Bradfield Development Authority

NSW GOVERNMENT

Industry Skills Accelerator Program Evaluation

Summary Report

July 2024

nsw.gov.au/bradfield-development-authority



Acknowledgement of Country



Aboriginal people have had a continuous connection with the Country encompassed by the Western Sydney region from time immemorial. They have cared for Country and lived in deep alignment with this important landscape, sharing and practicing culture while using it as a space for movement and trade.

We Acknowledge that four groups have primary custodial care obligations for the area: Dharug/ Darug, Dharawal/Tharawal, Gundungurra/ Gundungara and Darkinjung. We also Acknowledge others who have passed through this Country for trade and care purposes: Coastal Sydney people, Wiradjuri and Yuin.

Western Sydney is home to the highest number of Aboriginal people in any region in Australia. Diverse, strong and connected Aboriginal communities have established their families in this area over generations, even if their connection to Country exists elsewhere. This offers an important opportunity for the future of the Western Sydney region.

Ensuring that Aboriginal communities, their culture and obligations for Country are considered and promoted will be vital for the future of Western Sydney. A unique opportunity exists to establish a platform for two-way knowledge sharing, to elevate Country and to learn from cultural practices that will create a truly unique and vibrant place for all.

Garungarung Murri Murri Nuru (Beautiful Grass Country)
Artwork created by Dalmarri artists Jason Douglas and Trevor Eastwood for the Bradfield Development Authority.

Contents

1. Introduction 6

2. Methodology 8

3. Program overview 10

4. Summary of program evaluation findings 12

5. Process evaluation 14

5.1 — Design Phase 15

5.2 — Delivery Phase 16

5.3 — Major changes during implementation 20

6. Outcomes evaluation 23

6.1 — Overview of Pilot effectiveness in achieving outcomes 24

6.2 — Training outcomes benchmark – Pilot versus comparable VET training products 30

6.3 — Industry feedback on the Pilot as a whole 30

7. Contributions to NSW and national reform priorities for tertiary education 31

8. Contributions to NSW State Outcomes and Strategies 35

9. Recommendations 38

ISA Economic Benefit Indicators

Learner Profile

A typical learner:



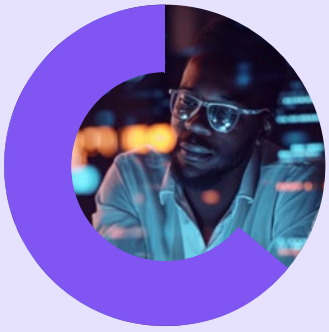
75%
Is in full or part time employment



65%
Has a Bachelor degree or higher



59%
Lives or works in the Western Sydney region or adjacent areas



64%
Undertook this training for their job

Economic Benefits

Closing identified skills gaps

1,500
Enrolments from
> 500
companies

84%
of supervisors confirm NO similar inhouse training

4 months
Average time to design and deliver new micro-credentials

Increased jobs prospects and lifetime earnings

91%
Of learners think the training would benefit their career or business

63%
Of businesses would employ someone with an ISA micro-credential over another.

Increased labour productivity

ISA Learners:
93%
of learners who did the training for their job report skills or productivity improvement, including:

Their supervisor agrees:
96%
Think their staff's productivity or skills have improved

Increased satisfaction with training

92%
Of learners and 89% of supervisors would recommend ISA micro-credentials to others

43
Micro-credentials initiated by industry

33
were co-designed by industry, many others were co-delivered

1

Introduction

In April 2021, the NSW Government funded the New Education and Training Model (NETM) program to pilot an industry-led training model to upskill and reskill workers through targeted micro-credentials. Due to its significant successes, the NETM underwent an early transition to a commercial model called the Industry Skills Accelerator (ISA) in March 2024.

The Pilot was developed and managed by the Bradfield Development Authority (BDA).

The program was designed to address an identified need for greater industry involvement and collaboration with the education sector and for targeted, rapidly delivered short courses to meet critical and emerging skills needs. The Pilot was a bespoke solution designed to address these challenges for advanced industries.

The Pilot focused on priority industries for the Western Sydney region: Advanced Manufacturing, Defence and Aerospace, Freight and Logistics, Pharmaceutical Manufacturing, and Agribusiness. This was part of a package of NSW Government initiatives to activate Bradfield City Centre and support a pipeline of skilled workers matched to industry needs.

This report summarises the findings of the Pilot program evaluation with a focus on:

- the appropriateness and effectiveness of the Pilot in achieving its intended outputs and outcomes
- lessons learnt regarding micro-credential programs and rapidly addressing industry skills needs.

The evaluation considered the Pilot from commencement in mid-2021 until the end of the 2023-24 financial year.



2

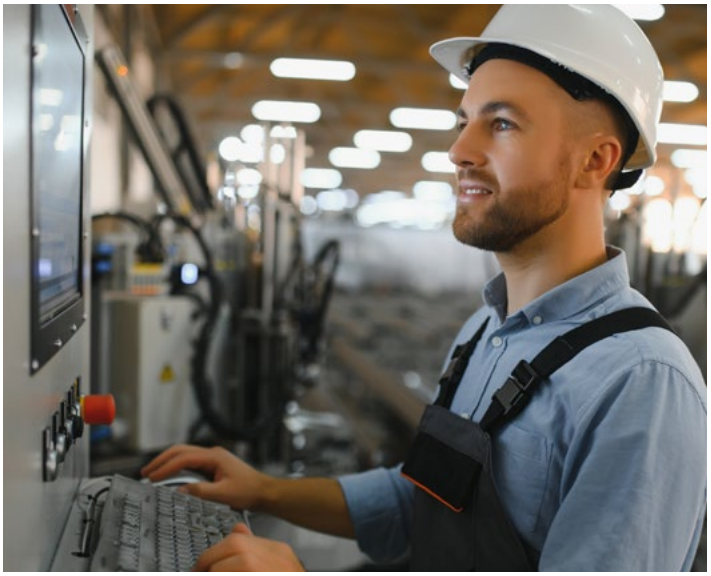
Methodology

The evaluation used results from the ISA Evaluation Framework, alongside administrative data drawn from the Pilot's processes and governance arrangements.

