



Australian Government

Jobs and Skills Australia

# Australia's current, emerging and future workforce skills needs

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Jobs and Skills Australia

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# Update on Jobs and Skills Australia

Jobs and Skills Australia commenced operations on Wednesday 16 November 2022.

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The government is conducting further consultations on the functions and governance of Jobs and Skills Australia and will introduce a second tranche of legislation early in 2023.

## Jobs and Skills Australia has the following initial functions:

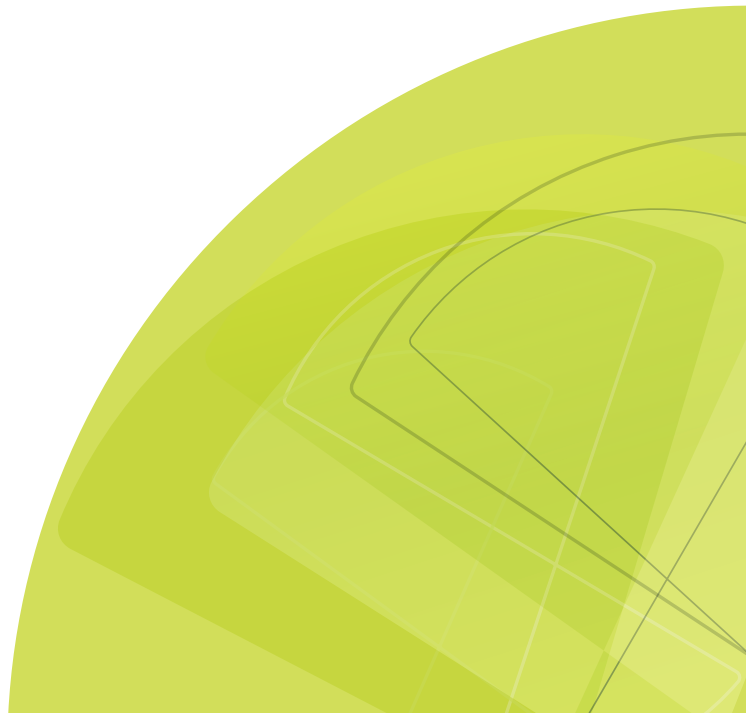
- provide advice on:
  - Australia's current and emerging labour market
  - Australia's current, emerging and future skills and training needs and priorities
  - the adequacy of the Australian system for providing VET, including training outcomes;
  - issues relating to skills and training, and workforce needs, in regional Australia
  - pathways into VET and pathways between VET and higher education
  - opportunities to improve employment, VET and higher education outcomes for disadvantaged cohorts
  - opportunities to remove gender barriers in training and in the labour market and improve gender outcomes;
- prepare capacity studies, including for emerging and growing industries and occupations;
- undertake workforce forecasting and undertake cross industry workforce analysis;
- undertake research and analysis on the resourcing and funding requirements for RTOs to deliver accessible quality VET courses;
- inform the public about all of these matters



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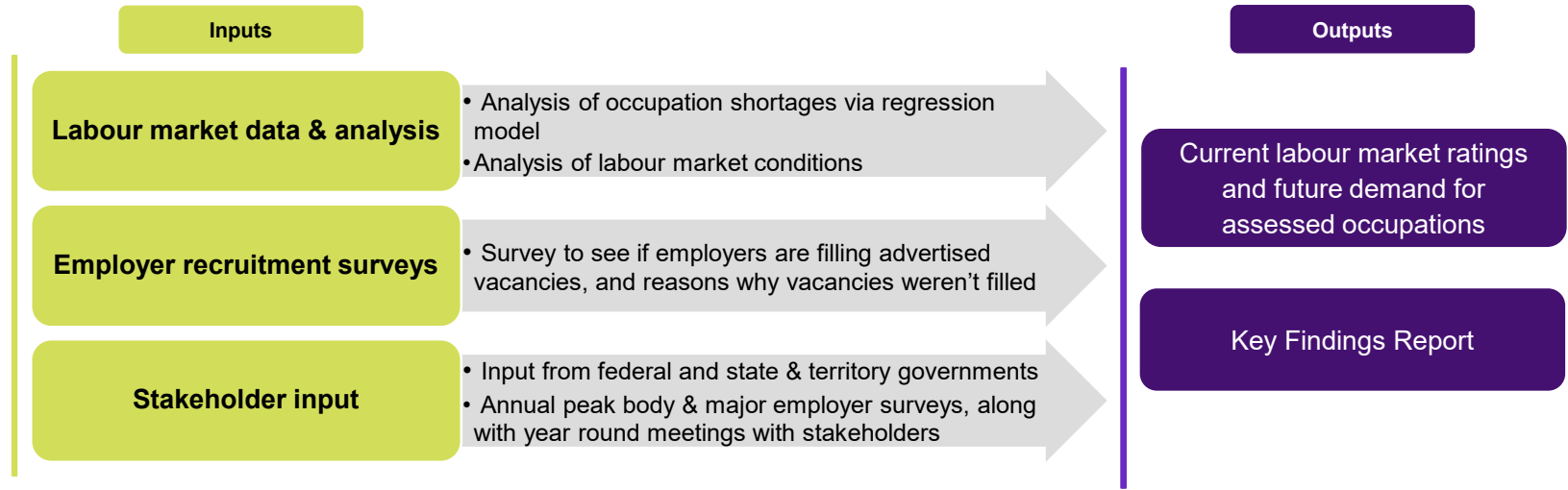
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# What we do



# Skills Priority List (SPL)

- The SPL provides a current labour market rating and a future demand rating for occupations.
- The SPL helps inform advice on targeting of policy initiatives (such as skilled migration and training funding incentives) - but it is not the sole input to such policies.



