Digital and Tech Skills Working Group

Final report

July 2023

Introduction

This report presents the Working Group's advice to the Australian Government on the use, design and delivery of an 'earn while you learn' model for digital and tech skills.

Background

As an outcome of the Jobs and Skills Summit, the Australian Government announced a Digital and Tech Skills Compact with business and unions. A practical outcome of that was the establishment of the Digital and Tech Skills Working Group who were tasked with designing a model that will support workers to earn while they learn in entry level tech roles, including for people traditionally under-represented in digital and tech fields.

The Minister for Industry and Science and the Minister for Skills and Training jointly announced the establishment of the Digital and Tech Skills Working Group in late 2022 to develop advice to support the Compact.

The following document contains the Working Group's advice on:

- Options for an earn while you learn model for entry-level tech roles, including how it can support increased diversity in the tech-related workforce
- Other matters relating to Australia's digital and tech skills challenges to support the *Employment White Paper*

The findings and recommendations were developed through robust consultation with stakeholders across the digital and tech skills ecosystem.

Executive summary

The Working Group's remit

The Australian Government tasked the Working Group with providing advice on 'earn while you learn' models for digital and tech skills in the context of a Compact between government, industry and other key stakeholders.

The Working Group focused on skills for digital and tech roles, rather than general digital literacy.

Terms of Reference

Background

- The Australian Government has committed to reaching **1.2 million tech-related jobs by 2030.**
- **Greater collaboration** is needed between government, industry, unions, training and education providers and others to deliver skill development models that are capable of being scaled up.
- As an outcome of the Jobs and Skills Summit, the Australian Government announced a **Digital and Tech Skills Compact.** A practical outcome of that commitment was the establishment of the Digital and Tech Skills Working Group which was tasked with designing a model that will support workers to earn while they learn in entry level tech roles, with diversity considerations for those traditionally under-represented in digital and tech fields.

Purpose and responsibilities

- The Working Group has formed advice for the **Minister for Industry and Science and the Minister for Skills and Training**, as sponsors of the Working Group. The Working Group is comprised of representatives from industry bodies, government, education and training providers, unions and other stakeholders *(see Appendix 1).*
- The **Working Group's advice** includes:
  - Options for an earn while you learn model for entry-level tech roles, including how it can support increased diversity in the tech-related workforce
  - Other matters relating to Australia's digital and tech skills challenges to support Treasury's *Employment White Paper*

Scope

Skills

- Within the broad term of **'digital and tech skills'**, the Working Group focused on:
  - a) skills that are required for specific digital and tech roles in digital and tech industries
  - b) specialist digital and tech skills required for roles across the economy (in other industries).
- It **did not** focus on generalist digital and tech literacy and foundational skills that can be taken as 'enterprise skills'.
- It acknowledged that the main delivery agents of these models would be **providers* and medium-large employers**, with assistance of third parties in some cases.
  - Small businesses have the opportunity to engage with the model where it makes sense in their contexts (e.g., with adjustments to design)
  - Small businesses will also benefit from having access to a more capable digital and tech skills workforce

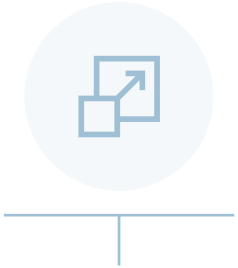
Source: Digital and Tech Skills Working Group Terms of Reference

*Unless otherwise specified, the term *provider* in this report refers to both VET and higher education providers (such as universities).

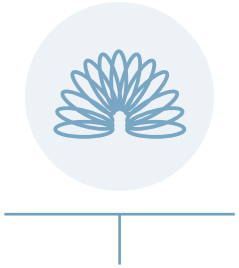
Recommendations

The Working Group recommends that government, industry and providers collaborate to deliver an ‘earn while you learn’ model that targets entry-level digital and tech roles and builds diversity considerations into design. Parties should commit to supporting the model’s delivery and breaking down systemic barriers to its success in the context of an ongoing dialogue.

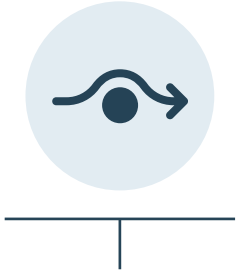
Government, industry and other key stakeholders should collaborate to:



1 **Deliver and scale an EWYL model that prioritises baseline digital and tech proficiency for entry-level digital and tech roles.**



2 **Build diversity considerations into the design and delivery of the model, rather than designing bespoke models for specific underrepresented or diverse cohorts.**



3 **Break down systemic barriers that may inhibit the success of the model, leveraging where possible existing government reform agendas and building a culture of ‘earn while you learn’ in the digital and tech industry.**

4 **Engage in an ongoing dialogue through which each party can make commitments to support the model’s delivery.**

Australia's digital and tech skills landscape

Australia's digital and tech skills landscape is rapidly evolving.

"The modern tech sector needs to reflect modern Australia, drawing in people and skills from all corners of the community" - Minister for Industry and Science, Ed Husic MP

The current digital and tech skills **landscape in Australia is rapidly evolving:**

- Growth in new technologies is changing the way businesses are run and the way tasks within jobs are undertaken.
- The tech workforce is Australia's 7th largest employing industry, with jobs growing faster across every state and territory than average jobs.
- Research predicts that one in four jobs created in 2025 will be for digital technology workers. This means that we need skills for jobs that don't yet exist.
- Despite recent tech firm cutbacks, the Tech Council of Australia has shown that for every job lost in the first quarter of 2023, 20 have been created.
- The greatest growth in tech jobs has been seen in 'indirect' industries – such as banking and financial services, mining, government and retail.

These encouraging industry trends represent an area of opportunity for Australia to become a leader in digital and tech skills globally.

Australia is experiencing a digital and tech skills shortage which will likely grow without the right mix of interventions.

Australia is experiencing a **digital and tech skills shortage**, as part of a broader skills shortage across the economy and record low unemployment rates.

- Vacancy rates in tech roles are 60% higher than national average
- Digital and tech roles are forecast to grow at triple the rate of the national average

The Australian Government has committed to achieving **1.2 million tech jobs in Australia by 2030**. To do this, we will need:

- 42,000 graduates above the expected 132,000 from VET and higher education
- 101,000 Australians to move into tech roles
- 43,000 skilled migrants above the typical intake

The digital and tech skills **shortage will likely grow exponentially without deliberate intervention** to support the growth of those needed roles need.

While other initiatives to address the shortage are viable and necessary, they are unlikely to deliver as large an **impact on the workforce pipeline** as more efficient and effective digital and tech skills development training pathways.

- For example, the existing migrant worker pipeline is too small to fill the gaps in the Australian workforce on its own.

Sources: https://www.minister.industry.gov.au/ministers/husic/media-releases/digital-and-tech-skills-compact; https://www.nationalskillscommission.gov.au/reports/state-australias-skills-2021-now-and-future/chapter-7-emerging-skills/digital-skills-australia-and-internationally; https://www.yourcareer.gov.au/articles/what-are-digital-skills-and-why-are-they-in-demand); https://techcouncil.com.au/newsroom/australia-set-to-deliver-1-2-million-critical-tech-workers-by-2030-to-drive-productivity-across-the-australian-economy/

Current approaches to addressing the digital and tech skills shortage

There is currently a range of government and industry-led initiatives seeking to address the skills shortfall. Delivering 'earn while you learn' (EWYL) models at scale for digital and tech skills is an area of untapped potential to assist these efforts.

*"Australia is facing a **skills shortage crisis** and we need to **better respond to future skills demand** and better match taxpayers' investment in areas of need"*

- Minister for Skills and Training, Brendan O'Connor MP

Government, providers and industry are pursuing **a range of initiatives to address the digital and tech skills shortage**, including encouraging skilled migrants with the required skills and professional backgrounds, as well as re-examining the instruction and promotion of digital and technology within the school system

However, many of these efforts are **fragmented and lack sufficient scale** to address the current digital and tech skills shortage

- For example, pilot EWYL models are yet to significantly move the dial in growing Australia's digital and tech workforce capability

Though not a panacea for Australia's digital and tech skills shortage, **delivering EWYL models at scale in digital and tech is an area of untapped potential** when it comes to broadening and deepening the skills pipeline

- This does not mean that other avenues to addressing the digital and tech skills shortage should be neglected

This is in the context of a wider reform effort to build a **sustainable skills pipeline** to meet Australian industry needs to help it to be productive and competitive

- This includes qualifications and funding reform in the VET and higher education sectors, which are crucial for ensuring each sector's sustainability and enabling them to deliver programs that respond to local, regional, and national priorities.

Sources: https://www.minister.industry.gov.au/ministers/husic/media-releases/digital-and-tech-skills-compact

‘Earn while you learn’ models

‘Earn while you learn’ models combine formal learning with practical work placements, to enable learners to simultaneously build workforce-ready skills while earning an income.

‘Earn while you learn’ models are a relatively recent feature within the digital and tech skills training ecosystem, and sector more broadly.

The Working Group has focused attention on **learning for paid employees** that is:

- **integrated into a work setting**
- **related to their role**
- **provided or supported by employers**

These characteristics are consistent with **earn while you learn models**, which combine formal learning with practical work placements.

- The digital and tech sector is still **building its understanding** of how EWYL models can best contribute to their skills pipeline.
- While digital EWYL models have seen some uptake in the past, they are **traditionally used in trades.** There is now renewed interest in how they can be used / augmented for digital and tech skills contexts.
- Digital and tech organisations are **undergoing a cultural shift**, in partnership with providers, to better recognise the role of EWYL pathways.
- As part of this shift, employers / providers / third parties have stood up dozens of models, pilots and programs (apprenticeships, traineeships, cadetships, etc.) with some earn while you learn characteristics

The case for ‘earn while you learn’ for digital skills

‘Earn while you learn’ models are uniquely positioned to contribute meaningfully to the digital and tech skills pipeline.

The Working Group recognises that EWYL models will not singlehandedly ‘solve’ Australia’s digital skills challenges. Existing and emerging efforts in higher education and VET, as well as other government initiatives and industry-led programs, are contributing to addressing the problem. EWYL programs can play a unique and valuable role.

EWYL models are:

1. **Efficient for skill development** because of their shorter timeframes and more accessible entry points (e.g., 0.5 - 2-year VET qualifications, no ATAR needed)

2. Relevant / can be **tailored to the Australian market**, including emerging digital and tech roles across different organisations, because they provide employers with longer-term ‘apprentices’, rather than short-term interns

3. **Flexible** to enable the greatest number of Australians to begin their digital and tech careers, especially **non-traditional groups**:
   - different diverse / traditionally underrepresented groups (e.g., people with disability, post-parental leave returnees)
   - ‘re-skillers’ being supported into digital and tech roles (e.g., former non-digital professionals seeking a new digital/tech career)

Learners, employers and providers stand to benefit from pursuing ‘earn while you learn’ models.

Learners can mitigate the direct and indirect costs of longer study that would otherwise present a large barrier to them pursuing a digital / tech career.

Employers can trial learners before they hire them and fill job shortages more immediately. They can also influence the training system more directly.

Providers can attract participants with an appealing course offering, and can design learning that is relevant to and respected by learners and employers.

All businesses can benefit from digital skills that are more relevant, and leverage the non-digital experience of previously untapped cohorts. This can be achieved either through direct employment, or (in the case of many small businesses) strengthened access to outsourced digital skills

Current constraints on ‘earn while you learn’ models

Underlying problems of ‘earn while you learn’ models and wider system issues are restricting their success, with symptoms of this felt by different stakeholders. More broadly, there is tension between objectives of participating stakeholders.

Symptoms:

- **Employers, learners and providers are under-supported, leading to inconsistent experiences and high levels of attrition from programs/models**
- **Skills developed are not transferable and / or not meeting industry needs**
- **Employers and learners aren’t attracted to ‘earn while you learn’ models**

Causes:

- Models can place unreasonable demands on training providers and teachers
- Some employers are not provided enough programmatic support / guidance to host learners
- Learners are under-consulted when designing models
- Considerations for diverse cohorts are not built into existing models (unless they are a target cohort for a particular model)
- Employers don’t know or can’t articulate their skills needs, particularly SMEs
- Insufficient industry / learning provider collaboration
- Content requirements in HE / VET
  - Course content is obsolete and slow to update
  - Qualification requirements guide course content + delivery (rather than skills / job role functions)
  - Assessment requirements aren’t sufficiently flexible to be suitable for a model
- **Employers face too much uncertainty of outcomes:**
  - Investment return from implementing support & training infrastructure
  - Quality & work-readiness of learner
- **Learner outcomes don’t outweigh traditional learning options:**
  - No guarantee of further employment
  - Learners often required to cease or delay work
- Funding commitments are transient
- Learning outcomes aren’t recognised by education system or industry
- Not all businesses are equipped with the capability and capacity to train and support learners, particularly SMEs

There is ingrained tension between the objectives of participating stakeholder cohorts.

This is a key underlying cause of why ‘earn while you learn’ models are not having the desired impact.

- **Learners** want: to develop a prosperous career, earn while they learn
- **Employers** want: specific skills relevant to their workplace, learners quick to contribute productivity
- **Training providers** want: to be sustainable and relevant institutions, learners to develop transferrable skills

KEY: Issues with broader education / industry systems environments

Threshold tests for when to use the model

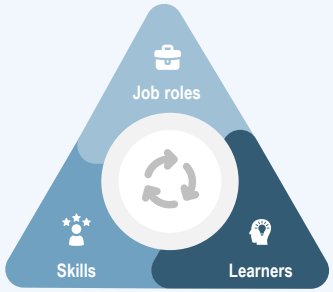
Given current constraints on ‘earn while you learn’ models, the Working Group identified that its preferred model needed to satisfy three threshold tests that are not always accounted for in existing models. These were: clarity around objectives; be a clear win-win-win for key stakeholders; and have a clear pathway to sustainability.

Threshold tests

Clarity around objectives

The model must be specifically targeted to a three-pronged use case *(see next page for more)*:

A use case is a specific situation in which the model could be applied. In this use case, there are three factors.



A clear win-win-win

The model must recognise the different ‘currencies’ of learner / employer incentives and outcomes, and present a clear case for learners, employers and government to opt in:

- **Learners** – skill transferability and worth the opportunity cost
- **Employers** – job readiness and efficient value-for-money
- **Government** – skill transferability and market failure correction

A clear pathway to sustainability

- High potential to scale to improve stakeholder navigation of workforce/learning options (i.e., be viewed as a ‘reliable option’)
- Funding arrangements should be sustainable
- Commitment to bring different kinds of funders together
- Alignment of Commonwealth and jurisdictional objectives through a clearly defined regulatory and authorising environment

Priority use cases for the preferred model

The Working Group recommends a model that targets entry-level digital and tech job roles, a baseline level of core and specialised digital skills, and learners who are 'skilling' or 'reskilling'. There is also a secondary use case for 'upskillers'.

Job roles

The model targets **entry level digital and tech roles** in:

- Organisations / employers in **highly-digitised industries** (e.g., software development or online vendors)
- Employers with **moderate-high intensity digital needs** (e.g., arts professionals or financial services)

The model may also be applicable for **non-entry level existing roles that are becoming increasingly digitised** (such as project managers or business analysts, who need a baseline digital tech proficiency)

Skills

The model targets the development of two types of skills:

1. **Core training component** including basic digital fluency and workplace skills
2. **A specialisation component** focusing on a specific baseline digital and tech skillset

The following skills should also be integrated and/ or recognised within the model:

- **Vendor skills** – Knowledge or skills relevant to the specific vendor
- **Domain skills** – Knowledge or skills relevant to the industry or field of employer

Learners

The primary learner cohorts for this 'earn while you learn' model are:

- **'Skillers' –** learners with **no prior work experience** (e.g., school leavers), or **some education and/or limited work experience** (e.g. casualised industry workers)
- **'Reskillers –** learners with **substantive work experience** in a non-digital or tech-related role

The model may be applicable for some '**upskillers**' – learners looking to augment their existing role with baseline digital or tech skills

KEY: Primary use case | Secondary use case

The Working Group recognises that there should be options to enter the digital workforce for ***all*** learners. The Working Group identified the above cohorts are specific targets for ***this*** model because:

- There is higher potential for sustained impact when targeting the 'start' of the digital skill pipeline (as opposed to career switchers, or highly-specialised roles that would be unsuitable for these learners).
- The Working Group felt that focusing on specific learners could better enable effective and fit-for-purpose design and delivery, and there is a risk of an ineffective outcome if it aims to be a 'catch-all' option.

Design principles

The Working Group identified that its preferred model also needs to follow specific design principles to avoid the pitfalls of existing models. The model must be: interconnected; adaptable to the learner; and of an appropriate length and intensity.

Design principles

Interconnected

- Collaboration between providers / employers on design and delivery
- Mutual support for improving trainer capability and methods
- Clear link between work-integrated and qualification components

Adaptable to the learner

- Recognition of prior learning (both formally and informally)*
- Flexible placement delivery modes (timing, setting, virtual)
- Specific digital skill requirements (types, proficiency levels)
- Diverse cohorts (with varied backgrounds, support needs)
- Exposure to different business environments or cultures

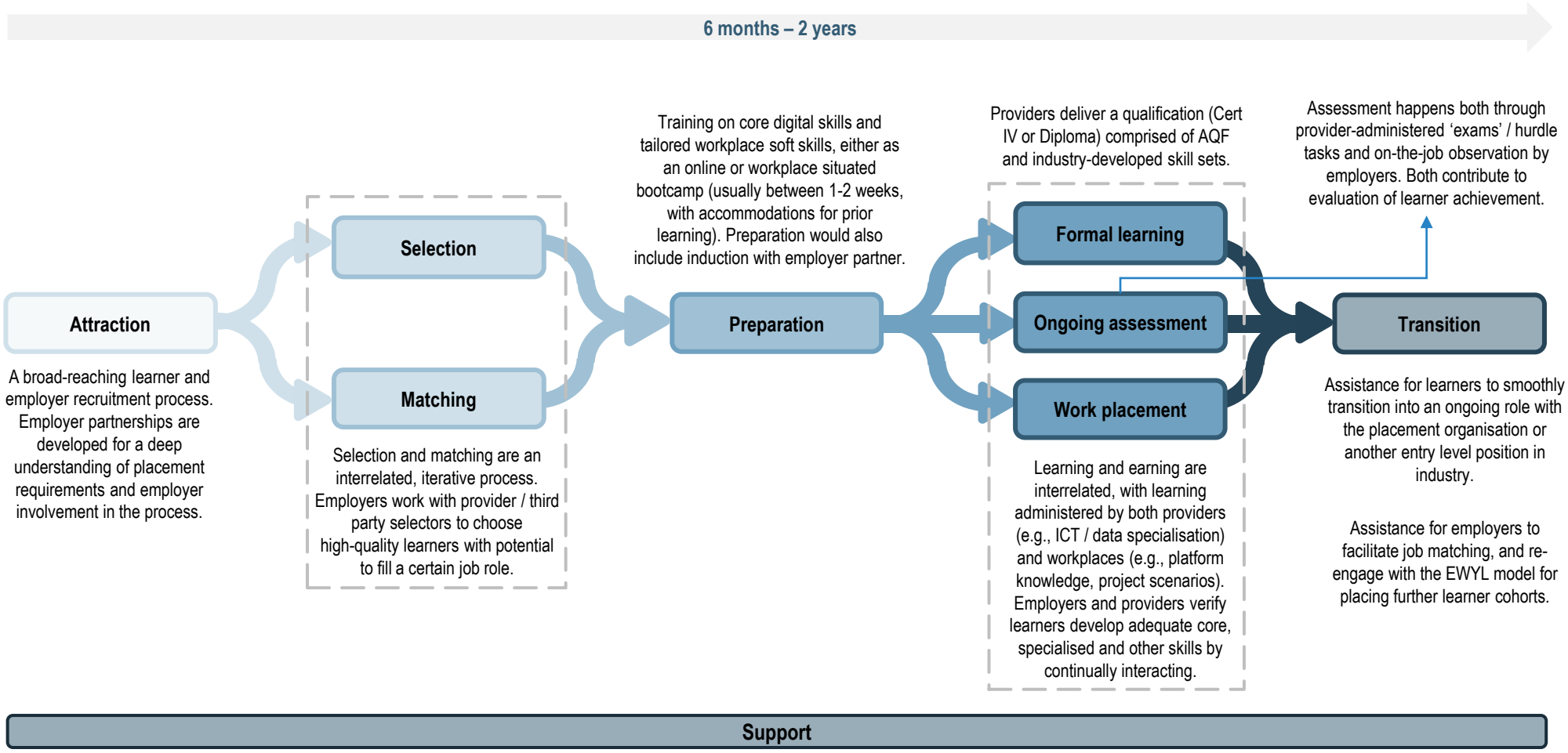
Appropriate length and intensity

- Course delivery is predictable and long enough for learners to hone, practice and test skills, in an attractive time frame
- Employers are confident learners have met training goals, contribute productively within a reasonable timeframe (for resource spend)
- Learners are sufficiently immersed in the work environment to develop soft skills and fit culturally into the business

