....

A story about a goat



You

A man and a goat are standing at a river. The man has a boat. How can both be brought to the other side?



ChatGPT

To solve the riddle, let's break down the scenario and figure out the steps the man needs to take to get both himself and the goat across the river using the boat.

1. **Initial Situation:** The man and the goat are on the starting side of the river. The man has a boat.
2. **Constraints:** The boat can carry only the man and the goat at the same time. We need to ensure both reach the other side safely.

Steps to Solve the Riddle

1. **First Trip:** The man takes the goat across the river and leaves the goat on the other side.
2. **Return Trip:** The man returns to the starting side alone.
3. **Second Trip:** The man crosses the river alone once more.

Final State

- Both the man and the goat are now on the other side of the river.

By breaking down the problem into manageable steps, we've ensured both the man and the goat are safely brought to the other side.



You

A man and a woman are standing at a river. The man has a boat. How can both be brought to the other side?



ChatGPT

This riddle seems quite straightforward if there are no additional constraints or hidden details. The man can use his boat to take both himself and the woman to the other side of the river.

Here's how it can be done:

1. The man and the woman both get into the boat.
2. The man rows the boat across the river, taking both of them to the other side.

If there are any additional rules or conditions (such as the boat only being able to carry one person at a time), please specify, and I can provide a solution based on those constraints.

Questions?



Thank you!

Donna Forlin
National AI Centre
NAIC@csiro.au,
<https://www.csiro.au/naic>



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Join the AI conversation

#AIAustralia