

Ms Sarah Howard
Branch Manager (Research Excellence)
Australian Research Council
CANBERRA ACT 2601

12 October 2020

Dear Ms. Howard

RE: Review of the Excellence in Research Australia and Engagement and Impact Assessment

UTS is pleased to provide feedback on the review of the Excellence in Research for Australia (ERA) and Engagement and Impact (EI) assessment programs.

A thriving research and development ecosystem is critical to Australia's long-term prosperity, with the ERA and EI important tools supporting the continual development of Australian research.

UTS strongly supports the intended outcomes of the review and believe that it provides an opportunity to ensure ongoing value of the ERA and EI for government, industry, universities and societies.

Our feedback in response to the consultation questions is provided on the following pages. Should you have any questions or would like further information, please contact my Office.

Yours sincerely



Professor Kathryn McGrath
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Section 3: Excellence in Research for Australia

Overview

Q4.1 To what extent is ERA meeting its objectives to:

- a. Continue to develop and maintain an evaluation framework that gives government, industry, business and the wider community assurance of the excellence of research conducted in Australian higher education institutions:
To a large amount. As a whole, UTS believes that the ERA is well understood and received within government and the higher education sector. The application of the evaluation framework outside of the sector and government appears quite limited.
UTS welcomes the introduction of the revised FoR codes and notes that this will impact upon future ERA and EI.
- b. Provide a national stocktake of discipline level areas of research strength and areas where there is opportunity for development in Australian higher education institutions:
To a moderate amount. Although there is a rating issue within some disciplines, the ERA largely achieves its aim of being a national stocktake of research.
- c. Identify excellence across the full spectrum of research performance
To a large amount. The ERA is a robust evaluation of research performance with respect to the context of the traditional research outputs view. The complimentary EI augments the ERA through examining research outcomes in their broader context of impact and engagement. However, the diversity of research performance outside of traditional outputs is mostly absent.
- d. Identify emerging research areas and opportunities for further development
To a moderate amount. As an evaluation framework, the ERA focuses on past performance. As such, its use as a strategic tool to identify new and emerging research areas is limited.
- e. Allow for comparisons of research in Australia, nationally and internationally, for all discipline areas
UTS believes the ERA largely meets this objective, noting disciplinary variances can result in difficulties when comparing Australian research nationally and internationally in areas such as Indigenous research.

Q3.2 ERA objectives are appropriate for meeting the future needs of its stakeholders

Strongly agree. The ERA objectives remain appropriate and UTS strongly supports the focus on excellence in research.

Q3.3 What impacts has ERA had on:

- a. Australian university research sector:
ERA has created powerful institutional incentives to strengthen scientific and research endeavours. ERA has – unfortunately – tended to focus on traditional methods of research, which seem to predominantly advantage the Go8, over more innovative and emerging research methodologies and non-traditional outputs.
- b. Individual universities:
ERA has significant resource implications for individual universities.
- c. Researchers:

ERA has been helpful in defining and profiling research excellence and setting clear expectations.

Q3.4 How do you use ERA outcomes?

ERA is used for a variety of internal and external purpose such as:

- Defining research excellence and setting appropriate expectations for researchers;
- Understanding and capitalising on areas where we have distinctive capabilities; and
- External profiling and reputation building.

Q3.5 ERA outcomes are beneficial to you/your organisation.

Agree. ERA outcomes provide a useful tool to explore research excellence and ensure the continued high performance of Australian research.

Q3.6 Do you have any suggestions for enhancing ERA's value to you/your organisation?

Reducing the significant amount of institutional resources required to prepare the submission would increase the value to the university as academic and professional staff resources could be refocused on research excellence and continual improvement.

Methodology

Q3.7 The current methodology meets the objectives of ERA.

The mixed methods approach of the ERA best supports its objectives as it ensures a nuanced view of discipline performance both domestically and internationally.

Q3.8 What are the strengths of the overall methodology?

The discipline specific and mixed methodology approach of ERA is the main strength of the current approach.

Q3.9 What are the weaknesses of the overall methodology?

UTS believes that the overall methodology of the ERA remains sound. Colleagues expressed varying views in relation to the value and use of peer review and citation analysis. These are further discussed in response to specific questions below.

