Australian Government
Department of Education, Skills and Employment

National priorities and industry linkage fund

Consultation paper

Contents

Delivering job-ready graduates in areas of expected employment growth

Introducing the Job-ready Graduates package

On 19 June 2020, the Australian Government announced the Job-ready Graduates package. The package will create 100,000 new university places by 2030 and provide additional support for students in regional and remote Australia. The Australian Government already provides more than $18 billion a year to fund our universities and this will grow to $20 billion by 2024. With the passage of legislation, the package will commence 1 January 2021.

The National Priorities and Industry Linkage Fund (NPILF), introduced under the package, will allocate block grants to universities to support enhanced engagement with universities and industry in order to support job-ready graduates. The NPILF will have a strong focus on meeting the future Australian workforce requirements for STEM-skills and increasing the number and quality of work-integrated learning (WIL) opportunities for students.

What is a job-ready graduate?

The development of 'job-ready' graduates is more complex today than ever before. The nature of work is changing and the nature of problems that need to be addressed are also changing; these problems are increasingly more global, complex and connected. Automation of, and the uptake of, artificial intelligence can rapidly replace the skillsets of an existing workforce, requiring a lifetime commitment to further or continuing education. A job-ready graduate is well-rounded and has the relevant capabilities to confidently enter or remain in the work place. Providing graduates with the foundations in critical thinking, creativity, communication and system problem solving is vital in order to future proof graduates against robotic redundancy and to prepare them to succeed in a future of multiple careers. There is no doubt that the COVID environment has highlighted that job-readiness also needs to include resilience, agency and engaging with complexity. This must be combined with ensuring real experience of graduates in applying their skills directly in the workplace and an ability to identify and access ongoing reskilling and upskilling.

Work-integrated learning (WIL), educational industry partnerships and the role of STEM+ in creating STEM-skilled graduates are particularly important in order to enhance the job-readiness of graduate students.

In this paper:

Work integrated learning (WIL) refers to authentic industry engagement, supervision and assessment through purposeful student learning in an academic context, which provides preparation for professional roles.

STEM+ refers to the core STEM fields of Science, Technology, Engineering and Mathematics in addition to the fields of Allied Health, and Architecture and Building. Qualifications in the additional fields confer some of the skills and knowledge base that underpin traditional STEM fields.

University-industry partnerships refers to the mutual interaction and engagement between the higher education system and industry with aim to encourage knowledge and technology exchange, and a grounded approach to teaching, research and lifelong learning which benefits both student and industry needs.

They are prepared for the future of work

The COVID-19 pandemic has highlighted vulnerabilities across all sectors of Australia's economy, and the higher education system is no exception. As a result of the pandemic, Australia is about to experience its worse economic contraction since the great depression, alongside many other countries. And yet experience shows that demand for higher education tends to increase in times of economic slowdown.

The higher education system has a critical role to play in supporting Australians to advance through this period. Importantly, it will need to:

- focus on delivering more graduates in areas of industry and community priority
- work more closely with industry to ensure graduates have the capabilities, adaptability and experience they will need in a challenging labour market.

Higher education is a key driver of employment and income. Graduates enjoy a premium of around 60 per cent over those without tertiary qualifications. In 2019, for the first time, demand for workers with a bachelor degree or higher qualification was the largest category of employment.

The 2019 Employment Projections for the five years to May 2024 (noting they were published pre-COVID) breaks down employment growth by industry. The shift towards services industries is projected to continue, with growth in Health Care and Social Assistance (15.0 per cent), followed by Professional, Scientific and Technical Services (15.1 per cent), Education and Training (12.2 per cent) and Construction (9.7 per cent). For the purposes of NPILF, the use of the broader definition of STEM+ (i.e. inclusive of allied health and architecture and building) provides even more focus on the job-readiness of graduates in areas of expected employment growth.

There is a concurrent need to provide more options for upskilling and reskilling workers, particularly to support those who have lost jobs due to COVID-19, while also acknowledging that automation will supersede skills provided by today's workforce in the future. This has reinforced the importance of lifelong learning which can equip individuals with the evolving skills needed to thrive in today's workforce.

However, increasing graduate numbers alone is not enough. Improving industry-university engagement in teaching and research is equally critical to ensuring graduates leave the higher education system with the capabilities, skills and experience needed to succeed in the workforce. This requires universities and industry to embed mutual engagement in their day to day operations and the incentives in the system need to be realigned to support this outcome.

They have enhanced STEM-skills

From telecommunications to new drugs that treat disease, STEM+ continues to have an increasing role in our world and the impact of COVID-19 in particular has highlighted both its acute and long term value.[1] Future economic growth will depend on the creation of future industries such as advanced manufacturing, hydrogen, space and quantum technologies, however this will only eventuate with a competitive knowledge-led economy, which can drive innovation and productivity. In more traditional Australian industries, like finance, tourism, agriculture, health and other services, STEM-skills are increasingly in demand. It is our job-ready, graduates who will support the national interest in forging innovation-led growth.[2]

With globalisation and technological advances changing the nature of work, the number and variety of occupations requiring STEM-skills and advanced STEM+ literacy is increasing. The ability for STEM-skills to be used across a variety of work contexts is evident in the employment outcomes for STEM-graduates, which demonstrate incredible diversity of graduate pathways.[3] This is important as it runs against popular conceptions of STEM+ graduates as individuals who solely work in technical and research fields.