** In the context of this particular model and use case, recognition of prior learning will likely only apply in the context of 'core' or 'foundational' digital skills.*

Summary of preferred model design and delivery

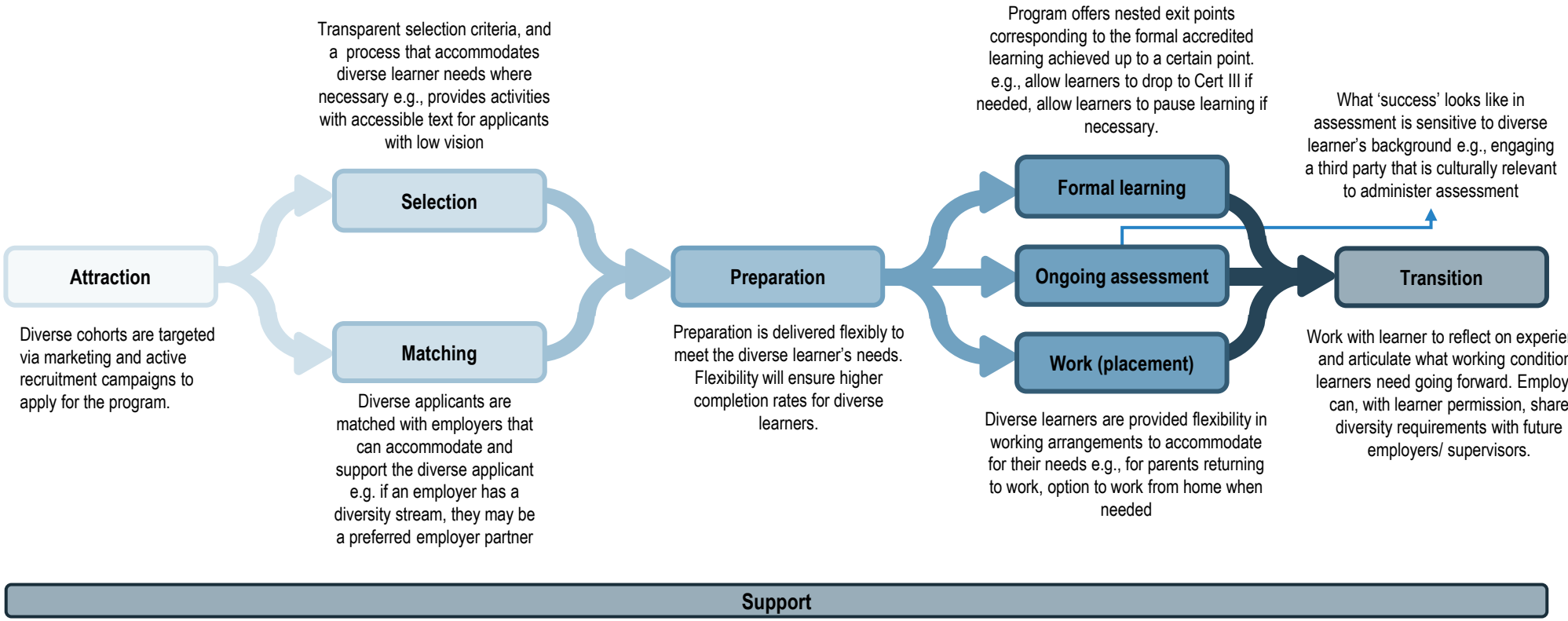
Given the primary use case, the preferred model is designed to attract a broad range of learners and employers, diligently match and prepare them and then deliver well-integrated formal learning and work placements, with a focus on effective assessment, support and transition into further employment.



Learners are provided dedicated formal and informal supports by employers to provide ongoing guidance and advice throughout the program. Formal offramps are also included for learners and employers to withdraw from the program if needed.

Key diversity considerations for the preferred model

The model can support diverse groups with design features in each component that provide flexibility to best support completion of the program.



Consistent and contextually-relevant support is provided to the learner throughout the program to ensure they are aware of what flexibilities are available for them, and they have networks of peer support when required.

The model **should leverage existing government work** in this space and incorporate it into the model as necessary. This would involve:

- Model owners undertaking regular reviews of existing government diversity programs and initiatives at each stage of a learner' journey before each 'cycle'
- Consider how these opportunities can 'link in' with the model. For example, during the 'Attraction' phase, a model owner could connect with existing government agencies such as the National Indigenous Australian Agency to seek advice on marketing / communication with Indigenous peoples, and to assist in promoting.

Evaluation against threshold tests and design principles

The preferred model satisfies the Working Group's threshold tests and design principles.

	Criteria	How the model satisfies the criteria
Threshold tests	**Clarity of objectives (use cases)**	• Primarily targets: entry-level digital and tech roles; 'skillers' or 'reskillers' who are looking to enter these entry-level roles; and a combination of core and specialist skills that provides baseline proficiency. • A secondary use case for 'upskillers' with existing non-entry level roles with a digital and tech augmentation.
	Win-win-win scenario	• **Learners:** provides learners with transferable and industry-relevant skills, while minimising time without income • **Employers:** delivers learners selected with employer input and provides support and preparation to ensure learners are productive quickly • **Government:** contributes to growing the start of the pipeline for digital and tech skills and a flexible workforce
	Pathway to sustainability	• Endorsed by industry and providers through the Working Group • High potential for scalability due to focus on the start of the skills pipeline • Draws upon pre-existing architecture (e.g., VET system funding), rather than requiring new architecture
Design principles	**Interconnected**	• The model actively involves employers, providers and learners to best meet their needs — **Employers:** engaged at the attraction stage to articulate what skills and characteristics they need in learners — **Providers:** connected to employers to ensure learning is relevant and fits with working schedule of learner — **Learners:** provided consistent support to ensure barriers are addressed to result in higher completion rates
	Adaptable to the learner	• Designed to be flexible to learner skill and support needs • Diversity considerations are built into each component to provide flexibility for different cohorts • Learners with existing skills and experience are able to complete condensed model components
	Is of appropriate length and intensity	• Six months to two-year length range allows for quick, intensive skilling while ensuring certain learners have appropriate scaffolding • Two-year maximum length also allows for part time completion of Certificate III / IV and Diploma-based courses

Key barriers to the preferred model's success

Barriers to the success of the preferred model centre around stakeholder buy-in and their capacity / capability to support the model. The Working Group recommends government and industry work together to break down these barriers.

Lack of awareness about EWYL models, or ones with demonstrated record of success:

- Learners: few clear pathways to decide to opt in (e.g., year ten)
- Employers: general lack of understanding / ingrained culture around the quality of employees trained in VET/EWYL models

High financial / time costs of engagement with model:

- Learners: direct course fees, indirect loss of paid work (especially during upfront training component), paid at low wage
- Employers: initially unproductive and support-dependent learners disincentivises uptake, especially if there are dropouts

Hard to find the right learner / placement / role match:

- Learners: may not disclose needs, know what they're looking for
- Employers: processes may not be robust enough or relevant to the specific role requirements, too time intensive to get right
- Never perfect alignment between demand and supply

No clear, mutual understanding of digital skills levels:

- No cohesive national framework for proficiencies (which has implications for training and role mapping)
- No consistent recognition of prior learning, which can impact attraction and lead to duplication

Prep / training may not deliver capabilities needed:

- VET and higher ed sectors are slow to update course content
- Microcredentials not always appropriately recognised, regulated or funded in the Australian VET system
- Range of capability/availability of GTOs/RTOs, across locations
- Traditional assessment methods may be rigid / time intensive

Employers and providers not equipped to train / support learners (and integrate those into placements):

- May not have strong employer-provider mutual relationships
- Especially true of diverse learners: may need a certain level / type of support, where employers need to go beyond BAU

Nature of the current market restricts employer capacity to guarantee ongoing roles for learners:

- Employers not incentivised to support underperforming / unsuitable learners to transition to other roles / organisations
- May disincentivise learners from opting for a low paid role

Piecemeal and disjointed Government funding provision

- Different departments provide different funding types / amounts to providers, industry with different reporting requirements
- Funding commitments not always aligned with incentives for industry to take on entry-level learners, with initially low ROI

Summary of key commitments to support the preferred model

The Working Group recommends that government, industry and providers work together to design and deliver the preferred model. Each party has a responsibility to support the success of the model in practice.

Federal and state / territory governments

- Provide a fit-for-purpose **education and training system** that supports high-quality, work-integrated learning and effective assessment
- Leverage **existing supports** for learners in the education and training system and apply them to a digital and tech context
- Consider **financial incentives** to encourage:
  - Learners to take up and complete the model
  - Employers to take on learners
  - Education and training providers and other third-party providers to deliver the model*
- Create **pathways** to the model from school education and early training
- Support employers to **upskill their staff** to support high-quality work placements

Jobs and Skills Council

- Provide overall **skills forecasting and planning** for digital and tech roles, with support from Jobs and Skills Australia
- **Map target jobs and associated skills** across training packages and practices to support the design and delivery of the model, in collaboration with industry peaks and employers

Industry peaks and employers

- Participate in the **co-design of the model** with government, providers and the JSC
- Participate in **selection, matching and preparation** activities to ensure relevance and readiness
- Commit to an **adequate number of appropriate work placements** for learners, taking into account the characteristics of the relevant industry or employer
- Work with providers to enable effective **support and assessment** of learners
- Where possible, provide **guaranteed ongoing roles** for learners (subject to appropriate conditions)

Education / training providers*

- Leverage education and training **pathways** into the model
- Lead the **design and delivery of the model**, including engagement with participating employers, industry and the JSC to ensure learning is relevant
- Work with employers to ensure **effective integration** between formal learning and work placements

An **overall commitment on the part of all stakeholders to a more diverse digital and tech skills pipeline**, including consideration of:

- How to promote diversity through the design and delivery of each model component
- Equity targets for diverse and underrepresented groups, taking into account the specific context of the relevant industry and employer

** These commitments assume that education and training providers are the primary model 'owners' who are driving design and delivery. The Working Group acknowledges that there are opportunities for other actors to be the primary model owners, such as industry peak organisations.*

A. Context

The Working Group's remit

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This report

The Working Group has compiled this report to provide advice to the Ministers for Industry and Science and Skills and Training, as sponsors of the Group. The following sections outline the recommended approach to earn while you learn models.

Section		Purpose
A	Context	To provide background on the work, demonstrate a need to invest in earn while you learn models and outline an approach.
B	Priority use cases	To specify the primary and secondary use cases for the proposed earn while you learn model, and how they influence it.
C	Design and delivery	To specify the critical and diversity features required at each stage of the learner journey to successfully deliver the model.
D	Key commitments	To outline the recommended roles and responsibilities for stakeholder groups in the earn while you learn model landscape.
1-3	Appendices	1. Working group approach – to document the approach the Working Group members have taken to generate advice 2. Case studies – to provide indicative examples of similar models 3. Design and delivery details – to support section C, with specifics on best practice for delivering each feature

Australia's digital and tech skills landscape

Australia's digital and tech skills landscape is rapidly evolving.

"The modern tech sector needs to reflect modern Australia, drawing in people and skills from all corners of the community" - Minister for Industry and Science, Ed Husic MP

The current digital and tech skills **landscape in Australia is rapidly evolving:**

- Growth in new technologies is changing the way businesses are run and the way tasks within jobs are undertaken.
- The tech workforce is Australia's 7th largest employing industry, with jobs growing faster across every state and territory than average jobs.
- Research predicts that one in four jobs created in 2025 will be for digital technology workers. This means that we need skills for jobs that don't yet exist.
- Despite recent tech firm cutbacks, the Tech Council of Australia has shown that for every job lost in the first quarter of 2023, 20 have been created.
- The greatest growth in tech jobs has been seen in 'indirect' industries – such as banking and financial services, mining, government and retail.

These encouraging industry trends represent an area of opportunity for Australia to become a leader in digital and tech skills globally.

Australia is experiencing a digital and tech skills shortage which will likely grow without the right mix of interventions.

Australia is experiencing a **digital and tech skills shortage**, as part of a broader skills shortage across the economy and record low unemployment rates.

- Vacancy rates in tech roles are 60% higher than national average
- Digital and tech roles are forecast to grow at triple the rate of the national average

The Australian Government has committed to achieving **1.2 million tech jobs in Australia by 2030**. To do this, we will need:

- 42,000 graduates above the expected 132,000 from VET and higher education
- 101,000 Australians to move into tech roles
- 43,000 skilled migrants above the typical intake

The digital and tech skills **shortage will likely grow exponentially without deliberate intervention** to support the growth of those needed roles need.

While other initiatives to address the shortage are viable and necessary, they are unlikely to deliver as large an **impact on the workforce pipeline** as more efficient and effective digital and tech skills development training pathways.

- For example, the existing migrant worker pipeline is too small to fill the gaps in the Australian workforce on its own.

Sources: https://www.minister.industry.gov.au/ministers/husic/media-releases/digital-and-tech-skills-compact; https://www.nationalskillscommission.gov.au/reports/state-australias-skills-2021-now-and-future/chapter-7-emerging-skills/digital-skills-australia-and-internationally; https://www.yourcareer.gov.au/articles/what-are-digital-skills-and-why-are-they-in-demand); https://techcouncil.com.au/newsroom/australia-set-to-deliver-1-2-million-critical-tech-workers-by-2030-to-drive-productivity-across-the-australian-economy/

Current approaches to addressing the digital and tech skills shortage

There is currently a range of government and industry-led initiatives seeking to address the skills shortfall. Delivering 'earn while you learn' (EWYL) models at scale for digital and tech skills is an area of untapped potential to assist these efforts.

*"Australia is facing a **skills shortage crisis** and we need to **better respond to future skills demand** and better match taxpayers' investment in areas of need"*

- Minister for Skills and Training, Brendan O'Connor MP

Government, providers and industry are pursuing **a range of initiatives to address the digital and tech skills shortage**, including encouraging skilled migrants with the required skills and professional backgrounds, as well as re-examining the instruction and promotion of digital and technology within the school system

However, many of these efforts are **fragmented and lack sufficient scale** to address the current digital and tech skills shortage

- For example, pilot EWYL models are yet to significantly move the dial in growing Australia's digital and tech workforce capability

Though not a panacea for Australia's digital and tech skills shortage, **delivering EWYL models at scale in digital and tech is an area of untapped potential** when it comes to broadening and deepening the skills pipeline

- This does not mean that other avenues to addressing the digital and tech skills shortage should be neglected

This is in the context of a wider reform effort to build a **sustainable skills pipeline** to meet Australian industry needs to help it to be productive and competitive

- This includes qualifications and funding reform in the VET and higher education sectors, which are crucial for ensuring each sector's sustainability and enabling them to deliver programs that respond to local, regional, and national priorities.

Sources: https://www.minister.industry.gov.au/ministers/husic/media-releases/digital-and-tech-skills-compact

‘Earn while you learn’ models

‘Earn while you learn’ models combine formal learning with practical work placements, to enable learners to simultaneously build workforce-ready skills while earning an income.

‘Earn while you learn’ models are a relatively recent feature within the digital and tech skills training ecosystem, and sector more broadly.

The Working Group has focused attention on **learning for paid employees** that is:

- **integrated into a work setting**
- **related to their role**
- **provided or supported by employers**

These characteristics are consistent with **earn while you learn models**, which combine formal learning with practical work placements.

The digital and tech sector is still **building its understanding** of how EWYL models can best contribute to their skills pipeline.

EWYL models are **traditionally used in trades**, but there is now interest in how they can be used / augmented for digital and tech skills contexts.

Digital and tech organisations are **undergoing a cultural shift**, in partnership with providers, to better recognise the role of EWYL pathways.

As part of this shift, employers / providers / third parties have stood up dozens of models, pilots and programs (apprenticeships, traineeships, cadetships, etc.) with some earn while you learn characteristics

The case for ‘earn while you learn’ for digital skills

‘Earn while you learn’ models are uniquely positioned to contribute meaningfully to the digital and tech skills pipeline.

The Working Group recognises that EWYL models will not singlehandedly ‘solve’ Australia’s digital skills challenges. Existing and emerging efforts in higher education, VET, as well as other government initiatives and industry-led programs, are exploring solutions and contribute to addressing the problem. EWYL programs can play a unique and valuable role.

EWYL models are:

1. **Efficient for skill development** because of their shorter timeframes and more accessible entry points (e.g., 0.5 - 2-year VET qualifications, no ATAR needed)

2. More relevant / can be **tailored to the Australian market**, including emerging digital and tech roles across different organisations, because they provide employers with longer-term ‘apprentices’, rather than short-term interns

3. More **flexible** to enable the greatest number of Australians to begin their digital and tech careers, especially **non-traditional groups**:
   - different diverse / traditionally underrepresented groups (e.g., people with disability, post-parental leave returnees)
   - ‘re-skillers’ being supported into digital and tech roles (e.g., former non-digital professionals seeking a new digital/tech career)

Learners, employers and providers stand to benefit from pursuing ‘earn while you learn’ models.

Learners can mitigate the direct and indirect costs of longer study that would otherwise present a large barrier to them pursuing a digital / tech career.

Employers can trial learners before they hire them and fill job shortages more immediately. They can also influence the training system more directly.

Providers can attract participants with an appealing course offering, and can design learning that is relevant to and respected by learners and employers.

All businesses can benefit from digital skills that are more relevant, and leverage the non-digital experience of previously untapped cohorts. This can be achieved either through direct employment, or (in the case of many small businesses) strengthened access to outsourced digital skills

Current constraints on ‘earn while you learn’ models

Underlying problems of ‘earn while you learn’ models and wider system issues are restricting their success, with symptoms of this felt by different stakeholders. More broadly, there is tension between objectives of participating stakeholders.

Symptoms:

- **Employers, learners and providers are under-supported, leading to inconsistent experiences and high levels of attrition from programs/models**
- **Skills developed are not transferable and / or not meeting industry needs**
- **Employers and learners aren’t attracted to ‘earn while you learn’ models**

Causes:

- Models can place unreasonable demands on training providers and teachers
- Some employers are not provided enough programmatic support / guidance to host learners
- Learners are under-consulted when designing models
- Considerations for diverse cohorts are not built into existing models (unless they are a target cohort for a particular model)
- Employers don’t know or can’t articulate their skills needs, particularly SMEs
- Insufficient industry / learning provider collaboration
- Content requirements in HE / VET
  - Course content is obsolete and slow to update
  - Qualification requirements guide course content + delivery (rather than skills / job role functions)
  - Assessment requirements aren’t sufficiently flexible to be suitable for a model
- **Employers face too much uncertainty of outcomes:**
  - Investment return from implementing support & training infrastructure
  - Quality & work-readiness of learner
- **Learner outcomes don’t outweigh traditional learning options:**
  - No guarantee of further employment
  - Learners often required to cease or delay work
- Funding commitments are transient
- Learning outcomes aren’t recognised by education system or industry
- Not all businesses are equipped with the capability and capacity to train and support learners, particularly SMEs

There is ingrained tension between the objectives of participating stakeholder cohorts.

This is a key underlying cause of why ‘earn while you learn’ models are not having the desired impact.

- **Learners** want: to develop a prosperous career, earn while they learn
- **Employers** want: specific skills relevant to their workplace, learners quick to contribute productivity
- **Training providers** want: to be sustainable and relevant institutions, learners to develop transferrable skills

KEY: Issues with broader education / industry systems environments

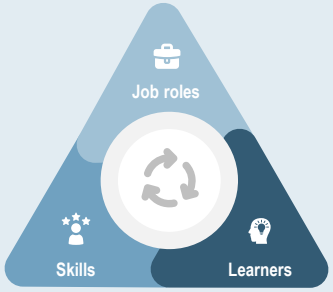
Threshold tests for when to use the model

Given current constraints on 'earn while you learn' models, the Working Group identified that its preferred model needed to satisfy three threshold tests that are not always accounted for in existing models. These were: clarity around objectives; be a clear win-win-win for key stakeholders; and have a clear pathway to sustainability.

Threshold tests

Clarity around objectives

The model must be specifically targeted to a three-pronged use case:



A clear win-win-win

The model must recognise the different 'currencies' of learner / employer incentives and outcomes, and present a clear case for learners, employers and government to opt in:

- **Learners** – skill transferability and worth the opportunity cost
- **Employers** – job readiness and efficient value-for-money
- **Government** – skill transferability and market failure correction

A clear pathway to sustainability

- High potential to scale to improve stakeholder navigation of workforce/learning options (i.e., be viewed as a 'reliable option')
- Funding arrangements should be sustainable
- Commitment to bring different kinds of funders together
- Alignment of Commonwealth and jurisdictional objectives through a clearly defined regulatory and authorising environment

Design principles

The Working Group identified that its preferred model also needs to follow specific design principles to avoid the pitfalls of existing models. The model must be: interconnected; adaptable to the learner; and of an appropriate length and intensity.