Q3.10 Does the discipline-specific approach for evaluating research quality (citation analysis or peer review for specific disciplines) continue to enable robust and comparable evaluation across all disciplines?

Yes. While there are significant improvements that could be made to the peer review process, UTS strongly supports the use of disciplinary specific quality evaluation as they provide the most accurate measure of the quality of Australian research compared to national and international benchmarks.

Q3.11 The citation analysis methodology for evaluating the quality of research is appropriate.

The appropriateness or otherwise of citation analysis varies by discipline. UTS notes that this form of analysis lends itself to STEM disciplines, but has the potential to disingenuously reflect the performance of HASS areas, including Indigenous research, when used in isolation from other metrics.

Q3.12 What are the strengths of the citation analysis methodology?

Citation analysis provides an objective assessment of the quality of Australian research compared to international colleagues, particularly for STEM research.

Q3.13 What are the weaknesses of the citation analysis methodology?

The applicability and effectiveness of citation analysis across the different disciplines and the nature of research outputs (e.g. NTROs). Citation analysis can create an unhealthy publishing culture internally and/or a market for 'highly cited' researchers which is not aligned to the goals of the ERA, Australia's national interests or the culture of research.

Q3.14 Can the citation analysis methodology be modified to improve the evaluation process while still adhering to the ERA Indicator Principles?

The evaluation mechanism remains sound for STEM disciplines. Continual improvement in this type of analysis will ensure its ongoing relevance as a quality measure for these disciplines.

Q3.15 The peer review methodology for evaluating the quality of research is appropriate.

UTS believes that there will be some ongoing role for peer review in the ERA as it is a useful tool in a very broad sense, that is where there is agreement among reviewers: there the assessment is likely to be accurate. A strength is that it is not dependent on automated responses but is able to assess in a contextual and rich way; however, this is also the weakness of the system, as this leads to variation as described above. The use of more independent data such as citations, journal quality etc. may enhance ERA evaluation processes.

UTS notes the challenges associated with peer review in Indigenous research and supports the ARC ensuring appropriate cultural diversity on peer review panels.

Q3.16 What are the strengths of the peer review methodology?

See Q3.15.

Q3.17 What are the weaknesses of the peer review methodology?

See Q3.15.

Q3.18 Can the peer review methodology be modified to improve the evaluation process while still adhering to the ERA Indicator Principles?

UTS believes that the peer review methodology could be modified/augmented by:

- Providing a more comprehensive analysis of research outputs, i.e., reviewing more outputs;
- Clearer guidelines as to what makes a study excellent and constitutes world standard, including for Indigenous and First Nations research;
- Increasing the amount of feedback provided to support continual improvement; and
- Provisions for using objective measures such as citations to supplement the processes.

Q3.19 The volume and activity indicators are still relevant to ERA.

Neither agree nor disagree. Volume and activity measures are relevant indicators in demonstrating excellence, when coupled with a quality assessment.

Q3.20 The publishing profile indicator is still relevant to ERA.

Agree. Given the rigorous review processes, the quality of the publisher can serve as a proxy indicator for the excellence of scholarly outputs.

Q3.21 The research income indicators are still relevant to ERA.

Disagree. Research income is of itself, not a measure of the quality of research, but rather the viability of research outcomes and often track record of investigators and a reflection of the risk profile of the funding agency.

Q3.22 The applied measures are still relevant to ERA:

UTS believes that the applied measures are more relevant to the EI rather than ERA as they are an indication of engagement and impact beyond academia rather than research quality.

Rating scale

Q3.23 The five-band ERA rating scale is suitable for assessing research excellence.

Agree.

Q3.24 Noting that 90% of units of evaluation assessed in ERA 2018 are now at or above world standard, does the rating scale need to be modified to identify excellence?

No. It reflects the sustained improvement of Australian research and the standing of our research internationally. UTS does note that in the peer review the benchmarking of excellence will move at a different pace than that in the metric review and this should be considered.

Low-volume threshold

Q3.25 The ERA low-volume threshold is appropriate.

As a whole, UTS believes the current low-volume thresholds are appropriate, but should be reviewed regularly to ensure that they account for disciplinary practice and publishing volumes.

Q3.26 Are there ways in which the low-volume threshold could be modified to improve the evaluation process? Please describe.

See 3.25.