# Jobs and Education Data Infrastructure

JEDI creates the Infrastructure to enable data to be combined together using advanced analytics.

Insights are produced using unstructured big data sources and machine learning techniques.

Skills as the common language to:

- match labour demand (jobs advertised) to labour supply (VET and HE)
- Show how skills are changing jobs and creating new ones.



## **Skills: a common language**

Skills underpin the data and enable us to speak in a common language.



## **Linking jobs to training**

Skills data enables us to find opportunities and link jobs to training and education.



## **Forecasting future needs**

JEDI enables us to anticipate future needs and adapt to changes in our economy.

# Australian Skills Classification

The ASC is the common language of skills in Australia.

Changes how Australia defines jobs by looking at skills rather than occupations, job titles or qualifications.

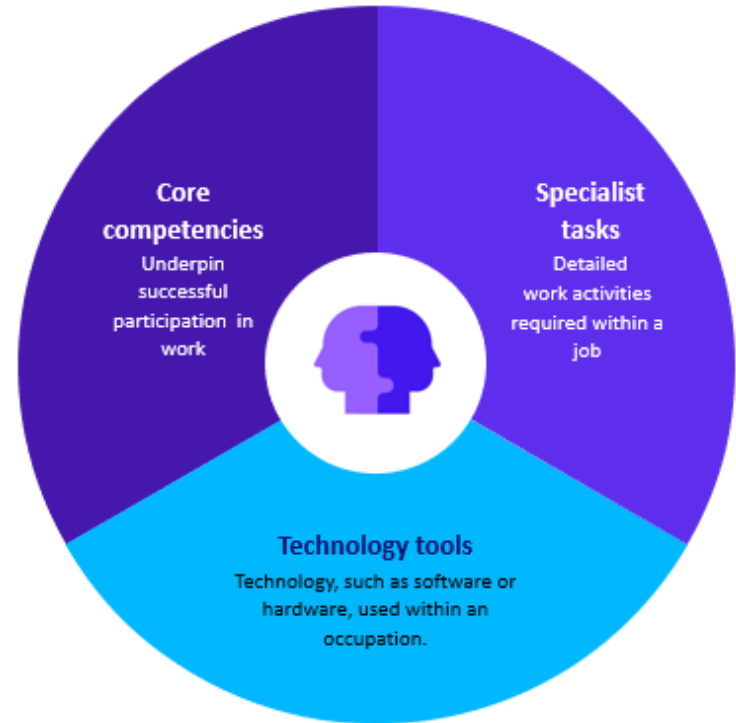
Relevant to the Australian Labour Market.

Strikes a fine balance between fine-detailed and comparability/transferability.

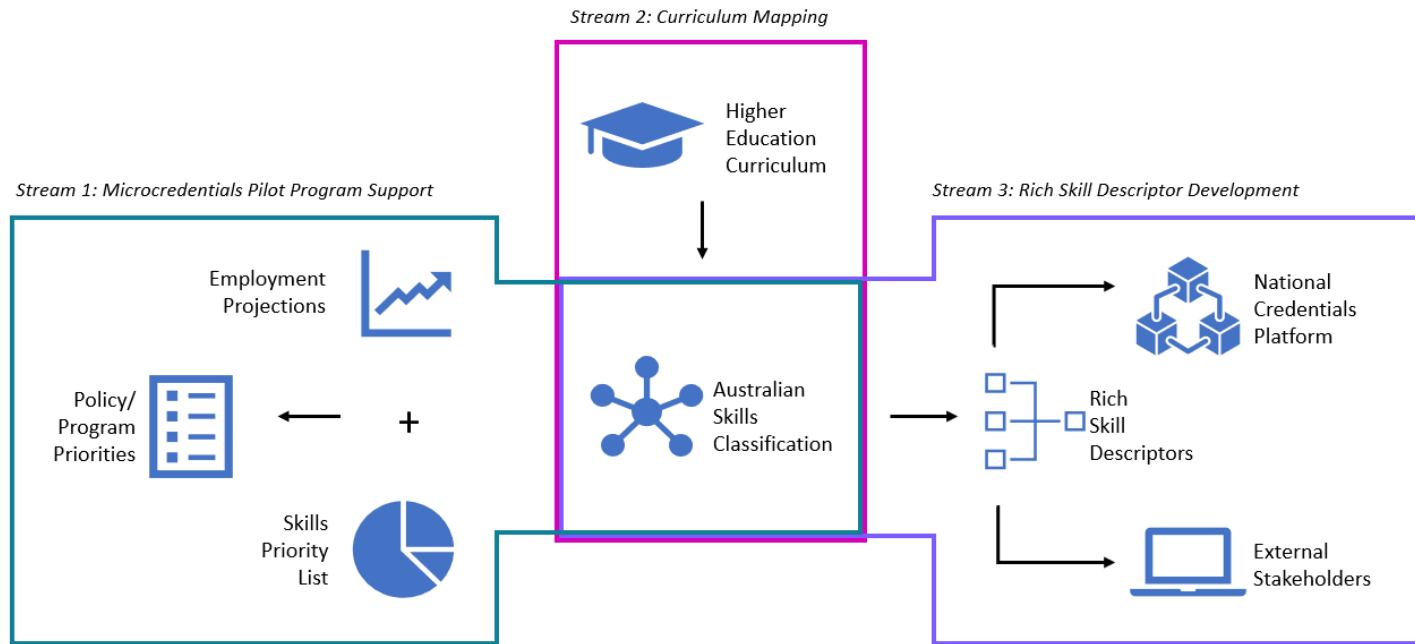
Initially built from data but has been expanded using stakeholder feedback and qualitative methods.

