

Edith Cowan University response to the 2020 ERA EI Review

Section 3 – Excellence in Research for Australia

ERA policy

Value of ERA

Q3.1 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. *A very large amount; A large amount; **A moderate amount**; A small amount; Not at all. Please explain your answer.*

ERA may give government some assurance of the excellence of research, but it is largely unknown or of little interest to industry, business and the wider community.

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. *A very large amount; A large amount; **A moderate amount**; A small amount; Not at all. Please explain your answer.*

Areas where there are “opportunities for development” suggests there is identification of low rated areas that need to lift their game. However, potential areas for development could, and would most likely, be those which do not meet the minimum volume thresholds to even be evaluated in ERA. So, it is difficult to identify emerging versus inactive areas of research.

c. Identify excellence across the full spectrum of research performance. *A very large amount; A large amount; **A moderate amount**; A small amount; Not at all. Please explain your answer.*

ERA assessment centres on the quality of research outputs, largely published in traditional formats. The “full spectrum of research performance” extends to other key performance indicators for research including grants/income, HDR supervision/completions, measures of esteem, etc. Although income is reported in ERA, it forms a marginal component of the assessments, albeit it can influence the determination of final ratings.

d. Identify emerging research areas and opportunities for further development. *A very large amount; A large amount; A moderate amount; A small amount; **Not at all**. Please explain your answer.*

As per response to Q3.1.b, it is impossible to identify emerging areas versus inactive areas given both are unlikely to meet the minimum outputs volume thresholds to even be evaluated in ERA.

e. Allow for comparisons of research in Australia, nationally and internationally, for all discipline areas. *A very large amount; A large amount; **A moderate amount**; A small amount; Not at all. Please explain your answer.*

ERA enables comparisons of research nationally through the ratings outcomes. These rating outcomes are also indicative of performance relative to a world standard. However, unlike for citation disciplines, in which ERA ratings outcomes are supplemented with world and Australia citation benchmarks, no such additional concrete benchmarking data exists for peer review disciplines. As a result, there is currently no capacity to benchmark national and international performance in peer review disciplines beyond the ratings themselves.

Q3.2 The ERA objectives are appropriate for meeting the future needs of its stakeholders. *Strongly agree; Agree; [Neither agree nor disagree](#); Disagree; Strongly disagree. Please explain your answer.*

a. If you disagreed with the previous statement, what should the primary purpose of ERA be going forward? *Please explain your answer.*

Q3.3 What impacts has ERA had on:

a. the Australian university research sector as a whole

Increased research quality and productivity. Also enabled a common understanding of research quality across universities.

b. individual universities

Raised the focus on the quality of research, rather than just quantity. In some cases, universities have used this to their advantage in attracting and recruiting new researchers and academics. ERA outcomes have also helped to drive internal funding allocations.

c. researchers

It has made researchers more aware about FoR codes and how they relate to the areas in which they work. Some researchers have aligned their track record statements in funding/award applications and promotion applications to institutional ERA strength areas as a measure of their research quality. It has also focussed researchers on benchmarks for research performance relative to their discipline areas. However, those working in peer review disciplines have felt discouraged given lower ratings outcomes.

d. other?

- Impacting publication behaviours, so new journals in important and emerging areas of research can struggle to get traction if they are not recognised on the ERA Journal List or indexed in citation databases.
- Some universities may restrict their researchers to only publish in specific journals in certain areas, to maximise their institutional performance in some FoR areas.
- Early Career Researchers focussing on publishing in high quality journals to support their institutional ERA outcomes, however such benchmarks may be unreasonable.

Please explain your answers.

Q3.4 How do you use ERA outcomes? *Please describe.*

- ERA outcomes inform determinations of institutional areas of research strength and may subsequently impact internal funding and resources allocation at an institutional and individual School level.
- ERA ratings outcomes inform School-level operational planning, including the establishment of relevant research performance objectives and targets.
- Individual researchers may include reference to relevant discipline ratings outcomes, if highly favourable, within competitive research grant applications, nominations for awards or promotion applications.