Design principles

Interconnected

- Collaboration between providers / employers on design and delivery
- Mutual support for improving trainer capability and methods
- Clear link between work-integrated and qualification components

Adaptable to the learner

- Recognition of prior learning (both formally and informally)*
- Flexible placement delivery modes (timing, setting, virtual)
- Specific digital skill requirements (types, proficiency levels)
- Diverse cohorts (with varied backgrounds, support needs)
- Exposure to different business environments or cultures

Appropriate length and intensity

- Course delivery is predictable and long enough for learners to hone, practice and test skills, in an attractive time frame
- Employers are confident learners have met training goals, contribute productively within a reasonable timeframe (for resource spend)
- Learners are sufficiently immersed in the work environment to develop soft skills and fit culturally into the business

** In the context of this particular model and use case, recognition of prior learning will likely only apply in the context of 'core' or 'foundational' digital skills.*

B. Priority use cases

About use cases

A use case brings clarity of objectives to an ‘earn while you learn’ model by clearly expressing the target job roles, skills and learners.

What is a use case?

A use case brings clarity of objectives to an ‘earn while you learn’ model. It consists of three target components: job roles, skills and learners.

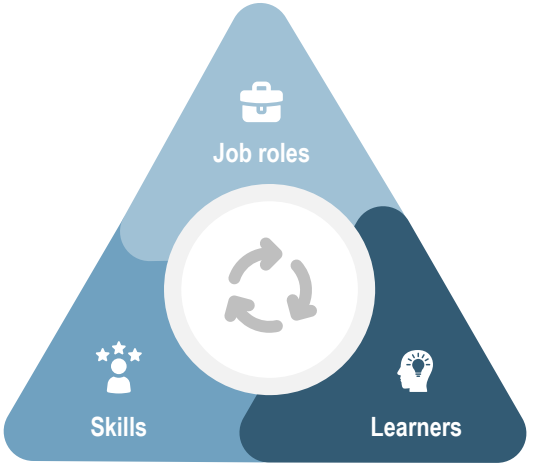
The target job roles are the anchor for the use case, with skills and learners aligned to job roles. Job roles can be also be adjusted depending on the most important skills and learners. All three components of the use case interrelate.

The Working Group’s identified use case has been developed through robust consultation with industry stakeholders, providers and learners.

Use case summary and navigation:

Job roles
The key job roles that the model will address including, digital skills required, capacity to host, enterprise skill level required

See pages 30 - 35 for more detail



Skills
The types of skills required to satisfy job roles including digital skills, enterprise skills and level of proficiency.

See pages 36 - 38 for more detail

Learners
The types of learners that are appropriate for the model, including suitability for job roles and skills.

See pages 39 - 41 for more detail

Priority use cases for the preferred model

The Working Group recommends a model that targets entry-level digital and tech job roles, a baseline level of core and specialised digital skills, and learners who are 'skilling' or 'reskilling'. There is also a secondary use case for 'upskillers'.

Job roles

The model targets **entry level digital and tech roles** in:

- Organisations / employers in **highly-digitised industries** (e.g., software development or online vendors)
- Employers with **moderate-high intensity digital needs** (e.g., arts professionals or financial services)

The model may also be applicable for **non-entry level existing roles that are becoming increasingly digitised** (such as project managers or business analysts, who need a baseline digital tech proficiency)

Skills

The model targets the development of two types of skills:

1. **Core training component** including basic digital fluency and workplace skills
2. **A specialisation component** focusing on a specific baseline digital and tech skillset

The following skills should also be integrated and/ or recognised within the model:

- **Vendor skills** – Knowledge or skills relevant to the specific vendor
- **Domain skills** – Knowledge or skills relevant to the industry or field of employer

Learners

The primary learner cohorts for this 'earn while you learn' model are:

- **'Skillers' –** learners with **no prior work experience** (e.g., school leavers), or **some education and/or limited work experience** (e.g. casualised industry workers)
- **'Reskillers –** learners with **substantive work experience** in a non-digital or tech-related role

The model may be applicable for some '**upskillers**' – learners looking to augment their existing role with baseline digital or tech skills

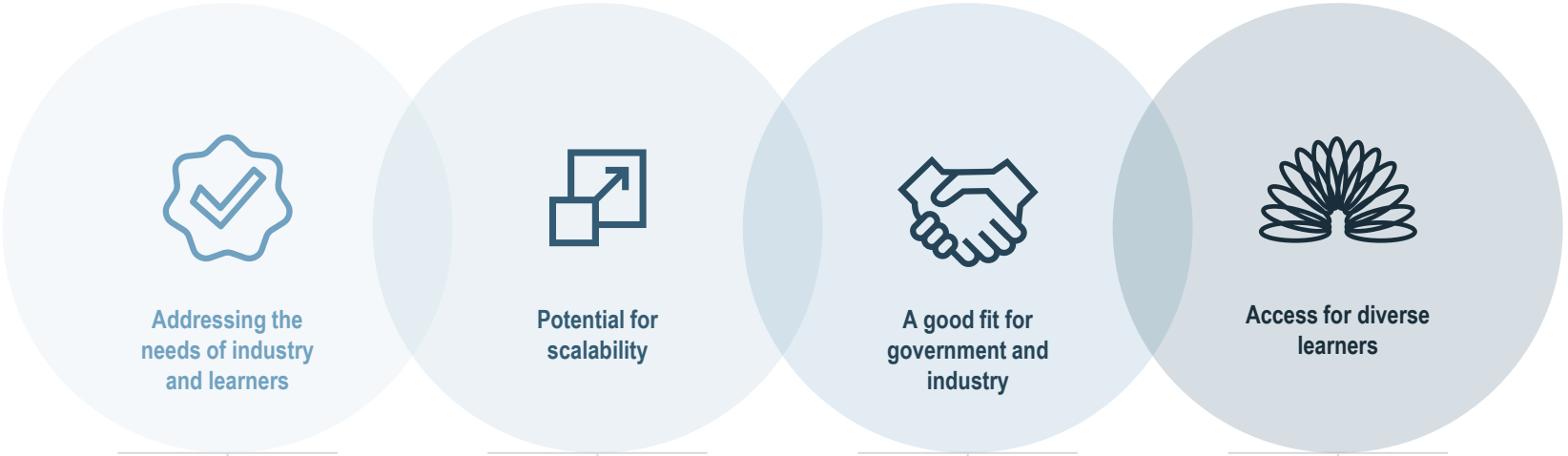
KEY: Primary use case | Secondary use case

The Working Group recognises that there should be options to enter the digital workforce for ***all*** learners. The Working Group identified the above cohorts are specific targets for ***this*** model because:

- There is higher potential for sustained impact when targeting the 'start' of the digital skill pipeline (as opposed to career switchers, or highly-specialised roles that would be unsuitable for these learners).
- The Working Group felt that focusing on specific learners could better enable effective and fit-for-purpose design and delivery, and there is a risk of an ineffective outcome if it aims to be a 'catch-all' option.

Rationale for selecting priority use cases

The priority use cases address the needs of industry and learners and give diverse learners access to digital and tech. They are also scalable and appropriate for government and industry collaboration.



The use cases address industry and learner needs

- Provision of core skills in digital and tech, as well as enterprise / 'soft' areas, sets learners up to work in any industry
- Fills industry roles and provides a pipeline for long-term employees

The use cases capture a large number of learners and employers

- Targeting a wide range of learners for entry-level roles presents the best opportunity to address the digital and tech skills shortage at scale with an 'earn while you learn' model

The use cases are appropriate for government and industry collaboration

- Government can play a key role in building the start of the digital and tech pipeline
- Industry can also play a role by supporting work-integrated learning and then gradually taking responsibility for more advanced skills

The use cases give diverse learners good access to the model

- Diverse learners benefit from entry-level opportunities in digital and tech, either early in life or from other careers
- Baseline proficiency gives them skills transferability for broader participation in digital and tech

Target job roles for the preferred model

The target job roles for the preferred model require suitable employers to meet learner needs and role descriptions that are appropriate to learner ability.

The preferred model should target job roles with the following **two features**:

Employers with high need for **specialised digital skills** and/or employers with **moderate-high intensity digital needs**. *Page 33*

Consistent with the characteristics of a suitable **entry-level job role**. *Page 34*

A **deliberate** and **systematic** approach should be taken to identify these job roles. *Page 35*

Suitable employers for the preferred model

Suitable organisations to participate in the model have both a high need for specialised digital skills and are best positioned to implement and support the model.

Smaller businesses might not directly participate but will see secondary benefits.

Organisations / employers in **highly-digitised industries**

- These businesses have the largest demand for specialised skillsets
- These businesses are well positioned to provide adequate support to learners as they have substantial expertise for learners to draw on, and best understand the perspectives of learners and the challenges they should expect
    - The current culture does not approach or prioritise training new workers effectively, meaning that an effective model will provide an opportunity to unlock this potential
- These industries have broadly felt that traditional pathways aren't delivering work-ready skills, which this model actively addresses

Example businesses include: software development, online vendors, or telecommunications

Employers with **moderate-high intensity digital needs**

- These businesses have emerging digital needs, and will increasingly rely on specialised digital roles in the future
- Many of these businesses are actively looking to digitise their organisation and relevant job roles, indicating there is high demand and potential for buy-in
- Businesses with this level of digital needs will need digital specialists rather than generalists, which is better suited to entry-level roles

Examples businesses include: arts organisations, financial institutions, and very large businesses in general

While this model may be suitable for some smaller businesses in highly-digitised industries, many smaller businesses may not be suitable:

- Many smaller organisations do not have an in-house digital or tech role, and outsource their digital and tech skilling needs to third party companies or consultants
- Smaller companies do have needs that could be satisfied by the baseline digital skills of the model. However, the roles often don't satisfy the other role characteristics (page 34). For example, a digital or tech role in a small business may have a small or solo digital team. This means that this role would:
    - Report directly to management
    - Require multiple digital skillsets to address many organisations' digital needs
    - Require high levels or critical decision making with little oversight
    - Be expected to develop processes and tasks
    - Lack a mentor or other role with more expertise that the learner could leverage
- Small businesses often do not have the capability, capacity to effectively support a learner without significantly disrupting productivity

Many small businesses recognise this and acknowledge that they would see the benefits of the model through strengthened digital skills services they can access externally.

Characteristics of suitable entry-level roles

As well as meeting skill gaps, entry-level roles for the priority use case must also have certain characteristics and expectations to be suitable for the model.

A key characteristic of an entry-level roles is the interconnection with the respective digital skills**.** There are also some **characteristics* of suitable entry-level roles** that aren't directly connected to a digital skillset but should be satisfied at the outset of an entry level role.

- Execute tasks and activities that require no more than a **baseline digital skillset of the corresponding specialisation** (Advanced beginner – see page 36).
- **Sit in a team** with a manager / team leader. The role has no direct reporting outside of the team.
- **Require minimal critical or strategic decision-making**
- **Use a single digital skillset** rather than relying on a combination of skills
- **Run and execute processes and tasks.** An entry level role should not be expected to set up processes and tasks.

For example:

Company A

- Looking to fill an 'entry level data analyst' role
- Role expectations are to execute tasks based on established processes
- Employee would sit as part of an existing team of 5 with a manager

✓ This role may be suitable for this model.

Company B

- Looking to fill a 'data analyst' role
- Role expectations are to execute tasks based on established processes
- Employee would work independently and report directly to leadership

✗ This role would **not** be suitable for this model.

**Roles that do not satisfy these criteria should not be considered for the model's primary use case – even if they are otherwise described as 'entry level'.*

Identifying specific job roles for the preferred model

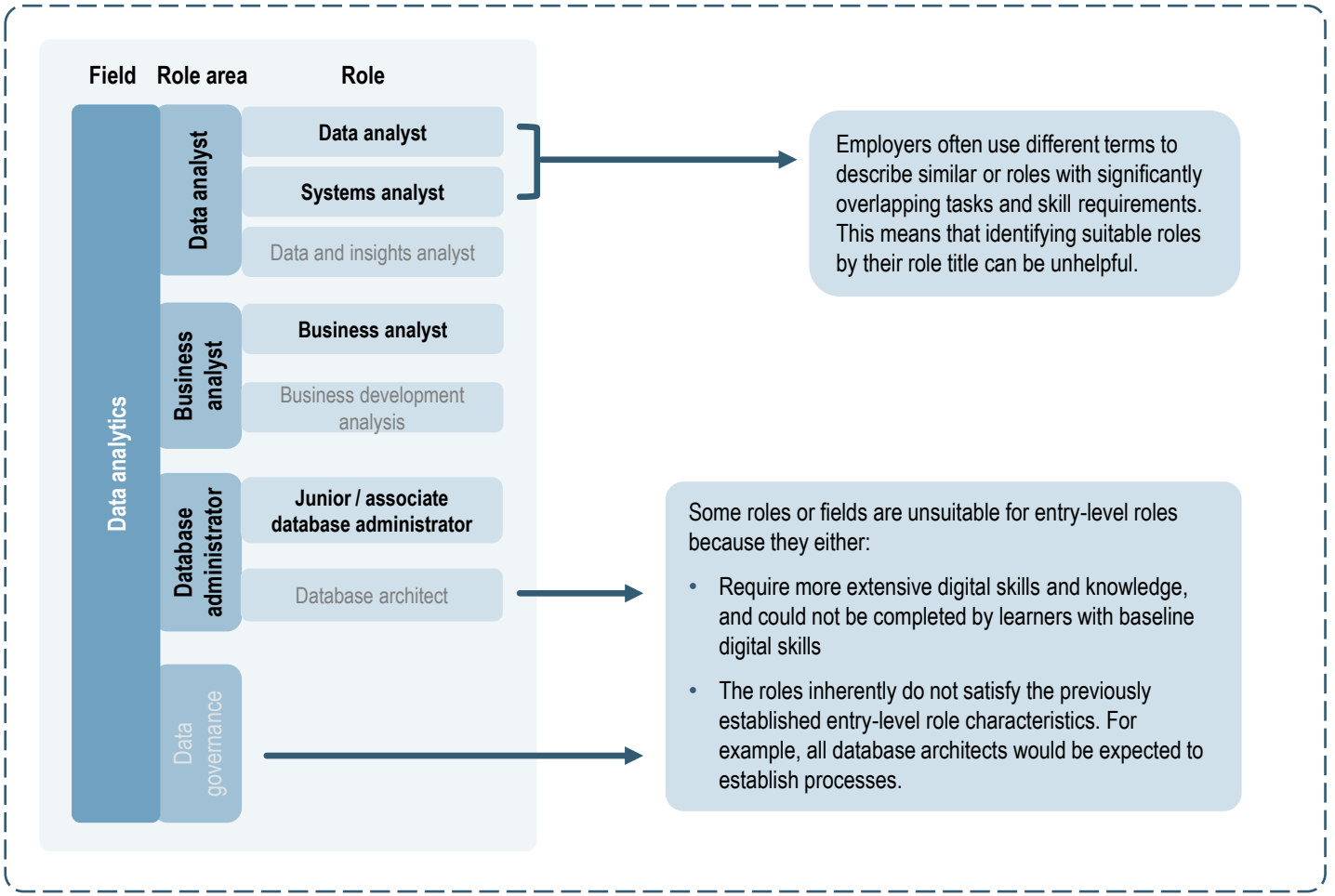
A deliberate and systematic approach to identifying specific entry-level job roles will ensure that the model is well targeted and manages the expectations of both learners and employers.

To determine specific roles that are suitable for the model in implementation, the following process should be taken to filter down to appropriate entry-level job roles:

1. Determine a relevant skill field from the priority fields on page 38
2. Within that field, identify appropriate role areas that do not require a substantial existing digital skillset
3. Apply the entry level characteristics (page 34) to that field to determine whether there is an entry-level application of that.

This approach aligned the job roles dimension of the primary use case to the other dimensions of learner and skills.

An example of this process for the Data Analytics field:



Target skills for the preferred model

Learners should emerge from the model with skills across four categories – core skills, specialised skills, vendor skills and domain skills – to successfully execute their digital roles.

Core skills

Skills that all roles (including entry-level) require to be executed properly. This primarily includes:

- Fundamental digital skills that all digital specialisations require
- Enterprise or 'soft' skills that enable effective communication and integration into the workplace

Specialised digital skills*

Skills in a particular digital or tech field that enable specific job roles. These skills should:

- Be industry relevant, and ensure they can be directly applied to tasks or activities required by the corresponding job role
- Learners should reach the level of proficiency of their specialised digital skills of at least an **advanced beginner** by the time they commence work placement, and at least **capable** upon completion of the program*

Vendor skills

Knowledge or skills relevant to the specific employer. For example:

- *Using a specific software platform*
- *Expected communication and reporting channels*

Domain skills

Knowledge or skills relevant to the industry or field of the host employer. For example:

- *Terminology and typical projects in telecommunications*
- *Common programming languages in online vendors*

Learners should emerge from the program with skills across all categories. In different circumstances, the model itself may not directly delivery some skill areas if the participant has sufficient skill in that area. For example:

- A 'reskiller' who has considerable previous experience in a professional environment and general digital capability may elect to 'skip' some or all of the core digital components'
- An 'upskiller' looking to develop baseline digital skills in data analytics to enhance an existing role will already have the necessary vendor skills

See page 46 - 49 for information on how this plays out in design and delivery.

*The DSO describes the following levels of proficiency according to the Skills Standards framework:

- **Advanced beginner** - to have a good range of elementary knowledge and skills. This includes the ability to independently use digital devices and applications to complete routine activities in a familiar work context. The expectation is to be able to resolve predictable problems and take responsibility for the work outcome.
- **Capable** - to have practical ability and fitness to perform a job function. This includes the ability to select and apply a range of methods and tools, and engage in intentional, deliberate short or long-term plans for performing workplace activities. The expectation is to be able to use a range of digital devices and moderately complex applications with autonomy, judgement and well-rounded competence.

Core skills

All roles in the primary use case require core skills. Core skills comprise digital fluency skills and non-digital workplace skills. Learners all need fundamental digital literacy, but this is not a focus of the model.

Fundamental digital literacy

These skills are a necessary prerequisite learners must possess to engage in the model.

These skills include basic skills of engaging with digital devices and content in a general context, such as:

- Operating computers and other digital equipment
- Basic digital protection practices
- Basic internet navigation and safety

Digital fluency

Digital fluency is the ability to discover, access, use, and evaluate digital information and technology effectively and ethically in the workplace.

Digital fluency includes skills necessary in the workplace across five digital capabilities*:

Technical proficiency and problem solving

- Managing, operating, and innovating digital devices and tools
- Resolving problems
- Learning and self-development

Information and data literacy

- Searching, browsing and filtering information
- Verifying and managing information and data

Digital communication and collaboration

- Digital communication, sharing, engagement, collaboration, conduct, and identity

Digital content creation

- Developing, integrating, and modifying digital content
- Digital copyright and licenses
- Creating instructions for computers

Protection and safety

- Protecting devices, information, health and wellbeing, and the environment
- Digital privacy

The skills under these capabilities should be developed to at least a '**Foundation 2**' level of proficiency.

- Learners with a Foundation 2 proficiency level should perform the above skills at a basic level with autonomy and some guidance.

Non-digital workplace skills

These are skills needed for engaging in and navigating the professional work environment.

This includes understanding workplace expectations of effective employers, such as:

- Reliability
- Resilience
- Emotional self-regulation

It also includes workplace enterprise skills, such as:

- Effective communication in the workplace
- Following instructions
- Time management

The outcomes of these skills include:

- Stronger confidence and job effectiveness for learners
- Higher efficiency and productivity for employers

*Foundation 2 is suitable for learners who will undertake learning at a Cert III level as they commence work placement. Learners who will be undertake learning at a Cert IV or Diploma level may require Foundation 3 level of proficiency upon completing the 'core' component. These capabilities were drawn from the 2022 Digital Capability for Workforce Skills framework.

Specialised digital skills

The model is suitable for most digital fields. Priority digital and tech fields were identified through industry consultation, critical analysis of successful models, and application of entry-level role characteristics to job roles that commonly sit within those fields.

List of priority digital skill fields	Example corresponding entry-level role
AI / machine learning	*AI and machine learning engineer**
Cloud computing	*Network operations engineer*
Cyber security	*Cyber security analyst**
Data analytics	*Data and reporting analyst*
Digital marketing	*Digital marketing associate*
Enterprise resource planning	*Enterprise IT support specialist*
Equipment technician	*Network systems technician*
IT operations and support	*Technical support officer*
Software development / programming	*Quality assurance (QA) engineer*
User experience / user interface (UX / UI)	*User experience designer*
Web development	*Web developer*

*NB: These roles, while 'entry-level' for the particular field, do not solely rely on entry-level skills in that particular area. For example, to be equipped to complete an entry-level cyber security role, you may require prerequisite IT operations skills. For further details on how the model may adapt to account for these types of roles, see page 47.

Target learners in the primary use case

The preferred model is best suited to learners who are starting new careers, and those with existing careers looking for entry-level digital and tech roles.