Contemporary literature suggests that the terms 'STEM-skills' and 'STEM-capabilities' are used interchangeably to refer to the application of core skills such as problem solving, inquiry, digital literacy and creative and critical thinking learned in the STEM+ disciplines, as well as the subject specific skills such as maths and science skills, design thinking and numeracy. In this sense, this moves away from previously narrow or traditional views of STEM+ and considers both broad education in discipline content and the scientific method, which can enable new graduates to adapt to future workforce needs.[4] This is synergetic with contemporary understandings of job-readiness.

In 2018, 19.5 per cent of graduates were in core STEM fields of study, refer **Table 1**. This varied from between 2 to 42 per cent when broken down institutionally.

[1] Science, Technology, Engineering and Mathematics in the National Interest: A Strategic Approach (Position paper), *Office of the Chief Scientist* (2013)
[2] STEM-trained and Job-ready, *Office of the Chief Scientist* (2015)
[3] Australia's STEM Workforce, *Office of the Chief Scientist* (2016)
[4] Science, Technology, Engineering and Mathematics in the National Interest: A Strategic Approach (Position paper), *Office of the Chief Scientist* (2013)

Table 1 Award course completions for all students by broad field of education, 2017 and 2018

Category	Field of education	2017	2018
Core STEM categories[5]	Natural and Physical Sciences	25,430	26,664
	Information Technology	15,530	19,685
	Engineering and Related Technologies	22,763	25,360
All other fields of education		290,594	306,247
Proportion of STEM completions		18.5%	19.5%

However, a greater number of graduates can be identified as 'STEM-skilled' when accounting for graduates of non-core STEM award courses that completed a core STEM unit during their studies, refer **Table 2**. Institutionally, this ranged from 21 to 61 per cent of graduates in 2018. This provides a starting point by which the department can understand the integration of core STEM units in course offerings across institutions.[6]

Table 2 STEM-skilled completions for all students (from non-STEM award course), 2018

Year	With core STEM units	No STEM units	Proportion of non-STEM completions with STEM unit
2018	110,241	149,707	42%

They have professional skills which make them confident to apply their course knowledge

To date, the importance of having opportunities to apply skills gained in a course of study is embraced in the concept of WIL. WIL is an umbrella term used to describe a wide variety of mechanisms through which a practical experience is used to complement the teaching of theoretical concepts.[7] It is an educational partnership, a curriculum construct and a pedagogical approach to educate and prepare the future workforce. The benefits of WIL have been well canvassed in the literature and include development of professional identity, professional judgement, teamwork, communication, resilience, enhanced understandings of course content, alongside improved employment outcomes.[8]

A 2019 CSIRO report on internships, one of several types of WIL, found that the inclusion of an internship or work component in a course of study is positively correlated with improved graduate employment outcomes across all fields of study.[9]

[5] STEM defined as 'Natural and Physical Sciences', 'Information Technology' and 'Engineering and Related Technologies'; 'STEM-skilled' defined as undertaking a STEM unit prior to completion (2009-2019).
[6] Department of Education, Skills and Employment (2019)
[7] Good Practice Guide for Work based and Placement Learning in Higher Education, *ASET* (2014)
[8] The impact of work integrated learning on student work-readiness, *Office for Learning and Teaching* (2014)
[9] Higher education and employment in Australia: the impact of internships, *CSIRO* (2019)

While graduate employment and graduate satisfaction are frequently cited measures of the value of WIL, we must recognise that there are other factors affecting these metrics, including the field of study, labour market volatility, equity factors and whether a student has undertaken other work or volunteering experiences.[10] Qualitatively, the most commonly cited benefits of WIL from employers include, the ability to recruit job-ready students (decrease recruitment costs), increased access to fresh ideas and cutting edge knowledge which can enhance the organisation, as well as the opportunity to give back to the industry and community.[11]

A 2017 national audit of WIL activities conducted by Universities Australia (UA) found that more than one in three undergraduate students (451,263 students or 37.5 per cent) enrolled in Australia had undertaken a WIL experience.[12] However, the audit highlighted considerable variation across the sector in how WIL is conceptualised. Some common examples of WIL include: internships, cooperative education, work placements, industry or community-based learning, clinical rotations and practical projects. The nature and likelihood of a student undertaking WIL depends on many factors including if the placement is a requirement for accreditation, a university's mission and expertise, supply versus demand of WIL opportunities and if WIL is typically offered in their course. Increasing the quantity of WIL opportunities may require non-traditional approaches to meet demand and circumstances (including the current COVID-environment), such as competitions, start-ups and entrepreneurship that can translate to "intrepreneurship", job-share schemes among groups of students and co-located R&D or project work.