Staff census date

Q3.27 What is the more appropriate method for universities to claim research outputs—staff census date or by-line?

UTS supports a by-line approach as it provides a more accurate indication of academic affiliation and the use of institutional resources in the development of research outputs.

Q3.28 What are the limitations of a census date approach?

A census date approach has the potential to incorrectly attribute research outputs to the organisation where a researcher is currently employed, rather than the organisation that employed and supported the research output. Further, it may penalise staff who are on unpaid leave (e.g. to extend their maternity leave) who would not be counted but have contributed to Australian resources.

Q3.29 Would a by-line approach address these limitations?

Yes.

Q3.30 What are the limitations of a by-line approach?

Some journals and publishing houses only allow a by-line from one institution which would penalise any secondary affiliations and some published works and NTROs do not carry a by-line.

Interdisciplinary research and new topics

Q3.31 ERA adequately captures and evaluates interdisciplinary research.

The ability of the ERA to evaluate transdisciplinary research is reliant on the ability of FoR codes to appropriately capture outputs. Given the recent significant changes to FoR codes, it is difficult to provide a position in response to this question.

Indigenous research

Q3.32 My institution would meet ERA low-volume threshold in Indigenous studies at:

UTS believes that we would meet the ERA low-volume threshold at the two-digit level, .45. UTS would potentially meet the threshold in 4502, 4504, and 4505.

Q3.33 In ERA, the best approach for evaluating Indigenous Studies is:

Using established ERA methodology i.e. the low-volume threshold would apply to the Indigenous Studies discipline and all its specific disciplines.

Q3.34 What would be the advantages and/or disadvantages of your preferred approach for evaluating Indigenous studies in ERA? Please describe.

UTS believes that this approach would ensure Indigenous research is appropriately profiled within the ERA and connected to international First Nations research.

ERA process

Q3.35 ERA should move to an annual collection of data from universities.

If the ARC were able to design an efficient and automated collection system that reduced the administrative burden on universities, UTS would support moving to an annual data collection. Otherwise, UTS believes that moving to an annual data collection would significantly increase the already substantial amount of resources required for ERA and divert staff time away from undertaking and supporting research excellence.

Q3.36 What would be the advantages and/or disadvantages of an annual data collection?

While an annual collection may improve the currency of assessment, it will not guarantee improvement in its accuracy or reliability and would create a significant additional resourcing overhead for individual institutions.

Publication of ERA data

Q3.37 In future ERA rounds, should the volume of outputs submitted for each unit of evaluation be published?

Yes. Greater information would support universities developing a deeper knowledge about research quality and continually improve the quality of Australian research.

Q3.38 In future ERA rounds, research outputs should be published with their assignment to specific disciplines following completion of the round.

Strongly agree. UTS believes this would provide additional detail which will help the sector to continually improve the quality of its research. We are conscious that the use of these data would need to be carefully managed to ensure they did not become a quantity based researcher benchmark.

Q3.39 What other data do you think the ARC should publish following an ERA round?

UTS would support panel feedback on each FoR being provided to each institution to support continual improvement.

Section 4: Engagement and Impact

Overview

Q4.1 Considering that EI is a new assessment, to what extent is it meeting its objectives to:

- a. encourage greater collaboration between universities and research end-users, such as industry, by assessing engagement and impact?
Moderate amount. EI has raised awareness but has not significantly modified behaviours, particularly in end-users and industry.
EI has not harmed inter-university collaboration but nor has it encouraged it. The ability to provide ARC with a joint-submission may improve EI's ability to encourage greater collaboration between universities.
- b. provide clarity to the Government and the Australian public about how their investments in university research translate into tangible benefits beyond academia?
UTS believes this question would be best asked of government, industry and the public.
- c. identify institutional processes and infrastructure that enable research engagement?
A large amount. The notion of impact has become a common part of narratives and the EI has supported a deliberative shift in our internal processes and infrastructure to better support engagement and impact.
- d. promote greater support for the translation of research impact within institutions for the benefit of Australia beyond academia?
Moderate amount. EI has provided a signal of ARC and government priorities, which are being adopted and embedded in university practices relating to research translation, commercialisation and knowledge exchange.
- e. identify the ways in which institutions currently translate research into impact?
EI has provided a catalyst for institutions to review their practices and processes to ensure they support research impact. UTS has undertaken a large amount of work to understand and define impact, and developed new strategies including [the 2027 Research Strategy](#) featuring deliberative shifts such as co-locating with partners and the development of a principles and behaviours based performance indicator suite that reflects our commitment to impactful research.