Q3.5 ERA outcomes are beneficial to you/your organisation. *Strongly agree; [Agree](#); Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.*

ERA outcomes certainly provide some external validation of the quality of research within the organisation and facilitate and encourage research collaborations and partnerships with other Australian universities. However, the extent of this can depend on the rating outcomes – if specific disciplines do not get a rating at 3 (world standard) or above, it can negatively impact their ability to collaborate with other highly rated ERA-assessed institutions (i.e. everyone wants to “marry up”, not down) and so ERA ratings outcomes can influence the establishment of cross-institutional collaborations.

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

Concerns persist regarding the lack of transparency in the evaluation process, particularly in terms of the deliberations of the evaluation committees. As a result, there is a low level of trust in the subsequent ratings assigned, especially when these ratings are lower than expected or highly variable. If an increased level of submission data was published with the ratings outcomes and/or additional peer-reviewer/evaluator feedback, this could aid institutions to better understand the rationale for ratings.

ERA methodology

ERA methodology at a glance

Q3.7 The current methodology meets the objectives of ERA. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.*

In terms of identifying and providing an assurance of the excellence of research, stark disparities in outcomes across peer review versus citation analysis disciplines suggest the methodology is inconsistent in meeting the ERA objectives.

Q3.8 What are the strengths of the overall methodology? *Please describe.*

ERA is certainly providing a national stocktake of research across Australian higher education institutions.

Q3.9 What are the weaknesses of the overall methodology? *Please describe.*

It is a weakness of the overall methodology that there is such a large administrative reporting burden on institutions to enable this comprehensive stocktake. Due to the complexity of the methodology, institutions are required to make a significant investment in order to comply with ERA reporting requirements. Moreover, as stated above, the disparities in outcomes across peer review versus citation analysis disciplines suggest the methodology is inconsistent across all disciplines.

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?

No. There is an observable disparity between the ratings outcomes for citation analysis disciplines and peer review disciplines. Ratings outcomes for citation disciplines are much higher than for peer review disciplines and this suggests that ERA does not enable robust and comparable evaluation across all disciplines.

Although there is a need for a degree of peer review in certain disciplines, particularly those which allow for the submission of Non-Traditional Research Outputs (NTRs), it would be preferable where possible for more disciplines to be evaluated via citations analysis instead of peer review. Alternatively, in the next ERA round, it could be viable to trial the introduction of citation metrics to supplement the peer review assessment process.

Citation analysis methodology

Q3.11 The citation analysis methodology for evaluating the quality of research is appropriate. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.*

Citation analysis is an appropriate proxy to evaluate the quality of research.

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

The strengths of the citation analysis methodology include that it is empirical and that it enables benchmarking at the national and the international level.

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

It is a weakness of the citation analysis methodology that it does not accommodate for the variance in citation behaviour of different document types – for example, systematic reviews tend to attract more citations than articles reporting original research.

Q3.14 Can the citation analysis methodology be modified to improve the evaluation process while still adhering to the ERA Indicator Principles? Yes/No.

a. If you answered 'Yes', please describe how the methodology could be improved.

RCIs already normalise for discipline and publication year, however it may also be useful to normalise for document type, as is the case, for example, with the Field-Weighted Citation Impact metric.

Peer review methodology

Q3.15 The peer review methodology for evaluating the quality of research is appropriate. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.*

Given the ratings outcomes disparities in peer review disciplines compared to citation analysis disciplines, there is lower confidence that the ERA peer review methodology is effectively evaluating the quality of this research.

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

Peer review assessment would seem to be the only option currently available for those disciplines with inadequately indexed outputs or citations data, such as in the performing arts, in which NTROs can form a substantial component of an ERA submission.

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

Weaknesses of the peer review methodology include its inability to control or measure the extent of any peer reviewer bias, subjectivity and the challenge for peer reviewers in being potentially assigned research outputs across a broad range of subject areas, including outside their specific area of expertise.

Q3.18 Can the peer review methodology be modified to improve the evaluation process while still adhering to the ERA Indicator Principles? Yes/No.

a. If you answered 'Yes', please describe how the peer review methodology could be improved.

- Move to blind peer review.
- Require peer reviewers of NTROs to actually view or listen to the works themselves, rather than just focussing on the Research Statements.
- More equally weighting the value and quality of NTROs with that of traditional publications.
- Supplement peer review with citation metrics (for appropriate disciplines).

Contextual indicators

Q3.19 The volume and activity indicators are still relevant to ERA. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer.