To ensure that the broader ambition of producing more job-ready graduates is met, a definition of WIL in the context of NPILF must be determined. It is important that this is broad enough to reflect the current reality, such as:

Work integrated learning is purposeful student learning in an academic context, which provides preparation for professional roles including authentic industry engagement, supervision and assessment.

An agreed definition will provide a basis for which universities can operate, and WIL programs, that range from traditional to innovative in nature, can be both implemented and measured.

[10] Good practice report: Work-integrated learning, Orrell J. (2011)
[11] Work integrated learning: AWPA scoping paper, Australian Workforce and Productivity Agency (2014)
[12] Career Ready Graduates, *Universities Australia* (2017)

Their study is supported and contextualised by strong industry partnerships

Innovation is an important driver of economic growth, and can be supported by a strong culture of collaboration between universities, industry, businesses (including SMEs), government and the wider community.[13] In the context of the Job-ready Graduates package, improving industry-university partnerships and collaboration in teaching and research is critical to ensuring graduates leave the higher education system with the skills and experience needed to succeed in the workforce. This will require universities and industry to work together more closely than before, and the incentives in the system need to be realigned to support this outcome. NPILF will incentivise universities to strengthen existing partnerships, create partnerships and expand to new industries. Naturally, the nature of collaboration will vary depending on a university's mission and strengths, as well as local industry needs.

Research is a central point of collaboration between universities and industry. However, the current state of Australian industry-university research collaboration is mixed, with collaboration appearing relatively strong in some contexts and absent in others. Australian businesses in particular have poorer rates of collaboration with higher education or the publicly-funded research sector, this may be in part due to the Australian business landscape, where ABS data (2019) tells us that 99.5 per cent of Australian businesses are either small (under 20 employees) or medium (under 200 employees) enterprises.[14] In light of this, it is even more important for universities to work in their jurisdiction as they have the local expertise and influence to be able to respond to the conditions, including the business landscape of SMEs and their ecosystems and value chains, as well as the needs of community.

By designating industry partnerships a priority under NPILF, it seeks to encourage university-industry collaboration for the purposes of university research, and allow for co-design of curricula and the expansion of WIL opportunities. In this way, WIL can also be embedded in university-industry research partnerships and supported as part of the ecology of university education.

The data is limited – creating a new evidence base

There is scope to have a greater insight into the current status of engagement with industry, particularly as we seek for universities to demonstrate their engagement with priorities as well as innovative models of industry engagement and WIL. There is precedent for this in other countries such as the UK's Higher Education and Business & Community Interaction Survey.

While the 2017 UA report underscored the many and varied WIL activities across Australian universities, data on numbers of domestic undergraduate students undertaking WIL as part of a unit or course of study is not currently collected by the department. Similarly, the department does not

[13] Department of Industry, Innovation and Science 2018, 'Economic insight: Competition or collaboration – from which well does innovation spring?', *Office of the Chief Economist*, Canberra.
[14] Australian Bureau of Statistics. 8165.0—Counts of Australian Businesses, Including Entries and Exits

collect qualitative information regarding student WIL activities, including types being undertaken and student satisfaction.

A positive relationship between university-industry collaboration and productivity has been established in the literature, and subsequently attributed to economic growth. In one study, the productivity gains were identified two to four years after collaboration began, which demonstrates the value of longitudinal data to appreciate the benefits.

HE-BCI Survey

In the UK, the Higher Education Business & Community Interaction (HE-BCI) survey has been used since 1999 and seeks to capture interactions between research, business and community – from business and public sector involvement in research, to consultancy and the commercialisation of intellectual property. As there is currently no direct data collection for this in Australia, the department may consider establishing a new system of data collection to complement the Government's focus on job-readiness and industry linkages.

A specific funding stream to focus on industry linkages and national priorities

Introducing the National Priorities and Industry Linkages Fund

Despite a growing expectation for universities to partner with industry and provide WIL opportunities for students, previously this has been without a specific funding stream. The $900 million National Priorities and Industry Linkage Fund (NPILF) will allocate block grants to universities to support them to engage with industry and produce job-ready graduates. The NPILF will have a strong focus on STEM+, as well as supporting WIL opportunities. Subject to the passage of legislation, the NPILF will operate through Part 2-3 (Other grants) of the *Higher Education Support Act 2003* (HESA).

Unlike the performance-based funding model which is heavily focused on performance, NPILF seeks to incentivise behaviours and mindsets that are responsive to public funding priorities while supporting new and innovative ways for universities to engage with industry. Industry is broadly defined as business, government and the community sector, as all play a critical role in our national prosperity and wellbeing.

Priorities and aspirations of NPILF

The Government intends the NPILF to broadly support the following three **priorities**:

1. Increase the number of internships, practicums and other innovative approaches to WIL

In supporting priority one, there is a need to ensure quality in WIL experiences, encapsulate the range and emerging forms of WIL (particularly those developed in light of COVID-19), seek to enhance equity and access for all student to WIL experiences, as well as seek to establish a

nationally-led understanding of number of students undertaking a WIL experience. There is an opportunity to develop more robust measures of impact on WIL in the Australian higher education sector. Care is required in this area to prevent use of simplistic metrics which reinforce outdated WIL impact modes such as number of students with internship experiences. Focus needs to include inputs to student quality learning experiences and not only outputs. Understandings of **priority 1** need to:

- measure the number of students with a WIL experience, and/or
- reflect the amount and quality of industry engagement, and/or
- strategies to enable access and equity, and/or
- reflect student and industry sentiment.

