Australian Government
Department of Employment and Workplace Relations

Australian Skills Guarantee

Discussion Paper:

Setting targets for Major ICT Projects

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The document must be attributed as the Australian Skills Guarantee Discussion Paper 2024: Setting targets for Major ICT Projects.

Contents

Have your say **4**
Key dates 4
How to make a submission 4
Key contacts 4
Introduction **5**
Out of scope 5
Setting targets for the ICT sector **6**
The Australian ICT sector 6
Pathways into the ICT sector 6
Broadening training covered by ICT targets 7
Setting ICT targets 7
Targets for Learning Workers who are Women **9**
Women in ICT 9
Recruitment approaches 10
Setting ICT targets for Women 10
Setting ICT targets for Women for higher value ICT Projects 11
Glossary **13**
Appendix A. Example: Calculating Labour Hours to meet targets **15**
Appendix B. Summary of proposals in this discussion paper **17**

Have your say

Key dates

- **Discussion paper released:** 18 November 2024
- **Consultation period:** 18 November to Wednesday 4 December 2024
- **Submissions close:** 5pm AEDT, Wednesday 4 December 2024

How to make a submission

The department welcomes feedback on the discussion paper from interested parties by 5pm AEDT, Wednesday 4 December 2024. The discussion paper includes questions to guide your response. You may also wish to respond to the discussion paper more generally.

Please provide submissions and feedback through the department's consultation hub: https://consultations.dewr.gov.au/australian-skills-guarantee

Key contacts

General enquiries can be made to the department via the below methods.

Method	Details
Email:	asg@dewr.gov.au
Post:	Department of Employment and Workplace Relations GPO Box 9828 Canberra ACT 2601 Australia
Website:	www.dewr.gov.au/australian-skills-guarantee

Introduction

The Australian Skills Guarantee (Skills Guarantee) commenced on 1 July 2024 and aims to address ongoing skills shortages and gender segregation in the building and construction and maintenance services (Construction) and Information and Communication Technology (ICT) sectors. The Skills Guarantee Procurement Connected Policy (PCP) introduced new national targets for Apprentices and Trainees (referred to as Apprentices in this document), ICT Cadets, and Women working on major Australian Government-funded projects.[1]

Currently, the Skills Guarantee PCP requires that targets for Major ICT Projects be negotiated on a project-by-project basis, based on workforce information provided by Potential Suppliers during the procurement process. The setting of specific targets will help to ensure the Skills Guarantee is meeting its aim to help train the next generation of skilled workers and address future skills shortages and gender segregation in these male-dominated sectors. It will also provide clarity for Relevant Entities (referred to as contracting agencies) and Suppliers of Major ICT Projects by ensuring consistent targets are applied to all Major ICT Projects.

This discussion paper seeks feedback from stakeholders on proposed targets for Major ICT Projects (procurements with an estimated individual value of $10 million or more in *the United Nations Standard Products and Services Codes* (UNSPSCs) specified in Appendix D of the Skills Guarantee PCP). The targets are proposed to be included in a revised Skills Guarantee PCP and are anticipated to commence from 1 July 2025.

A summary of all proposals in this discussion paper can be found at **Appendix B**.

Out of scope

The key mechanism to implement the Skills Guarantee is the Skills Guarantee PCP. For the Skills Guarantee PCP to apply, the Australian Government procurement must meet the definition of an Eligible Project (see Section 3 of the Skills Guarantee PCP) – noting some exemptions apply (see Section 2.4 of the Skills Guarantee PCP).

The options presented and questions in this discussion paper only apply to ICT procurements that fall under the Skills Guarantee PCP. The current policy settings under the Skills Guarantee PCP for Construction procurements are not considered in this discussion paper.

[1] For definitions of key terms used in this document such as **Apprentices**, **Trainees**, and **ICT Cadets**, see *Glossary*. All other terms are consistent with the Skills Guarantee PCP which is available on the department's website: https://www.dewr.gov.au/australian-skills-guarantee

Setting targets for the ICT sector

The Australian ICT sector

Australia's tech workforce is growing but not at the pace needed to meet demand.[2] According to the Tech Council of Australia, Australia has 935,000 people working in tech jobs. To reach their shared goal with the Australian Government of 1.2 million tech workers by 2030, Australia needs 600,000 more tech workers.[3] To meet future demand and address skills shortages, it is critical to invest in skills and training to build a pipeline of new workers.