The Evaluation Framework relied on:

- learner enrolment, completion and demographic data, as well as supervisor contact details submitted by education and training providers
- learner and supervisor surveys administered by an independent provider on behalf of the ISA
- following up emails with past learners
- ongoing feedback from industry stakeholders and education and training providers.

The evaluation was conducted by the ISA team, with support from the Department of Planning, Housing and Infrastructure's Evaluation Unit as an independent reviewer, to validate the process and findings of the evaluation.





3

Program overview

The ISA tested an industry-led model to develop and deliver training, a change from the traditional model where industry is primarily a recipient of training. Under the program, industry is actively involved in identifying, initiating, designing and co-delivering training.

The ISA model is built around genuine partnership between industry and education and training providers, including Higher Education (HE), and Vocational Education and Training (VET) providers.

Through the Pilot, industry proposed the development of micro-credentials to address skill needs. Proposals were reviewed and endorsed by an independent Industry Reference Group (IRG), comprised of industry experts, before progressing to competitive tender with education and training providers. The successful tenderer would then develop and deliver the micro-credential alongside the industry partner.

ISA micro-credentials are compliant with the National Microcredentials Framework, which set out a national definition, unifying principles, critical information requirements, and minimum standards for micro-credentials.

ISA micro-credentials are:

- initiated by industry through businesses or peak bodies to address skill gaps
- not duplicative of training that currently exists
- independently verified by an expert panel to meet industry-wide skill gaps and
- designed and delivered in partnership with industry, higher education and training providers, and Registered Training Organisations.



4

Summary of program evaluation findings

The program evaluation found that the Pilot was highly successful and well received by industry and education and training providers.

In less than two years, the ISA established highly effective governance processes, developed 43 micro-credentials in collaboration with over 26 industry partners, implemented a robust evaluation framework and established a Skills Passport which gave learners verifiable records of completing ISA micro-credentials and the skills they learnt.

Almost 1,500 learners from around 500 companies enrolled in ISA courses. There were very high satisfaction rates and confirmed skills improvement attested by both learners and their workplace supervisors, providing benefits to learners' careers and their organisations' productivity.

Data gathered during the Pilot highlights the success of the program, including:

- Satisfaction rate of 92% from learners and 81% from their employers
- 91% of learners felt the training would benefit their career or business
- 93% of learners who undertook the training for their job reported improvement in their skills or productivity
- 96% of supervisors whose staff had had a chance to apply their new skills also confirmed these improvements.
- 92% of learners and 89% of their workplace supervisors would recommend an ISA micro- credential
- The majority of ISA industry partners were actively involved in the development and/or delivery of their proposed micro-credentials, many actively promoted these micro-credentials and the program in their industry.

This success was underpinned by effective and appropriate design, governance and program management. The design stage of the program comprised a number of key preparation work streams, which proved to be appropriate and effective for program delivery. The rollout of the ISA delivered on the program's objectives and design principles.

The report also identified refinements made to the Pilot during its operation and further opportunities for improvement, which will be considered for the commercial program.



5

Process evaluation

5.1 — Design Phase

The design phase of the program comprised of key preparation work streams, which proved to be appropriate and effective for program delivery.

At the commencement of the design phase, the Pilot program was managed by a very lean team of three full-time equivalent staff, with a short timeframe to prepare for Pilot launch.

To expedite delivery of the key outputs outlined in the original business case, consultants were engaged to deliver the following work packages:

- Procurement Strategy for micro-credentials
- Market Engagement Strategy
- Evaluation Framework and Data Management Strategy
- Skills Passport Proof of Concept and Market Analysis.

The consultant teams delivering each of these projects were engaged under relevant NSW Government Procurement Rules and Policies, and the strategies and other deliverables were developed with comprehensive stakeholder engagement and input from the design stage governance groups.

The approach allowed the small team to develop a well-thought through and implementable solution, endorsed by key stakeholder groups. The deliverables listed were essential inputs to the Pilot program.

Governance groups and processes proved critical in supporting the design of the Pilot and engaging key stakeholders. The establishment of relevant governance groups and their frequent meetings allowed the BDA to capture genuine feedback from industry and education and training providers on key aspects of the Pilot design, as well as securing program support and interest from those stakeholders. This resulted in the ISA team assigning appropriate resources to support industry and providers in the delivery phase.

Early industry engagement supported a genuinely industry-led design for the Pilot, while engagement with education and training providers ensured the Pilot was practical and implementable.

Early engagement with education and training providers resulted in the decision to use a pre-qualified procurement panel to engage the education and training providers to design and deliver micro-credentials (see section 5.2.4). Additionally, it cultivated early understanding and secured buy-in from education and training providers, smoothing the implementation of the delivery phase.



5.2 — Delivery Phase

5.2.1 Overall Operating Model

Figure 1 summarises the ISA operating model, outlining the functions undertaken and facilitated in collaboration with industry and education and training providers.

Figure 1: ISA overall operating model



5.2.2 Micro-credential identification process

Outreach with industry networks was conducted to identify potential partners and skills gaps that could be addressed by the ISA, meeting a range of criteria to be deemed suitable for the program.