2. Increase the number of STEM-skilled graduates and improve their employment outcomes

The aspiration of this section is to both increase the number and employability of STEM+ graduates as well as incorporating as appropriate, core STEM-skills which are increasingly required in all professions and across the workforce. Understandings of **priority 2** need to:

- reflect employability,
- reflect integration of STEM-skills into courses of study.

3. Supporting universities for the development of partnerships and collaborations with industry

One of the purposes of university-industry partnerships is to drive new ways of practicing rather than perpetuating outdated practices. There are a number of examples of universities engaging with the broad suite of industry linkages including WIL, broader partnerships, as well as innovations and new ventures that demonstrate a level of risk-taking. Care is required in this area to prevent use of simplistic metrics which reinforce outdated engagement modes such as number of commercialisations. Understandings of **priority 3** need to:

- measure the role of industry in collaborating on research,
- reflect the importance, breadth and depth of industry partnerships,
- reflect the duty of care towards workplace supervisors,
- reflect the importance of curriculum co-design.

The **aspiration** of the NPILF is to:

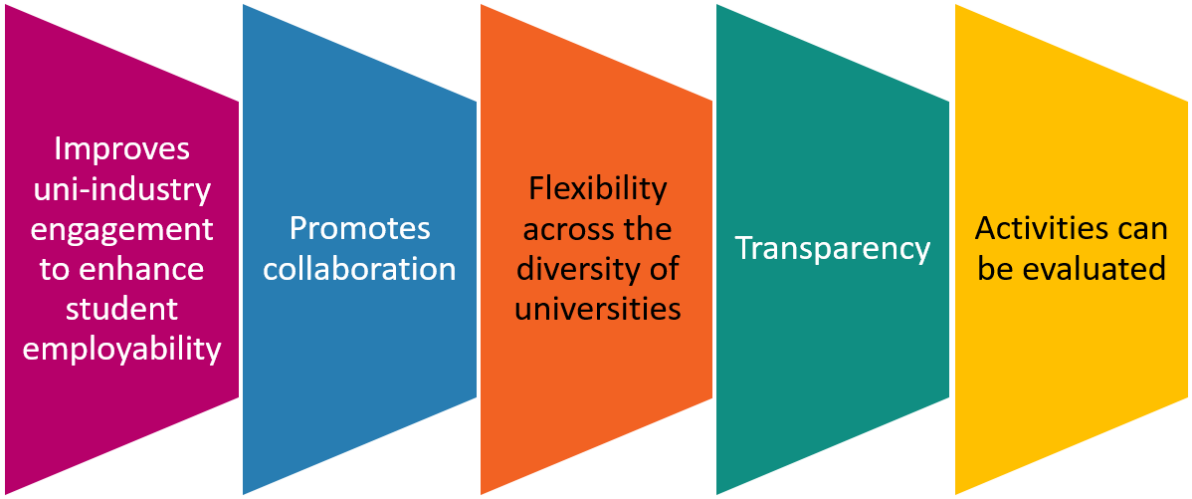
- ensure Australia has the skills and capacity to meet tomorrow's workforce needs and drive future economic prosperity for the nation;
- support universities as they respond to this evolution by introducing high quality, diverse and innovative approaches;
- support connectivity between universities and industry as the post-secondary education system evolves.

In achieving the above, it is important to consider the increasing importance of lifelong learning, which will provide new learning and skills for students in tomorrow's workforce.

Underpinning principles

The NPILF working group identified the importance of principles to guide the framework of the fund. The five underpinning principles outlined in **Figure 1** offer a framework against which the fund will be designed; appropriate indicators will be determined; and how performance will be measured. The principles will ensure the aspiration of the fund is met.

Figure 1 NPILF principles



In addition, the diversity across the three tiers of indicators has resulted in specific values identified for each:

Table 3: Specific principles to each tier

Metrics	Demonstrators	Innovators
SMART *Specific, measureable, actionable, reliable and time-bound*	**Longevity** *Has long-term impact; capacity to endure external pressures; able to be embedded in practices i.e. not a one off small exemplar*	**Revolutionary** *Large scale; high value (even if small scale); addresses a hard/wicked problem; entrepreneurial and failure tolerant*
Simplicity *Accessible; easily reported; not resource intensive to set up and maintain*	**Impact** *Positively affects students; evidence of institutional behaviour change;*	**Unique** *Takes into account and adds value to local circumstances*
Comparability *Internally to demonstrate improvement or change; externally to build a data base across the sector; not to be used in an unintended way to 'game' system*	**Rigorous accountability at institutional level** *Does not need to be comparable across the sector; sufficiently robust to enable identification of success*	**Entrepreneurship** *Is innovative and learns from mistakes; tolerant of risk; plans for the future*

Proposed framework for demonstrating engagement with NPILF

The NPILF seeks to ensure universities and industry work together to deliver a suite of learning experiences for students which are deeply and coherently connected to the evolving workplace. In recognising that providers offer varied missions and strengths and encounter different challenges, the Government wants to ensure that the delivery of NPILF funding is fair, dynamic and fit for purpose. A balance must be achieved between certainty of sector responsiveness to national priorities on teaching and learning and industry linkages, while allowing the space for universities to take risks to engage new sectors and deliver new learning models. At this critical time, universities need to be supported and encouraged to be innovative, co-produce new work practices and take risks.