	Potential cohorts	Description	Example	Rationale for targeting
'Skillers'	**Recent school leaver**	Learner has recently left education or training. They have no prior work experience outside of an educational pathway.	• Year 10, 11 or 12 school leaver • VET year 11/12 leaver e.g., Cert II • Recently left trade apprenticeship	• Recent school leavers are a consistently large cohort (scale) • They are looking for both work and training, therefore likely to convert • Employers can access a junior cohort that is low wage and high potential
	Career starter	Learner has some work experience and educational background, but not in digital and tech	• Moving away from casualised or gig-economy work (e.g., retail) • Prior caring responsibilities and now moving into/re-entering workforce • Started but not completed higher education	• Learners are looking for a long-term career with positive earning prospects, without sacrificing current earning opportunities • Employers can access learners with prior employment experience (e.g., basic workplace competency)
'Reskillers'	**Mid-career switcher**	Learner has substantive work experience in a non-digital or tech-related industry	• Working full-time in a non-digital or tech-related industry looking to pivot to a digital/tech career (e.g., high school teacher) • Looking to convert digital/tech hobbies explored alongside prior work into a job	• Careers switchers have existing work experience which will accelerate learning and adaptability to a new workplace environment (quicker to ramp up) • May have added level of life experience / maturity • Industry is expressing strong appetite to increase the presence of this cohort in their workforce
	Role switcher	Learner has domain knowledge in an organisation or industry but no digital/tech skills	• Existing employee in industry looking to move into a new team in a new company of the same subject matter (e.g., between banks)	• These learners are appealing to industry as employers value the existing skillset, but the lack of digital skills is a barrier these learners transitioning to these roles

Target learners in the secondary use case

The preferred model can also work for some learners looking to augment their existing role with baseline digital and tech proficiency, or employers looking to upskill their workforce.

	Cohorts	Description	Example	Justification
'Upskillers'	**Future-proofer**	A learner in an existing role that could benefit from some digital skills to augment the same role at the same organisation	• Learner is comfortable in their existing role and career, but their role and potential could be enhanced with baseline digital skills • Could be driven by the learner or driven by the employer (if they are looking to upskill their workforce more broadly)	• They may also be able to accelerate their learning as they already have enterprise skills, and may have had previous interactions with digital / tech personnel • Employment outcomes have a high level of certainty, making the model more appealing to learners and employers • Learners can upskill in familiar context, which may enable a more supportive environment. • Industry (particularly at the leadership level) recognise the need for this and are looking for opportunities to engage in it
	Returning to a digital industry	Learner is re-engaging in a digital or tech-related industry / role after previous experience	• Taken extensive time away from a digital field, and their previous knowledge is too obsolete to be applied in modern digital roles	• Have a higher level of domain knowledge to re-enter the industry smoother • Similar to mid-career switchers, extensive work experience and non-digital skills may enable this learner to accelerate quickly

The intersection between target learners and target skills

Across cohorts, learners will enter the model with different capabilities across the four skill areas but should emerge with skills across all categories that match the corresponding job role.

		Core skills		Baseline specialisation digital skills	Vendor skills	Domain skills
		Digital	Workplace			
Primary use case	**'Skiller' example** • Recently left school • Has not had any further education or employment • Wishing to start a software development career					
	'Reskiller' example • Considerable previous professional experience in another industry with limited career progression • Wishing to transition into a digital marketing career quickly					
Secondary	**'Upskiller'* example** • A learner is recognising that some of the job roles in their industry are becoming increasingly digitised, and doesn't want to get 'left behind'					
	Skills that all learners should emerge from the model with. Learners should obtain the skills across each area regardless of their entry point. In some instances, this means that learners may not need to engage in components of the model if their skill is already sufficient (see page 47 in C. Design and delivery)					

*NB: currently some existing programs actively recruit those who already have skills. This model primarily intends to recruit 'skillers' and reskillers, as part of the primary use case

C. Design and delivery

Context of design and delivery advice

The Working Group's advice is a broad expression of an EWYL model that will manifest in different ways depending on the delivery context.

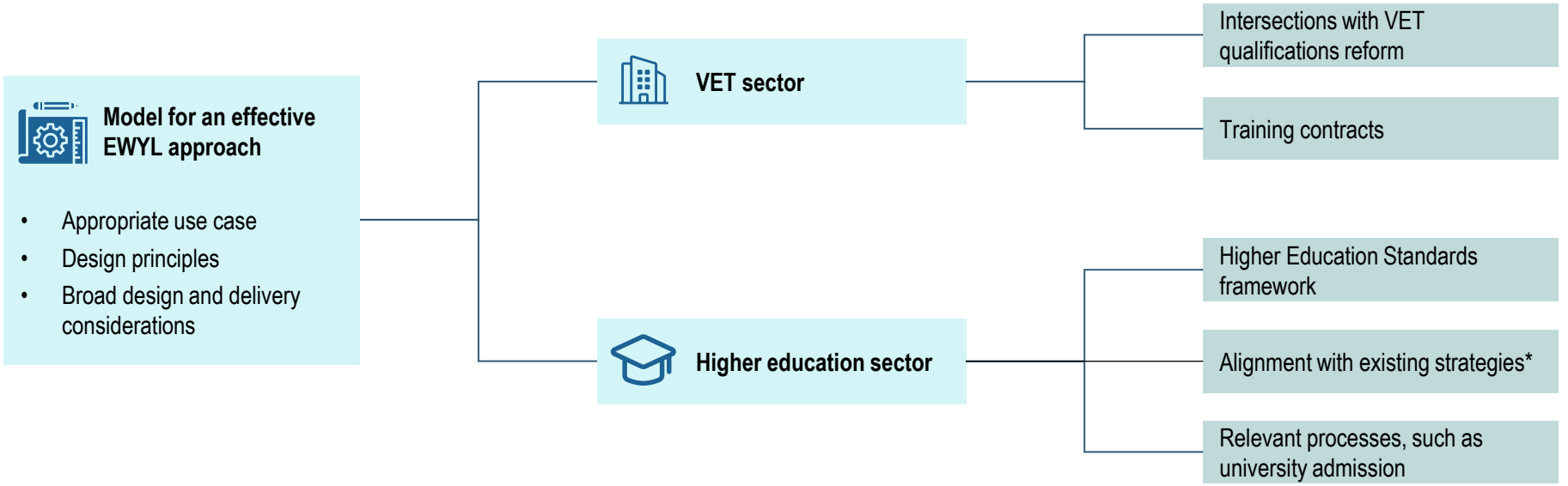
The Working Group's advice is a broad expression of an EWYL **model.**

It can be implemented across **different contexts…**

For example, different training and education contexts:

…And will require further consultation on respective **implementation considerations.**

For example:



…This includes further consultation with relevant stakeholders on how different manifestations of the model will be funded in different contexts.

*For example, the 2015 National Strategy on Work Integrated Learning in University Education.

Critical features of each model component

Each component of the model's design should incorporate critical features for success.

Attraction

Appealing to and engaging with potential participant learners and employers

- Identify and attract all potential learners, employers and training providers
- Develop employer partnerships to place learners

Selection

Selecting participating learners and employers through a thorough process

- Targeted selection process to high-potential learners
- Employers play a direct role in selection

Matching

Pairing learners with suitable employers

- Deep assessment of learner needs
- Understand employer requirements

Preparation

Pre-placement training to set learners up for success in the workplace

- Concise introductory modules targeted to core digital skills (e.g., as a bootcamp)
- Tailored workplace soft skills training and induction

Formal learning

Skills-based learning or training that contributes to both workplace needs and qualification requirements

- Recognised learning achievement
- Specialised skills delivered as streams, based on the job role
- Stackable shorter form credentials

Ongoing assessment

Evaluating learner knowledge of qualification-aligned concepts through work-based skills assessment

- Competency-based testing to achieve the qualification (by provider)
- Regular observation and progress communication with learner
- Option to also be assessed for industry certificates (where possible)

Work (placement)

Employer-based paid component ('earning') overseen by a supervisor

- A formal employment contract is established to lay out the rights and responsibilities of each party
- Role characteristics and expectations are reasonably aligned to respective use case
- Access to required equipment and regular work schedule
- Optionality for different 'earning' and 'learning' cadence

Transition

Assistance to learners to smoothly enter the digital/tech industry

Assistance for employers to facilitate mutually beneficial outcomes for learners and themselves

- Option for PT/FT paid continuation of work with the business
- Deliberate offboarding for learner to find long term employment (if not with placement)
- Connection with industry insiders/ networks/ program alumni groups

Support

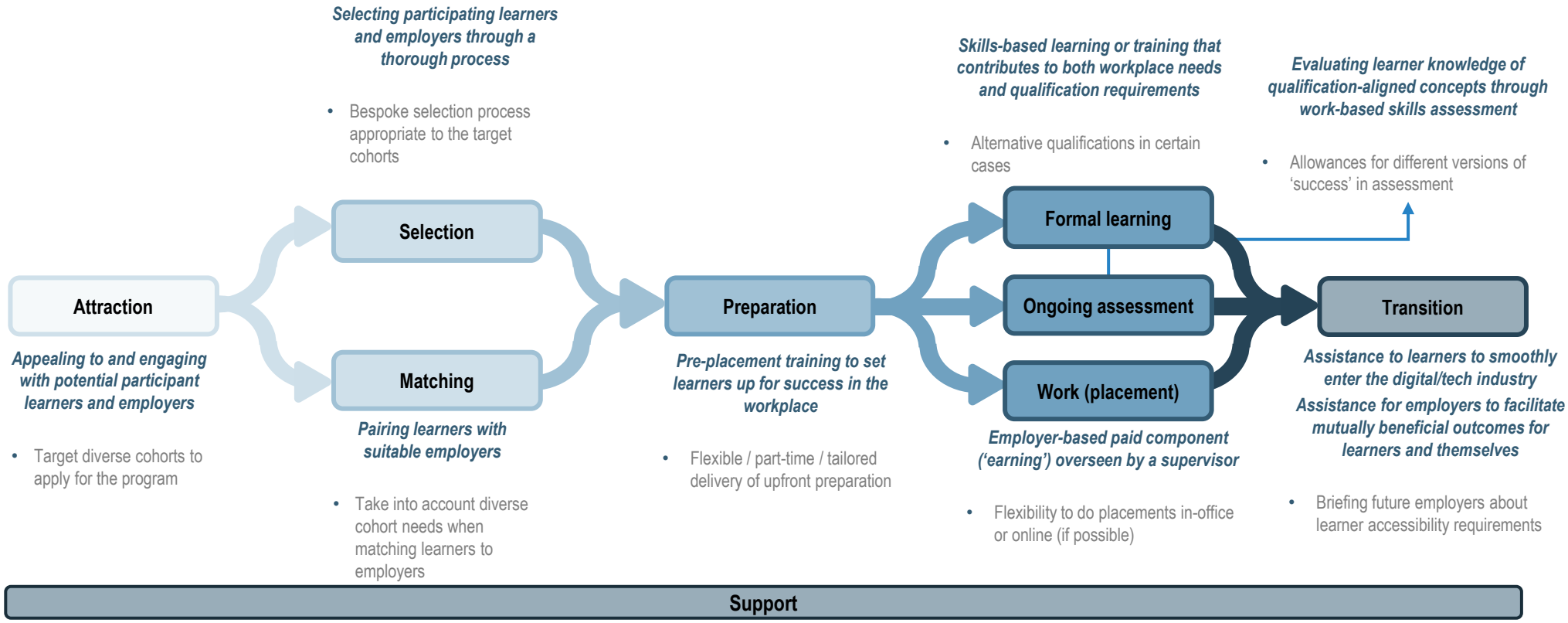
Ongoing mechanisms to assist learners to achieve their learning outcomes and deliver employer productivity and enable employers to facilitate effective environment for employment-based learning.

- Dedicated formal workplace mentoring and supervision
- Clear contact point or dedicated career liaison on the program owner side
- A formal offramp process for learners and employers to withdraw

Further explanation of critical features including what they are, how they would work in practice, examples, barriers and current initiatives addressing barriers (where possible) are available in **Appendix 3**.

Diversity considerations for each model component

Design considerations for diverse groups should be built into the model at each stage of its delivery.



The model **should leverage existing government work** in this space and incorporate it into the model as necessary. This would involve:

- Model owners undertaking regular reviews of existing government diversity programs and initiatives at eat stage of a learner' journey before each 'cycle'
- Consider how these opportunities can 'link in' with the model. For example, during the 'Attraction' phase, a model owner could connect with existing government agencies such as the National Indigenous Australian Agency seek advice on marketing / communication with Indigenous peoples, and assist in promoting.

Adaptation of the model for skillsets within the primary use case

Some fields may require augmentation or adaptation of design and delivery for the model, as their entry-level roles may require additional specialist digital / enterprise / analysis skills. However, this does not fundamentally alter the use case for this model.

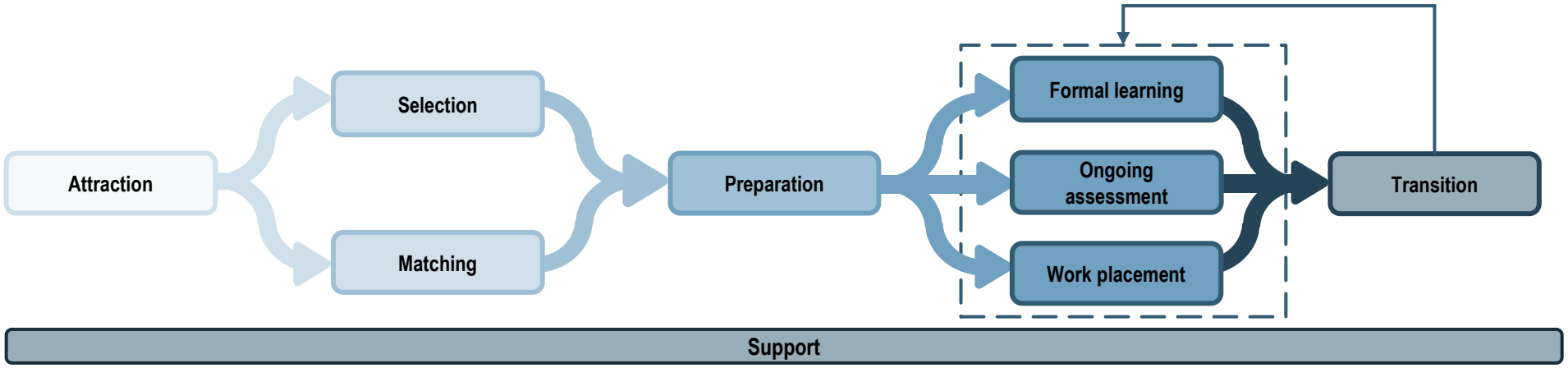
Digital skill fields	Explanation
AI / machine learning	*Most 'entry-level' roles in AI and machine learning require **additional specialist skills** and may also be suitable for learners starting the model in another field (e.g., software development) prior to / alongside AI*
Cyber security	*Most 'entry-level' roles in cyber security require **additional specialist skills** and may also be suitable for learners starting the model in another field (e.g., IT ops) prior to moving into / alongside cyber security.*
Data analytics	*Entry-level roles require **additional problem-solving skills**, and additional statistical knowledge and understanding beyond what would be attained in the core training**.** May require more learning on the job.*
Enterprise resource planning	*This role requires a level of **non-digital enterprise skills** and other **organisational knowledge** beyond what would be covered in the core skills component. May require more learning on the job as a result.*

Adapting design and delivery for cyber security skills / roles

The design and delivery of the model can be adapted or augmented to provide an onramp into a cyber security career. These adaptations may change according to the needs and capacities of the host employer, learners and/or training providers.

Background:

Stakeholder consultations revealed that an 'entry-level' cyber security role typically involves a heightened level of skill development to be prepared and qualified to work in that space. For example, if a learner is aiming to land a role as a **cyber security analyst** (to anticipate and detect risks in IT infrastructure), the learner will also require knowledge of IT systems to make informed judgements and decisions. The model will require adaptation or augmentation in different ways to meet the required skill threshold for this entry-level roles. (*See below*)



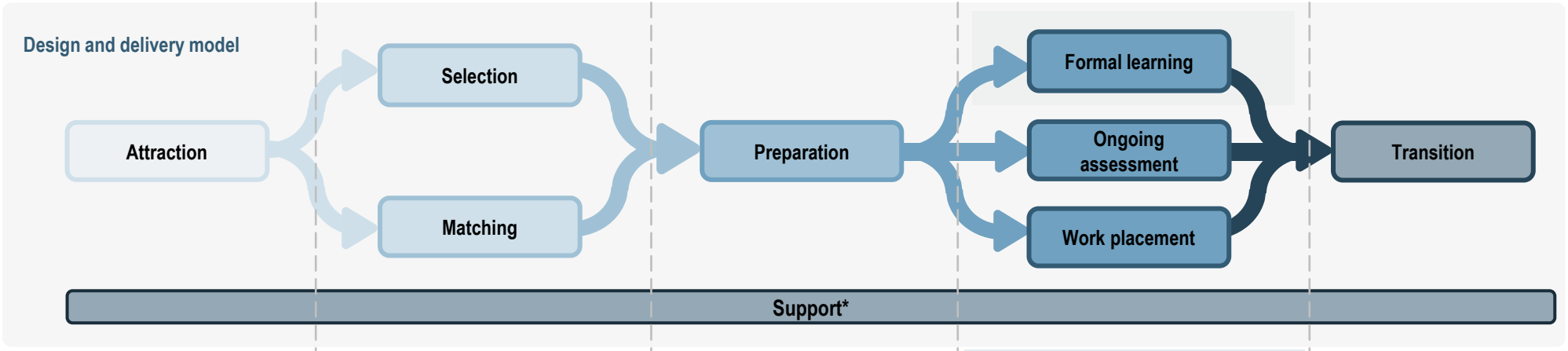
Potential adaptations (or lack of)

- ***Attraction** would theoretically remain the same in this scenario, given the model is designed to attract people with little to no prior digital skills (e.g., we are not attracting IT operations professionals to do a cyber security pathway).*
- **Matching** must be completed on the premise of learners going from IT operations through to cyber analyst. The employer and/or provider must have the capacity and/or expertise to facilitate this more nuanced and longer development pathway.
- ***Preparation** would theoretically still remain concise and targeted (i.e., not extend). Extending the preparation to 'make participants ready to start their cyber qualification / role' would not constitute an 'earn while you learn' model, and therefore would not have the same appeal / utility to all actors.*
- The **'learning'** and **'earning'** components may both be more time-intensive, and the **assessment** more rigorous, to ensure that learners meet the skills thresholds for both (for example) IT operations roles and cyber security roles.
- **Formal learning** may be required at a higher skill level (e.g., minimum of Cert IV)
- **Transition** into a cyber analyst role should be determined by a flexibly-timed capability assessment rather than fulfilling a prescriptive time in the transition role
- For learners transitioning from IT operations into cyber security, they may repeat (elements of) formal learning / ongoing assessment and work placement components

NB: The above example is specific to a cyber analyst role, and other roles within cyber security may require a different 'gateway' field to develop relevant skills. Appropriate gateways should be underpinned by matching skillsets. This can be informed by using frameworks such as a Digital Skills Organisation's 'Underground Map' of digital careers. For other examples of using this model type to provide skills development in cyber security, refer to *Appendix 2: Case Studies.* For example, Vic Digital Jobs program provides a pathway suitable for participants with IT experience looking to upskill into cyber security.

Augmenting design and delivery for the secondary use case (‘upskillers’)

The model is primarily designed for ‘skillers’ and ‘reskillers’. Secondarily, ‘upskillers’ can also use the model by completing components – such as a modified, stackable version of formal learning – that are intended to complement their existing skillset.



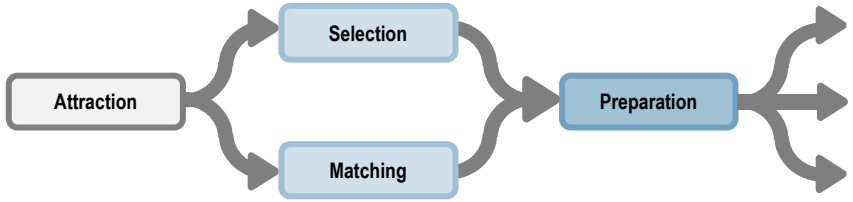
	Attraction	Selection and matching	Preparation	Formal learning**	Transition
Potential modifications	Upskillers will likely already have a specific role in mind, and engaging in the program may be driven by the employer rather than the learner.	These stages may be unnecessary for many upskillers as they are already in the role. The selection and matching stage would be condensed.	The induction and soft skills training components may be condensed as upskillers are already familiar with the role. Upskillers may require some basic digital preparation prior to the placement.	Upskillers may focus on more specific, stackable and targeted skills relevant to their target job role, which will likely include microcredentials over a shorter time period. This likely requires careful design, to enable / prioritise development of specialised skillsets – e.g., recognition of prior learning / appropriate training packages. **Ongoing assessment** This may be tailored to the role requirements, rather than a general assessment of progress. **Work placement** Upskillers will focus on practical application of their existing skillsets in digital context.	The transition period for an upskiller will be shorter than for the primary use case.
Example	*A manufacturing worker, who has been in the role for 20 years, will have their role augmented with a digital manufacturing process.* *The program is developed by their employer.*	*The worker and employer consider what the program would look like including who would be supervising.*	*The worker is run through the basics of the digital manufacturing process.*	*The worker completes a Cert III in digital manufacturing 2 days a week, and works part time 3 days a week. Their supervisor checks in weekly to assess progress against role requirements.*	*On completion of the Cert III, the worker transitions to full time work in the role.*

*Support is unchanged from the primary use case. **Formal learning is likely to be the component of the model design and delivery that requires the greatest adaptation for the upskillers cohort.