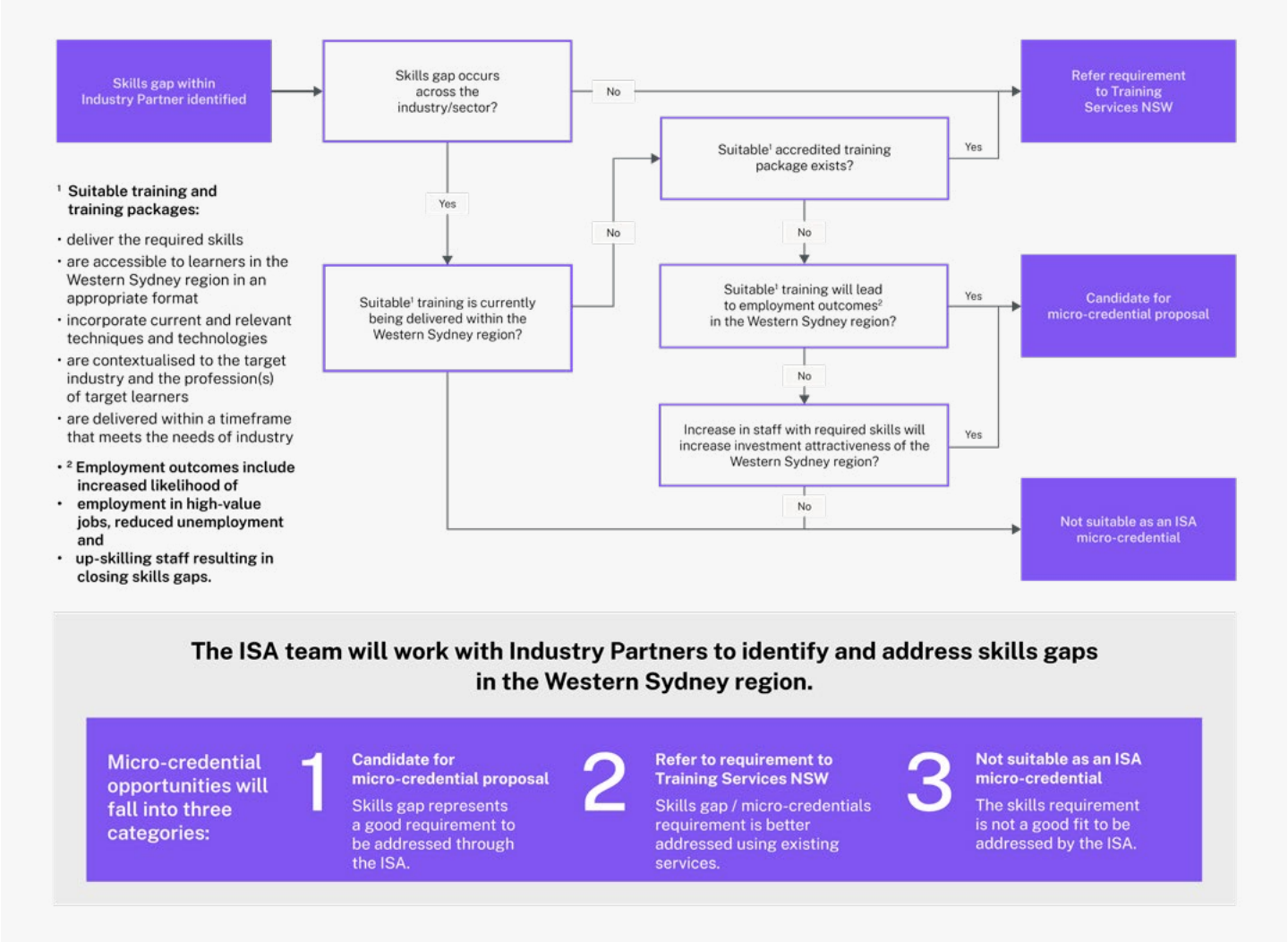
The role of industry partners under the ISA was primarily to:

- provide input on critical skills needs across the Western Sydney region
- contribute to content and curriculum design of micro-credentials as appropriate
- provide advice, as needed, to support the ISA in its selection of education and training providers for development and delivery of micro-credentials.

Industry partners, in many cases, also collaborated with education and training providers to deliver micro-credentials and to promote them to their network.

A consistent framework was established early on to engage industry partners and select micro-credentials to ensure they met the program's objectives and did not duplicate existing training. Figure 2 below outlines the process for determining if the skills need/s raised by an industry meet the requirement to be investigated by the ISA.

Figure 2: Micro-credential identification



5.2.3 ISA Industry Reference Group

ISA's governance arrangements during the Pilot delivery phase proved highly effective and emphasised the industry-led DNA of the program.

Beyond the BDA Board, which provided strategic oversight of the Pilot, there were two main governance structures of the ISA: the Industry Reference Group (IRG) (detailed below) and the Education and Training Provider Panel (ETPP) (see the following section).

The IRG comprised of independent industry representatives with expertise in identified priority industries. The IRG had clear Terms of Reference – their role was to assess proposals from industry for the ISA to develop and deliver micro-credentials.

The IRG assessed if proposed micro-credentials:

- reflected a genuine skills need
- were applicable to one or more industry sectors broadly (rather than being specific to the skills needs of only one or a few employers)
- aligned with the scope of the ISA (including the priority industry areas)
- were not duplicative of existing and accessible education and training.

IRG members represented organisations in the ISA's priority industry sectors, as well as two NSW Industry Training Advisory Bodies. Members retired from and were added to the IRG during the two year Pilot. The IRG had approximately 13 to 15 members during this time.

The strong technical expertise and independence of members meant the IRG played a robust and meaningful role in vetting micro-credential proposals and adding value to endorsed micro-credential proposals to ensure they met wider industry skills needs.

5.2.4 ISA Education and Training Provider Panel

The BDA adopted a procurement model (rather than a grant model as traditionally used in government funding in tertiary education) to procure micro-credential design and delivery. This provided a high level of control over provider performance and evaluation, allowing the Pilot to quickly deliver skills benefits to industry without compromising on the quality of micro-credentials.

To execute the procurement model, the BDA established a pre-qualified ETPP through a Request for Tender (RFT) process. Notable requirements as part of this RFT included current or future capacity and capability to develop and deliver micro-credentials in ISA's targeted priority industries, and the ability to deliver within the Western Sydney region. Once the panel was established, for each micro-credential (or package of two or more related micro-credentials) the ISA invited ETPP members with the relevant industry specialisation to respond to a Request for Quote (RFQ). The successful provider from an RFQ was then contracted to design and deliver the micro-credential. A standardised approach to contracting arrangements developed under the ISA enabled fast issuing of contracts, timely commencement of course design with input from industry, and greater control over payment.

Due to the procurement approach, ETPP members could also be subject to annual performance reviews to ensure micro-credentials were delivered in a way that meets industry needs and timely resolution of any issues.

5.2.5 ISA evaluation framework

The ISA's robust Evaluation Framework demonstrated program outcomes (see Figure 3 below for an overview of the ISA Evaluation Process) through a mixed-method approach, combining quantitative and qualitative data collection methods. Learner demographic data, surveys, interviews and program data were collected to gather information on key performance indicators.