Jobs and Skills Australia state in their *2023 Skills Priority List – Key Findings Report* that 48% of professionals group occupations were in shortage, compared to 39% in 2022. This increase is being driven mostly by health professionals and ICT professionals, with 69% of ICT professions in shortage.[4]

The Skills Guarantee aims to leverage Australian Government investment in Major ICT Projects to help train the next generation of skilled workers by providing a guaranteed demand for Workers in training through Australian Government procurement targets.

Pathways into the ICT sector

As the ICT sector is ever changing and adapting to new technologies, there are multiple learning and entry pathways, including apprenticeships, traineeships, cadetships, university qualifications, Vocational Education and Training (VET) qualifications (not undertaken as part of an apprenticeship or traineeship), and Microcredentials. These pathways are not equally structured or regulated. For example, cadetships are not regulated or reported in the same way as apprenticeships and traineeships, nor is there a single definition or legal arrangement used when employers take on a cadet.

The Future Skills Organisation, the Jobs and Skills Council for Finance, Technology and Business, notes that there are multifaceted challenges with attracting and retaining Workers in the technology sector, including lack of clear pathways.[5]

The use of Apprentices in the ICT sector is significantly limited in comparison with other sectors, such as construction, with VET just one of many pathways into the ICT sector. For example, the participation rate of Apprentices is low across industry divisions, ranging from 0.05% in Computer System Design and Related Services to 1.55% in Telecommunications Services.[6]

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[2] Data and reporting for the ICT sector is complicated, given the varying definitions across organisations of what occupations make up the sector, as well as the numerous and widely varied pathways into the sector. This should be kept in mind while considering this discussion paper, noting that the definitions for the sector are not consistent across reports and data sets.

[3] Tech Council of Australia, *The state of Australia's tech ecosystem report*, March 2024

[4] Jobs and Skills Australia, *2023 Skills Priority List – Key Findings Report*, September 2023

[5] Future Skills Organisation, *Technology Industry – Workforce Plan*, 2024

[6] Australian Bureau of Statistics (ABS), *Labour Force, Australia, Detailed*, 6291.0.55.001, August 2024

Given these varied entry pathways and the limited use of VET training pathways, this discussion paper proposes broadening the training options covered by the ICT targets, as outlined in *Setting ICT targets*.

Broadening training covered by ICT targets

Broadening the training inclusions for ICT targets to cover 'Learning Workers' would acknowledge the variety of pathways into the ICT sector, support lifelong learning and upskilling of Workers throughout their career and ensure Workers in the ICT sector continue to gain new skills in emerging technology.

For the purposes of the Skills Guarantee PCP, it is proposed that a 'Learning Worker' be defined as:

- an individual who, while employed on a Major ICT Project or High-Value ICT Project, is an Apprentice or an ICT cadet; or
- a Worker who, while employed on a Major ICT Project or High-Value ICT Project, is currently undertaking Accredited VET and/or Higher Education relevant to the employment and skills needs of the employer while employed on the relevant Eligible Project; or
- a Worker who, while employed on a Major ICT Project or High-Value ICT Project, is currently undertaking or successfully completes an Accredited Microcredential relevant to the employment and skills needs of the employer while employed on the relevant Eligible Project.

Setting ICT targets

Using this definition of Learning Worker, it is proposed that:

> Major ICT Projects must require **4% of the project's Labour Hours** to be undertaken by Learning Worker/s.

The Learning Worker Target would apply to all Major ICT Projects captured by the Skills Guarantee PCP and would be included in the relevant Approach to Market by contracting Australian Government agencies.

The Learning Worker Target has been set above the current estimated participation rate for Apprentices in the ICT sector, noting that the Learning Worker definition allows for a broader range of Labour Hours to be counted towards the target. In line with the Overarching Apprentice Target for Major Construction Projects, the Learning Worker Target will set a floor for the ICT sector and will not increase annually.