**Features** 1,275 skill profiles:

- 10 core competencies for every occupation
- 70 technology tools
- 2,126 specialist tasks, these are grouped together into skills clusters and skill cluster families.



# Higher Education Data & Engagement

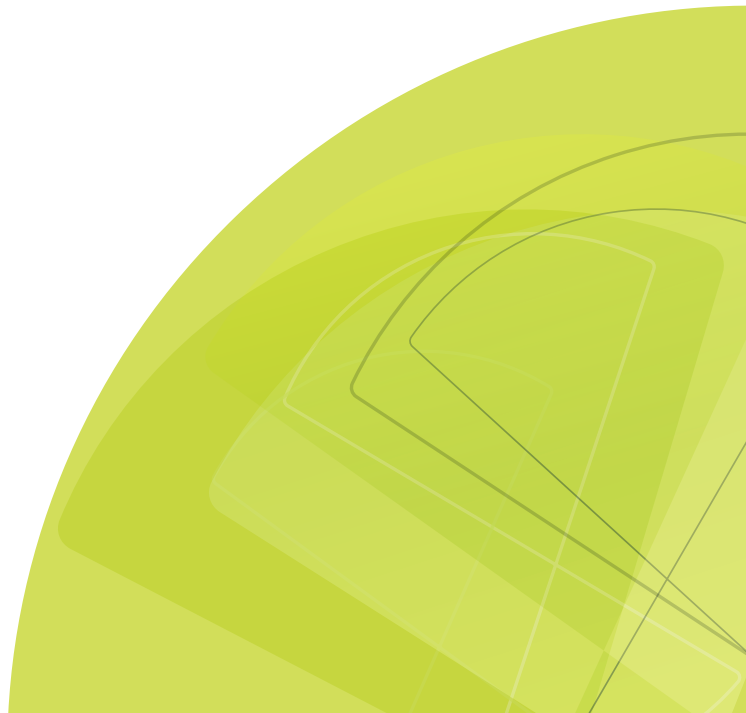




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# **What we've found**

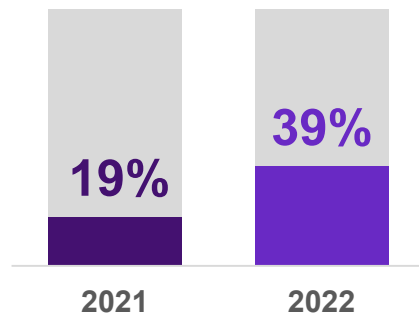




# There has been a big jump in shortages for professionals but shortages of trades workers are persistent

## Professionals

Proportion of Professional occupations in shortage

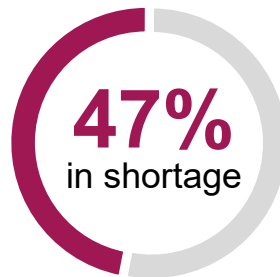


Driven by Health Professional occupations.

Most applicants requiring a bachelors degree and high level of experience.

## Technician and Trades Workers

Technician and Trades Workers occupations in 2022

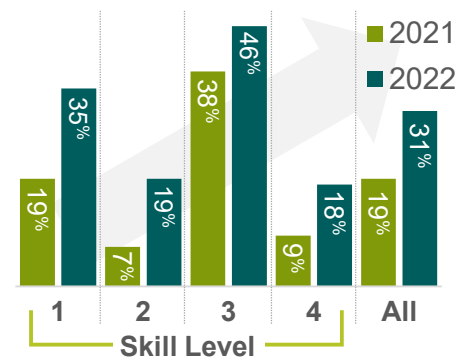


Persistent over time, especially for the Skill Level 3 cohort.

Many applicants lack experience and are unsuitable.