The framework enabled ongoing reporting and continuous improvement activities which helped:

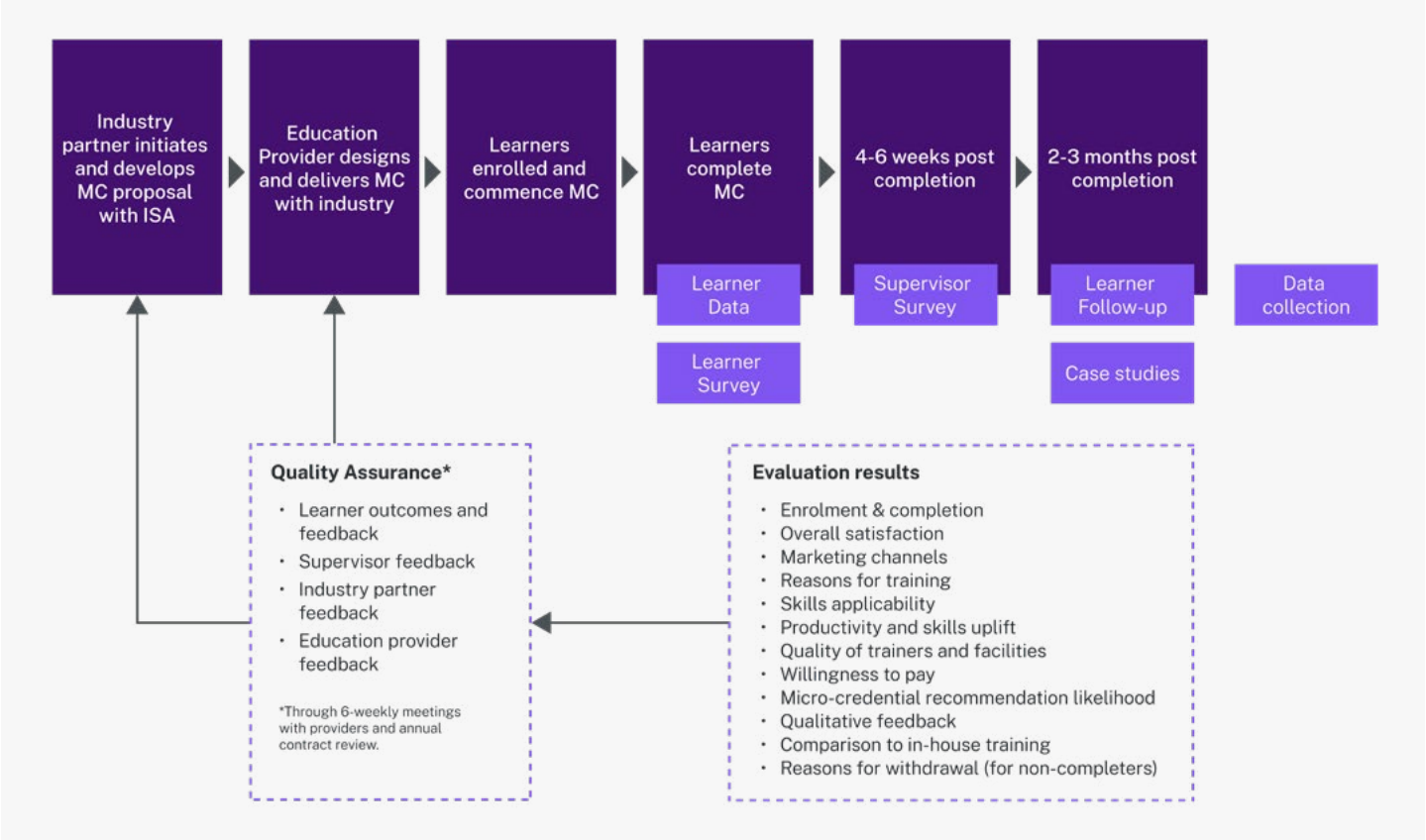
- monitor the program's achievement of its intended benefits
- determine the strength of industry demand for further training in areas related to existing courses
- refine and improve course delivery in a timely manner.

5.2.6 ISA Skills Passport

The ISA Skills Passport is the first of its kind in NSW Government. Like a digital resume, learners can store evidence of their completed ISA micro-credentials in their Skills Passport and share them with recruiters, employers and to their social media networks.

The Skills Passport provides verifiable evidence of a learner's training and education in one place and is designed to evolve over time, with the ability to link with other compatible educational digital wallets.

Figure 3: ISA Evaluation Process overview



5.3 — Major changes during implementation

During the Pilot, key changes were made to the original design and implementation approach. These changes addressed challenges encountered and enhanced the appropriateness of the model in achieving its objectives. Changes also expedited the roll out and scale up of the ISA's micro-credential offerings and helped the program reach a broader audience of employers.

5.3.1 Major change from design: targeted learners

Originally, the ISA was recommended to limit enrolment to employees of industry partners before expanding to the broader market because of:

- the workload required to attract participants/learners
- the benefits of establishing a good reputation before approaching the broad market
- the need to better understand demand as the Pilot progressed.

Eligibility was expanded to the wider public, with enrolment prioritised to learners residing or working within the Western Sydney region. This addressed concerns about limiting the benefits of ISA to industry partners rather than the broader industry and helped ensure there was a sufficiently large pool of eligible learners to run viable cohorts, while also helping determine demand for courses.

5.3.2 Major change from design: staged focus on priority industries

The ISA was planned to take a staged approach towards delivering courses to the five priority industries. Year one would focus on Advanced Manufacturing and Freight and Logistics, year two on Aerospace and Defence and Pharmaceutical Manufacturing, year three on Agribusiness, and year four was undetermined to allow the ISA to pivot to market demand.

Initial engagement with industry was slower than expected, which was attributed to a lack of supporting evidence of the Pilot (at the time), a corresponding lack of a reputation of success, and uncertainty about commitments required of industry partners.

This led the ISA team to prioritising engagement with any potential leads in any of the five priority industries, which accelerated the Pilot's ability to create micro-credentials and rapidly build a portfolio of courses. This hastened the development of supporting data for the Pilot and boosted the Pilot brand. While most micro-credentials developed in the first 12-18 months were in advanced manufacturing, by the end of the two-year Pilot, there were 43 micro-credentials covering all five sectors. Table 1 below shows micro-credentials developed under the Pilot and the industry areas to which they apply (noting some micro-credentials covered multiple industry areas).