To ensure the Learning Worker Target is driving an increase to the people entering the ICT workforce, and not only upskilling current Workers, it is proposed that:

> A **maximum of 10% of the project's Learning Worker Labour Hours** can be undertaken by Workers who are undertaking or have completed an Accredited Microcredential.

For the purposes of meeting the Learning Worker Target, any Labour Hours undertaken by Workers who during the project are undertaking or have successfully completed an Accredited Microcredential, will count towards targets after commencement of, during, and after training.

Any Labour Hours undertaken by Apprentices or ICT Cadets, or Workers undertaking Accredited VET and/or Higher Education, will not count towards targets after finishing or terminating their apprenticeship, cadetship or training.

Note: an example is provided at **Appendix A** for the calculations of targets.

Key questions for discussion

	Question
1	Do you agree with the suggested definition of a Learning Worker, and do you have suggestions for how the definition could be improved?
2	What other training pathways do you draw from to recruit new employees?
3	Do you believe there are any benefits or risks associated with broadening the scope of the targets to include Learning Workers?
4	Noting the policy aims to increase the pipeline of Workers into the ICT sector, do you feel the Learning Worker Target is sufficiently ambitious to achieve this?
5	Are there risks you see in meeting the target for Learning Workers?
6	Do you have workforce data or research that you could provide that supports your views?
7	Do you currently record data on Learning Workers and what information does this include?

Targets for Learning Workers who are Women

Women in ICT

The Skills Guarantee provides an opportunity for the Australian Government to collaborate with industry to build the strength and diversity of the ICT workforce by increasing Women's participation in the sector.

In the *ACS Australia's Digital Pulse 2023* report, Deloitte Australia state that Women accounted for only 29% of the overall tech workforce in 2022. This represents a decline in the proportion of Women in that workforce for the first time in the nine editions that Deloitte has been tracking this metric, with increases between 2014 (28%) and 2021 (31%). Comparatively, Women made up 44% of people employed in professional industries and 47% of Australia's total workforce. Deloitte goes on to say that without proactive steps to recruit more Women into the tech sector, the opportunity to narrow the skills gap to 2030 will be missed. The report sets out recommendations for increasing the number of Women in tech by 2030 to narrow the skills gap, including setting a clear target to achieve greater representation of Women in tech and monitoring the progress towards this target. The report also notes that gender diversity in technology will help breakdown stereotypes and encourage more young Women to pursue careers in the field, bridging the gender pay gap and creating a longer-term pipeline of talent for the future.[7]

Jobs and Skills Australia's *2023 Skills Priority List – Key Findings Report* noted that occupations that have a strong gender imbalance were more likely to be in shortage and that improving the gender imbalance of occupations may be a way to address skill shortages in areas of the labour market.[8]

The Future Skills Organisation identified in their *Technology Industry – Workforce Plan 2024* that lack of diversity and inclusion is one of the key challenges for the technology sector. Stakeholders emphasized that the Future Skills Organisation should prioritise the importance of more work experience and placement opportunities for Women to break down preconceptions of what working in tech is like.[9]

As at 31 December 2023, Women accounted for an estimated 9.9% of the total number of Apprentices in-training across ICT occupations. However, there are significant variances between occupation groups, for example Women accounted for only 2.1% of Telecommunication Technical Specialists Apprentices but accounted for 17.5% of ICT Support Technicians Apprentices. The significant variance in the participation rates of Women across different occupations within the ICT sector indicates that the average participation rate of Women on a Major ICT Project may vary depending on the nature and skills required for the project.

[7] Deloitte Australia, *ACS Australia's Digital Pulse*, 2015 to 2023 editions

[8] Jobs and Skills Australia, *2023 Skills Priority List – Key Findings Report*, September 2023

[9] Future Skills Organisation, *Technology Industry – Workforce Plan*, 2024

Increasing the number of Women entering the sector now could result in significant benefits in the long-term. One example would be that providing Women role models in the industry can help break down stereotypes and address barriers Women face in completing trade training and may assist in encouraging Women to pursue careers in the ICT sector.[10] A more diverse and inclusive workforce can also benefit industry by increasing organisations' access to talent and helping to alleviate skills shortages.