## Occupations in shortage by skill level

Proportion of shortages

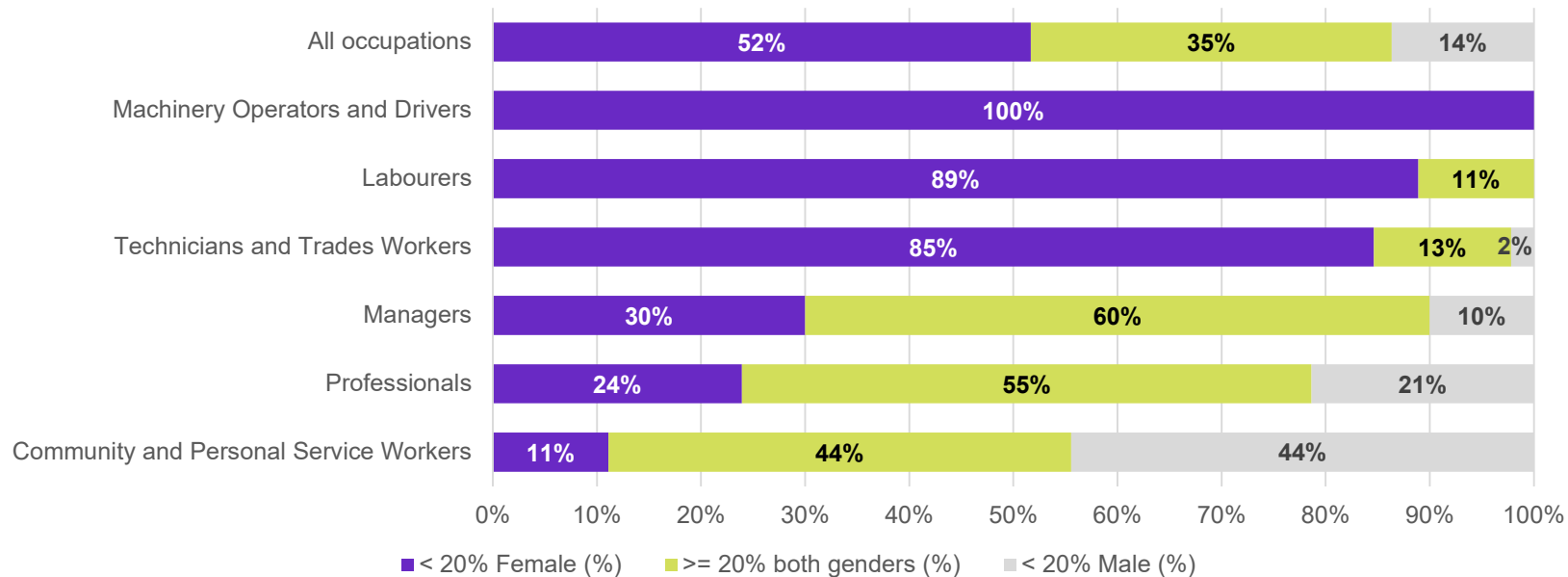


Shortages increased across all skill levels since 2021, with the largest increase to Skill Level 1.

Skill Level 3 remains the highest.

# Persistent shortages are being exacerbated by gender skewed workforce

**% of occupations in national shortage –by gender composition**



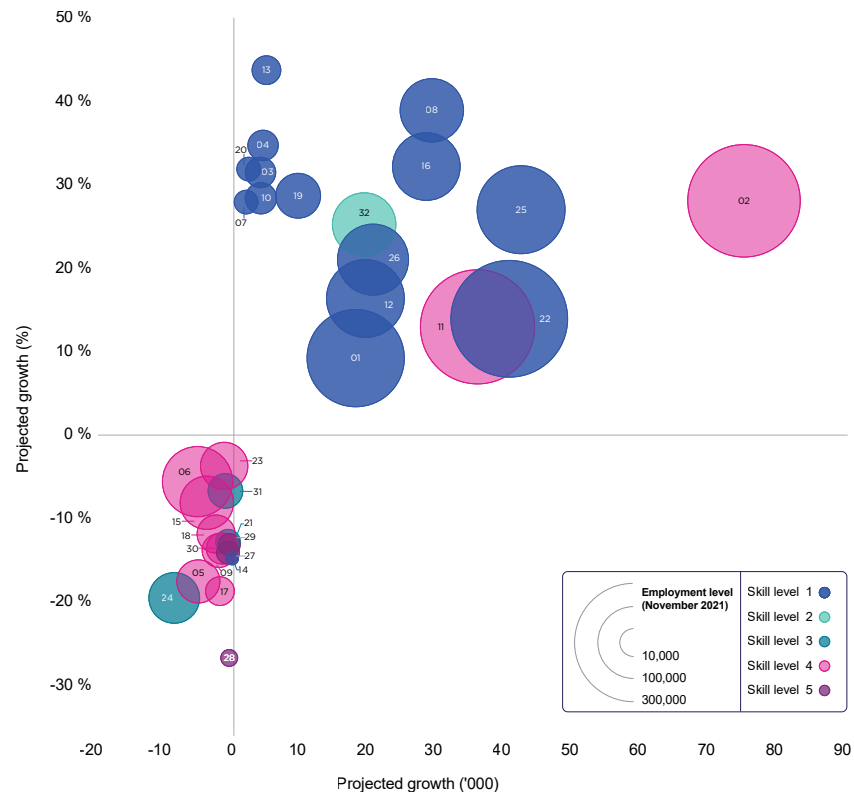
Please note: Changes to ANZSCO were made in late 2021 (after the Census), which impacts the way in which demographic Census data is mapped to occupations assessed in 2022 SPL. Numbers may not add to 100% due to rounding effects. Two major occupational groups (Sales Workers; and Clerical and Administrative Workers) are omitted from this chart due to the small number of occupations in shortage.