Recruitment and matching sequencing

A model that embeds matching in the early recruitment stages will result in higher employer buy-in, and better chances of success for all stakeholders.

A: Preferred model sequencing:

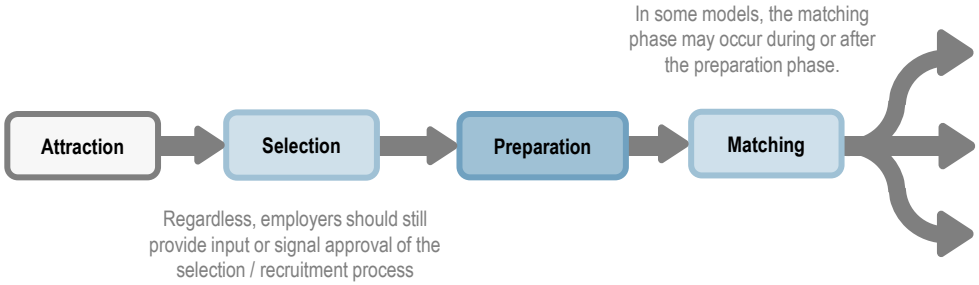


In this sequencing, the matching between employers and learners is **embedded** in the recruitment and selection process, with **employers playing a key role** in selecting suitable learners. Learners will only commence learning when an employer has **committed to hosting learners**.

The **advantages** of this sequencing include:

- Strengthened employer buy-in and commitment
- Better understanding of required job and workplace-specific skills, which can be leveraged during the Preparation stage
- Stakeholder confidence of achieving outcomes
- High levels of retention (as evidenced by existing programs that adopt this sequencing, such as in Victoria)

B: Alternative acceptable sequencing:



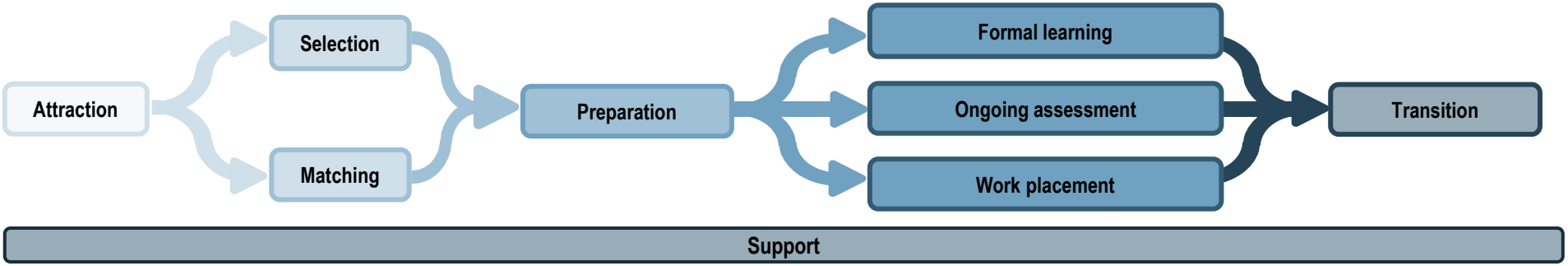
Another sequencing option is that the **matching process occurs during or after the initial preparation stage**. The key **risk** of this option is that some learners may not have an employment-integrated opportunity waiting for them after they have completed .

If a model with this sequencing is supported, the model will require mechanisms to **mitigate that risk**:

- Additional efforts to identify and source host employers for learners who are not selected
- More rigorous selection process to ensure potential learners are meeting employer needs

Illustrative example of a formal learning and work placement pathway / combination

The below program provides a useful example of how formal learning and work placement components can be split / sequenced across the program. This is just one possibility, as models should adjust to different learner / employer needs.



1 3 weeks

Recruitment

Program owner (e.g., provider, third party) runs the recruitment and selection process in collaboration with employer (sourcing candidates via Seek, job boards and network referrals).

2 3 days

Supervisor training

Supervisors attend a briefing session and review learner's learning plan, ensuring learner has time and opportunity to complete on-the-job learning and TAFE.

Pre-employment induction

Learner provided with resources and basic induction prior to placement.

3 12 - 24 months

Work placement

Learner commences 12– 24-month placement with employer where they learn soft skills as well as digital skill application e.g., Microsoft certifications.

Certificate IV in Information Technology Networking

Learner completes a Cert IV provided by TAFE NSW alongside placement. They are also able to complete Microsoft certifications to complement their placement role and learning.

4

Networking event

Program owner organises networking event with all learners.

Feedback session

Program owner meets with learner and supervisor to reflect on placement and discuss next steps for the learner's career

5

Mentoring and support

Ongoing mentoring and support provided by the program owner. The program owner consults with the employer to give full visibility of requirements to enable effective mentoring (e.g. protected time to deliver mentoring, clear communication channels between program owner and employer). Program owner works closely with the learner to ensure they are provided tailored support throughout the process.

Evaluation against threshold tests and design principles

The preferred model satisfies the Working Group's threshold tests and design principles.

	Criteria	How the model satisfies the criteria
Threshold tests	**Clarity of objectives (use cases)**	• Primarily targets: entry-level digital and tech roles; 'skillers' or 'reskillers' who are looking to enter these entry-level roles; and a combination of core and specialist skills that provides baseline proficiency. • A secondary use case for 'upskillers' with existing non-entry level roles with a digital and tech augmentation.
	Win-win-win scenario	• **Learners:** provides learners with transferable and industry-relevant skills, while minimising time without income • **Employers:** delivers learners selected with employer input and provides support and preparation to ensure learners are productive quickly • **Government:** contributes to growing the start of the pipeline for digital and tech skills and a flexible workforce
	Pathway to sustainability	• Endorsed by industry and providers through the Working Group • High potential for scalability due to focus on the start of the skills pipeline • Draws upon pre-existing architecture (e.g. VET system funding), rather than requiring new architecture
Design principles	**Interconnected**	• The model actively involves employers, providers and learners to best meet their needs — **Employers:** engaged at the attraction stage to articulate what skills and characteristics they need in learners — **Providers:** connected to employers to ensure learning is relevant and fits with working schedule of learner — **Learners:** provided consistent support to ensure barriers are addressed to result in higher completion rates
	Adaptable to the learner	• Designed to be flexible to learner skill and support needs • Diversity considerations are built into each component to provide flexibility for different cohorts • Learners with existing skills and experience are able to complete condensed model components
	Is of appropriate length and intensity	• Six months to two-year length range allows for quick, intensive skilling while ensuring certain learners have appropriate scaffolding • Two-year maximum length also allows for part time completion of Certificate III / IV and Diploma-based courses

D. Key commitments

Key commitments to support the preferred model

Government, industry and providers should work together to attract, select, match and prepare learners and employers through the model.

	Federal and state / territory governments	Industry peaks and employers	Education / training providers*
Attraction	• Consider how to create pathways to the model from school education (e.g., school-based VET units) • Consider financial incentives for learners to take up the model (e.g., fee-free model, financial support to cover opportunity costs)	• Promote the model to relevant employers and encourage them to participate	• Leverage provider channels to promote the model to learners and employers (e.g., annual handbook) • Leverage existing and new education and training pathways into the model (e.g., alternative/equity pathways)
Selection and matching	• Provide the frameworks to support learners, industry and providers to connect effectively and efficiently	• Participate in selection and matching processes to ensure the right 'fit' • Commit to an adequate number of work placements for learners, taking into account the characteristics of the relevant industry or employer	• Design and deliver a high-quality selection and matching process for learners and employers • Incorporate employer input into the selection and matching process
Preparation	• Provide a fit-for-purpose education and training system that contemplates and supports work-integrated formal learning (e.g., accreditation frameworks that allow for bootcamps; funding for the administration of work-integrated learning) • Support employer staff to upskill to support work placements	• Participate in provider-led preparation activities for learners (e.g., induction) • Support staff who are upskilling in preparation for work placements	• Design and deliver high-quality innovative preparation activities that set up learners for success (e.g., preparatory bootcamp)

** These commitments assume that education and training providers are the primary model 'owners' who are driving design and delivery. The Working Group acknowledges that there are opportunities for other actors to be the primary model owners, such as industry peak organisations.*

Key commitments to support the preferred model

Government, industry and providers – together with the relevant Jobs and Skills Council (JSC) – should work together to ensure the formal learning and work placement components are skills-relevant and effectively integrated.

	Federal and state / territory governments	Industry peaks and employers	Education / training providers*
Formal learning	• Provide a fit-for-purpose education and training system that delivers high-quality formal learning, including high-quality qualifications design and adequate funding overall	• Assist JSC with mapping target jobs and associated skills across training packages and practices • Engage with providers and JSC to ensure formal learning component is relevant • Provide learners with appropriate time release for formal learning commitments (employers)	• Lead the design and delivery of formal learning, including engagement with participating employers, industry and the JSC to ensure learning is relevant
Work placement	• Consider funding to incentivise employers to take on learners (e.g., apprenticeship-style wage subsidy) • Consider how to support employers to upskill their staff to effectively deliver placements (e.g., development of toolkits, guides, practice-based resources tailored to job roles. This could be alternatively performed by the JSC	• Provide work placements that meet the characteristics outlined on page 87. • Engage with providers to ensure work activities align with formal learning	• Ensure sufficient flexibility in formal learning to enable learners to participate successfully in work placements

The relevant **Jobs and Skills Council** should play a central role in supporting the ***formal learning*** and ***work placement*** components, specifically:

- Provide overall skills forecasting and planning for digital and tech roles through with support from Jobs and Skills Australia
- Map target jobs and associated skills across training packages and practices
- Development of best practice guides to support the uptake of training

** These commitments assume that education and training providers are the primary model 'owners' who are driving design and delivery. The Working Group acknowledges that there are opportunities for other actors to be the primary model owners, such as industry peak organisations.*

Key commitments to support the preferred model

Government, industry and providers should work together to support learners and employers to complete and deliver the model, while ensuring effective assessment and transition. All parties must make a real commitment to diversity.

	Federal and state / territory governments	Industry peaks and employers	Education / training providers*
Support	• Leverage (where appropriate) existing supports for learners in the education and training system and apply them to a digital and tech context (e.g., Australian Apprenticeship Support Network) • Consider financial incentives for third-party providers of support services to ensure enough support for model owners	• Provide learners with access to conventional employer-based supports, such as EAPs • Engage with providers to design and deliver additional, integrated employer-based supports (e.g., on-the-job mentoring)	• Lead the design and delivery of integrated institutional and employer-based support as part of the model
Assessment	• Provide a fit-for-purpose education and training system that supports effective assessment (e.g., clear assessment outcomes and processes for VET training packages; adequate funding for assessors) • Support employer staff to upskill to support assessment	• Engage with providers to enable effective ongoing assessment • Support staff who are upskilling to undertake work-based assessment • Providing access to tasks / technology / tools to enable learners to be assessed in the workplace	• Lead the design and delivery of integrated institutional and on-the-job assessment
Transition	• Leverage government-run programs and websites to promote employment and further education and training pathways to learners	• Where possible, provide guaranteed ongoing roles for learners (subject to appropriate conditions)	• Engage with learners to provide pathways into more specialised education and training following successful employment placement
Diversity	An **overall commitment on the part of all stakeholders to a more diverse digital and tech skills pipeline**, including consideration of: • How to promote diversity through the design and delivery of each model component • Equity targets for diverse and underrepresented groups, taking into account the specific context of the relevant industry and employer		

** These commitments assume that education and training providers are the primary model 'owners' who are driving design and delivery. The Working Group acknowledges that there are opportunities for other actors to be the primary model owners, such as industry peak organisations.*

Appendix 1: Working Group approach

Working Group meetings

The working group has developed its approach to developing and scaling earn while you learn models over five meetings.

- **1** Define the current problem for ‘earn while you learn’ models in the context of wider digital / tech skills shortages
- **2** Develop threshold tests and design principles for the preferred model
- **3a** Map existing ‘earn while you learn’ models in Australia and abroad to better understand critical features
- **3b** Identify a model type most appropriate for the Working Group’s context
- **4a** Develop the primary and secondary use case for the proposed ‘earn while you learn’ model
- **4b** Develop model design and delivery, including diversity considerations
- **4c** Test model use case and design considerations across a broad range of government, education and industry stakeholders
- **5** Develop advice to government on ‘earn while you learn’ for model, diversity considerations, barriers and stakeholder commitments

Working Group members

The Working Group comprises representative members of 15 key organisations in the digital and tech ecosystem, including VET providers, university networks, peak bodies, unions, and government departments.

Name of organisation		Representing member(s) on the Working Group
ACCI	**Australian Chamber of Commerce and Industry**	Natalie Heazlewood & Jennifer Low
ACS	**Australian Computer Society**	Rupert Grayston & Ciarán Doherty
ACTU	**Australian Council of Trade Unions**	Scott Connolly
AEU	**Australian Education Union**	Daniel Dacey
AiG	**Australian Industry Group**	Megan Lilly
AIIA	**Australian Information Industry Association**	Dr Peter Beven
AMTA	**Australian Mobile Telecommunications Association**	Colin Pritchard, Blake McManus & Maggie Kaczmarska
ASU	**Australian Services Union**	Robert Potter & Jody Miles
ATN	**Australian Technology Network of Universities**	Mish Eastman
BCA	**Business Council of Australia**	Craig Evans
CoSBOA	**Council of Small Business Organisations Australia**	Matthew Addison, Simon Foster & Dominic Schipano
DSO	**The Digital Skills Organisation**	Dr Geethani Nair
TDA	**TAFE Directors Australia**	John Tucker
TCA	**Tech Council of Australia**	Tom McMahon & Scarlett McDermott
UA	**Universities Australia**	Dr Jodie Trembath & Patrick Bailey

List of external organisations consulted

In addition to Working Group members / their teams, we engaged with a range model owners and peak body representatives.

- HCL Tech
- Internet of Things (IoT) Alliance
- Bendigo Kangan Institute
- Mushu
- MEGT
- Community Corporate
- Microsoft
- Amazon Web Services
- 42 Adelaide
- Victorian Digital Jobs Program
- Australian Industry (Ai) Group
- Forte
- Department of Education - Victoria
- Coles
- _nology
- Commonwealth Bank of Australia
- Digital Skills Organisation
- Telstra
- Skills Logiq
- IBM
- Impactive Systems
- Pavlov Group
- Atlassian
- Infosys
- The Boston Consulting Group (BCG)
- Salesforce
- Adobe
- Transurban

Appendix 2: Case studies

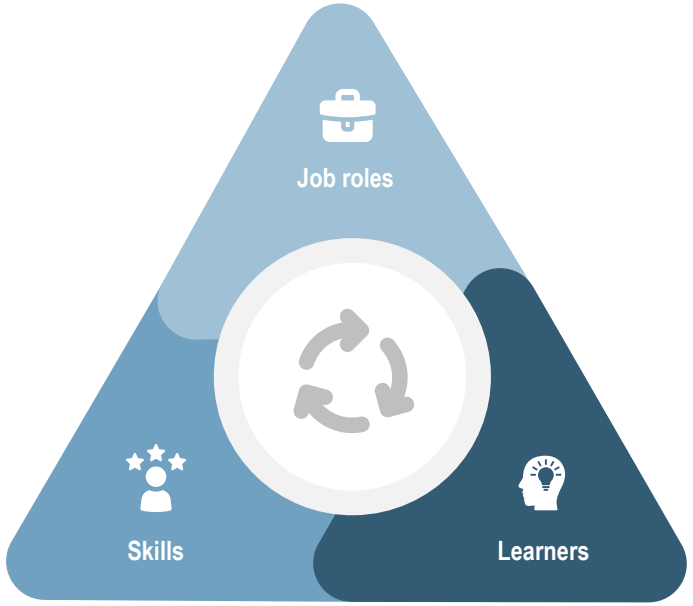
MEGT Digital Skills Cadetship

The Cadetship aims to rapidly upskill women returning to the workforce, with a focus on targeted support and employer flexibility to recognise prior experience.

Context

The Digital 'Returnship' is one of three Australian Government funded Cadetship trials that test a blend of formal training with on-the-job learning and mentoring. The program uses accredited and non-accredited vocational education and training, and industry recognised courses offered by global technology companies. It is designed to be a shorter, sharper and more flexible version of the existing MEGT Microsoft Traineeship Program.

22 learners had started the cadetship by February 2023. 12 Cadets were selected for Intake 1 and have completed the Cadetship. At the time of review, six are now employed by their host employer and six are being supported by MEGT to find employment.



Target role

- A bespoke role for the Cadet, according to their experience and what the workplace needs

Target skills

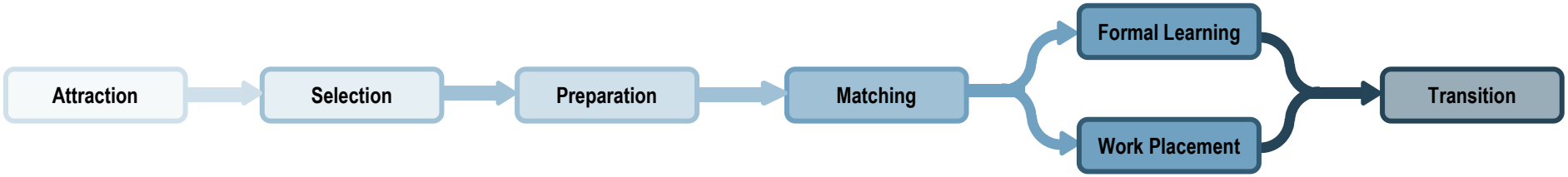
- Employers identified cybersecurity as a target skill area prior to program delivery but found that the shortened cadetship provided insufficient time to upskill
  - Delivered via combination of Microsoft Certifications and specialist micro-credentials

Target learner cohort

- Women entering or returning to the workplace who:
  - Have work experience but have been out of the workforce or are career changing
  - Have soft / enterprise skills and maturity, and are expected to upskill quickly

MEGT Digital Skills Cadetship Design and Delivery

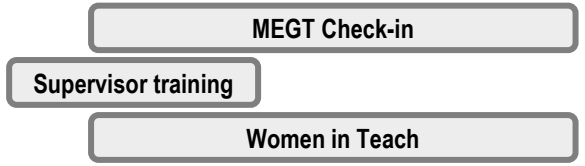
Stage



Description

Attraction	Selection	Preparation	Matching	Formal Learning / Work Placement	Transition
• MEGT is the delivery partner, runs recruitment and selection, sourcing candidates via Seek, MEGT Job boards and network referrals • MEGT engaged Generation Australia, an education to employer training provider, to source potential candidates from the Generation Australia 'bootcamp' program • Initially Microsoft intended to host Cadets but hiring freeze meant they needed to reach out to industry partners to take on Cadets	**Selection Process:** 1. Sourcing 2. Screening / testing to ensure candidate has the capability to complete microcredential 3. Interviewing 4. Shortlist 5. On hold until a placement is available, then Cadet interviews with employer 6. Offer 7. Onboarding	• Cadets complete three days of online digital skills training with some job readiness training designed to prepare them for their first day	• MEGT places Cadets with employers after employers interview the Cadet • Tends to sort Cadets based on preference and location • Employers are able to place Cadets into roles suited to their level of experience and workplace requirements	• 14 week paid work placement with employers • Cadets complete Microsoft Office Specialist and Microsoft Certified Fundamentals certificate delivered by the Australian Institute of Training and Development (AITD) and Prodigy Learning	• MEGT meets with each Cadet and supervisor to reflect on placement and discuss next steps for the Cadet's career • Women in Tech (WIT) runs a networking event to engage and empower Cadets

Support



Supervisor Training

The Institute of Applied Technology (IAT) deliver 1-2 hour online training to supervisors about their role, mentoring, and how to best support the Cadet

MEGT Check-ins

- Check-in within first three days of placement
- Fortnightly check-ins with Cadet
- Monthly meetings with Cadet and supervisor

Women in Tech (WIT)

Provide pastoral care and wrap-around support

MEGT Digital Skills Cadetship Evaluation

Stage	Strengths	Potential barriers to success	Relevance to preferred model
Attraction	↑ The Cadetship targets a well-defined learner cohort and leverages connections to recruit learners who have baseline digital skills.	↓ Employers see the social benefit of hiring women returning to work but may not recognise the pathway as solving a critical business challenge.	→ The preferred model recognises the social good of training talent and hiring for a diverse workforce also solves for the digital skills pipeline.
Selection / Matching	↑ The process supports recruiting and selecting quality candidates and helps to place the right Cadet with the right host employer.	↓ Difficult to establish a consistent profile of Cadet characteristics, which poses a risk to employers.	→ Conversely, the preferred model targets high school graduates which is a broadly consistent learner group.
Preparation	↑ Preparation course provides Cadets the opportunity to gain or refresh essential skills before starting in the workplace.	↓ This is effective for Cadets returning to the workplace, but more extensive preparation is required for Cadets entering the workforce for the first time.	→ The preferred model supports entry-level roles and targets learners who have very little work experience, or 'reskillers'. The 'refresh' prep course in this example suits the secondary use case.
Formal Learning	↑ Employers recognise and value vendor certificates, such as Microsoft Certifications, which signal a specific practical skill set.	↓ Cadets do not gain a broad-based qualification that provides them with foundational knowledge to apply in a wider context, potentially limiting their career pathway.	→ The preferred model seeks to balance foundational knowledge with specific skills like those offered by the Cadetship, to provide entry-level learners with opportunity to specialise in areas of interest.
Work placement	↑ MEGT re-engaged host employers who knew what is required and could identify Cadets that fit with their workplace. Employers are also more confident they had a role for the Cadet to fill.	↓ Industry focus to keep cadetship as short as 12 weeks meant that upskilling gin cyber security was not practical.	→ The shorter time frame of the Cadetship is more appropriate for the secondary use case of the preferred model.
Assessment	↑ Employers can find and leverage Cadet's specific skillset through initial assessment that determines in which team or role they will be the most valuable.	↓ Flexibility to create role for Cadet works well if Cadet has relevant experience, but lack of prescription poses a challenge to find appropriate tasks for Cadet.	→ The preferred model supports well-defined entry-level roles that can be adjusted as the learner's knowledge and skills are assessed throughout their work placement.
Transition	↑ Model enables employers to employ Cadets directly if they find a suitable candidate and want to hire them for ongoing roles.	↓ The 12 week duration is too short to gain employable skills if not offered ongoing employment and Cadet has to continue to look for work.	→ The preferred model is intended to operate as part of a broader ecosystem that recognises the value of hiring learners who are early in their career and invest in their training.
Support	↑ Women in Tech provide pastoral care / wrap-around support. The benefit of a targeted cohort means that support can also be targeted.	↓ Numerous support providers need to coordinate to be able to provide effective support.	→ Targeted support is crucial to the success of diverse cohorts in the preferred model.