The proposed NPILF framework asks universities to highlight their commitment to the three priorities using **indicators** to demonstrate activities.

Indicators

A proposed framework for achieving this is to assess university performance with three types of indicators:

1 **Cross-sector metrics –** base metrics, from a select list of mature data sets that are applicable sector-wide, where the universities exhibit existing performance and trend performance aligned with their missions.

2 **Demonstrators –** Each university will present institutional data, in addition to qualitative evidence, to demonstrate performance in programs specifically designed to achieve the aspirations of the priority area.
3 **Innovators –** each university will describe and commit to an innovative program for each priority area that have the potential to 'turn the dial' or meet a specific community need. Acknowledging that transformational change takes time, the same program could be identified for multiple years but different components must be identified as the interim goal for each year.

Through the three types of indicators, NPILF aims to champion the importance of self-improvement, against an institution's own missions, goals and priorities, in addition to maintenance of established excellent performance. By having the three types of indicators, with both quantitative and qualitative components, the framework reduces the need for each indicator or metric to be exhaustive in representing the realms of possibilities in which performance can be demonstrated.

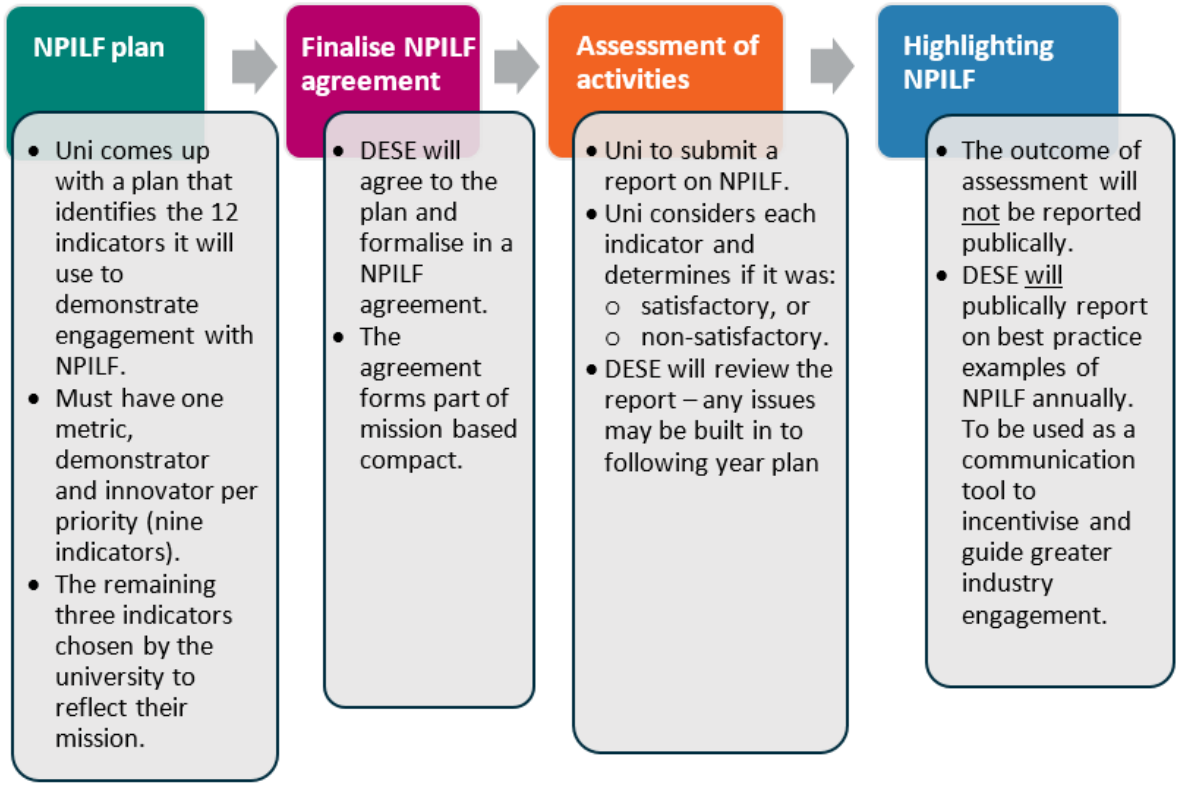
Indicators will be agreed with the department in accordance with the assessment criteria, which is that they:

1. Meet the principles
2. Deliver on intent
3. Demonstrate a contribution toward positive behavioural change.

The process

This diagram is an outline of the NPILF annual process which is discussed in detail in this paper:

Figure 2 Overview of NPILF process



What indicators will a university use

Proposing a NPILF plan

In November of each year, a university will propose a NPILF plan for the subsequent year. The NPILF plan will be a selection of 12 indicators and a description of the corresponding activity. There will be at least one metric, one demonstrator and one innovator from each priority area. The remaining three indicators will be chosen from any priority or tier by the university – this may be in line with the university's mission or could be an area of focus for the year. A university:

- Selects the metrics from a set list (refer **Table 4**) – and if required, defines a goal.
    - For example, a university selects the *Improvement in employment outcomes* metric and demonstrates that university performance is already of an excellent standing and therefore maintenance of this position would be the goal.
- Describes the activities that will be demonstrators and innovators (examples in **Table 5**) with the measurements that will be used as evidence of performance.
- May seek involvement from industry in selecting indicators and developing the plan, which would reinforce authentic and meaningful industry partnerships.

The flexible design provides universities the autonomy to determine their NPILF activities and how they want those activities to be measured. This aims to support institutional growth, rather than competition amongst universities.

There is no requirement for universities to choose the same indicators each year and there is no one indicator that is required to be submitted by all universities. Additionally, in recognising that some activities, if not many of the demonstrators and innovators, will be multi-year, the NPILF plan will only describe interim goals for that given year.

NPILF Agreement

The plan may form the basis of discussion with the department during the review phase November-March, before being finalised as the year's NPILF agreement.

The agreement is an important annual document which will be the basis of assessment at the end of the year. The agreement will be an attachment to the university's mission-based compact.

Table 1 Draft list of NPILF metrics

WIL	STEM+	Industry partnerships
• *Increase/proportion of credit bearing, undergraduate WIL at your institution, broken down by: field of education; and depth* • *Increase/proportion of academic workforce actively from industry* • *Increase/proportion of curriculum that is co-designed and/or reviewed that year by industry* • *Increase/proportion of HDR students undertaking internship/placement within first 18 months (of commencing HDR)* • Increase/proportion of WEI units	• Improvement in employment outcomes for STEM+ course graduates (3 and/or 5 years) • Increase in STEM+ and STEM-skilled graduates (number of non-STEM graduates with a STEM unit completed) • *Increase/proportion of non-STEM units with STEM-skills embedded* • *Proportion of final year students rated as job ready* • *Increase/proportion of STEM-skills embedded in curriculum* • *Increase/proportion of women in 'core' STEM courses (excluding health/architecture)*	• *Increase value/number of industry-linked programs, collaboration or partnerships broken down by industry type (e.g. ASX company, local government)* • Increase cat 2-4 income • *Increase in number of industry partners use of facilities/infrastructure or co-location* • Improvement in graduate employment outcomes overall • *Increase in the number of courses co-designed with industry (from short courses to PhDs)*

'Increase/proportion' also takes into account institutional maintenance of top performance
Italics denotes non-government data collection

Table 4 provides an extended list of metrics that are proposed. Once finalised, the list will comprise approximately four metrics per priority. While some of the proposed indictors already exist, others will need to be developed and trialled during the pilot period to ensure they are suitable for the sector. By having metrics which sit alongside demonstrators and innovators, it provides time for metrics to be developed, and means they do not need to be wholly representative of performance in a priority. It also mitigates against simplistic metrics driving unintentional behaviours and "system gaming".

Demonstrators and innovators are developed by each university. They will be in line with university missions and vary greatly. In these areas, universities are encouraged to take risk in order to achieve good outcomes. They are not simplistic case studies and require both quantitative and qualitative evidence to demonstrate outcomes. The demonstrators and innovators will be agreed with the department and the university in the NPILF agreement, refer examples at **Table 5**. It is important to recognise that where a university does not achieve the expected outcome of any indicator (metric, demonstrator or innovator), the requirements can still be met by providing evidence of what was implemented and what was learned from the process. Additionally, where an indicator is not achieved, it can still form part of the agreement in subsequent years if the university wants to

continue to try to achieve in that area. This failure tolerance is an essential component of the framework to encourage risk and drive behavioural change across the sector.

Table 2 Examples of demonstrators and innovators under each priority

WIL	STEM+	Industry partnerships
Demonstrators – to be provided by each university. These are examples only.		
• Programs which target internships in SMEs • Virtual internship programs • Entrepreneurship centres • Programs to increase WIL	• Business incubator programs to enhance STEM employability and attractiveness of STEM careers • Programs which increase accessibility of core STEM programs to school students • STEM-based microcredentials taught to industry partners to upskill existing workforce • Endorsement of skills needs framework i.e. scope of practice for STEM+ students (all years), Honours and HDR.	• Evidence of new education offerings, higher apprenticeships, diplomas, microcredentials. • SME engagement programs • Start-up and entrepreneurship programs • Increase number of repeat business/scaled up partnerships • Evidence of, and increase in, professional development programs for workplace supervisors, evaluation of partnerships and researching WIL practices
Innovators – to be provided by each university. These are examples only.		
• Internship in student start-ups and founder matching program • Trialling a new, innovative WIL approach	• STEM-skills embedded across all degree programs	• Increased scale of joint marketing or recruitment initiative

While one metric, demonstrator and innovator must come from each priority, the remaining three indicators may be from any priority and any tier. Each tier in itself does not have to be mutually exclusive or collectively exhaustive. An appropriate mixture of indicators across tiers and priorities will be endorsed by the department in the agreement, see example at **Table 6**.