If the intent is to produce a complete quantitative stocktake of research (which carries with it a significant reporting load for institutions), then these indicators are still relevant. However, the concern with volume and activity indicators is that they suggest that research productivity is forming part of an assessment whose primary focus is the evaluation of research quality.

Q3.20 The publishing profile indicator is still relevant to ERA. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer.

This was introduced as an alternative to the original ERA journal rankings. If outputs data could be sourced directly from citations databases, then there are relevant citation metrics that could instead be utilised to provide indicators of the relative quality ranking/quartiles of outlets for a given publication data set.

Q3.21 The research income indicators are still relevant to ERA. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer.

Success in attracting research income or being awarded competitive research grants has certainly been historically confirmed as a good proxy measure of research quality.

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

a. **Patents.** *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer. Not an indicator of research quality.

b. **Research commercialisation income.** *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer. Not an indicator of research quality.

c. **Registered designs.** *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer. Not an indicator of research quality.

d. **Plant breeder's rights.** *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer. Not an indicator of research quality.

e. **NHMRC endorsed guidelines.** *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer. Not an indicator of research quality.

ERA rating scale

Q3.23 The five-band ERA rating scale is suitable for assessing research excellence. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree*. Please explain your answer.

The rating scale is reasonable, and retention would enable a degree of ongoing comparability between rounds.

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? Yes/No.

a. If you answered, 'Yes', please explain how the rating scale can be modified to identify excellence.

It is understood that not all ratings are equal and that there can be quite a degree of variability in terms of quality across any given rating point i.e. a '5' could be a low, medium or high '5', so the indicators of the quality of the research in a given UoE might have been convincing or suggest that the UoE only just made the grade.

Whilst not modifying the rating scale or amending the ratings that are published, providing institutions with some sort of indication as to where each UoE sat within the band of each rating could be helpful.

ERA low-volume threshold

Q3.25 The ERA low-volume threshold is appropriate. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree.* Please explain your answer.

The increased number of FoR codes in the new schema is likely to result in research output quantity being diluted through its assignment across more areas, which may make it more difficult to meet the current low-volume thresholds. If there is also a move from a census date to a by-line affiliation (which ECU supports), then the challenge of meeting the low-volume threshold may be further exacerbated given there are likely to be fewer outputs reported for a given institution compared to previous rounds of ERA.

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

- Retain 50 at the two-digit FoR level but reduce it to 30 at the four-digit FoR level (although ECU questions the need to continue to evaluate research quality at the two-digit level at all – see response to Q4.11).
- If there is an intention to streamline submissions by way of the ARC directly sourcing outputs data from external sources, then there may be a need for tiered thresholds in different disciplines depending on the level of outputs indexation in the citations database.

ERA staff census date

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

By-line. Using the by-line method is more appropriate for universities to claim research outputs. The by-line approach is fairer because it enables an institution to be evaluated on the basis of the research it has directly supported and produced.

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

The census data approach encourages poaching of researchers, despite the fact that ERA is an assessment of institutional research, not researchers. Furthermore, the census date approach does not provide an accurate picture of the research activities and outcomes undertaken in the historical reference period under assessment.

Q3.29 Would a by-line approach address these limitations? Yes/No. *Please explain your answer.*

Yes, employing the by-line would address the limitations of the census date approach. A by-line approach would also further enable the ARC to directly source research outputs data via external sources.

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

The by-line approach will delay the ability for institutions to claim research outputs of newer staff.

Q3.31 ERA adequately captures and evaluates interdisciplinary research. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.*

Research is apportioned across multiple FoR codes and, given the Unit of Evaluation is based on each individual FoR code, it is the unavoidable nature of ERA that it is not actually evaluating interdisciplinary research. Although interdisciplinary profiles are provided, it is unclear how that features, if at all, in assessments.

a. If you disagreed with the previous statement, how could interdisciplinary research best be accommodated? *Please describe.*

There could be an opportunity to better utilise the interdisciplinary profile data, at an institutional level, and potentially assign distinct ratings for substantial clusters of interdisciplinary research. This is likely to support and encourage more interdisciplinary research across the sector, which would be positive for researchers undertaking interdisciplinary research.