Source: ABS, 2021 Census of Population and Housing; NSC, Skills Priority List, 2022

# The importance of the 'Four Cs' were highlighted as key skill needs of the future

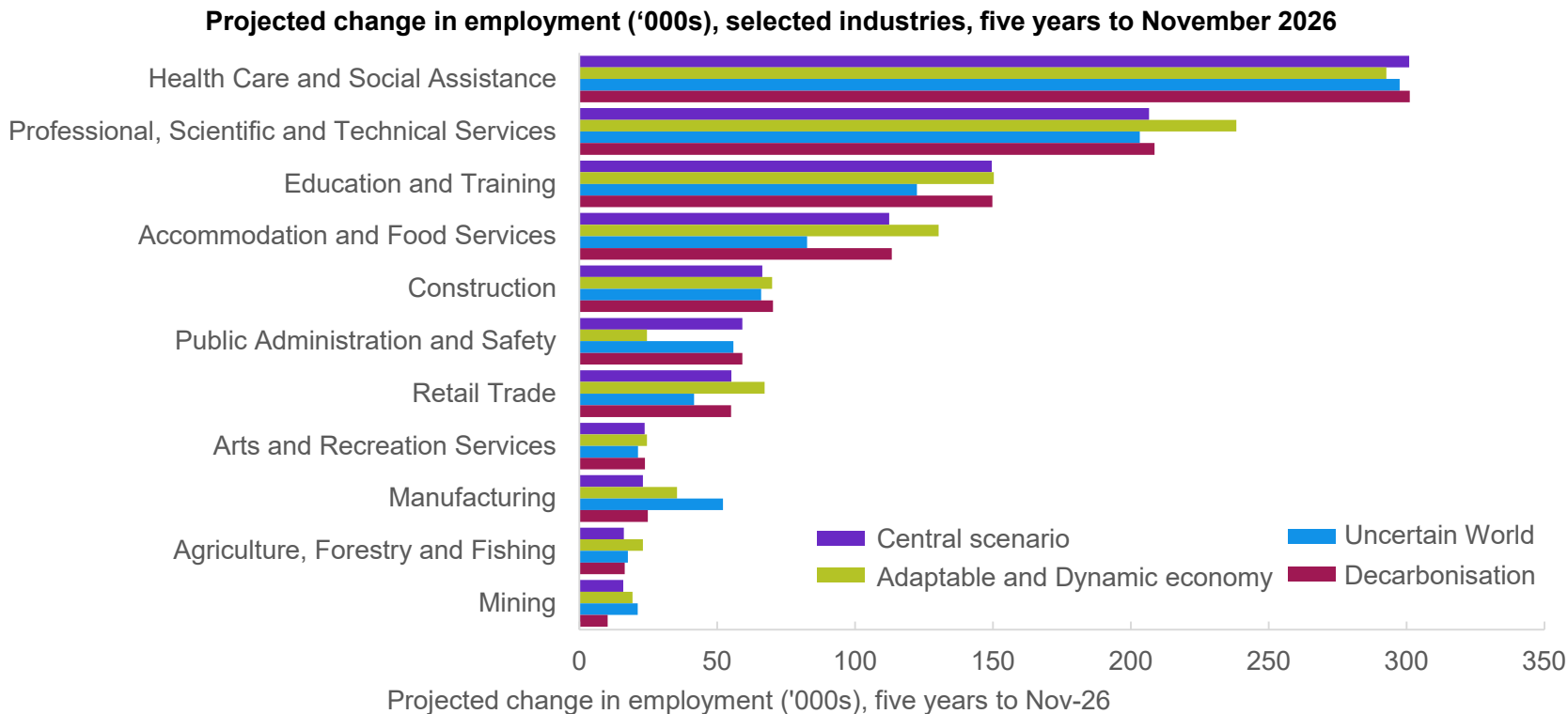
## Projected employment changes by occupation and skill level ('000s and percentage growth) – selected occupations

- 01 Accountants
- 02 Aged and Disabled Carers
- 03 Air Transport Professionals
- 04 Audiologists and Speech Pathologists/Therapists
- 05 Bank Workers
- 06 Bookkeepers
- 07 Complementary Health Therapists
- 08 Database and Systems Administrators, and ICT Security Specialists
- 09 Engineering Production Workers
- 10 Fashion, Industrial and Jewellery Designers
- 11 General Clerks
- 12 Human Resource Managers
- 13 ICT Support and Test Engineers
- 14 ICT Trainers
- 15 Keyboard Operators
- 16 Management and Organisation Analysts
- 17 Other Machine Operators
- 18 Other Stationary Plant Operators
- 19 Physiotherapists
- 20 Podiatrists
- 21 Printers
- 22 Registered Nurses
- 23 Retail Supervisors
- 24 Secretaries
- 25 Software and Applications Programmers
- 26 Solicitors
- 27 Street Vendors and Related Salespersons
- 28 Telemarketers
- 29 Timber and Wood Process Workers
- 30 Tourism and Travel Advisers
- 31 Wall and Floor Tilers
- 32 Welfare Support Workers