Q4.2 The EI objectives are appropriate for the future needs of its stakeholders.

As a whole, the objectives are appropriate for the future needs of universities and government. UTS queries the current awareness, utility and adoption of EI amongst end-users and the public and believes more work is required in this space to raise awareness of EI.

Q4.3 What impact has EI had on:

- a. the Australian university sector:
EI is supporting a shift in thinking and practice that has moved the focus of Australian research beyond traditional research outputs to an increasing and deliberative focus on outcomes.
- b. Individual universities:
EI has created awareness of the importance of research impact and translation.

While having positive impacts, EI has increased administrative workloads as universities are required to capture, analyse and report using new indicators which move beyond traditional metrics. Processes and practices (e.g. promotions) are beginning to shift to better support engagement and impact.

See, also Q4.1.C.

c. Researchers:

Enhanced awareness of EI but no large scale shift. Some shifts towards greater training in EI and relationship management activities.

d. other sectors outside of academia?

Given it is a relatively new exercise, UTS does not believe EI has had a significant impact on other sectors. UTS strongly believes that there is significant potential to do so, demonstrating the capabilities of the higher education sector and the value it brings to the country.

Q4.4 How do you, or your organisation, use EI outcomes?

UTS uses EI outcomes for a variety of purposes, including: internal profiling of excellence in research translation and impact that support career development; reputational and promotional material that support our international and domestic standing.

Q4.5 The EI outcomes are valuable to you or your organisation.

Agree. UTS uses the outcomes to assist with career development activities (e.g. new development modules) and to demonstrate our capabilities for tenders and government contracts for example.

Q4.6 How else could EI outcomes be used?

UTS believes that EI outcomes could have broad applications beyond their current, largely institutional, usage. This includes: consideration by funding bodies, use in government policy, and to profile the benefits derived from the public investment in research.

Definitions

Q4.7 The current Engagement definition is appropriate.

Agree.

Q4.8 The current Impact definition is appropriate.

Agree.

Q4.9 The current end-user definition is appropriate.

The current definition is appropriate and broad in its application without being overly prescriptive.

Q4.10 Are there other key terms that need to be formally defined?

No.

Methodology and assessment

Q4.11 Are the two-digit Field of Research codes the most appropriate method to define units of assessment for Engagement and Impact?

Yes. Two-digit FoR codes work well as they capture interdisciplinary activities. UTS notes that moving beyond two-digit will significantly increase the amount of work required to prepare EI submission.

Q4.12 Are there other ways to classify units of assessment in EI, for example, SEO codes?

Potentially. UTS notes that early rounds of EI evaluation used SEO which worked well, helped focus EI on the end-user, and improved the capture of interdisciplinary research. To ensure any changes to the classification of units of assessment in EI were effective, there would need to be appropriate guidance to institutions to help define the framework and ensure clarity around ARC's expectations.

Q4.13 Should there be more or fewer units of assessment per university?

UTS believes that the current approach is fair, reasonable and reflective of the broad activities undertaken by Australian researchers. We do not suggest changes are made for the next assessment, aside from potentially including SEO codes rather than FoR.

Q4.14 The EI low-volume threshold should continue to be based on the number of research outputs submitted for ERA.

Agree. UTS supports the ARC continuing to allow organisations to make submissions into areas below the thresholds.

Q4.15 The low volume threshold is set at the appropriate level

Agree.

Q4.16 Overall, the engagement indicator suite for the assessment of research engagement is suitable.

UTS believes that the current indicator suite is heavily skewed towards research income as an indicator of engagement. We strongly support reviewing the overall indicator suite to develop a more meaningful set of indicators that reflect engagement in the broader sense.

Q4.17 The cash support from research end-users indicator using HERDC data is appropriate for the assessment of research engagement?

Neither agree nor disagree. Cash support, while giving an indication of support from end-users, is focused almost entirely on industry and/or government. Further, cash contributions do not capture support such as substantive in-kind contributions, research commercialisation, data and equipment sharing etc.

Q4.18 The research commercialisation income is appropriate for the assessment of research engagement.