Table 1: ISA course catalogue by industry area

Micro-credential Packages	Advanced Manufacturing	Defence and Aerospace	Freight and Logistics	Pharmaceutical Manufacturing	Agribusiness
Managing Modern Industrial Automation	●	●	●	●	●
Automation for Electricians	●	●	●	●	●
Automation for Operators	●	●	●	●	●
Automation for Programmers	●	●	●	●	●
Additive Manufacturing	●	●			
Semiconductors	●	●			
Reverse Engineering	●	●			
Technical Drawings	●	●			
Composite Layout Techniques	●	●			
Computer Numerical Control (CNC) programming	●	●			
Programmable Logic Controller (PLC) Programming	●	●			
Welding Robot Programming	●	●			
Optimising Welding using Shielding Gases	●	●			
Operating an Injection Moulding Machine	●	●			
Digital Twinning	●	●			
Statistical Process Control	●	●			
Design for Automation - Food and Beverage	●				
Design for Automation - Prefab Construction	●				
Design for Automation - Product and Equipment Manufacturing	●				●
Collaborative Robots	●		●		
Automation for Data Science			●		
Foundations of Intelligent Supply Chain Management			●		
Supply Chain Pick/Pack Operations			●		
Supply Chain Ethics			●		
Enhanced Supply Chain Visibility through Traceability	●	●	●	●	●
Practical Foundations of Biology, Microbiology, Organic and Inorganic Chemistry				●	●
Fundamentals of Intellectual Property for Industry	●	●	●	●	●
Awareness of Sustainable Practice Opportunities	●	●	●	●	●
Change Management for Sustainability	●	●	●	●	●
Diverse and Inclusive Workplaces	●	●	●	●	●



5.3.3 Major change from design: Tailored training for 'common' skills needs

Early analysis to inform program design identified a range of common skills that were important to the priority sectors. These were mostly enabling skills such as project management, stakeholder management, sales, budgeting, scheduling, and workplace health and safety.

However, the ISA team found there was a general lack of need to focus on these kinds of skills, as only one industry partner made a proposal involving enabling skills and the IRG raised concerns about such courses not warranting government funding and potentially duplicating existing training.

5.3.4 Major change to operating model during Pilot: Addition of the 'Collaboration Round'

When ETPP members were contracted for ISA micro-credentials, they were partnered with the industry organisation that led the proposal for the micro-credentials with the ISA team. Members of the ETPP requested opportunities to leverage their existing industry relationships to develop and deliver micro-credentials. To facilitate this, while also keeping the ISA industry-led, the ISA team designed a process that allowed providers to select their own industry partners on some courses.

This was called a 'Collaboration Round', introduced alongside the standard ISA course identification and development process, and it used a workshop format with industry representatives to ideate proposals for micro-credentials. The ETPP members were then invited to identify, in their RFQ responses, their own industry partners to co-design and co-deliver the micro-credentials.

The first Collaboration Round led to six unique micro-credentials for Industrial Automation. Following this three industry workshops were ran in Defence, Freight and Logistics, and Sustainability, resulting in four micro-credentials developed and another five proposed.

The Collaboration Round leveraged existing industry-academia partnerships to develop a suite of micro-credentials for skills gaps with broad industry relevance. It also played an important role in building goodwill with education and training providers.

6

Outcomes evaluation

6.1 Overview of ISA effectiveness in achieving outcomes

The Pilot was very successful in achieving its short and medium term intended outcomes. Those outcomes and the ways in which the Pilot achieved those are set out in table 2 below.

Table 2: Short and medium term outcomes and achievements

Short and medium term outcomes	ISA achievements
Increased repository of micro-credentials available that meet industry/employer skills needs: • closes skills gaps • quicker speed to market (compared to current training options) • more cost efficient (cheaper than existing options)	• Between 2022 and 2023, the Pilot developed 43 micro-credentials through higher education and vocational education and training providers with more than 26 industry partners. • The average time to develop and commence delivery of an ISA micro-credential was around 3-4 months once contract arrangements for that work were finalised with an education and training provider. By comparison, vocational education and training qualifications can take 1 to 4.5 years to develop and 1 to 3 years to be in delivery[1]. The current Training Package Products Development and Endorsement Process Policy reflects this, stating that the expected maximum timeframe for routine training product development is 12 months, or 6-8 months if fast tracked[2]. This counts development time only; implementation by Registered Training Organisations will take additional time. • The Pilot program tracked well for costs per learner compared to its original business case, noting the early transition to a commercial model impacted cost efficiency for some micro-credentials.

[1] Sourced from https://www.ncver.edu.au/research-and-statistics/publications/all-publications/vocational-qualification-development-lessons-from-overseas
[2] Sourced from https://www.dewr.gov.au/skills-support-individuals/resources/training-package-products-development-and-endorsement-process-policy

Short and medium term outcomes	ISA achievements
Increased participation in skills training via ISA micro-credentials	• Courses were delivered to nearly 1,500 learners from over 500 different companies. • 59% of learners lived or worked in the Western Sydney region or adjacent areas, directly address the skills needs for emerging industries around the Western Sydney region and the new Western Sydney International Airport. • 84% of supervisors indicated their company did not have a similar in-house training product.
Skills uplift for learners, improving their job capability and career opportunities	• 93% of the learners who indicated their main reason for training was skilling for their current job reported improvement in their skills or productivity. • 91% of learners indicated that the skills learnt would benefit their career or businesses. • 69% of supervisors confirmed learners had used skills they gained from ISA courses; of those 96% have confirmed their staff's skills or productivity improvement, including: – 80% of supervisors agreed their staff were able to do their job better – 94% agreed their staff were able to apply learnings to their job – 78% reported staff were able to complete tasks more efficiently and/or effectively. • 63% of supervisors confirmed they would employ someone with an ISA micro-credential over another person without (all other things being equal).
Increased learner satisfaction with training	• Satisfaction rate of 92% from learners – higher than satisfaction rates from traditional training products. • 92% of learners would recommend an ISA micro-credential to others