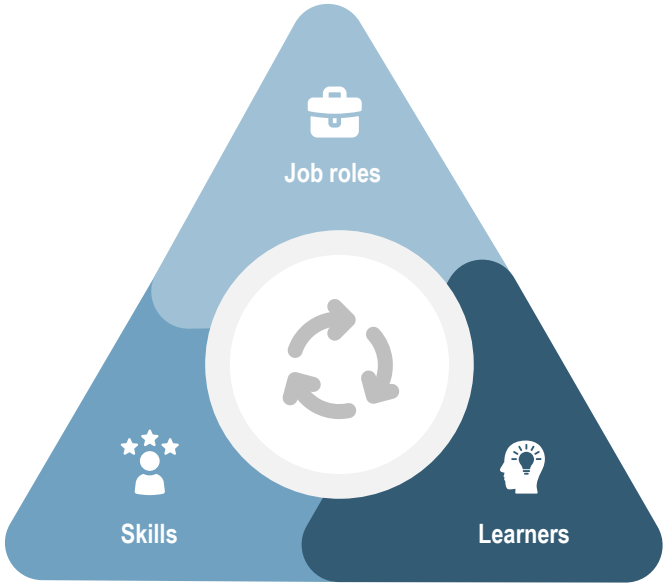
HCLTech TechBee

HCLTech TechBee aims to accelerate high school graduates' entry into a digital career. HCLTech provides extensive support to ensure learners have every chance to complete the program with highly relevant skills and experience.

TECH BEE™
EARLY CAREER PROGRAM

Context

HCLTech is a global tech firm in digital transformation, that works across all tech domains, to build and reimagine existing technology products and platforms. The TechBee is one of the pathways the company offers to train and hire different cohorts. Specifically aimed at high school graduates, the program prepares participants to be employed in an entry-level role within 12 months.



Target role

- Trains learners to be eligible for entry-level Analyst, Designer, Test Administrator, IT Support Worker, Software Engineer, Junior Developer, Network Engineer, Server Administrator, Desk side support roles

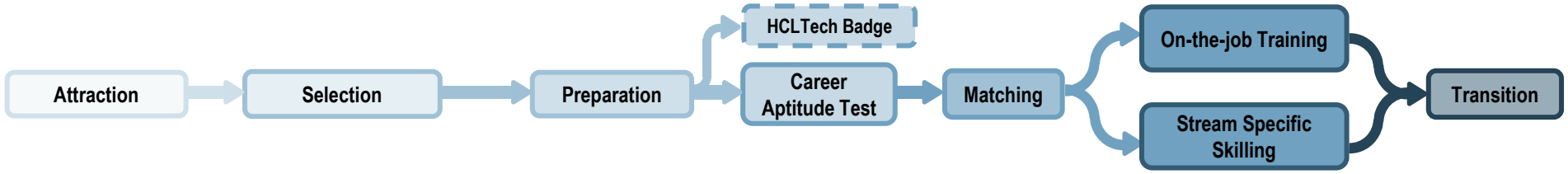
Target skills

- Provides foundational understanding in IT Essentials, Ethics, Business Communications
- HCLTech Bee program is competency based, with areas including:
  - Data analytics, Internet of Things (IoT), Cloud, cybersecurity, IT Governance, risk and compliance, AI and machine learning, programming languages, networking, server and security, IT Infrastructure skills, web development

Target learner cohort

- Targets high school graduates who are motivated to start a career in the tech industry
- Accelerates participants' entry to the tech workforce

HCLTech TechBee Design and Delivery



Description

- HCLTech aims to attract a broad range of applicants through a varied marketing strategy and existing professional networks

Eligibility criteria

- Completed high school in the last three years, achieved a minimum of 60% and studied maths at school
- Australian citizen or permanent resident

Application process

1. Register
2. Video interview and explanation of program
3. Letter of Intent and Acceptance
4. Orientation
5. Start program

Phase 1

- 3 month, free, online Foundation Skilling in IT Essentials, Ethics and Business Communications
- Can choose to withdraw within three months
- No contractual obligation between HCLTech and learner
- Good opportunity to test if the program is right for them
- Virtual instructor led classes and self paced sessions

- Learners who wish to progress to an internship must successfully complete the requirements of Foundation Skilling
- Learners can opt-in to receive the HCLTech badge in recognition of completion of Foundation Skilling
- Learners undergo the HCLTech Career Aptitude Test which is the entry point to the TechBee
- Learners are placed in specific technical stream based on Aptitude Test and preference, as well as workplace/employer needs

Phase 2

- 9 month, part-time paid internship
- Specific training is streamed: Analyst, Designer, Test Administrator, or Support
- Where relevant, learners are able to gain vendor certifications
- Learners work within teams, under managers
- Competency based learning

- Learners who successfully complete both phases are offered full-time, entry-level employment with HCLTech
- Once employed, learners have access to higher education financial support to continue their learning

Support

Supervision

Mentors and pastoral care

Pastoral Care

Engaged from the start of the selection process, HCLTech pastoral care team help participants unpack their motivations, ensure they understand the program, and make an informed decision

Mentors

Care model is flexible and individualised support can be provided on a case-by-case basis. Mentors guide learners through administrative support, projects, and the technical work needed to complete Foundation Skilling and Internship successfully

Supervision

Supervisors and managers are also supported by the pastoral care team to provide learners with the support they need to succeed

Evaluation of HCLTech TechBee and relevance to the preferred model

Stage	Strengths	Potential barriers to success	Relevance to preferred model
Attraction	↑ Uses varied marketing strategies.	↓ Large number of applicants to process	→ The preferred model also aims to capture the broadest range of applicants possible
Selection	↑ HCLTech provides support from the beginning of the application process to encourage a broad range of candidates to apply.	↓ HCLTech invests in personalised support through the application process which is labour intensive and demanding on support staff.	→ The TechBee demonstrates how the preferred model could ensure diverse cohorts, underrepresented in tech, could be encouraged to apply and be supported through the process.
Preparation	↑ Free, online foundational skills offers candidates a 'no strings attached' chance to see if they want to move down the path towards a career in tech. This helps to limit reticent candidates self-select out until they have tried and tested their suitability.	↓ Learners undergo 3 months of industry standard capability-based learning before they can receive income.	→ The preferred model includes preparation so learners can be confident and productive once they enter the workplace and offers learners a low stakes chance test their interest in a career in tech.
Matching / Work placement	↑ Learners take a Career Aptitude Test prior to work placement as an intern to match them to right skill-stream and with the right team.	↓ Placement is subject to workplace and employer needs but aims to provide exposure to specialisations.	→ The preferred model also aims to balance depth of knowledge with broad exposure by offering learners rotations in different skill-streams or teams.
On-the-job training / Stream specific skilling	↑ Skill-specific modules are delivered unit-by-unit to prepare learners to start an entry-level role at the end of the 9 month internship, with opportunity to gain a vender certification where applicable	↓ HCLTech encountered challenges during the process of selecting suitable RTO to deliver Australian recognised qualification.	→ Similarly to the TechBee, the preferred model highlights the need to leverage the appetitive for change to VET, education, and qualifications to make changes that will support a digital and tech 'earn while you learn' model.
Ongoing assessment	↑ Recognition of Foundation Skilling with badge marks a possible jump-off point. ↑ Assessment of individual units during internship enables monitoring of progress.	↓ HCLTech is in the process of navigating the VET system to offer Australian recognised qualifications. In the interim, completion of Foundation Skilling and the TechBee Internship is recognised as work experience.	→ The preferred model also aims to support learners to study industry-certified qualifications and complete microcredentials that can be stacked to develop skill expertise.
Transition	↑ HCLTech has the capacity to transition candidates into employment outside of their organisation. This could contribute to a pipeline of digital workers that have been skilled and trained by industry.	↓ HCLTech can skill and train more people than they can employ. This means their capacity is currently under-utilised.	→ The preferred model also aims to create a pipeline of digital workers that are productive and employed as rapidly as possible.
Support	↑ HCLTech offers ongoing, flexible support to candidates that is assessed on a case by case basis.	↓ High level of support is intensive and costly but integral to the success of the program.	→ The preferred model offers dedicated workplace support with flexibility to meet the needs of diverse cohorts.

Victoria State Government: Digital Jobs Program

Victoria's Digital Jobs Program is a competitive program that offers free upskilling and the opportunity for paid work experience. The program prioritises industry designed credentials and matching the right candidate with the right employer.

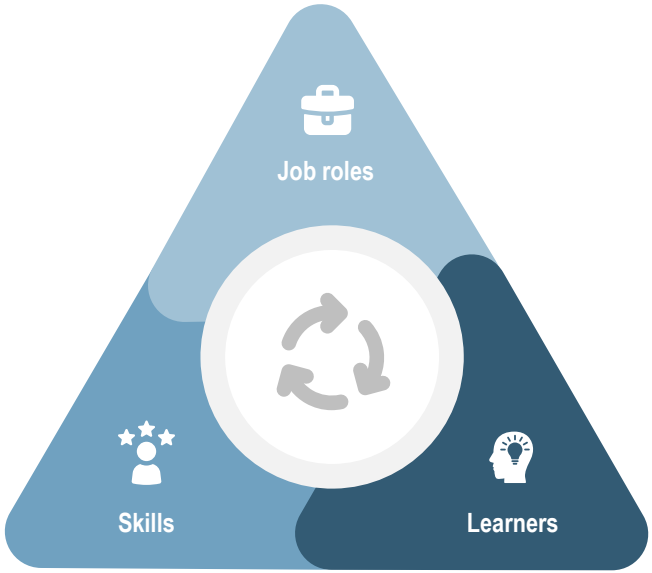
JOBS VICTORIA

Context

The Digital Jobs Program has been running since July 2021. The aim is to put 5000 people through digital skill training in a 5-year period. Rounds commence in January, May, and September each year with the final round in Jan 2024.

The program has been adopted by a wide range of employers, from small businesses to large multinationals. Over 900 businesses have registered as host employers.

Applicants: 24,000+
Participants: 3,325 as of June 2023
Diversity: 58% women, 65% speak more than one language, 40% over 40 years of age



Target role

- Roles are entry-level across 13 digital specialisations including programming, IT operations and support, data analytics, AI/machine learning, digital marketing, UX/UI, cyber security

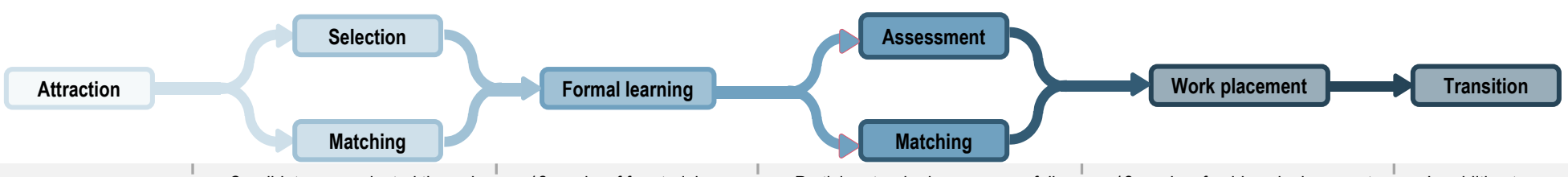
Target skills

- Courses are industry endorsed and selected by a panel of industry experts
- Type of training provider: 13 different training providers including TAFEs, universities and private training providers (some courses include vendor training)
- Skill level ranges from foundation to specialist or advanced
- 2 full-time courses for people who have been unemployed or are returning to the workforce
- Designed to rapidly build on skill-sets of mid-career workers

Target learner cohort

- Victorians over the age of 30, from any background or industry 10+ years of experience
- Regional Victorians, women looking to return to the workplace, and anyone whose job may have been impacted by COVID-19

Victoria Digital Jobs Program Design and Delivery



Description

Attraction	Selection	Formal learning	Assessment	Work placement	Transition
• Short paid advertising campaign in 2022 • Social media from both the department and minister's office • Outreach to jobseekers via the Jobs Vic register • Majority of applications via word-of-mouth	• Candidates are selected through a competitive process facilitated by Hudson Australia **Selection Process** 1. Online application: captures employment history and confirms eligibility 2. Online activity: text-based behavioral interview related to previous work experiences to assess employability. Capability assessments: personality, abstract reasoning, digital literacy 3. Abstract reasoning and digital literacy 4. Applicants can apply for reasonable adjustments in the selection process to account for diverse needs	• 12 weeks of free training • 26 courses available through Digital Jobs program, each provide recognised industry credentials • Learners study one of the available courses • The training provider of each participant's chosen course provides tutelage and guidance on subject matter • Providers make reasonable adjustments in assessment processes to account for diverse needs	• Participants who have successfully completed their training and wish to be considered for placements are referred to InternMatch • Candidates create a profile on the InternMatch platform, including their CV and short introductory video, for prospective employers to view • Host employers are referred by department and register online with InternMatch, who works with employer to understand their skills needs, and matches them with suitable candidates • Host employer receives a shortlist of candidate profiles to review, interview suitable candidates • Host employer notifies InternMatch when or if they have a preferred candidate, or make a job offer	• 12 weeks of paid work placement • Application for work placement is a competitive process • Role design is at the discretion of the employer. This could be an existing vacancy or a new role, an ongoing work or a discrete project. • Host employer receives handbook with tips on how a placement might be run. Placements must provide the opportunity for the participant to learn and apply relevant tech skills. • Host employer provides feedback on the participant and program more broadly at the end of each work placement. Participant provides feedback in week 6 and 12 of training, upon work placement completion and after 18 months.	• In addition to providing work placement opportunities, Digital Jobs provides a suite of employability resources including workshops, career coaching, technical mentoring and online training to support participants apply for digital jobs that are advertised to the general public.

Support

		Technical mentor
Career coach		Supervisor

Career Coach

Career coaches are generalists and assist with every aspect their transition into the digital economy, including course selection, CV writing and presentation, and career guidance

Technical Mentor

Technical mentors have expertise in the specific industry or discipline (e.g., cyber, data analytics, web development) so provide more specialised guidance.

Supervisor

Host employers must agree to provide suitable supervision and on-the-job learning and development.

Evaluation of Victoria Digital Jobs Program and relevance to preferred model

Stage	Strengths	Potential barriers to success	Relevance to preferred model
Attraction	↑ Once engaged, employers often return to take part in successive rounds of work placements and recommend the program to other employers. This highlights the potential for a shift in hiring practice of the tech industry.	↓ This model of attraction relies on word of mouth and requires time to establish reputation and may not quickly fill critical workforce shortages	→ The preferred model supports the creation of a pipeline of workers by shifting the culture of purchasing skills towards training talent, demonstrating how a successful model can influence hiring practices
Selection / Matching	↑ The selection process assesses an applicant's aptitude for a tech-based role, as well as soft skills desired by employers ↑ Training streams have quotas reflecting current industry demand for particular skill sets ↑ The employer/candidate matching process offers a streamlined recruitment service	↓ A competitive process that selects for employability is not suited to pre-career / entry-level learners without prior work experience	→ The preferred model aims to place the right candidate with the right employer. A third-party matching service, like InternMatch used by this program, could lessen the burden of recruitment on employers.
Preparation	↑ While there is no mandatory preparation, candidates have access to a mentor to improve employability prior to interview or commencing placement	↓ Employers must rely on the recruitment process to ensure the candidate has the skills required to be successful in their workplace	→ The preparation stage of the preferred model could be skipped to adapt it to a secondary use case for mid-career changers / upskillers
Formal Learning	↑ Formal learning is designed in collaboration with industry so provides learners with the skills and knowledge desired by employer. Some courses are stackable and may count towards other qualifications.	↓ The program does not provide a training pathway beyond the short, contained, 12-week course	→ The secondary use case of the preferred model could incorporate stackable courses to offer career-changers specific digital / tech skills
Work placement	↑ Program provides employers a convenient and cost-effective recruitment process, and offers candidates professional development in a digitalised business	↓ Participants are not guaranteed a work placement	→ The preferred model can also support employers to train the right person for their workplace for ongoing employment
Ongoing Assessment	↑ Learners are assessed by training provider on course content and can only qualify for work placement once the course is successfully completed. This means that employers have confidence that participant has a specific skill.	↓ The participant does not have the opportunity to apply knowledge and skills acquired through training provider directly in the workplace as they are learning	→ Preferred model encourages ongoing assessment of course content to provide employer and participant visibility of progress as they both learn and earn
Transition	↑ The program provides individual career coaching and technical mentoring to support participants transition into the digital economy	↓ Ongoing employment is not guaranteed after completion of work placement	→ Preferred model highlights the benefits of deliberate offboarding where host employer does not offer ongoing employment
Support	↑ Support provided targets professional development. Participants already have work experience so tend to require limited supervision. This lessens the burden on employers.	↓ Guidance on best practice may not be adequate if required to train supervisors of less experienced participants	→ Providing touch points for both technical support and career support broadens the support base for participant

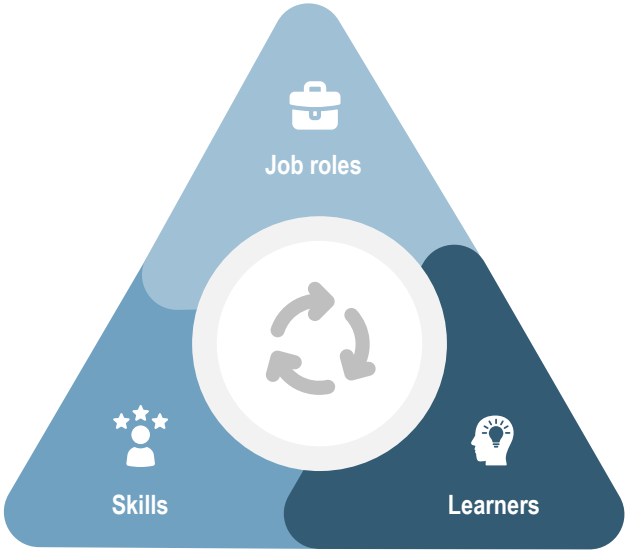
Ai Group ICT Traineeship

The Traineeship aimed to contribute to the IT workforce pipeline by encouraging the employment of trainees. The program credits its high retention rate of trainees to its thorough recruitment process and the extensive support provided to trainees.

Context

The Ai Group ICT Traineeship was designed to stimulate the employment of trainees in the digital and information technology sectors in Victoria. The original proposal was to partner with key employers to make 50 traineeship places available, design a preparatory program for trainees before they are placed into IT traineeships, then provide mentoring to trainees and their employers throughout the program.