Recruitment approaches

Departmental research indicates that recruitment approaches vary for ICT employers seeking to increase their workforce or the proportion of Women in their workforce. Organisations tend to commit to plans, goals or initiatives to increase entry-level pathways or Women in the sector, rather than having cohort targets for workforce participation. Some organisations also set targets for how many employees come through each entry-level pathway.

Initiatives around Women often focus on the gender pay gap, raising awareness of and countering the biases that Women face, celebrating accomplishments of Women, or providing Women the opportunity to upskill or reskill.

Setting ICT targets for Women

To encourage Women to enter the ICT sector, it is proposed that a percentage of the Learning Worker Labour Hours undertaken for Major ICT Projects are undertaken by Women. This Learning Worker Target for Women takes into account the varying pathways into the ICT sector and is based on estimated participation rates of Women throughout the ICT sector, but also takes into account that participation rates vary dramatically depending on occupation. Using the definition of Learning Worker that has been proposed in *Setting targets for the ICT sector*, it is proposed the following Learning Worker Target for Women be set:

> Major ICT Projects must require **10% of the project's Learning Worker Labour Hours** to be undertaken by Women. This target would **increase by 1 percentage point annually** until 2030, as set out below.

[10] NSW Department of Education, *Women in Trades Promising Practice Review*, 2022

Table 1: Annual increase of Learning Worker Target for Women

Target applies during	Learning Worker Target for Women
1 July 2025 to 30 June 2026	10%
1 July 2026 to 30 June 2027	11%
1 July 2027 to 30 June 2028	12%
1 July 2028 to 30 June 2029	13%
1 July 2029 to 30 June 2030	14%
1 July 2030 onwards	15%

The annual increase in the Learning Worker target for Women ensures a range of Major ICT Projects can achieve the target initially, before the target is increased to drive long-term change.

The proposal presented in *Setting targets for the ICT sector* to broaden the types of training to be included in the ICT targets to all Learning Workers, could also go towards capturing a greater number of Women who use differing pathways to enter the sector compared to men.

Consistent with the proposed ICT targets set out in *Setting targets for the ICT Sector*, to ensure the target is driving an increase in Women entering the ICT workforce, and not only upskilling current Workers who are Women, it is proposed that:

> A **maximum of 10% of the project's Learning Worker Target for Women's Labour Hours** can be undertaken by Women who are undertaking or have completed an Accredited Microcredential.

Note: an example is provided at **Appendix A** for the calculation of targets.

Setting ICT targets for Women for higher value ICT Projects

There is also an opportunity to set more ambitious targets and require Suppliers to provide Gender Equality Action Plans (GEAPs) for ICT projects with a higher monetary value. These requirements would be similar to the requirements set out in the Skills Guarantee PCP for Flagship Construction Projects and would further encourage cultural change in the sector.

Projects with a higher monetary value are considered to have a greater capacity to achieve more ambitious targets, where the cost of absorbing any associated changes in recruitment is more easily absorbed. In setting more ambitious targets on these projects, Australian Government policy can be used to work towards a critical mass of Women working in ICT to help shift cultures on individual projects and act as exemplars across the sector.

It is proposed that 'High-Value ICT Projects' be defined as:

Procurements with an estimated individual **value of $50 million and above** (GST inclusive) in the UNSPSCs specified in Appendix D of the Skills Guarantee PCP.

Based on departmental analysis of AusTender data, the $50 million threshold would ensure that a similar number of ICT projects are captured by the High-Value ICT Project threshold as the number of Construction projects captured by the $100 million Flagship Construction Project threshold.

The Learning Worker High-Value Target would require Suppliers to:

- ensure a minimum of 4% of the project's Labour Hours are to be undertaken by Learning Worker/s; and
- set and meet a higher Learning Worker Target for Women than the Learning Worker Target for Women on Major ICT Projects in each relevant financial year (see Table 1 above); and
- provide a GEAP outlining Supplier recruitment and retention strategies to ensure the targets for Women are achieved and sustained.

Details on GEAPs can be found in the Skills Guarantee PCP and GEAP guidance document, both available on the Australian Skills Guarantee website.