Short and medium term outcomes	ISA achievements
Increased Industry satisfaction with training	• Satisfaction rate of 81% from learner's supervisors. • 89% of supervisors would recommend an ISA micro-credential to others. • 84% of supervisors indicated that they didn't have a similar in-house training product. Of the remaining 16%, 86% agreed that ISA micro-credentials were of better or similar value. • Industry stakeholder feedback overwhelmingly indicated they highly value the role NSW Government (through the program) played in: – developing and funding micro-credentials that were truly industry-led – providing a robust quality assurance framework for micro-credentials (as they were unaccredited training) – connecting education and training providers and industry – generating and aggregating course demand to meet their critical skills needs.
Enhanced collaboration between Industry, Higher Education (HE) and VET to address industry skills needs	• The majority of ISA industry partners were actively involved in the development and/or delivery of their proposed micro-credentials, many actively promoted these micro-credentials and the Pilot program in their industry network. • Out of the 43 micro-credentials initiated with industry partners, 33 also had industry co-designing and, in many cases also co-delivering, the micro-credentials.

Short and medium term outcomes	ISA achievements
Businesses having increased capability and productivity	• 69% of supervisors confirmed learners had used skills they gained from ISA courses; of those 96% confirmed their staff's skills or productivity improvement, including: – 80% of supervisors agreed their staff were able to do their job better – 94% agreed their staff were able to apply learnings to their job – 78% reported staff were able to complete tasks more efficiently and/or effectively. • 63% of supervisors confirmed they would employ someone with an ISA micro-credential over another person without (all other things being equal). • 64% of learners undertook the training for their current job.
Increased depth of skills and capability in workforce.	• Around 1,500 enrolments, 75% of which were employed, 77% have a post school qualification; 65% with a Bachelor degree of higher. • 84% of supervisors indicated that they didn't have a similar in-house training product. Of the remaining 16%, 86% agreed that ISA micro-credentials were of better or similar value. • 91% of learners indicated that the skills learnt would benefit their career or business.

Qualitative data from both learner and supervisor surveys also supports these findings.

Feedback from these surveys point to various ways in which an ISA micro-credential has benefited a learner's career or business:

'My experience was nothing but positive and I left with invaluable tools and resources that I have been able to directly apply to my workplace'.

– A scientific affairs and education manager.

'The course definitely allowed me to have a new way of thinking. It helped me have some massive improvements within the organisation.'

– A technical manager.

'The practical skills I gained in the course not only complemented my existing skillset but could easily be applied to my business. The depth of knowledge and experience that went into the creation of the course was evident'

– A management consultant.

'The additional skill has increased my baseline. We are building this from learnings from the course and looking to implement more tasks in this space, I presented this to our business, we have [begun] to engage our customers on system integration and forecasting learning. We are also exploring control towers and potential applications for our business. I am hoping to leverage the skills I've learned to build greater capability for our service offering and acquire work across Aus, NZ and Canada.'

– A general manager.

'As a consultant it helps to support more effective and efficient provision of services in that role and so, indirectly, enhances opportunities for new project work. Making changes to my work as a consultant to make it more efficient/effective. My enhanced understanding of the topic is valuable in being able to relatively quickly identify and manage risks in this area... Overall, completing the course has been of significant benefit to me and my business and to my clients.'

– A consultant.

‘Comparing to online MBA in 2022, I found the course format and structure well-designed, practical, offering flexibility for working professionals while maintaining meaningful interaction through virtual sessions. The course structure strikes a perfect balance between traditional higher education coursework and online learning, making it an ideal introduction to IP for professionals in the digital economy’

– A CEO and Co-founder of a small to medium enterprise.

‘The two courses gave me a solid foundational understanding of the purpose of my role. During the course, I had many ‘ah ha’ moments as I connected the day-to-day activities with a new understanding of the bigger picture. This ultimately allowed me to develop more innovative solutions. A university course is like a staircase and a [ISA] micro-credential is like a quick leg up in your career’

– An integration team lead.



6.2 Training outcomes benchmark – ISA versus comparable VET training products

ISA outcomes compare favourably to outcomes of NSW Government funded VET subjects – which is the closest equivalent training product to a micro-credential in intention and length. Most notably, 93% of ISA learners who undertook an ISA micro-credential for their job reported skills or productivity improvement, compared to 68% of learners in the traditional training market. This shows how ISA micro-credentials have played a critical role in closing skills gaps for industry and improving productivity for businesses in less than two years of operation. Combined with other success metrics highlighted in Table 2, it is clear that the ISA has been a highly successful and timely program to support innovation, productivity and a pipeline of skilled workers matched to industry needs in the Western Sydney region.

