Australian Council of Engineering Deans

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Engagement and Impact Assessment Consultation
Australian Research Council
Canberra

Dear Sir/Madam

Re: Engagement and Impact Assessment Consultation

I write on behalf of the Australian Council of Engineering Deans (ACED) to provide input to the Engagement and Impact Assessment Consultation process.

ACED is an incorporated association of the 35 Australian universities providing accredited engineering degree programs. ACED's mission is to support and promote engineering education and research in the higher education sector.

Engineering faculties and schools focus on undertaking research that can be applied to the solution of a wide range of problems and that may contribute directly to innovation, and flow on to economic prosperity, improvements in physical and information infrastructure, human and environmental health, and general well-being. ACED and its member faculties and schools place high value on the impact of research and the engagement of researchers with industry and other communities. We welcome this opportunity to respond to the feedback questions posed in the Consultation Paper, as follows.

I and my ACED colleagues would be pleased to discuss these matters further with you.

Yours sincerely,

Professor Moses Tadé
President, ACED Inc.

Definitions and scope

1. What definition of 'engagement' should be used for the purpose of assessment?

ACED supports the adoption of the ATSE definition of 'engagement', namely the:

interaction between researchers and research organisations and their larger communities/industries for the mutually beneficial exchange of knowledge, understanding and resources in a context of partnership and reciprocity.

2. What definition of 'impact' should be used for the purpose of assessment?

ACED supports the adoption of the ARC definition of 'impact', namely:

Research impact is the demonstrable contribution that research makes to the economy, society, culture, national security, public policy or services, health, the environment, or quality of life, beyond contributions to academia.

3. How should the scope of the assessment be defined?

A strength of the ERA assessment is that it is comprehensive. Therefore, the plan to cover all research disciplines and all universities is strongly supported for the engagement and impact assessment.

While a comprehensive assessment is more onerous, it is more robust than an arrangement in which universities or disciplines can be selective in the data presented. In supporting a comprehensive assessment, it is realised that this increases the burden of data collection.

Thus, ACED recommends that, wherever possible, existing data, preferably publicly available and transparent, be employed, rather than assessment-specific data be generated afresh.

4. Would a selective approach using case studies or exemplars to assess impact provide benefits and incentives to universities?

ACED considers that it would be better to limit the scope in the sense of the parameters being employed, rather than limit the scope in the sense of covering all parameters, but only by representative examples. The 'benefits' and 'incentives' available to the universities in using case studies or exemplars might result in a distorted picture of research impact and engagement across the board. Thus, as outlined in the response to Question 3, a non-selective approach is preferable

5. If case studies or exemplars are used, should they focus on the outcomes of research or the steps taken by the institution to facilitate the outcomes?

While, as discussed above in response to Question 4, case studies or exemplars are not recommended, if they are used, they should be applied as broadly as possible, in terms of both the outcomes and the processes considered.

6. What data is available to universities that could contribute to the engagement and impact assessment?

The most readily-available data will be related to commercial and contract research. For example, Category 3 and Category 4 Research Income may be used as indirect measures of research impact. However, much of these research types may be commercial-in-confidence.

i. *Should the destination of Higher Degree Research students be included in the scope of the assessment?*

Yes, this would be useful, but would need to be collected in similar ways by each institution to be of value. The categorisation of these data may need to discipline-specific in order to be meaningful.

ii. *Should other types of students be included or excluded from the scope of assessment (e.g. professional Masters level programmes, undergraduate students)?*

No, these are likely to only have a peripheral connection to research impact.

Key Issues

7. What are the key challenges for assessing engagement and impact and how can these be addressed?

Difficulty in attribution, time lags between research and its effects, balance the extent of data and the burden of collection, and managing disciplinary differences, including multi/inter/trans/cross-disciplinary research, are acknowledged as key challenges. While there is a danger of universities focusing or reportable performance, there may be an equal or greater danger of universities overstating economic, social or other benefits.

8. Is it worthwhile to seek to attribute specific impacts to specific research and, if so, how should impact be attributed (especially in regard to a possible methodology that uses case studies or exemplars)?

In some cases it will be simple to attribute specific impact to specific research. However, in many cases it will not be simple to attach specific impact to specific research, either because an identifiable research impact is the result of diverse research inputs or, alternatively, specific research has unenvisaged and even unknown applications. Thus, at least as a first implementation, it is recommended that attribution be restricted to specific research having specific impact.

9. To what level of granularity and classification (e.g. ANZSRC Fields of Research) should measures be aggregated?

While the ANZSRC FoR codes have their weaknesses they are well understood in the sector and it is suggested that they be adopted. For Engineering, the 4-digit FoR codes definition will be most meaningful, and in some cases a 6-digit definition will be needed to appropriately specify the field of research.

10. What timeframes should be considered for the engagement activities under assessment?

Timeframes are very challenging. ACED agrees that the significant timeframes are of the order of decades, rather than years. However, using such long time frames brings with it the danger that the data reflects historical positions rather than current capacity. One way to capture the longer-term and more immediate aspects may be to employ two indicators, the first using a period of decades, to capture substantial historical impacts and the second using a period of years, to indicate recent trends. The first indicator could operate over the timeframe of 20 years and the second over a timeframe of 3-5 years.

It is also acknowledged that the timeframes for impacts are longer than those for engagement, but it is thought that the process will be unnecessarily confusing if these are separated. Therefore, it is recommended for both engagement and impact, the same timeframes be used.

11. What timeframes should be considered for the impact activities under assessment?

As detailed in response 10, ACED recommends for both engagement and impact, using a long timeframe of 20 years and a short timeframe of 3-5 years.

12. How can the assessment balance the need to minimise reporting burden with robust requirements for data collection and verification?

ACED has considerable concern about the cost of providing case studies, such as the estimated median cost of GBP 7500 per case study and GBP 4500 per case study template, with a total cost of GPB 55M for the REF exercise. ACED strongly opposes such an additional burden be placed on the universities.

Rather, ACED recommends the approach adopted by ATSE, using currently available data, such as those available from ERA and HERDC.

13. What approaches or measures can be used to manage the disciplinary differences in research engagement and impact?

The best way to approach this difficulty is believed to be by discipline-normalised measures, as already widely used in reporting publications. This would need to be at the 4-digit level, since the whole of Engineering is covered by the 2-digit code, and there are considerable differences between the branches of engineering, in terms of impact and engagement contexts.

14. What measures or approaches to evaluation used for the assessment can appropriately account for interdisciplinary and multidisciplinary engagement and impacts?

Full credit should be given to each of the disciplines represented in the research.

Types of engagement and impact indicators

15. What types of engagement indicators should be used?

The use of the data already collected by ERA is encouraged, including commercial income, patents, registered designs and plant breeder's rights. While these differ from field to field, the data may be normalised. Again, the approach taken by ATSE demonstrates what can be accomplished by these means.

16. What types of impact indicators should be used?

For the reasons explained above, ACED considers that it is best not to use methods relying on case studies or exemplars. Thus the methods such as those being developed by the Department of Industry are recommended.

Other

17. Are there any additional comments you wish to make?

No