Completion rate: 95%
Employment rate: 50%



Target role – IT support

- Entry-level IT support roles including IT Helpdesk or technical support, IT Support Officer
- Medium to large size employers with an internal IT department and IT managed service providers such as IT Managed Service Providers, Construction, and Schools

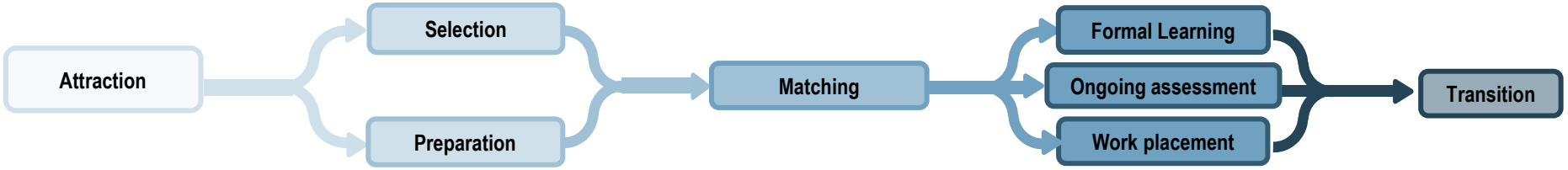
Target skills

- Ai Group mentor equipped trainees with workplace ready skills such as planning and organisation, managing stress and conflict, workplace communication
- Traineeship qualification offered through Chisholm and Integrity Business College

Target learner cohort

- Recruited trainees with a strong interest in IT or had completed some IT training, but were yet to gain workplace experience
- Australian citizens / permanent residents, located in Melbourne, Victoria (Metro)

Ai Group ICT Traineeship Design and Delivery



Description

- Ai Group contracted a digital marketing company to develop a marketing campaign and promote the program to possible candidates
- The program team marketed the program and the availability of trainees to employers throughout the development phase, using Ai Group's membership network, SEEK, GTOs, job agencies, and industry and professional organisations
- AiG offered a $2k employer incentive after successful completion of trainees' probationary period
- Rebranded as 'IT Apprenticeship program'

Selection Process:

1. The potential trainee recruitment process initially involved an application with a video highlighting why the candidate wanted to pursue an IT traineeship to ensure only candidates that were very interested would apply
2. A face-to-face interview
3. IT aptitude quiz sourced from AATIS to determine suitability and commitment to the 4-week preparatory training

Preparation

- Ai Group initially selected Centre for Adult Education (CAE) to develop and deliver the preparatory program but this duty was later transferred to the mentor
- The mentor connected with trainees to discuss the onboarding process, work/study commitments, and availability of mentor service
- Candidates received online job seeking training to improve their resumes, cover letters, and interview skills

- Ai Group prepared trainees to interview with prospective employers
- Ai Group recruitment process and selection ensured employers could be confident in the quality of applicant

- 48 trainees completed either Cert III or IV in Information technology, 1 trainee completed a Diploma in Information Technology
- 29 trainees were employed directly, 20 through the Group Training Organisation (GTO)
- Chisholm Institute and Integrity Business College (IBC) offered elective units as part of the training plan that aligned with individual trainee's workplace duties
- Also offered assessments that could be tailored to workplace processes and procedures, as well as rolling enrolments, which meant that training could commence at any time during the year
- Chisholm provided one-to-one support to trainee and conducted a minimum of 5 workplace visits in a 12 month period
- IBC used virtual classrooms, running 3 hours classes every 2 weeks

- Half of the cohort were hired by employers who wanted to capitalise on the opportunity to fill existing entry-level roles or develop a talent pipeline
- Trainees employed through GTO were able to take advantage of the job seeking skills training available to continue to pursue employment opportunities

Support

Supervisor Training

Mentor

Mentor

- Provided trainee with career and pathway advice relevant to the ICT industry and their interest area
- Supported job seeking skills and skills training
- Refered trainees to other support agencies if necessary
- Provided support and advice to trainees as they adapt to the demands of the workplace and liaised with individual employers
- Developed and managed individual mentoring plan for each trainee
- Provided information for regular reporting

Supervisor Training

Ai Group developed and organised training workshops for supervisors

Ai Group ICT Traineeship evaluation and relevance to preferred model

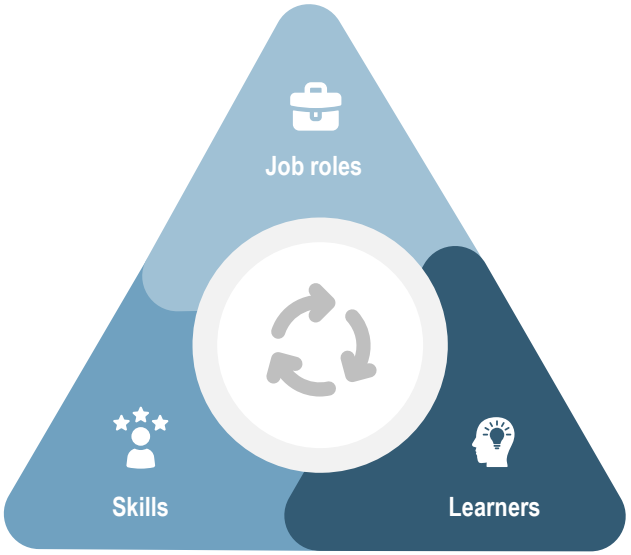
Stage	Strengths	Potential barriers to success	Relevance to preferred model
Attraction	↑ AiG offered financial incentives to employers to hire trainees. This helped trainees get a foot in the door and gave employers time to understand the value of trainees.	↓ Financial incentives attracts employers' interest but the success of the model relies on the right design and delivery	→ The preferred model supports a broader cultural shift in digital industries towards training talent rather than purchasing skills.
Selection / Preparation	↑ Due to the quality of recruits, Ai Group mentors replaced the initial 4-week course designed to deliver work-ready skills. Instead, mentor supported trainees to succeed in interviews with prospective employers.	↓ Ai Group found the initial prep course was too long and discouraged participation from quality candidates due to lack of income.	→ The preferred model could consider financial support for learners if the preparation stage is a significant length and full-time.
Matching	↑ Trainees underwent selection process through Ai Group and interview with employer. This recruitment process resulted in trainees who were committed and suitable to the workplace and role.	↓ Trainees joined the program without the guarantee of workplace placement.	→ The preferred model supports employers taking a direct role in the selection of candidates. Interviews could provide this opportunity.
Formal Learning	↑ Ai Group partnered with training providers that were able to offer their IT qualification as a traineeship and provide units that were attractive to prospective employers.	↓ Lack of enthusiasm from training organisations is a likely obstacle to the success of the preferred model.	→ The preferred model balances flexibility and agility to make them attractive to potential employers with the standardisation of content in formal qualifications that enables recognition and scalability. However, this relies on a system that can be difficult to navigate.
Work placement	↑ Training providers offered rolling enrolments allowing trainees to start at any point during the year. This is particularly attractive for employers who may face onboarding challenges during specific periods.	↓ While an attractive option for employers, few RTOs offer rolling enrolments. This could impact scalability for larger models.	→ The preferred model could support the option of rolling enrolments but would need to consider the impact to cohort training at scale.
Ongoing Assessment	↑ Chisholm Institute had the ability to tailor assessment to the individual trainee's circumstance. This meant that assessment requirements could fit in the workplace processes and procedures.	↓ The Ai Group program highlights the challenge of finding RTOs that can offer beneficial design and delivery elements.	→ The preferred model supports assessment relevant to both the qualification and workplace learning but could exclude smaller workplaces if the model is implemented at scale.
Transition	↑ Trainees developed job seeking skills from start of traineeship, setting them up with skills and confidence to seek employment. ↑ Traineeship model provided an option for direct employment.	↓ Trainees are not guaranteed ongoing employment if employed by a GTO rather than directly by employer.	→ The preferred model highlights the importance of the transition to employment but the Ai Group Traineeship demonstrates that the initial recruitment stage influences employment outcomes
Support	↑ The very high retention rate of trainees is attributed to mentor support. Mentors were available to address issues for both trainees and employers early.	↓ Employers only utilised the supervisor training provided by Ai Group on occasion. This resulted in trainees reaching out to mentors to address issues as they arose.	→ The preferred model relies on the capacity of employers to support learners in the workplace. The Ai Group program illustrates the importance of providing support to bridge the gap when this capacity reduced.

NSW State Government IT Traineeship

The Traineeship program provides a pathway for Year 12 school leavers into a career in IT. It focuses on industry-designed training and aims to expose participants to the required areas of IT / cyber security competency to be ready for the workplace.

Context

The NSW Government IT Traineeship is a collaboration between NSW Government organisations, Local Government and Training Services NSW aiming to offer Year 12 high school leavers a pathway to a career in IT and Cyber security. Approximately 70 fee-free places available in 2023 across NSW with most in the Sydney metro region. The two-year program combines a formal qualification, industry recognised certification, and practical experience working within a NSW Government agency.



Target role

- Entry-level IT roles within state government agencies

Target skills

- Combination of core / specialised / vendor skills
- Industry co-designed, innovative vendor specific training, in partnership with the new Institute of Applied Technology (IAT)

Target learner cohort

- Intended for Year 12 school leavers interested in developing professional skills in the Information Technology industry

NSW State Government IT Traineeship Design and Delivery

Stage

Description

Participants

- Group Training Organisation (GTO) manages attraction and recruitment of trainees

Employers

- Dept consulted potential host employers individually and held information sessions
- Adjusted the program where necessary

Selection by Group Training Organisation (GTO)

- Selects candidates interested in IT
- Candidates complete skill and psychometric testing
- Provides information sessions for candidates
- Finalises candidates to refer to host agencies
- Pre-employment checks and final selection

Preparation

- GTO provides skills training for prospective candidates

Matching

- Host agencies interview and select candidates

Prior to coursework

- Registered Training Organisation (RTO) provides course structure to interested host employer
- Consult with host employer / agency before starting trainee recruitment
- Provide inputs from host employers to the RTO
- GTO provides an initial course structure to employer and trainee at the start
- RTO amends the course structure based on the feedback from previous tranches or from teachers
- In NSW, under the Apprenticeship and Traineeship Act, full training plans must be developed within 13 weeks of commencement
- Training plan is a living document

- Traineeship is 2 years
- Cert III or IV in IT or Cert IV in Cyber security delivered through TAFE NSW and Institute for Applied Technology (IAT)
- Opportunity to undertake and gain accreditation across a range of vendor-specific products (e.g. Microsoft Azure)
- Candidates have one day per week within work hours to study and complete Cert III or IV qualification
- Classes can take the form of in-person instruction / assessments, virtual classrooms and/or online learning
- Host agency can rotate the trainee within their agency every six months per the requirements of the course structure / training plan to ensure trainee get exposure to required units of competency. GTO supports the agency with trainee rotations
- No penalty to trainee if they plan to leave before completing traineeship

Host employer

- Employer encourages trainees to apply for vacancies in the public sector from 6 months before traineeship ends

Group Training Organisation

- Consults with the employer and trainee regarding future career and study pathways
- Supports the trainee as a mentor

Registered Training Organisation

- Can provide advice on post traineeship qualifications in the same sector
- The trainees are exposed to the industry contacts while attending events at the IAT. This can help the trainee to work towards a career post traineeship

Support

Supervisor Training

Support and mentoring

Workplace Supervisor

Host employer supervisor is required to attended supervisor's workshop provided by NSW Government

Mentor responsibilities

GTO provides mentorship and organizes networking events to provide a wider exposure

Evaluation of NSW Government IT Traineeship and relevance to preferred model

Stage	Strengths	Potential barriers to success	Relevance to preferred model
Attraction	↑ Uses Group Training Organisation's (GTO) existing methods of promotion to reach younger cohorts	↓ Possible risk of misrepresenting the trainee experience without deep understanding of host workplace culture	→ The preferred model also supports the use of specialised recruitment services and emphasises importance of relationship with host employer
Selection / Matching / Preparation	↑ Leverages GTO's experience to recruit, prepare, and match trainees with host employers	↓ GTOs range in quality and may not provide services in regional and remote areas	→ High quality GTOs could also support the delivery of the preferred model
Training Plan	↑ GTO coordinates the development of training plan with employer and Registered Training Organisation (RTO)	↓ RTOs also range in quality and whether they can accommodate a traineeship qualification. This could prove to limit implementation at scale.	→ The preferred model also must work with the broader system of various state and territory requirements and training and education providers
Formal Learning	↑ Trainees undertake Microcredentials at the Institute of Applied Technology (IAT), separate from the regular traineeship, helping trainees work towards skill expertise	↓ There is no national framework that comprehensively and accurately maps digital and tech job roles and associated skills	→ The preferred model also emphasises the importance of Microcredentials as an avenue to develop skill expertise
Work placement	↑ 6-monthly rotations to provide exposure to the relevant areas of competency within host agency, supported by GTO	↓ Success of rotations relies on collaborative relationships between GTO, RTO and employer, which can be a difficult variable to control	→ The preferred model supports the collaboration between providers and employers to tailor work placements to learner and employer needs
Ongoing Assessment	↑ Supervisor is required to give the trainee scope to practice what they learn, participant and contribute to the workplace assessment of the trainee, working with the GTO and RTO to ensure trainee is on track to complete qualification	↓ In practice, employers may not have the capacity or capability to participate and rely on provider's established assessment requirements	→ The preferred model also requires employers to understand what they should and should not expect from learners and be able to match tasks to provider competencies
Transition	↑ Host employers encourage trainees to apply for vacancies in the public sector 6 months before finishing traineeship, providing opportunity to ensure ongoing employment	↓ Trainee is not guaranteed ongoing employment with host agency	→ The preferred model supports the ongoing employment and deliberate offboarding of learners to enable ongoing employment
Support	↑ GTO and host employer work together to provide mentoring support to trainees	↓ Host employers may not have the capacity to provide individualised support to younger cohort and require GTO to bridge the gap	→ The preferred model requires dedicated workplace support, as both a formal mentor and informal buddy

Appendix 3: Design and delivery details

Attraction

Program owners should attract a broad range of potential learners and develop strong relationships with employers that have skills shortages and hosting capacity. A large pool will enable better learner/employer outcomes from selection and matching.

Critical Features

WHAT	WHY	HOW
Identify and attract all potential learners, employers and training providers	*To generate awareness and increase learner and employer engagement*	**Learners** ✓ Use a diverse range of marketing avenues to reach a diverse range of potential candidates e.g., via school career advisors or career education, social media, job noticeboards ✓ Use specialised third party providers, if there is limited in-house capacity for model owner, to engage suitable candidates **Employers** ✓ Offer good value proposition of learners that can be productive after ~6 months and are likely to stay within the organisation ✓ Demonstrate how learners would fit into existing organisational structure **Training providers** ✓ Partner with training providers to develop preparation and formal learning component of program
Develop employer partnerships to place learners	*To ensure program longevity and placement consistency*	✓ Communicate clear expectations for the placements, including what supports learners should receive, time commitment required and role played by line managers ✓ Support direct supervisors/ mentors to understand placement commitments and how to best support learners e.g. include line managers in initial discussions with providers

Diversity

WHAT	WHY	HOW
Target diverse cohorts to apply for the program	*To increase the pool of potential candidates entering and completing the program*	✓ Engage a specialised diverse third party recruiter that can connect with and proactively support candidates through the application process ✓ Consider introduction of targets for different diverse cohorts for each program

Attraction examples, barriers and current initiatives

Existing models attract students by making themselves visible in relevant forums like schools and universities.

Many learners aren't aware of 'earn while you learn' models or think they're expensive. Employers can find them confusing or unattractive.

The Australian Government has some current initiatives that focus on promoting learner pathways and incentivising learners and employers to take them up.

Examples

NAB Technology Intern Program

As a grad program, NAB has access to university networks to funnel students into internship program while studying.

Forte pilot program

Forte recruits through an online application to screen out applicants who do not have a baseline of digital competency.

HCLTech Bee

Program attracts school leavers as a pathway to decide if they want to pursue technological skills.

Barriers

Learners generally aren't aware that EWYL models exist. For school students specifically, there are few clear pathways into post-school EWYL models.

For many learners, there are high costs associated with engaging in EWYL models, including direct costs (e.g., course fees) and indirect costs (e.g. not being able to work during study or earn to their full potential during the work component).

Funding commitments are not always aligned with employer incentives to buy into EWYL models, which means they are often unwilling to take on initially unproductive / support-dependent learners.

Existing EWYL models vary significantly and can be confusing for employers to understand and engage with.

Current initiatives

The **National Careers Institute** (and associated Your Career website) gives Australians access to reliable careers and education and training information matched to jobs in demand.

Jobs and Skills Australia is undertaking initial work on level of digital literacy skills in Australia and connections to more advanced digital pathways.

The Australian Government partnered with state and territory governments to deliver through the **$1 billion 12-Month Skills Agreement** 180,000 fee-free VET places in 2023, including places for digital and tech courses.

The **Australian Skills Guarantee** (Skills Guarantee) will introduce new national targets to ensure one in 10 workers on Australian Government funded major projects is an apprentice, trainee or paid cadet. The Skills Guarantee will apply to Commonwealth procurements in the construction and ICT sectors. Initially, targets for apprentices, trainees and paid cadets for ICT projects will be negotiated with suppliers on a project-by-project basis.

Selection

Program owners should use targeted selection criteria, and engage employers in the selection process, to ensure selection of high-quality learners who are more likely to complete the program and address skills shortages.

Critical Features

WHAT	WHY	HOW
Targeted selection process to high potential learners	*To vet candidates quality / likelihood to succeed*	Ensure successful applicants have the following features: ✓ Have baseline level of digital literacy e.g., able to use a computer, understand how to use a browser ✓ Be able to work in a professional workplace e.g. basic level of enterprise skills ✓ Have an interest in digital skills and a career in digital skills ✓ Show ability to learn and interest in learning e.g., growth mindset
Employers play a direct role in selection	*To ensure earners are appropriate for placements and employers are interested in learners*	✓ Provide opportunity for employers to share what qualities employers are looking for in learners ✓ Integrate employer feedback in the selection process for learners

Diversity

WHAT	WHY	HOW
Bespoke selection process (where appropriate)	*To support diverse applicants to complete the selection process*	✓ Ask candidates what support needs they have in completing the selection process e.g. requiring spoken instructions, rather than online text ✓ Allow for support or leniency where necessary e.g., for some assessment activities, diversity passport for applicants to include what accommodations they need

Selection examples and barriers

Existing models prioritise aptitude and motivation as selection criteria, particularly for diverse cohorts.

Examples

NAB Technology Intern Program

- Applicants are required to complete a cognitive assessment and if they reach the interview stage are provided with role descriptions that meet their aptitude

APS Digital Emerging Talent – Traineeship

- Encourages use of 'RecruitAbility' to enable applicants with disability or from diverse cultural backgrounds to apply for roles within APS
- Tests aptitude and motivation to work in tech roles

42 – Adelaide

- Casts the net wide to capture the broadest possible range of candidates and removes criteria that precludes applicants in the initial application process. Highlights that candidates' motivation is the key criteria.
- Provides support to applicants as they apply to guide them through the process.

Multiverse (UK)

- Uses automated predictive software to match apprentices with companies based on their aptitude rather than grades

Some learners may experience barriers at the selection stage if they do not have a baseline of digital literacy or don't feel comfortable disclosing their needs. Some employers and providers don't have capacity or capability to engage in robust selection processes.

Barriers

Some learners from target cohorts do not have a baseline level of digital literacy, which means that they will not be able to participate immediately in the model. There may be opportunities to provide digital literacy pathways into the model.

Learners from diverse backgrounds often do not disclose their needs around selection processes, which hinders the ability for model providers to tailor selection appropriately.

Some employers don't have capacity to participate in robust selection processes, which may:

- Disincentivise general participation in the model
- Lead to the selection of participants who are ultimately not suitable for the available work placements

Some model providers don't have the capability or knowledge to run robust selection processes that may go outside of the bounds of conventional selection processes in VET and higher education.

Matching

Program owners (and their partners) should diligently match employer and learner needs, to improve the likelihood of model completion and satisfaction.

Critical Features

WHAT	WHY	HOW
Deep assessment of learner needs	*To create a mutually beneficial placement experience ('win-win')*	✓ Provide learners detailed questionnaires once selected to join a program, to understand their learning goals, strengths ✓ Allocate a career liaison officer to work between employers and learners to arrange the right type of placement and project
Understand employer requirements	*To ensure program meets employer needs*	✓ Brief employers about the potential learner's course requirements (e.g., competency levels expected for the qualification) to ensure they are the right fit for employers seeking a learner with a particular skillset/capacity for a certain project (and to ensure that learners are not put on work that is above or below their capacity, leading to poor learning outcomes/attrition)

Diversity

WHAT	WHY	HOW
Take into account diverse cohort needs when matching learners to employers	*To assist diverse learners to complete placements*	✓ Consult learners for what placement needs they have – e.g. if learners require work from home arrangements to complete placements ✓ Engage with employers to consider how to best accommodate learners within the workplace

Matching examples, barriers and current initiatives

Existing models place participants following ongoing dialogue between learners, providers and host employers.