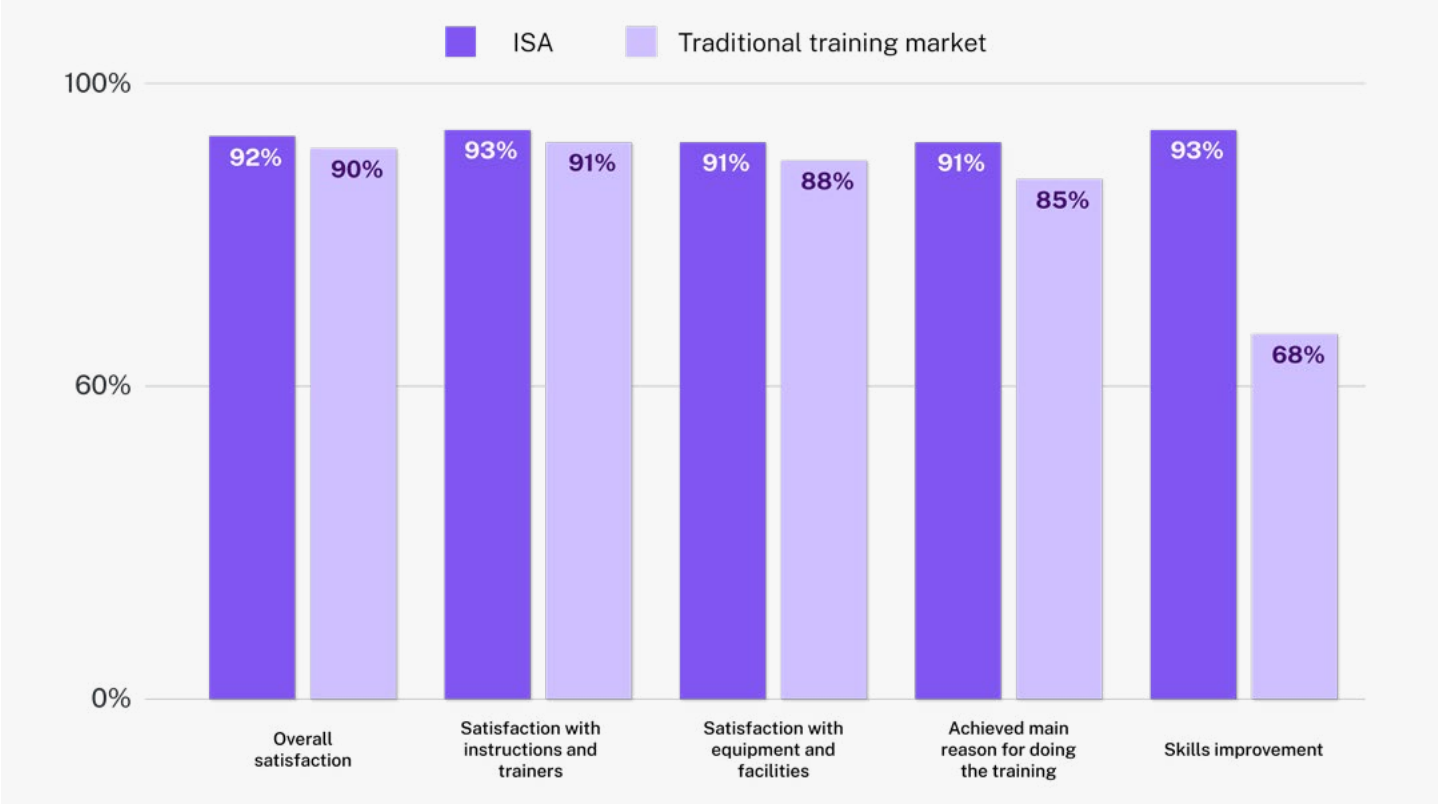
Figure 4 below summarises comparative data between the outcomes of ISA micro-credentials and NCVER's VET 2023 student outcome survey (as a proxy for the traditional training market).

6.3 – Industry feedback on the ISA as a whole

In addition to the findings in the table below, industry stakeholder feedback collected during the Pilot period overwhelmingly indicated that they highly value the role NSW Government played in:

- developing and funding micro-credentials that are truly industry-led
- providing a robust quality assurance framework for micro-credentials (especially since they are unaccredited training)
- connecting education and training providers and industry
- generating and aggregating course demand to meet their critical skills needs.

Figure 4: ISA learner results compared to NCVER's VET 2023 student outcome survey



7

Contributions to NSW and national reform priorities for tertiary education

The Pilot provided significant evidence for how this new and innovative model could help the NSW Government meet a range of objectives for skills and workforce development and improving labour market productivity.

Table 3 below outlines ISA's alignment and contribution to NSW Government and national priorities for tertiary education.

Table 3: ISA alignment with government reviews and strategies

Government strategy or review	Recommendations/outcomes description	How the ISA supported the recommendation
The Australian Universities Accord (2023)	• Establish a comprehensive system of modular, stackable and transferable qualifications, including micro-credentials, consistent with a reformed Australian Qualifications Framework. • Move toward funding a set of micro-credentials as a new element in the system of Commonwealth supported places. • Rapidly provide students with innovative skills. • Implement a National Skills Passport, along with other core infrastructure needed for an integrated skills system.	• ISA micro-credentials are stackable in terms of learning and skill levels and supported career and learning pathways for learners. A number of ISA micro-credentials delivered by universities are assigned credit points to allow for further education pathways. • On average, ISA micro-credentials were delivered within 3-4 months from the point an education and training provider is contracted to develop the course. This allowed industry to quickly upskill and reskill their workforce. • ISA micro-credentials were designed with industry representatives who identified and validated the relevance and demand for the skills in emerging industry areas. • The BDA established a Skills Passport to enable learners to evidence and share their completion of ISA micro-credentials and the skills they obtained through that training. The ISA Skills Passport could be linked to the National Skills Passport when it is available.

Government strategy or review	Recommendations/outcomes description	How the ISA supported the recommendation
National Agreement for Skills Reform (2023)	• Productivity growth is improved by a better skilled workforce well matched to labour demand. • Industries, including in critical and emerging areas, can access and develop the skilled workforce they need.	• ISA addresses urgent industry skills needs, including addressing rapid technological changes. • As noted above, on average, ISA micro-credentials were delivered within 3-4 months from when an education and training provider is contracted, allowing rapid reskilling and upskilling by industry. • 93% of ISA learners who did a micro-credential for their job reported having skills improvement or productivity gains. This was also confirmed by learners' supervisors. • ISA micro-credentials focus on skills gaps identified by industry that are not met by the tertiary education sector.
In the Same Sentence: Bringing higher and vocational education together (the Gonski-Shergold Review) (2021)	• Establish the NSW Institute of Applied Technology to deliver integrated theoretical and practical skills, through micro-credentials, which address advanced labour needs, in partnership with vocational and higher education and training providers and industry bodies. • Improvement in strategic and purposeful industry engagement in VET, as by involving industry more in planning, design and delivery of VET.	• Industry is involved in each and every part of the ISA. Different industry stakeholders have different roles in the ISA, including: a. identifying skills gaps and the learning outcomes needed to address these skills gaps b. verifying and endorsing micro-credentials to ensure they meet industry needs c. supporting the design and delivery of ISA micro-credentials alongside education and training providers d. promoting ISA micro-credentials in their network e. getting involved in individual micro-credential outcomes evaluation as well as program-level evaluation.