Although the reassignment rule was intended to support diversity of FoR coding, there are difficulties with the requirement that any residual apportionment of outputs be limited to only FoRs identified in the ERA Journal List. It is recommended that either more journals be coded as 'MD' (multidisciplinary) or this coding limitation associated with the reassignment rule be removed.

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

a. Two-digit? *Yes/No. If you answered 'yes', please list which ones.*

b. Four-digit? *Yes/No. If you answered 'yes', please list which ones.*

Q3.33 In ERA, the best approach for evaluating Indigenous Studies is (choose one):

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

b. For Aboriginal and Torres Strait Islander studies by combining low-volume disciplines into single units of evaluation

c. For Aboriginal and Torres Strait Islander studies by combining low-volume disciplines into two units of evaluation (one unit comprising Humanities, Arts, and Social Sciences disciplines and one unit comprising Science, Technology, Engineering and Mathematics disciplines)

d. Other. *Please describe.*

Until our institution finalises its retrospective recoding of research outputs using the new FoR schema, it will not be possible to confirm definitively whether thresholds can be met at either the four or two-digit FoR level. Nevertheless, given the introduction of an increased number of Indigenous Studies codes, and the likely apportionment of codes across mostly interdisciplinary research, it is anticipated that current thresholds are unlikely to be met.

If the intent is to truly increase the visibility of Aboriginal and Torres Strait Islander research, then combining outputs across different codes or only evaluating at the two-digit level will not support this aim. It would make more sense to simply lower the volume threshold at the four-digit FoR level in these disciplines.

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

ERA process

Collection of ERA data

Q3.35 ERA should move to an annual collection of data from universities. *Strongly agree; Agree; Neither agree nor disagree; [Disagree](#); Strongly disagree. Please explain your answer.*

Frequency of collection should correlate with the frequency of assessment. This enables a holistic view of the research to be assessed. This is particularly valuable for NTROs where portfolios are compiled and typically consist of outputs across multiple years.

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

If an annual data collection was based on the current ERA submission requirements, this would increase the administrative burden.

Publication of ERA data

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

- a. [Yes](#), Please explain your answer.
- b. No, Please explain your answer.

Publishing the volume of outputs for each UoE would provide more valuable data for institutional benchmarking.

Q3.38 In future ERA rounds, research outputs should be published with their assignment to specific disciplines following completion of the round. *Strongly agree; Agree; Neither agree nor disagree; [Disagree](#); Strongly disagree. Please explain your answer.*

Total volume amounts per FoR would suffice.

- a. What would be the advantages? *Please explain your answer.*
- b. What would be the disadvantages? *Please explain your answer.*

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

Section 4 – Engagement and Impact Assessment

EI 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? *A very large amount; A large amount; A moderate amount; **A small amount**; Not at all. Please explain your answer.*

The policy driver has encouraged researchers and institutions to think more about the value of increasing their focus on end-user collaboration. However, many researchers remain confused as to what engagement and impact are (especially outside of those in academic settings and with academic collaborators). Until this confusion is removed, actual collaborations of the desired type to be influenced by this scheme are unlikely to increase.

b. provide clarity to the Government and the Australian public about how their investments in university research translate into tangible benefits beyond academia? *A very large amount; A large amount; **A moderate amount**; A small amount; Not at all. Please explain your answer.*

EI is a selective, versus comprehensive, assessment of research and so it is not providing clarity about the tangible benefits of the majority of publicly funded research.

c. identify institutional processes and infrastructure that enable research engagement? *A very large amount; A large amount; A moderate amount; **A small amount**; Not at all. Please explain your answer.*

The institutional enabling mechanisms assessed in EI focussed on the approach to impact, rather than the engagement enablers.

d. promote greater support for the translation of research impact within institutions for the benefit of Australia beyond academia? *A very large amount; A large amount; **A moderate amount**; A small amount; Not at all. Please explain your answer.*

The assessment encourages a focus on research impact, although that may not necessarily lead to greater support. Furthermore, impacts may extend beyond benefitting Australia/ns. The exercise has provided universities with some case study examples they have been able to use for research promotion opportunities, that they might not have had previously.

e. identify the ways in which institutions currently translate research into impact? *A very large amount; A large amount; A moderate amount; A small amount; **Not at all**. Please explain your answer.*

Institutions don't usually translate research into impact – that would occur via individual researchers/research teams directly collaborating with their research end-users.