Neither agree nor disagree. This is a narrow lens through which to view engagement and does not capture community, public or other engagement at-large.

Q4.19 Are there additional metrics that would be appropriate across many or all disciplines?

UTS suggests that the ARC consider including a measure of substantive in-kind contributions. See, also Q4.16

Q4.20 Are there alternative metrics that would be appropriate across many or all disciplines?

See Q4.16.

Q4.21 Should any of the current Engagement metrics be redesigned?

It would be useful to provide quality measures for the metrics. UTS suggests that the ARC consider augmenting current metrics with data obtained through the ARC's existing reporting systems, e.g., for Research Hubs and the potential use of common sector tools such as Altmetrics.

Q4.22 The co-supervision of HDR students should be made an engagement indicator in future rounds of EI.

In principle, we support the inclusion of this indicator as it could provide evidence of involvement.

Q4.23 In your opinion, are any of the ERA applied measures appropriate indicators of research engagement in EI?

UTS believes that these measures sit most appropriately in the EI, however, will need to be supported with more granular metrics at the discipline or SEO level.

Engagement narrative

Q4.24 The narrative approach is suitable for describing and assessing research engagement with end-users.

Strongly agree. This is a qualitative measure and consequently explanations by way of a narrative are appropriate.

Q4.25 One engagement submission per broad discipline is sufficient for capturing the research engagement within that discipline.

In-principle, we agree, however think that providing an option to make multiple submissions may provide richer information that would, over time, allow for the outcomes to be used more broadly (e.g. within government funding formulas).

See, also Q5.3.

Q4.26 The engagement narrative needs to be longer.

Strongly disagree. We need to be able to make these cases in a succinct way to ensure the utility of EI to government, industry and partners, and the community more broadly. As such, the existing length is appropriate and sufficient for the purposes.

Q4.27 Additional evidence is needed within the narrative.

Strongly disagree. The narrative covered various aspects from organisational systemic level all the way down to individuals.

Impact narrative

Q4.28 The narrative approach is suitable for describing and assessing impact.

Agree. Impact can be assessed qualitatively and quantitatively and the narrative form allows for both.

Q4.29 One impact study per broad discipline is sufficient for capturing the research impact within that discipline.

Agree. This enables contributions of the best and most impactful contributions to impact.

Q4.30 The impact narrative needs to be longer.

Strongly disagree. The existing length is appropriate and sufficient for the purposes.

Q4.31 There is a need for additional evidence to be provided within the narrative.

Disagree. The structure enabled a wide variety of appropriate measures to be included.

Q4.32 In your opinion, are there quantitative indicators that could be used to measure the impact of research outside of academia

No. Quantitative indicators would not necessarily pertain to all FoRs and all forms of impact, e.g. social impact, community impact. The existing measures and approach is adequate.

Q4.33 The narrative approach is suitable for describing and assessing approach to impact.

Strongly agree.

Q4.34 One approach to impact narrative per broad discipline is sufficient for capturing the activities within that discipline.

Agree.

Q4.35 The approach to impact narrative needs to be longer.

Disagree.

Q4.36 There is a need for additional evidence to be provided.

Disagree.

Q4.37 Would there be benefit in combining engagement and approach to impact?

While there may be some merits in meaningfully combining engagement and approach to impact, UTS believes that the two serve different but intersecting purposes and maintaining two separate measures provides more appropriate signalling of the importance of engagement and approach to impact as distinctive areas.

Rating scales

Q4.38 The engagement rating scale is suitable for assessing research engagement.

Agree. The three measures are appropriate given the diverse forms of impact, compared to a numerical scale.

Q4.39 The descriptors for the engagement rating scale are suitable.

As above.

Q4.40 The impact rating scale is suitable for assessing impact.

As above.

Q4.41 The descriptors for the impact rating scale are suitable.

As above.

Q4.42 The approach to impact rating scale is suitable for assessing approach to impact.

Agree.

Q4.43 The descriptions for the approach to impact rating scale are suitable.

Agree.

Interdisciplinary research

Q4.44 Should EI continue to include an interdisciplinary impact study in addition to the two-digit Fields of Research impact studies?

Yes, as an optional study to include.