Table 3 Example of indicator combination of 12 indicators

Work integrated learning		STEM and STEM-skilled		Industry partnerships	
Required	Optional	Required	Optional	Required	Optional
Metric 1	Metric 2	Metric 1	Metric 2	Metric 1	Metric 2
Dem 1	Dem 2	Dem 1	Dem 2	Dem 1	Dem 2
Innovator 1	Innovator 2	Innovator 1	Innovator 2	Innovator 1	Innovator 2
5 indicators		3 indicators		4 indicators	

End of year assessment of NPILF activities

In November each year, the university will submit a report against the NPILF activities undertaken. The report will not be onerous on the university, as it is expected that the report will be a direct response to (1) the requirements established in their NPILF agreement for that year and (2) the assessment criteria which is set out in **Table 7**. In the report, the university will determine if it was satisfactory or non-satisfactory regarding each indicator and briefly demonstrate why (quantitative and qualitative evidence). A satisfactory rating does not necessarily require a 'successful' or 'complete' outcome, as the intent of NPILF is to encourage risk, innovation and reward noble failure, which supports the behaviour change of universities more broadly. Regarding assessment, local variance may also be taken in to account, these might include regional or economic circumstances, for example a bushfire, flood or closure of a major business.

The university will submit their report in addition to their plan for the subsequent year at the same time. The department will have from November-March to review both the report and plan in parallel. This timeframe is important as any concerns the department has regarding the report will inform the department's discussion with the university regarding their new NPILF plan and potential areas for focus. Before March, the department will negotiate and finalise with the university:

1. acceptance of the report
2. agreement to new NPILF plan.

NPILF funding does not have to be spent on NPILF activities. Outlined **below** is the proposed methodology for establishing a funding agreement with the department if the NPILF indicators are not met.

Table 4 Proposed NPILF assessment criteria

Indicator	Satisfactory
Metrics	• Metric demonstrates increase or improvement • Some metrics allow maintenance of established excellent performance/standing
Demonstrators and innovators	• Demonstrated engagement or deep involvement with industry e.g. curriculum design; sought industry feedback; evaluation loop implemented • WIL experience resulted in professional skills, employment or direct link to employment • Industry satisfaction, has a flow on student impact or employment outcome • Implemented with success and/or scale and/or student impact • Commercialisation (with scale or impact) • New partnerships or expansion of industry engagement – consider importance of new sectors, wicked problems, traditional challenges • New program implemented – consider originality, entrepreneurial qualities, risk taking • Existing program expanded (e.g. scaled up; replicated) • Demonstrated student satisfaction (internally captured; not SES data)

If the assessment resulted in nine or less indicators being met, then a university will have an amount of funding withheld in the following year. The university will have the year to demonstrate improved performance to receive the withheld amount. If performance is still inadequate after this time, the withheld amount will be re-allocated. In the future, consideration could be given to changing this benchmark to 11 or less.

At the end of the year, a report will be published to showcase the efforts of the sector in striving toward the NPILF priorities. This report will be a communication tool to incentivise and guide greater industry engagement, it will not report directly on assessment outcomes of each university. This reporting system provides transparency that is critical in ensuring the underpinning policy driver is achieved. The demonstrators and innovators will enable universities and industry across the country to identify and share best practice and successful models which can be modified or implemented elsewhere.

Funding allocation based on submission

Each year, a university will report their NPILF activities and the department will either accept or negotiate the report.

The proposed allocation model is designed to be simple and to incentivise universities to achieve 12/12. Meeting less than 12 indicators will impact the subsequent year's plan and may mean funds are withheld, as detailed below.

Proportion of funding received based on submission – proposal

Pilot (2021-23)

The Pilot aims to encourage early engagement with the fund. In 2021 and 2022, universities will select 12 indicators but will only aim to meet 8 and 10 respectively. At the end of each of the years, feedback will be provided to universities regarding their submission but the assessment is not tied to funding.

Years following pilot

- 12/12 = 100 per cent allocation
- 10-11/12 = 100 per cent allocation*
- 0-9/12 = allocated by 100 - (50 X z/12) per cent**

  (where z is no. of indicators deemed non-satisfactory)

*For universities who achieve less than 12/12 indicators, the non-satisfactory areas may form part of the following year's negotiated NPILF plan between university and department as way to ensure universities are improving in NPILF priorities.

For universities who achieve 0-9 indicators, funding will be withheld in accordance with above formula, which allows for a floor of 50%. For example 9/12 indicators would mean receipt of 87.5% of funding. The university has 12 months after the assessment to demonstrate performance and receive the withheld amount of 12.5%. If performance does not improve, the withheld funding will be re-allocated. Additionally, if a university achieves below 4/12, ***total allocation* is withheld while department and university agree on a path forward to meet aspirations of the NPILF.