Q4.2 The EI objectives are appropriate for the future needs of its stakeholders. *Strongly agree; Agree; Neither agree or disagree; **Disagree**; Strongly disagree. Please explain your answer.*

EI concepts and definitions still need further refinement. There is yet to be a common understanding of these definitions within institutions, let alone across them.

Q4.3 What impact has EI had on:

a. the Australian university sector as a whole? *Please describe.*

EI has increased awareness of the importance of documenting how research has made a difference outside of academia. There has long been a distinction between discovery type research and applied research. But this is a different concept, and EI has helped to emphasise this. Just because research conduct is applied in nature or focus it does not necessarily mean that its outcomes, have, or could, actually be used/adopted/implemented by others. There is certainly benefit to the Australian university sector to appreciate this important nuance.

b. individual universities. *Please describe.*

In some universities, EI has encouraged the establishment of overarching impact strategies with specific objectives and initiatives towards increasing engagement with end-users and supporting the realisation of real-world impact. It has also helped in the framing of research promotion messaging through media, etc.

c. researchers. *Please describe.*

EI has the potential to influence the way that research is designed and conducted to incorporate the capture of any subsequent evidence of impact. However, as mentioned above, many researchers are still confused by EI and hence this potential is yet to be fully realised. EI has also provided researchers in certain disciplines with guidance or suggestions for how to better demonstrate the value of their research beyond traditional quality metrics i.e. it provides a more multi-dimensional value proposition for their research. Furthermore, in the process of preparing the impact case studies, researchers reconnected with their research end-users from past research projects and previously unknown impacts were discovered. These kinds of discoveries may give researchers otherwise unforeseen new research avenues with prior end-users.

d. other sectors outside of academia? *Please describe.*

It is unlikely that, in the main, industry or the public are even aware of EI.

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

The EI outcomes were largely used for dissemination and discussion of relevant FoRs with each School. They were also used by the University's marketing team to promote research excellence on our research webpage. For researchers linked to well-rated case studies, these have been useful for them to demonstrate research excellence and relevance in applications for promotion, positions or funding.

Q4.5 The EI outcomes are valuable to you or your organisation. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.*

In some disciplines, the EI outcomes were considered an affirmation of activities, particularly in practitioner-focussed areas.

Q4.6 How else could EI outcomes be used? *Please describe.*

The original intent was that EI outcomes be used to inform block grant funding allocations. ECU does not support this as the assessment is still too new to have sector confidence, and there has been no consultation to date with institutions as to how funding would be calculated on the basis of EI outcomes.

EI definitions

Q4.7 The current Engagement definition is appropriate. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.*

a. If you don't agree, what are your suggested amendments to the Engagement definition? *Please describe.*

The engagement definition looks deceptively simple, however applying it to the preparation of quantitative data proved very problematic. It was basically impossible to validate whether there had been a "mutually beneficial transfer of knowledge, technologies, methods or resources" when attempting to determine, for example, end-user cash contributions. Institutions can determine whether an external non-academic entity is involved in a project, but the nature of that relationship and its compliance with this definition would require project-by-project assessment. Therefore, there was no other option but to just assume that, if an "end-user" was involved in the project, it was for mutually beneficial reasons. Rather than amending the definition, it may be helpful to provide some guidance as to how literally it should be applied for the purposes of preparing and submitting any necessary engagement-related data.

Q4.8 The current Impact definition is appropriate. *Strongly agree; [Agree](#); Neither agree or disagree; Disagree; Strongly disagree.*

a. If you don't agree, what are your suggested amendments to the Impact definition? *Please describe.*

Q4.9 The current end-user definition is appropriate. *Strongly agree; Agree; Neither agree or disagree; [Disagree](#); Strongly disagree.*

a. If you don't agree, what are your suggested amendments to the end-user definition? *Please describe.*

The end-user definition states some examples of end-users, including "governments, businesses, non-governmental organisations, communities and community organisations". However, in many cases these entities who are engaged in our research are not directly using or directly benefiting from the output, outcome or results of the research – they would be better defined as "intermediaries" to the actual end-users of the research – but still have a vested interest in the research being undertaken. For example, researchers may be engaging with a hospital or a health department to develop new health policies or to improve clinical practice, but the actual end-users or beneficiaries of the research would be the clinicians and patients. Therefore, it is suggested that the end-user definition include recognition of intermediaries, such as:

"A research end-user is an individual, community or organisation external to academia that will directly use or directly benefit from, or act as an intermediary to those who will directly use or directly benefit from, the output, outcome or results of research."

b. Are there any end-user categories excluded in the current definition of research end-user that you think should be included? *Please explain your answer.*

There may be some value in adding to the definition some specific examples of end-users, such as schools and other educational training/bodies, industry, media bodies, SMEs etc.

