



THE UNIVERSITY
of ADELAIDE

Our Ref: 2019/4516

Department of Education,
Skills and Employment

Sent via - JobReadyGrads@dese.gov.au

29 October 2020

Dear Sir / Madam

Consultation on National Priorities and Industry Linkage Fund (NPILF)

The University of Adelaide welcomes the opportunity to provide a submission into the consultation on the National Priorities and Industry Linkage Fund.

We believe the commitment to dedicate funds to advance engagement is an important step, and one which is welcome.

Representatives of the University would be pleased to discuss this submission with your committee as required.

Yours sincerely

PROFESSOR JENNIE SHAW
Interim Deputy Vice-Chancellor and President (Academic)

National Priorities and Industry Linkage Fund Consultation

University of Adelaide submission

The University of Adelaide is committed to ensuring that an Adelaide education will be matched to the needs of students, rich in curriculum and experience, designed to equip graduates with the skills, knowledge and wisdom they require for success in a future we expect to be very different from the present.

We continue to evolve our curriculum across all our programs to ensure that is richly industry-engaged, including in research education, paying special attention to alignments with our own Industry Engagement Priorities. Increasingly involving industry and community routinely as partners in curriculum design, we are seeking to create many more experiential learning opportunities to engage students with real-world projects and problems throughout their studies.

Industry engagement and embedding of WIL, including for our STEM+ students, are central features of our transformation agenda for curriculum, learning, teaching and assessment. The University already has commenced a number of initiatives that could be accelerated significantly with additional resource.

The University of Adelaide welcomes the Government's commitment to invest in engagement between universities and industry. We do though have some suggestion for improvements to the Fund that focus on investment in getting the conditions right (incentives, support, training and development, etc.) as well as mechanisms.

This plan is focused on universities – but we believe that the scope needs to be broader.

By focusing on the performance of individual universities, the proposal misses an important point: To make collaboration between universities and education/research end-users more successful, Australia needs a whole-of-sector approach to build capacity and capability and so a broader focus on mechanism to encourage industry involvement is critical.

The focus should be on jointly growing opportunities by reinforcing that the university sector is a trusted partner – as a whole, not one university.

It is unlikely that instigating and measuring improvement at the individual institutional level by itself will generate the drastic shift that is necessary for Australia to maximise opportunities arising from university-industry partnerships for the benefit of the economy and society.

A whole-of-sector approach and voice is critical for a country such as Australia, given that we cannot rely on an industry base that is universally ready to engage, with a clear understanding of the value it can generate by engaging with universities. This is something that needs to be built from the ground up.

In addition, the proposed NPILF framework allows for flexibility and risk tolerance, and sets out opportunities for aspirational programs and targets for WIL and STEM+. However, the

feasibility of achieving these aspirations needs to be tempered with the reality of the current financial position of many institutions across the higher education sector (including our own). The framework could lead to a commitment to over-ambitious targets, projects and outcomes that institutions are not resourced to attain, particularly if NPILF funding, as proposed, is not limited to spend on agreed NPILF indicators. This is also a relatively small pool of funds.

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

The underpinning principles are appropriate and the evaluation indicator is critical. It will be essential that the scheme enables adequate resourcing of rigorous evaluation activity to ensure a robust institution- and sector-level evidence-base on effective practice. The tier-specific principles are clear and appropriate. Further developed examples and short case studies could be beneficial, particularly for demonstrators and innovators. Further information about how success will be determined will also be required.

Question 4: Do you agree with the metrics listed? Which are the most valuable? Would you add other metrics?

Overall we believe that there are too many metrics listed, particularly given the closely related domains of WIL and industry engagement. The suggested metrics provide enough flexibility in the short term for the University of Adelaide. However over the longer term the metrics probably need to acknowledge that in some cases stasis at a high level is sufficient.

‘Failure tolerance’ is critical to drive experimentation and innovation.

‘Simplicity’ is desirable and careful use of resources proportional to intended outcomes should be encouraged; however, the NPILF (and institutions) must recognise that significant resourcing will be required to achieve its goals.