Limits on provider capacity – and imbalances between supply and demand – mean perfect matches across the board are challenging.

The Australian Government has several current initiatives that aim to better define and articulate digital skills and job roles.

Examples

42 – Adelaide

- Employers submit an online Expression of Interest questionnaire that outlines the baseline skills they require a cadet to have and registers the prospective host employer's acknowledgment of costs associated with supporting cadets
- 80% of 42 students are offered a role after their first internship with one of 42's hiring partners (source: 42 2020/21 Guide)

APS Digital Emerging Talent Apprenticeship and Cadetship

Australian Government

Successful applicants are shortlisted and go through a brief online session with staff from participating agencies to determine if suitable to fill agency vacancies. If not matched, participants are placed in merit pool for future consideration.

FDM Cloud Grad Program

FDM

- Online tests designed to test IT skills and match role to strengths
- Online training before starting entry level role

Barriers

There is never perfect alignment between overall learner demand and employer job supply, which means that:

- There may be some learners or employers who do not receive matches
- For learners and employers who are matched successfully, goals may not be perfectly aligned

Many employers find it difficult to identify and articulate their digital skills requirements and map them to roles, including because there is no consistent national framework that clearly and cohesively defines different types of digital skills, proficiencies and job roles

Some providers don't have capacity to participate in robust matching processes, which may:

- Disincentivise general participation in the model
- Result in poor matches that ultimately impact the success of the model

Current initiatives

The ABS is reviewing **ANSZCO**, including how skills are represented in the framework and how the framework is maintained to ensure currency, particularly for fast-evolving industries such as digital and tech.

The Australian Government is also accelerating the build-out of the **Australian Skills Classification** as part of the Higher Education Microcredential Pilot.

The **DSO digital skills standards** are a more recent and industry-driven articulation of digital skills.

Preparation

Providers and employers should offer high-quality preparation to equip learners to be successful during their formal learning component and in the workplace.

Critical Features

WHAT	WHY	HOW
Concise introductory modules targeted to core digital skills (e.g., as a bootcamp)	*To provide baseline knowledge prior to the placement, in an accessible format*	**Modules should :** ✓ Be reviewed by industry to ensure they align with employer needs ✓ Equip learners with basic enterprise skills ✓ Be supported by help centres / places learners can go to ask questions, receive assistance ✓ Include core digital skills that can be counted towards a recognised credential, be transferable
Tailored workplace soft skills training and induction	*To connect learners to the org, ensure they are job-ready, equip them with professional skills*	✓ Connect learners with peer support networks, both within the organisation and across placements ✓ Assign learners a 'buddy', who has ideally been at their stage within the organisation in the past, to whom they can ask questions or receive informal support to navigate the workplace structures and dynamics

Diversity

WHAT	WHY	HOW
Flexible / PT / tailored delivery of upfront prep	*To give diverse learners enough time to integrate into the workplace, adjusted to their needs*	✓ Recognise the diversity of learners' 'starting points', and ensure that modules are appropriately pitched at a level to capture *all* learners who satisfy the selection criteria ✓ Making allowances for learners with caring / medical / cultural / financial commitments – e.g., to complete in stages, remotely ✓ Learners are given access to employee support networks within the organisation that aligns with their diverse identity ✓ Learners have option to complete their upfront training modules online as default, but to have access to in-person help if needed

Preparation examples and barriers

Existing models provide bootcamp-style introductory sessions focusing on core skills.

A substantial preparatory component can act as a disincentive for some learners and providers if not designed in the right way. Third party providers don't always have the capacity or capability to help primary model providers.

Examples

42 – Adelaide

- Learners complete the 'common core' 11 units of fundamental software engineering prior to being eligible for a paid internship with sponsoring companies
- 80% of 42 students are offered a role after their first internship with one of 42's hiring partners (source: 42 2020/21 Guide)

Multiverse (UK)

- First 15 months are delivered as the Data Fellowship and include workshops, bootcamps and one-to-one coaching

HCLTech Bee

- Program provides learners with 3 months free, online foundation skills course prior to 9 month internship

Barriers

Some learners are unwilling to take up models that have a high up-front investment of time and effort, which may lead to learners:

- Not engaging in the model in the first place
- Starting a program but dropping out early

Some providers don't have capacity to participate in robust preparation processes, which may:

- Disincentivise general participation in the model
- Result in poor preparation for both the learner and employer, which ultimately impacts the quality of the model

Third party providers may not always be available in all locations or deliver high-quality services

Formal learning

Formal learning delivered mostly by providers should comprise a recognised learning qualification, and incorporate specialist streams and shorter form credentials.

Critical Features

WHAT	WHY	HOW
Recognised learning qualification (e.g., Cert IV or Diploma)	*To provide learners with a recognised, transferable marker of their knowledge*	✓ Allow learners to matriculate / move between qualifications (e.g., they complete modules for Cert IV but decide to extend) ✓ Deliver formal learning within existing qualification frameworks ✓ Ensure learners can gain recognition of prior learning for core skills based on digital capability ✓ Co-design learning requirements with industry
Specialised skills delivered as streams, based on the job role	*To give learners the option to customise what they learn and are qualified for within their formal learning*	✓ Provide priority skill area streams for learners that match roles employers are looking to fill ✓ Review streams on a 6 monthly basis to ensure industry relevance ✓ Split delivery of the streams over both the provider and the workplace, according to where is most relevant to learn those skills. For example, providers deliver the 'theory' whereas workplaces deliver the 'scenarios' in which learners can apply it
Stackable shorter form credentials	*To extend learner knowledge for employment and personal development*	✓ Support learners to study industry-certified qualifications for certain platforms / delivered by recognised organisations that are transferable to different workplaces (e.g., Amazon Web Services). Support learners to complete microcredentials that can be stacked to develop skill expertise

Diversity

WHAT	WHY	HOW
Alternative qualifications in certain cases	*To ensure as many learners as possible receive a qualification, prior to attrition / dropping out*	✓ Offering Certs I-III in some situations (e.g., offering Cert III a stage gate before completing a Cert IV by the end of the program) in case of attrition ✓ Optionality to defer or pause their learning in case of personal circumstances arising, with the option to return at a later time

Formal learning examples, barriers and current initiatives

Existing models deliver different qualifications based on their use case.

Examples

FDM Cloud Grad Program

Graduates do not need to have a digital or tech related degree – they complete online training before starting an entry level role and train through to role as FDM cloud consultant to gain AWS Certified Cloud practitioner

BHP Future of Work Program

- As part of the program, CQUniversity delivers a 1 year Diploma of Business in the Digital Age as an Advanced Apprenticeship, designed with input and support of regional industry business.
- The program offers an optional enabling program (STEPS) during the first term. The diploma units are delivered in terms 2 and 3.
- The participant spends most time in the workplace with a mentor or university staff who supports them to complete tasks aligned to their role and business needs. On the job learning credits towards qualification.

Microsoft Traineeship Program

Cert IV in IT Networking; Azure Microsoft certs as part of the Azure Administrator Certification Track

VET and higher educational systems may not properly support the model.

Barriers

The VET and higher education systems may not be fit-for-purpose because:

- Course content is slow to update consistent with fast-evolving digital and tech skill needs
- Assessment is not suited to work-integrated learning

Microcredentials (both accredited or unaccredited) are a critical part of EWYL models. Yet, they are not always adequately recognised (e.g., via accreditation), regulated or funded in the Australian education and training system

There is no national framework that comprehensively and accurately maps digital and tech job roles and associated skills, which hinders both the development of fit-for-purpose certifications / qualifications

There is substantial current action to improve quality of VET and higher education systems.

Current initiatives

- **Jobs and Skills Australia (JSA)** has been established to provide independent advice to government on Australia's current and emerging skills and workforce needs, including the adequacy of the VET system. JSA is undertaking initial work on level of digital literacy skills in Australia and connections to more advanced digital pathways.
- The new **Jobs and Skills Council for digital and tech** is being established to ensure the VET system meets evolving skills needs of industry and employers, including mapping of career pathways across education sectors and development of VET training products and improvement of training and assessment practices
- Australian, state and territory governments are working together to **ensure Australia's VET system is fit-for-purpose** – efficient, effective and easy to navigate, with a focus on transferable and relevant skills that enables learners to get jobs, and also supports upskilling and reskilling throughout their career.
- The **Australian Universities Accord** will aim to deliver a higher education system that meets current and future knowledge and skills needs, including access and participation for students from underrepresented backgrounds and greater engagement and alignment between the VET and higher education systems.
- The **Higher Education Microcredential Pilot** is helping to develop a systemic approach to supporting microcredentials, including those in digital and tech.

Work placement

Employers and training product developers should intentionally design work placements to provide real work experience while supporting the learner to bring their formal learning into a workplace environment.

Critical Features

WHAT	WHY	HOW
Reasonable role characteristics and expectations	*To provide the learner with entry level skills, without stretching them beyond their abilities*	✓ A formal employment contract between learner and employer, which includes commitments to provide support and renumeration on behalf of the employer, a commitment to uphold employment expectations on behalf of the learner, and outline the training and performance requirements and measures. ✓ Ensure tasks are discrete and do not require previous enterprise knowledge – especially in the early stages of the learner's placement ✓ Provide ongoing project work for learner (within a team, with clients) to allow them to apply learning in a practical context, with stages of review built in ✓ Ensure role expectations and responsibilities can grow flexibly as a learner develops, and if the employer has a need for a more progressed role
Access to required equipment and regular work schedule	*To ensure learners can participate efficiently in the workplace and make the most of it*	✓ Agree on regular days at an agreed cadence to support higher learner attendance and allow learners to accommodate outside commitments ✓ Provide IT support to log into placement systems and introduction to resources available at placement ✓ Ensure learners can access all materials they will need to complete their work e.g., access to relevant files
Optionality for different 'earning' and 'learning' cadence	*To acknowledge significant load of work and study and ensuring learners have time to complete both.*	✓ Ensure each learner has adequate time to complete study and placement in their working week. Employers and training providers can coordinate requirements to ensure workload is manageable. ✓ Provide specific days/times that are allocated to study and ensure these are understood and respected by workplace.

Diversity

WHAT	WHY	HOW
Flexibility to do placements in-office or online (if possible)	*To ensure diverse participants are able to complete the placement component*	✓ Provide an option to work from home (WFH) if required, including supporting costs for a work at home setup if necessary ✓ Support to travel (e.g., for low SES groups, in remote areas), including providing support and flexibility for caring responsibilities (e.g., bursaries for childcare, flexible working hours or days)

Work placement examples, barriers and current initiatives

Existing models structure and sequence their work placements in different ways.

Examples

Deloitte Cyber Academy

- Students in NSW attend online TAFE classes and tutorials for 2 day per week during the first year, 1 day per week during the first semester of the second year, then study full time during the second semester of the second year. The third year is online study while working.
- Students in VIC take classes face to face, 2 days per week during the first year, then complete years 2 and 3 through blended study mode.

Envato Apprentice Developer Program

- Mix of classroom style teaching at workplace and immersive work in developer teams
- 6-week rotations through 6 delivery teams over the 12-month program
- Apprentices spend 4 hours each day for 9 months with a mentor whose job is to teach and support them

NSW Govt IT Traineeship

- Work is 4 days a week for 2 years, with formal training for up to one day per week within work hours towards Cert III or IV in IT or Cert IV in Cyber Security
- Classes can take the form of face-to-face instruction and assessments, virtual classroom and/ online learning

Employers don't always have the capacity, capability or incentives to deliver high-quality placements.

Barriers

Not all employers are equipped with the capability and capacity to train and support learners within EWYL models, particularly small to medium sized enterprises.

Australian Government and state and territory government funding and programs may differ by occupation, qualification and jurisdiction, and may not be enough of an incentive for some employers to buy into EWYL models, which means that employers are often unwilling to take on initially unproductive and support-dependent learners.

Effective and integrated work placements require strong collaborative relationships between providers and employers, which don't always exist.

Current initiatives

The **Australian Skills Guarantee** (Skills Guarantee) will introduce new national targets to ensure one in 10 workers on Australian Government funded major projects is an apprentice, trainee or paid cadet. The Skills Guarantee will apply to Commonwealth procurements in the construction and ICT sectors. Initially, targets for apprentices, trainees and paid cadets for ICT projects will be negotiated with suppliers on a project-by-project basis. Work is needed to define paid ' ICT cadets' for the purpose of the Skills Guarantee, as a starting point for further engagement about the pathways for these sectors and settings for ICT projects under the Skills Guarantee.

Support

Employers and providers should deliver dedicated support mechanisms to help all learners to successfully navigate the model.

Critical Features

WHAT	WHY	HOW
Dedicated formal workplace mentoring and supervision	*To provide learners with guaranteed ongoing guidance and regular learning opportunities*	✓ Provide formal mentor to provide feedback and supervision of work ✓ Assign 'buddy' to enable informal/low stakes places to seek help ✓ Have explicit expectations of the mentor-mentee relationship and how it functions as part of the placement ✓ Provide principles and guidance of best practice for line managers and supervisors to host learners ✓ Workplace-based mentors are selected based on an established competency criteria to ensure they are 'right for the job' and have protected time and capacity to deliver mentoring ✓ Program owners provide guidance for mentors, or formal skill training if necessary
Clear contact point or dedicated career liaison on the program owner side	*To harmonise learner/employer goals, clarity on course needs*	✓ Assign learner support officer on the provider side to ensure learner goals are supported during the placement ✓ Act as a channel for employers to signal that a learner may not be suitable, and explore options to alleviate
A formal offramp process for learners and employers to withdraw	*To provide learners with wraparound support to ease this transition*	✓ Provide learners and employers a formal and comfortable process to indicate concerns that they aren't suitable to the program or for a digital career both during the Preparation stage and work placement ✓ Provide guidance, advice, and other career / learning options for learners who do decide to withdraw ✓ Collect detailed learner feedback and other information on the reasons behind the withdrawal ✓ Provide an option for learners to continue their education in another capacity if they are unable to complete EWYL

Diversity

WHAT	WHY	HOW
Provide access to peer groups/individuals with similar backgrounds	*To ensure diverse learners will have spaces to converse with and get support from others of similar backgrounds*	✓ Provide access to peer groups of similar backgrounds e.g. peer group of Aboriginal and Torres Strait Islander employees for learners of the same background, if available ✓ Connect diverse learner to young professional of a similar background outside of the organisation, where internal peer groups are unavailable
Support learner in engaging flexible learning and/or placement options	*To ensure learners understand what flexibilities are available and how to use them*	✓ Explain and guide learners through existing flexibilities available in their learning and/or placements e.g., what work from home arrangements would include, understanding what special consideration in study would entail ✓ Support learners to access flexibilities when needed e.g. help learner fill out special consideration form if they need to postpone an exam

Support examples, barriers and current initiatives

Existing models prioritise support during the formal learning and work placement components.

Examples

MEGT Digital Cadetship

- Check-in within first three days of placement
- Fortnightly check-ins with Cadet
- Monthly meetings with Cadet and supervisor
- Women in Tech (WIT) runs networking event to engage and empower Cadets

Deloitte Cyber Academy

- Students receive coaching, mentoring, soft skills, ethics, and leadership training, the experience is tailored to the candidates' specific needs and strengths.
- Each student is provided with support by their employer. While this may differ slightly from company to company, all students will be given a coach and buddy to support their time in the office.

Forte

- Provides wrap around support to enable participants to complete course if/when they face life obstacles.
- Support is tailored and addressed on a case by case basis from arranging for childcare support to providing laptops

Employers and providers do not always have the capacity to address broader systemic barriers to diversity.

Barriers

There are broader systemic barriers to diverse and underrepresented cohorts engaging in the digital and tech workforce, which cannot always be addressed by a single provider or employer through support services.

Some employers do not have the capacity or capability to support learners within EWYL models, particularly diverse cohorts, which means:

- Learners may not receive the support – or the standard of support – they need
- As a result, learners may not engage in or successfully complete the model.

Third party providers of support services may not always be available in all locations or deliver high-quality services

Some providers do not have the capacity or capability to integrate and deliver high-quality support services within an EWYL model because it goes beyond their 'business as usual'

The Australian Government is contemplating diversity in the digital tech space and has an existing support network for apprentices.

Current initiatives

The Australian Government's **Pathway to Diversity in STEM review** is examining the most effective approaches to improving participation and retention for unrepresented groups in current government programs.

Through the 2023-24 Budget, the Australian Government has announced the intent to **redesign the model for apprenticeship services and non-financial supports**, currently provided by Australian Apprenticeship Support Network (AASN) providers. AASN providers support apprentices and trainees, and their employers, throughout the apprenticeship or traineeship, including entering into and registering state training contracts, and delivering Australian Government financial incentives and wraparound support programs.

Assessment

Both providers and employers should oversee ongoing formal and informal assessment throughout the learner's journey, to help them to develop their skill capabilities more rapidly.

Critical Features

WHAT	WHY	HOW
Competency-based testing to obtain the qualification (by provider)	*To ensure learners are equipped with evidence of their suitability for digital roles / a tangible 'thing'*	✓ Communicate with placement provider what this assessment will include, for placement visibility and implications for future employment ✓ Ensure testing occurs throughout placement and linked to skills e.g., badges with varied proficiency levels to identify what learners mastered
Regular observation and progress communication with learner	*To ratify learner workplace readiness from an individual viewpoint*	✓ Verify employers have clear and nuanced understanding of what they should and should not expect from learners, matched to provider competencies (e.g., recognise a school leaver pursuing a Cert IV qualification is unlikely to demonstrate as high critical thinking) ✓ Provide regular informal touchpoints to give learners visibility of how they are going and what to improve ✓ Ongoing assessment during and post-program to understand learner achievement, retention, employer satisfaction, and other relevant outcome measures.
Option to also be assessed for industry certs (where possible)	*To reinforce learning, to become a more marketable candidate*	✓ Ensure employers and program owners check industry cert. fits with placement workload and timing ✓ Advice from employers on whether industry certification is suitable and useful for entry level digital skill roles

Diversity

WHAT	WHY	HOW
Allowances for different versions of 'success' in assessment	*To recognise the additional barriers (and advantages) of belonging to a minority group in the workplace*	✓ Where possible, assessment by people who understand the learner's accessibility requirements or who may share experience ✓ Giving learners access to special consideration/allowances, delayed completion of projects or assessment processes (extension)

Transition

Both providers and employers should support learners to transition into either an ongoing role from their placement or another employment opportunity.

Critical Features

WHAT	WHY	HOW
Option for PT/FT paid continuation of work with the business	*To ensure learners have long-term (paid) employment within the business*	✓ Provide learners with a guaranteed employment offer upon completion of their placement (if appropriate) ✓ Outline new roles and responsibilities for the position the learner would take up in the final stages of the placement
Deliberate offboarding for learner to find long term employment (if not with placement)	*To ensure learners can find a more suitable organisation for ongoing employment*	✓ Provide support for learner to find long term work e.g., Make informal introductions where appropriate to connections with other businesses, engage Group Training Organisations. ✓ Conduct an exit interview with learner to provide feedback and advice for future employment ✓ Have flexibility in contract end dates if the learner is unable to find long term employment soon after, where reasonable
Connection with industry insiders / networks / program alumni groups	*To assist learner to be integrated into the broader digital and tech industry*	✓ Provide learners a list of industry groups or networks that they can be involved with or follow passively (e.g., on LinkedIn) and facilitate introductions where reasonable

Diversity

WHAT	WHY	HOW
Briefing future employers about learner accessibility requirements	*To empower diverse learners to convey their needs to same/different employer*	✓ Provide a summary of what worked well for the diverse learner that can be shared with future employers ✓ With the permission of the learner, inform the next supervisor of their accessibility requirements

Assessment / transition examples, barriers and current initiatives

Existing models provide regular checkpoints and transition support.

There are barriers to administering robust assessment processes and clear transition pathways may not always be available for learners.

The Australian Government's skills initiatives will address assessment and skills transferability.

Examples

HCLTech Bee

Prior to commencing part-time internship, participants complete a 3 month, free, online foundational skills program. Participants have the option to to receive the HCLTech badge on successful completion. Modules include IT essentials, business ethics, and business communications.

Jobs Victoria – Digital Jobs Program

Participants have access to a career coach and technical mentor to help build confidence, update CV, prepare for interviews

Barriers

The rigidity of VET assessment processes are not always sufficiently flexible for EWYL models.

Some employers may not have the capacity or capability to participate in robust assessment processes on top of hosting and supporting learners.

The nature of the digital and tech industry means that employers may not be able to guarantee ongoing roles for learners.

If ongoing roles are not available or the learner is unsuitable, employers are not necessarily incentivised to support learners to transition to other roles or opportunities.

If learners decide to seek other training opportunities, the complexity of the current VET system can hinder learner skill recognition and transferability into other pathways.

Current Initiatives

The new **Jobs and Skills Council for digital and tech** is being established to ensure the VET system meets the evolving skills needs of industry and employers, including improvement of training and assessment practices.

Jobs and Skills Australia has been established to provide independent advice to government on Australia's current and emerging skills and workforce needs.