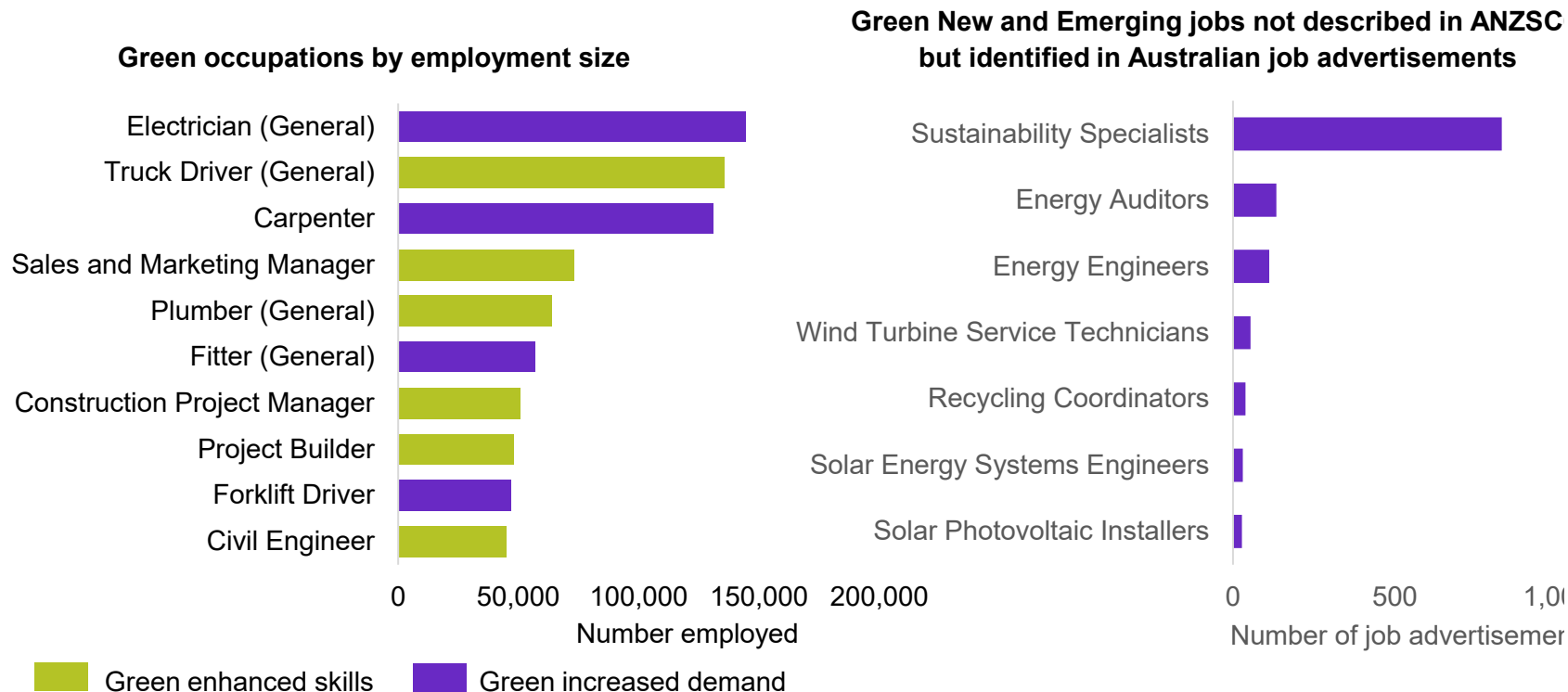


Source: NSC, 2021 Employment Projections

# The structure of the labour market doesn't look that different under a range of different scenarios



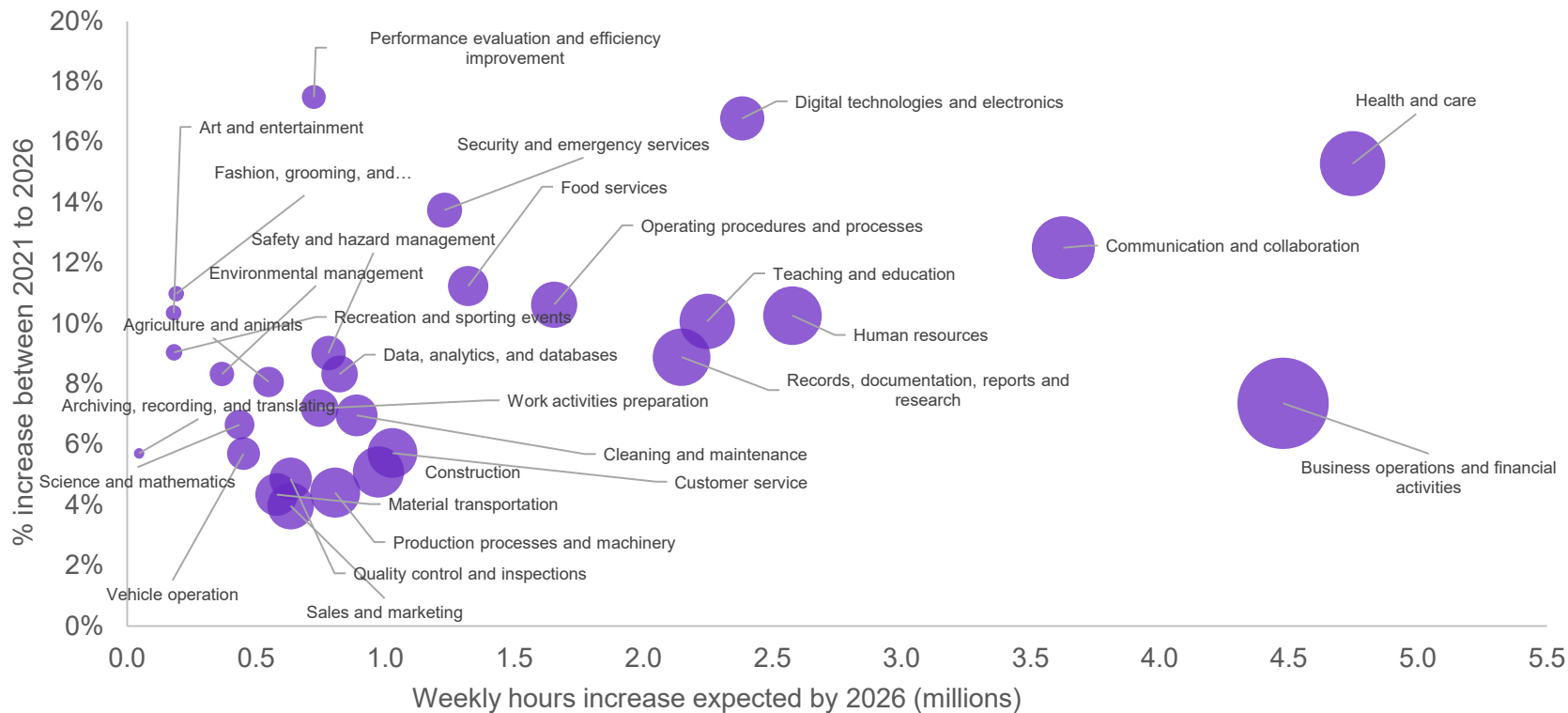
# Some of the most common jobs in the green workforce are conventional jobs but there are new jobs emerging