‘Impact’ should additionally demonstrate sustained behaviour change within industry as well as within universities, in a way that recognises the mutual engagement on which NPILF’s success depends. The paper does not explicitly recognise the part industry needs to play in active engagement; nor does the scheme explicitly offer any levers to encourage this. SMEs in particular will need an incentive from government to participate in WIL and ideally a financial one. Some North American ‘cooperative education’ resourcing models may provide useful exemplars in this respect.

Clarification is needed on whether parameters for reporting against the key metrics will be set at the national or institutional level. This has implications for establishment and/or redesign of University reporting capabilities for WIL (affecting policy, processes and systems).

We do not agree that HDR placements should be limited to the first 18 months of candidature. Many HDR students may take internship experiences later in their candidature; these may be of more interest to industry partners, can provide very beneficial skills development, and pathways to employment.

In addition, although the metrics account for maintenance (which is appropriate), it is not clear what the starting point is in 2021. Clarity is required about whether the demonstrators and

innovators in 2021 are actually more about establishing the benchmark for the metrics. It is assumed that this is a main reason for the pilot.

Typically universities have not created WEI (Work Experience in Industry) units (wholly work) as it negatively impacts funding. WEI is much more often incorporated in courses as a component. Funding mechanism would need to be changed if there is to be change implemented in this area.

Question 5: To be able to measure industry linkages, is there an appetite to create a new system of data collection?

The ability to measure industry engagement is important but we should avoid the introduction of new data collection systems if possible. Experience has shown that these are expensive and create huge administrative burden on all stakeholders. However, if consensus can be reached on a robust set of metrics that act as indicators on the success of industry engagement, and this data is not already collected on other systems then it would be sensible to augment existing systems to collect and report on this data. Care should be taken in designing such a system. Australia should not merely introduce what the UK has been doing.

It is positive that the focus is on incentivising behaviour, that flexibility in metrics is enabled, and that innovation and risk-taking is encouraged. It is also positive that the report notes the incentivisation of mindsets, even though it remains unclear through later sections of the document how mindsets are developed and measured.

Creative and critical thinking are noted as STEM+ skills, with design thinking noted as a STEM+ discipline content. Given that these examples are taught outside of STEM disciplines, measurement will require a much more nuanced approach going forward – beyond traditional STEM programs and courses, such as noted in Tables 1 and 2.

A stronger focus should also be made on the quality of partnerships with industry.

Question 6: Is the proposed mechanism for allocation appropriate as a mechanism to incentivise new behaviours in the sector?

It is proposed that NPILF funding does not have to be spent on NPILF activities. Such an approach risks unintended negative effects; on the resourcing of NPILF activities within institutions; in constraining experimentation and innovation; and in limiting outcomes and impact.

The flexibility and failure tolerance built into the proposed allocation methodology is a welcome feature that should allow institutions to take beneficial calculated risks. The ability to include riskier projects in the NPILF plan should be built into the continued future planning for NPILF allocation.

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

It is essential that these definitions are clear and promote shared understanding not only across the sector but also across industry.

The definition of WIL is ambiguous (e.g. it could be read as implying that WIL must be assessed by industry, which may not be true for many forms of WIL). It is important to clarify what “authentic” industry engagement means. Organisations such as ACEN have worked collaboratively across the sector to build common understanding of WIL and could be called upon to contribute to a better definition (e.g. see [National Strategy on Work Integrated Learning in University Education](#)).

Work Integrated Learning is much more than internships or placements in the workplace. And as such the definition is also too narrow. WIL can involve many other aspects such as simulated, problem-solving opportunities in the class room, industry group projects (e.g. global challenge projects), case studies, and, direct learning of employability-related skills (e.g. how to resolve conflicts, manage time).

The NPILF scheme’s definition of STEM+ disciplines is clear, but the broader conceptual framework, assumptions and intent of the scheme, in relation to STEM, are ambiguous. For example, the concept of ‘STEM skills’ encompasses skills such as problem-solving, inquiry, digital literacy etc. that are developed in other disciplines as well as within STEM+ disciplines including in the Arts, Humanities and Social Sciences.