Aboriginal and Torres Strait Islander research

Q4.45 Should the EI low-volume threshold be applied to the unit of assessment for Aboriginal and Torres Strait Islander research in EI 2024 with the option to opt in if threshold is not met

Yes as this will enable EI measures to be presented.

Q4.46 Should the unit of assessment for Aboriginal and Torres Strait Islander research include engagement in EI 2024

Yes as engagement is a critical part of the success of this type of research.

Section 5: Overarching Issues Common to both ERA and EI

Frequency of ERA and EI

Q5.1 How often should ERA occur?

We believe that a five year ERA cycle is appropriate as it would provide a better picture of Australian research across the broad spectrum by allowing new and emerging areas of research to develop their standing within one cycle.

Q5.2 What impact would a longer assessment cycle (i.e. greater than three years) have on the value of ERA results, particularly in the intervening years?

A longer assessment cycle would impact the ability of institutions to use results to improve performance in the intervening years as the currency of results diminishes.

Q5.3 How often should the EI assessment occur?

UTS supports moving to an annual impact submission coupled with a five-year evaluation cycle. We believe that this change would support EI development and the appropriate momentum needed, better reflect the fact that impact takes time to manifest itself from research, and result in more case studies that demonstrate the impact of Australian research. At the evaluation point in the cycle, institutions could use their previously submitted case studies, reworking them to show their impact, and/or submit new case studies. This change would also result in a larger number of current case studies being available to government throughout the rolling five-year cycle.

Q5.4 What impact would a longer assessment cycle (i.e. greater than three years) have on the value of EI results, particularly in the intervening years?

See 5.3.

Streamlining and simplifying ERA and EI

Q5.5 ERA and EI should be combined into the one assessment.

Strongly disagree. ERA and EI are very different measures. Combining the two would likely impact the robustness of the assessments, thereby reducing their utility for universities, government, end-users and the general public.

Q5.6 Are there other ways to streamline the processes to reduce the cost to universities of participating in ERA and EI?

UTS believes that moving to a byline form census date would allow for annual reporting of research outputs, staff and income by FoR. A substantive review and evaluation could then be conducted using these data, supported by institutional submissions, over a longer cycle period. Moving to this approach would greatly reduce the significant cost to universities in terms of staff time and resources.

Q5.7 In your view, what data sources could ERA utilise?

We believe ERA could use existing HE data collections from DET, including:

- Higher Education Staff Data Collection (HESDC) for people and FoR codes; and

- Higher Education Research Data Collection (HERDC) for research income and FoRs.

This could be supported by an annual publication collection with the ARC offering an automated FoR allocation service on submission.

Q5.8 In your view, what are the most time-consuming elements of an ERA submission?

Collecting and reviewing publications (including: identifying ERA eligible researchers; FoR attribution; peer review selection; and reconciling financial information with HERDC data) for the institution is the most time consuming aspect of the ERA submission.

Q5.9 In your view what are the most time-consuming elements of an EI submission?

Gathering information is the most time-consuming aspect of preparing a submission. Developing material requires significant liaison with internal and external stakeholders, significant work to develop priority case studies and the preparation of financial information. Harmonising the submission and ensuring consistency requires significant institutional effort.

UTS believes that the EI could be strengthened through the ARC working with government to improve the transparency of policy references to research (i.e. using DOIs or equivalent) as this would enable EI automation over time for the policy related translation processes.

Q5.10 ORCID iDs should be mandatory for ERA.

Strongly agree as this sends a strong signal about the importance of ORCID within the sector.

Q5.11 The automatic harvesting of output data using ORCID iDs would streamline a university's submission process.

Strongly agree.

Q5.12 DOIs should be mandatory for ERA.

Disagree. DOIs are not currently used universally and mandating them for ERA would disadvantage certain disciplines.

Q5.13 Are there new ways to collect data to reduce the cost and burden to universities of participating in ERA and EI whilst maintaining the robustness of the ERA and EI process

It would be relatively easy to move to a largely automated collection for STEM disciplines that harvested data and auto-allocated FoR codes. Institutions would then be able to amend as required before finalising the STEM submission. This could include requiring institutions to include a justification to support machine-learning by the automated collection software.

This change would significantly reduce the burden on universities and allow additional focus on HASS discipline submissions, which would largely need to remain manual, thereby improving the quality and robustness of the ERA and EI as a whole.