Source: Longitudinal Labour Force Survey (May-2021 to May-2022) 12-month average employment

# Skills in Care, Computing, Cognitive ability and Communication are likely to be most important going forward

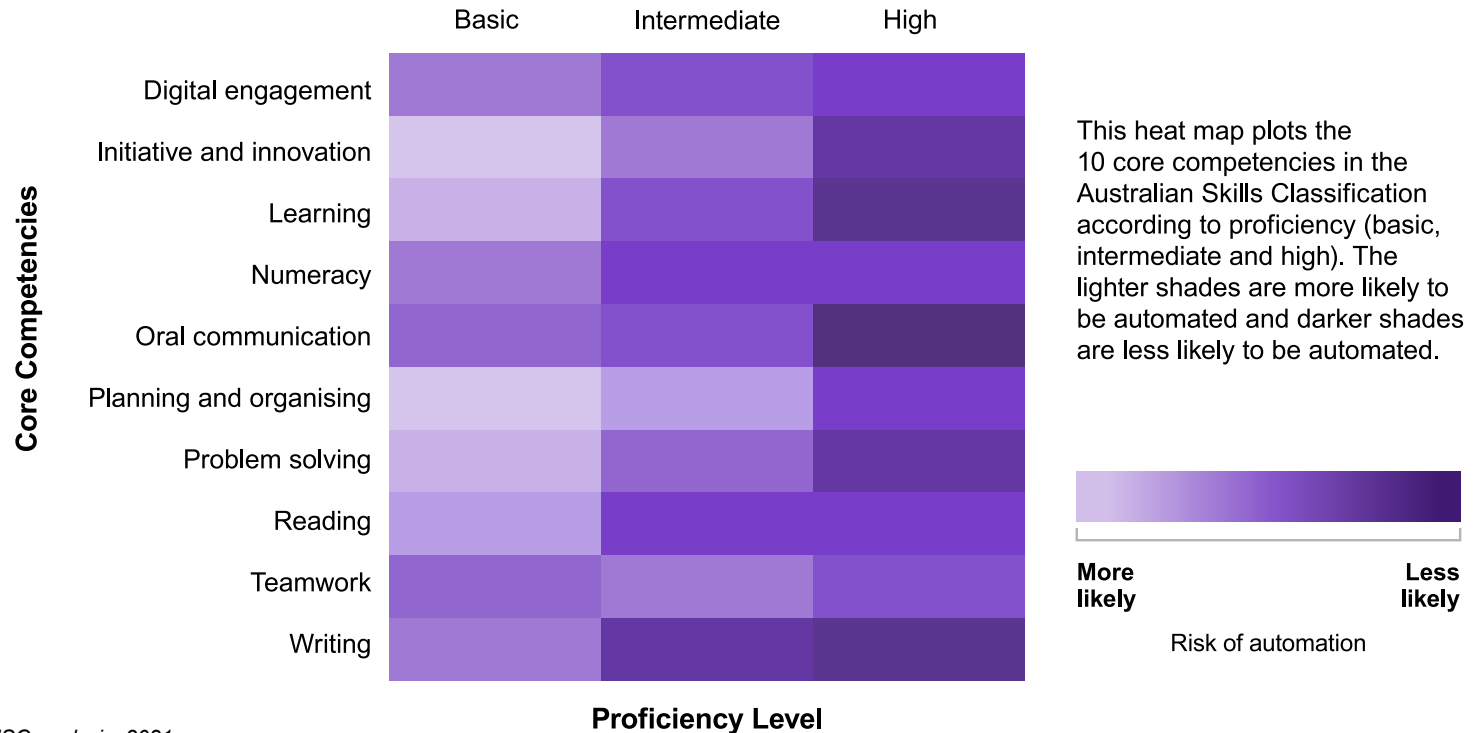
Demand for skills by skills cluster family, projected growth from 2021 to 2026, millions of hours worked