Integration of STEM skills into courses of study will depend on acceptance of the term and its meaning across the disciplines. It will be essential to clarify the NPILF’s definition of ‘STEM skills’ and its expectations about the discipline contexts in which these are developed. Are initiatives under the scheme to be focused solely on STEM+ courses?

It will also be essential to clarify the intent of the NPILF as regards fostering ‘STEM skills’ development among students who are not enrolled in STEM+ degree programs. Further, there is strong consensus in the literature that trans- and inter- disciplinary knowledge, and related ‘combinatorial’ skills for complex problem-solving and inquiry, are of high relevance to contemporary employment and lifelong learning. Will the NPILF support activities targeting these skills, for STEM+ and other students?

Question 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.

See [A Framework to Support Assurance of Institution-wide Quality in Work Integrated Learning](#) Campbell, M., et al. (2019) for an example of a quality framework.

Question 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?

The ability and willingness of industry partners, particularly SMEs, to engage with WIL activities is influenced by resources. While well-designed WIL activities will often result in benefits to the student, the industry partner, and indeed the university, the key priority of WIL is by definition, student learning, and industry benefits are not always guaranteed. It is often the case the SMEs are more focussed on short term goals and objectives than larger enterprises and are harder to engage to invest resources in long term work force programs to improve

employability outcomes. Government incentives for participation, particularly for very small and small businesses, could improve their participation rates.

Given the historically low levels of industry engagement, and the complexities relating to SME engagement and growth, progress relies on clear and consistent messaging around the opportunities and value of engaging with universities – delivered by those already trusted. So there is a role for Government, industry associations and other trusted individual organisations.

Additionally, while WIL is an excellent pathway to employment, the vast focus is on this modality and other worthy and evidence based interventions to achieving long term career development and management skills for students have been overlooked in this program.

Many interventions already exist in most University Career Services and include industry mentoring programs and direct access to employers via employer on campus programs in addition to structured careers education and individual career counselling.

Question 12: How can universities help STEM+ students “think beyond the lab” and expose them to the vast employment landscape they can access?

There are currently fewer expectations around work-engagement within our Science and Maths degrees relative to other programs offered by the University. Embedding WIL in such degrees is a focus of current curriculum redesign and enhancement initiatives but a transformative step-change is required to achieve the NPILF goals. NPILF allocations could be used to accelerate industry co-creation of curricula, and learning, teaching and assessment, which support a WIL culture and promote the values and benefits of a wide landscape.

Question 13: Are there specific challenges for SME’s in engaging with universities that need to be addressed in the framework?

SME challenges are likely to differ depending on the scale of the organisation, its focus on growth, access to resources, working on versus in the organisation, and resilience/ability to pivot in the face of COVID-19. What is necessary is a better understanding of, and support for, SME readiness to engage with universities.

Question 14: Does the framework allow sufficient knowledge sharing to enable universities and industry to build on successful models?

The framework is quite convoluted with one metric, one demonstrator and one innovator in each priority (and any three elsewhere) – it seems overly complex especially when many will overlap. Knowledge sharing does not emerge as sufficiently central to this proposal. There is also a lack of transparency. For those that receive full funding there should be an obligation to publish what they did.

Question 16: Does the framework sufficiently address the lifetime of learning challenge facing the workforce?

The framework could more strongly incentivise and support provision of flexible STEM+ and STEM skills education in continuous workforce development through new products and pathways such as micro-credentials.

Question 17: Does the 12 month NPILF cycle (as set out above) allow enough time to implement and report on activities?

The cycle is severely time-constrained. For example, if plans for each academic year are agreed in March, and the intention is modifications to curriculum or new industry partnerships for WIL, these will not be implemented in time for Semester 1. To demonstrate progress in such a short cycle likely would require conservative indicators or those that reflect partial progress toward a longer-term goal, combined with a speedy and potentially less robust approach to impact evaluation. By forcing agreed November plans to be completed in the following year it only guarantees that universities will nominate things they were already doing or things that are trivial. Neither changes behaviours sustainably. A two-year cycle or a rolling scheme should be considered.