Government strategy or review	Recommendations/outcomes description	How the ISA supported the recommendation
The Employment White Paper (2023)	• Increase the share of Australians studying in areas of high skills need, improving collaboration between the vocational and higher education sectors, and removing barriers to learning across the course of peoples' lives. • Leverage Jobs and Skills Australia to forecast skills needs and guide a responsive tertiary sector to respond to changing demands. • Encourage ongoing learning in the workplace.	• ISA addresses urgent industry skills needs, including addressing rapid technological changes. • ISA micro-credentials were designed with industry representatives who identified and validated the relevance and demand for the skills in emerging industry areas. • ISA provides upskilling and reskilling for the existing workforce.
The NSW VET Review (2023-2024)	• Further consider future policy settings associated with funding, regulation and governance of micro-credentials in NSW.	• ISA successfully delivered a two year Pilot, with effective and efficient processes and governance established and amended/ iterated upon for improvements during the Pilot period. • Evaluation results demonstrated that the ISA has delivered a much higher rate of skills improvement for learners at 93%, than comparable government funded products in the VET sector, at 68%.
Strengthening Skills: Expert Review of Australia's Vocational Education and Training System (the Joyce Review) (2019)	• This Review presented the need to make significant changes to aspects of the VET system. One of the most relevant recommendations in the Joyce Review for the ISA was speeding up qualification development to keep pace with industry needs.	• The ISA provides a responsive and industry-centred approach to the skills needs of the Western Sydney region. • The ISA emphasises speed to market to meet critical skills gaps and to support the emergence of advanced industries of the future.
Australian Qualifications Framework Review (2019)	• The AQF Review proposed a series of recommendations. This includes a simpler and more flexible accreditation system, accommodating increasing levels of technology, a more diverse workforce, flexible employment, globalisation, and the need for job-prepared graduates who require continuous education throughout their careers.	• The ISA embodies an industry-led approach which was responsive to advanced skills needs and supported continual professional development. • The ISA also supports stackable learning and pathways, including by allowing for credit recognition of ISA micro-credentials by providers towards relevant accredited programs.

8

Contributions to NSW State Outcomes and Strategies

The ISA's achievements and outcomes can be linked directly to many objectives of the NSW Government.

The ISA was featured in one of the 39 NSW State Outcomes as part of the 2022-2023 NSW State Budget: *Increased economic development and investment attraction.*

The aims and outcomes of the ISA also align with the Strategies of a number of NSW Government agencies, including:

- The NSW Higher Education Strategy 2021-2025
- The TAFE NSW Strategic Plan 2022-2025.

A summary of ISA's contributions to delivering on the objectives of these plans is in table 4 below.

Table 4: ISA alignment with NSW Government strategies

NSW Government Strategy	Recommendations/outcomes description	How the ISA contributed
NSW State Outcomes – 2022-2023	39 State Outcomes covering all NSW Government activity, including: • A highly skilled and adaptable workforce that contributes to the State's prosperity and productivity • Increased economic development and investment attraction.	• ISA addresses urgent industry skills needs, including rapid technological changes, that were identified by industry and not met by the tertiary education sector. • Of ISA learners who did a micro-credential mainly for their current job, 93% reported having skills improvement or productivity gains as a result of taking an ISA course. This improvement was confirmed by supervisors.
NSW Higher Education Strategy 2021-2025	The Strategy has 5 priority areas, including: • Develop and broaden postschool options to foster lifelong learning • Drive job growth, skills and innovation.	• Close to 1,500 enrolments. • 75% of learners were in full or part time employment. • Developed 43 innovative micro-credentials to address industry needs not being met through the formal tertiary education system.



NSW Government Strategy	Recommendations/outcomes description	How the ISA contributed
TAFE NSW Strategic Plan 2022-2025	Accelerating skills in priority areas. • Delivering skills that cater to the needs of current, emerging, and future industries • Designing learning programs and pathways in collaboration with industry, learners, and other education and training providers.	• TAFE NSW developed 6 micro-credentials under the ISA, of which 5 were delivered before the end of the Pilot. • TAFE NSW had 4 different industry partners across these 6 micro-credentials.

9

Recommendations

The ISA was designed as an innovative solution to address critical skills gaps in advanced and emerging industries, where industry's role evolves from being the 'end consumer' of skills training to being the driver of it. The evaluation found that the Pilot successfully met this objective.

The Pilot achieved very high satisfaction rates from both learners and employers, delivered significant skills and productivity uplift to individuals and industry, facilitated genuine collaboration between industry, education and training providers, and deepened industry skills capability in critical areas. The Pilot also contributed directly to NSW Government strategies and national reform priorities in the education and skills sector.

The Pilot established a flexible, scalable and proven model that could be applied to different industries and/or geographical areas effectively, at a low cost.

The ISA's success demonstrates the values and effectiveness of a three-way government, industry and education provider partnership for addressing skills gaps in short form training such as micro-credentials, especially for emerging industries. Industry and education and training providers showed that they highly valued the role NSW Government played in setting up and funding the ISA. Industry also emphasised the role government should play in quality assuring innovative, but unaccredited, training like ISA micro-credentials to support industry in upskilling and reskilling their workforce.

The Pilot has been quoted in a number of NSW Government reports as a direct and desired training solution to help build new and emerging industries and transition existing industries to take advantage of high value opportunities.

These include:

- NSW Modern Manufacturing Taskforce Report: Making it in NSW, NSW Government, July 2022
- Workforce Development in Innovation Precincts: Insights from global practice and implications for New South Wales, NSW Government, September 2023.

The Program Evaluation recommended that:

- The NSW Government leverage the Pilot's proven-successful and flexible model to deliver training solutions to priority industries in other areas in NSW to meet the State's economic development objectives. The fact that the program enjoys strong industry and education provider support, has generated extremely high skills and productivity uplifts, has a robust governance process and an established evaluation framework and can be scaled at short notice means the NSW Government has a high-reward, low-risk model to drive upskilling and reskilling of the States' workforce. The commercial transition of the NETM to the ISA also enables NSW Government to vary their investment by industry so that commercial returns could be generated where desired.
- Further design and delivery of the ISA, and any similar programs in future by the NSW Government, should have reference to the experience of the ISA and lessons learnt from the Pilot as outlined in the Program Evaluation.

The results and experiences of the Pilot can offer insights on how to successfully design and operate other programs with similar goals and design principles (e.g. offering short courses to rapidly upskill workers and meet industry needs).

Bradfield Development Authority

50 Belmore St,
Penrith NSW 2750
T: 1800 312 999
E: hello@wpca.sydney
W: nsw.gov.au/bradfield-development-authority

NSW GOVERNMENT