Source: NSC 2021 Employment Projections; Australian Skills Classification, unpublished data

# Communication will be a core skill of the future, being least likely to be automated

Automatability score versus core competency and proficiency levels



# Megatrends point to skills in Care, Computing, Cognitive ability, Communication and Climate



## Adapting to climate change

- Assess areas and conditions for risks and hazards
- Develop and maintain emergency plans
- Advise on environmental conservation
- Environmental impact reduction planning
- Administer insurance or compensation programs



## The escalating health imperative

- Care for patients and clients
- Provide community health programs
- Undertake biological research
- Analyse medical research and data
- Care for patients and clients using psychological therapies and supports



## Diving into digital

- Operate and maintain computers
- Undertake research and analyse data
- Social media platforms
- Use data to inform operational decisions
- Prepare information or website content
- ICT support, design and management
- Audio and video conferencing software



## Unlocking the human dimension

- Communicate with colleagues
- Undertake dispute resolution
- Collaborate with stakeholders
- Support diversity and inclusion
- Undertake human resources activities

## Leaner, cleaner and greener



- Undertake environmental and sustainability research
- Design or install sustainable processes and systems
- Undertake environmental sustainability planning or activities
- Research, evaluate or design new technologies
- Undertake scientific research or activities

## Geopolitical shifts



- Network security and virtual private network software
- Improve operational performance
- Operations research and management
- Design or assemble equipment and systems
- Investigate illegal activities or maintain security
- Teach others to use computer technology
- Computer Aided Manufacturing (CAM)

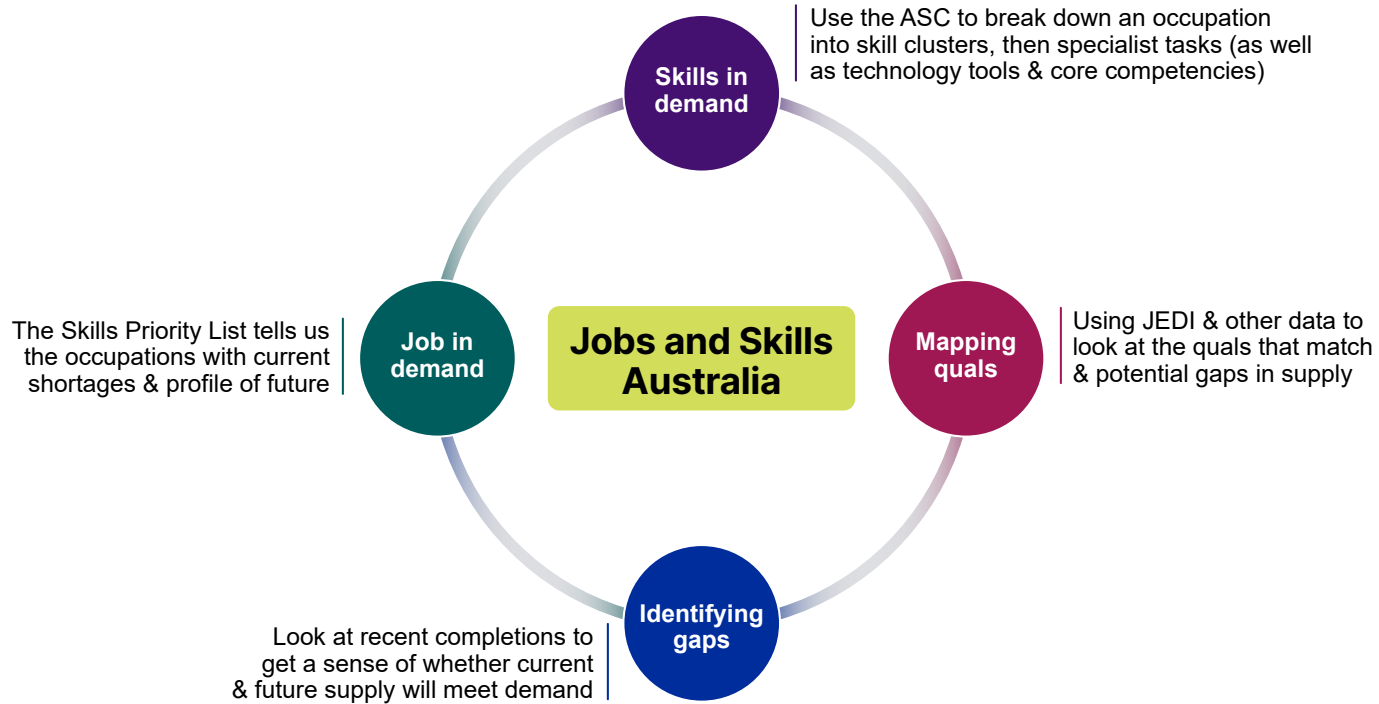
## Increasingly autonomous



- Test computer or software performance
- ICT support, design and management
- Develop websites or software
- Research, evaluate or design new technologies
- Undertake engineering research
- Industrial control and automation software
- Automated vehicle guidance



# Bringing it all together





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# Thank you

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