Key questions for discussion

	Question
8	Do you believe the Learning Worker Target for Women is sufficient to drive change in the ICT industry? If no, what would you consider to be an achievable target?
9	Are there risks you see in meeting the Learning Worker Target for Women?
10	Do you agree with the proposal that High-Value ICT Projects should be required to meet higher targets?
11	Do you agree with the proposed $50 million threshold for High-Value ICT Projects?
12	Do you have workforce data or research that you could provide that supports your views?
13	Does your organisation have gender equity policies or procedures in place? What do these include/cover?

Glossary

Accredited means a course developed when a training need is not covered by a training package qualification and needs to be nationally recognised and delivered by a Registered Training Organisation following being independently assessed by the Australian Skills Quality Authority (ASQA) or a State Regulator.

Accredited Microcredentials refers to a certification of assessed learning or competency, with a minimum volume of learning of one hour, and less than an Australian Qualifications Framework (AQF) award qualification, that is additional, alternate, complementary to or a component part of an AQF qualification and is listed on the National Training Register. Microcredentials may be delivered stand-alone, or can complement study being undertaken at the VET or Higher Education level.

Apprentice (also known as a Trainee or an *Australian Apprentice*) is a person who is:

- employed under a Training Contract that has been registered with, and validated by, their State/Territory Training Authority;
- undertaking paid work and structured training which comprises both on and off the job training;
- undertaking a negotiated training program that involves obtaining a nationally recognised qualification; and
- either directly employed by the Supplier or Sub-contractors, or indirectly employed through a Group Training Organisation to work on an Eligible Project.

Approach to Market has the same meaning as in the Commonwealth Procurement Rules.

Australian Skills Quality Authority (ASQA) refers to the national regulator for Australia's vocational education and training sector that also regulates courses and training providers to ensure national approved quality standards are met.

Australian Qualifications Framework (AQF) is the national policy for regulated qualifications in Australia's Higher Education, Vocational Education and Training and school education. It provides for national recognition and consistent understanding of what defines each qualification type.

Eligible Projects are projects listed in Section 3 of the Skills Guarantee PCP, which are undertaken by Relevant Entities.

Higher Education, also known as tertiary education, refers to the Australian Qualification Framework level of education and training from level 5-10, including diplomas, advanced diplomas, associate degrees, bachelor's degrees (including honours), graduate certificates, graduate diplomas, master's degrees, doctoral degrees and higher doctoral degrees.

ICT Cadet refers to a paid employee who is working on a Major ICT Project or High-Value ICT Project and who is employed in an entry-level role and undertaking academic study through either VET or Higher Education towards a qualification under the Australian Qualification Framework, where the

employer has formally committed to providing the employee with on-the-job training and support to complete the specific course of academic study.

Labour Hours are the number of hours a person worked on an Eligible Project. This can include full-time or part-time hours and may include hours worked On-site and Off-site training and education.

Major ICT Projects are those procurements with an estimated individual value of $10 million and above (GST inclusive) in the UNSPSCs specified in Appendix D of the Skills Guarantee PCP.

Potential Supplier has the same meaning as in the Commonwealth Procurement Rules.

Relevant Entity/Entities are non-corporate Commonwealth entities and prescribed corporate Commonwealth entities listed in Section 30 of the *Public Governance, Performance and Accountability Rule 2014*.

Supplier/s has the same meaning as in the Commonwealth Procurement Rules.

Trainee see definition of Apprentice above.

United Nations Standard Products and Services Codes (UNSPSCs) are used by AusTender to categorise Australian Government procurement activities. The list of UNSPSCs used by AusTender can be found on data.gov.au.

Vocational Education and Training refers to practical knowledge and skills-based learning that is directly relating to a job and may include work placements or workplace-based learning.

Woman is a person, who regardless of their sex assigned at birth, identifies as a Woman irrespective of age.

Women means people, who regardless of their sex assigned at birth, identify as a Woman irrespective of age.

Worker (also known as an employee) is a person who is paid to work for an organisation for more than one hour in a week.

Appendix A. Example: Calculating Labour Hours to meet targets

Learning Worker Target

Brown & Smith ICT has estimated that their Major ICT Project will require 30,000 Labour Hours. The Learning Worker Target is calculated using **estimated** Labour Hours. Therefore, *Brown and Smith ICT* will be required to ensure:

- a minimum of 1,200 Labour Hours are undertaken by Learning Workers (4% of the project's total estimated Labour Hours)
- a maximum of 120 hours of these Learning Worker Labour Hours are undertaken by Workers who are undertaking or have completed an Accredited Microcredential (maximum of 10% of the project's Learning Worker Labour Hours).