Re-allocation of funding

Any amount of withheld funding that is not adequately addressed in the subsequent year would lead to that amount being returned to the overall pool for re-allocation.

By March each year, when the reports have been accepted, the department will divide any withheld amounts that were not adequately addressed between the universities who achieved 12/12 for that year. There would be no extra submission process or requirement on the universities.

As the funding allocation model commences in 2024, any funds would be withheld from 2025 and re-allocated funds be available from 2026.

NPILF timeline and distribution options

The four year period allows for a pilot and transitional phase from 2021–23 to allow for sector consultation, with the finalised NPILF model to be implemented from 2024.

During the transition phase from 2021–23, it is important to note that all universities will receive 100 per cent of their allocation.

The pilot of the NPILF framework will begin in 2021 to encourage early engagement with the fund:

- In 2021, universities will select 12 indicators (metrics, demonstrators and innovators) to be agreed to by the department but will only aim to meet 8. At the end of the year, the university will report on their NPILF activities.
- In 2022, universities will select 12 indicators, following the same agreement process but will only aim to meet 10.

During the pilot, feedback will be provided to universities regarding their submission but the assessment is not tied to funding.

At the completion of the pilot, the department will consult with the working group and review the allocation framework, the agreement and reporting processes and robustness of metrics to determine the structure for 2023.

The finalised NPILF model will be implemented from 2024.

During the transition phase, the amount granted to each university is determined by a set of bands, which are weighted to support smaller universities and regional institutions. Universities fall into one of four funding bands, depending on the number of Commonwealth Supported Places (CSPs) enrolled in 2018**.** The final model for distribution may be based on other criteria. The model will need to be fair to all Table A universities, which may include accounting for small and regional factors in addition to being a reflection of the actual cost of the required activities. Some allocation models for distribution of NPILF from 2024 are outlined in **Table 8.**

Table 5 NPILF distribution options

Distribution options	Description
Per-EFTSL rate	Allocation based on CSP EFTSL, no bands, has a floor.
Per-EFTSL rate + base	Fixed base amount to all universities to reflect the cost of a base level of industry engagement irrespective of student load (no bands, no floor). Remaining allocation based on CSP EFTSL.
Per-EFTSL rate + base + loading	Fixed base amount to all universities to reflect the cost of a base level of industry engagement irrespective of student load (no bands, no floor). Remaining allocation based on CSP EFTSL plus a loading for regional and small institutions
Banded allocation	Banded allocation based on CSP EFTSL. There are four bands, with the corresponding amounts ranging from $3.25mil – $8.75mil. **This arrangement is to be implemented from 2021–24*

Consultation

Contribute your ideas

The working group now wish to invite members of the public to take the opportunity to contribute their ideas on the consultation paper. Available below is some discussion questions, which may provide a useful prompt to guide your submission.

Please email your submission (of no more than two pages) to the department at JobReadyGrads@dese.gov.au. Please note, all submissions will be made publicly available after submission closes unless advised otherwise by the submitter.

Submissions on the NPILF consultation paper will close at 11.59pm AEDT Friday, 30 October 2020.

Questions for discussion

Principles

1. Do the principles provide clear guidance on what is expected of an indicator?

Tiered indicators

2. How many indicators (i.e. 10, 12, or 15) might universities need to meet, to achieve the outcomes of NPILF, while also accounting for university missions?
3. Do the indicators provide enough flexibility to meet the varied needs of business?
4. Do you agree with the metrics listed? Which are the most valuable? Would you add other metrics?
5. To be able to measure industry linkages, is there an appetite to create a new system of data collection?

Allocation methodology

6. Is the proposed mechanism for allocation appropriate as a mechanism to incentivise new behaviours in the sector? *Could re-allocation be introduced earlier/not at all?*

Distribution options

7. Which distribution method (i.e. banded; per EFTSL-rate; base; loadings) makes most sense? Or can you propose another method?

Priorities – WIL, STEM-skills and Industry partnerships

8. Do you agree with the definitions of WIL, STEM+ and Industry partnerships in the context of NPILF?

9. How does a university measure and maintain the quality of WIL activities? – *consider if a current program/framework could be used broadly across the sector.*
10. How does a university promote WIL, and the benefits of WIL (especially new, innovative or 'remote' approaches) to SMEs and large organisations, and is there a role for Government?
11. How can universities best engage industry, particularly SMEs, with WIL?
12. How can universities help STEM+ students "think beyond the lab" and expose them to the vast employment landscape they can access?
13. Are there specific challenges for SME's in engaging with universities that need to be addressed in the framework?
14. Does the framework allow sufficient knowledge sharing to enable universities and industry to build on successful models?

Existing practice

15. Does your business or university have good examples of WIL, or partnerships, which can be used as exemplars?

General

16. Does the framework sufficiently address the lifetime of learning challenge facing the workforce?
17. Does the 12 month NPILF cycle (as set out above) allow enough time to implement and report on activities?
18. Do you have any other feedback or comments?