Learning Worker Target for Women

Brown & Smith ICT's Major ICT Project has a contract start date of 1 September 2025 and has a contract end date of 16 May 2026.[11] Therefore, the project will be subject to the Learning Worker Target for Women for the 2025–26 financial year (10% Learning Worker Labour Hours to be Women).

To determine whether the Learning Worker Target for Women has been met, **reported** Learning Worker Labour Hours will be used. However, before the project starts, Brown and Smith ICT can **estimate** that they will be required to ensure:

- a minimum of 120 Learning Worker Labour Hours are undertaken by Women (10% of Learning Worker Labour Hours)
- a maximum of 12 hours of these Women's Learning Worker Labour Hours are undertaken by Women who are undertaking or have completed an Accredited Microcredential (maximum of 10% of the project's Women's Learning Worker Labour Hours).

However, depending on how many Learning Worker Labour Hours are **reported**, the number of Labour Hours that will need to be undertaken by Learning Workers who are Women to meet the targets may change.

For example, if *Brown & Smith ICT* report 1,500 Learning Worker Labour Hours then they will be required to ensure:

- a minimum of 150 Labour Hours of the Learning Worker Labour Hours are undertaken by Women (10% of the project's total Learning Worker Labour Hours)

[11] Note: Targets for women are determined based on a project's contract start and will increase each financial year that the project continues, as per Table 1: Annual increase of Learning Worker Target for Women.

- a maximum of 15 hours of these Women's Learning Worker Labour Hours can be undertaken by Women who are undertaking or have completed an Accredited Microcredential (maximum of 10% of the project's Women's Learning Worker Labour Hours).

Appendix B. Summary of proposals in this discussion paper

1. Broaden the training inclusions for ICT targets to cover '**Learning Workers**', which would be defined as:
    - an individual who, while employed on a Major ICT Project or High-Value ICT Project, is an Apprentice or an ICT cadet; or
    - a Worker who, while employed on a Major ICT Project or High-Value ICT Project, is currently undertaking Accredited VET and/or Higher Education relevant to the employment and skills needs of the employer while employed on the relevant Eligible Project; or
    - a Worker who, while employed on a Major ICT Project or High-Value ICT Project, is currently undertaking or successfully completes an Accredited Microcredential relevant to the employment and skills needs of the employer while employed on the relevant Eligible Project.
2. Based on the above definition of Learning Worker, set the following **target for Major ICT Projects**:

    'Major ICT Projects must require 4% of the project's Labour Hours to be undertaken by Learning Worker/s.'
3. To ensure that the above target is increasing the number of people entering the ICT workforce, set the following **cap on Accredited Microcredentials**:

    'A maximum of 10% of the project's Learning Worker Labour Hours can be undertaken by Workers who are undertaking or have completed an Accredited Microcredential.'
4. Using the above definition of Learning Worker, set the following **Learning Worker Target for Women** on Major ICT Projects:

    'Major ICT Projects must require 10% of the project's Learning Worker Labour Hours to be undertaken by Women. This target would increase by 1 percentage point annually until 2030, as set out in Table 1 in *Setting ICT targets for Women*.'
5. To ensure that the above target is increasing the number of Women entering the ICT workforce, set the following **cap on Accredited Microcredentials**:

    'A maximum of 10% of the project's Learning Worker Target for Women's Labour Hours can be undertaken by Women who are undertaking or have completed an Accredited Microcredential.'
6. To require **more ambitious targets for Women for High-Value ICT projects**, implement the following definition and requirements:

    'High-Value ICT Projects are those procurements with an estimated individual value of $50 million and above (GST inclusive) in the UNSPSCs specified in Appendix D of the Skills Guarantee PCP.'

    'High-Value ICT Projects would be required to set and meet a higher Learning Worker Target for Women than what's required for Major ICT Projects in each relevant financial year. They are also required to provide a Gender Equality Action Plan outlining supplier recruitment and retention strategies.'