Q4.10 Are there other key terms that need to be formally defined? [Yes](#)/No. *If you answered 'Yes', please explain your answer.*

Should the approach to impact continue to be separately assessed and rated from research impact, then it would warrant being more formally defined beyond the descriptor included in the impact study templates.

El methodology

Unit of 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](#)/[No](#). *Please explain your answer.*

Two-digit FoRs are too broad, and even more so in the revised ANZSRC schema. ECU suggests that it would be more appropriate for the assessment in EI to occur at the four-digit FoR level. Furthermore, to enable better alignment between ERA and EI outcomes, it may also be sufficient that the ERA assessment only occur at the four-digit level, removing the additional layer of assessment at the two-digit FoR level.

Q4.12 Are there other ways to classify units of assessment in EI, for example, SEO codes? [Yes](#)/[No](#). *Please explain your answer.*

SEO codes can certainly aid with classifying the impacts according to where they matter and occur. There are several examples across multiple FoR codes which may assign similar SEO codes, but this is not uniform. If the goal is to enable EI to have comparative outcomes with ERA, both institutionally and nationally, then the preferred unit of assessment would be FoRs, recognising that the latter have little to do with why and how research makes a difference but more to do with the theoretical and methodological paradigms underpinning

the research conduct. These do not always match-up. However, if the goal is to describe which part of Australian society/culture/community/business/industry, etc benefits from the research, then the SEOs make a more logical choice.

Selectiveness of EI

Q4.13 Should there be more or fewer units of assessment per university? More units of assessment; The same number as in EI 2018; Fewer units of assessment.

a. How many and why? *Please explain your answer.*

A move to assessing four-digit FoRs that meet threshold would result in more units of assessment per university and enable institutions to profile engagement and impact within specific versus broad disciplines.

EI low-volume threshold

Q4.14 The EI low-volume threshold should continue to be based on the number of research outputs submitted for ERA. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.*

a. If you disagree, how should eligibility for assessment in EI be determined? *Please explain your answer.*

Q4.15 The low volume threshold is set at the appropriate level. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.*

If the Unit of Assessment (UoA) was revised to the four-digit FoR level, the threshold should be reduced to align with the ERA low-volume thresholds. As with the 2018 EI round, institutions should retain the capacity to 'opt in' if a given UoA falls below the low-volume threshold. This would enable all institutions to be assessed in any of the four-digit FoR codes.

Engagement indicators

Q4.16 Overall, the engagement indicator suite for the assessment of research engagement is suitable. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree. Please explain your answer.*

Whilst income indicators are the most easily accessible proxy measures of engagement, the fact that these were the baseline engagement indicators implied that without income there is no research engagement. This can be particularly concerning for certain disciplines which may have high engagement, but low income.

One of the overarching issues with the preparation of data for the engagement indicators was a discrepancy in the way in which HERDC income data was prepared per Unit of Evaluation in ERA compared to the way in which the proportion of end-user cash support was prepared per UoA for EI. Subsequently, in some income categories, the end-user cash support component of the income was greater than the total income in that category and year reported for ERA.

This discrepancy was found to be due to the fact that that end-user cash support per year in a given UoA for EI was derived from totalling the source income data, whereas in ERA the HERDC income data per year in a given four-digit FoR is not reported directly but rather is reported as a percentage of the total HERDC income in that category and year. Furthermore, the ERA percentage was limited to two decimal places, meaning that the resultant calculation of income per category per year could return a figure smaller or larger than the actual income figure for that FoR.

ECU recommends that, should this data continue to be reportable, the methodologies for reporting income in ERA and EI should align to ensure consistency across the two reporting initiatives.

Q4.17 The cash support from research end-users indicator using HERDC data is appropriate for the assessment of research engagement? *Strongly agree; [agree](#); neither agree nor disagree; disagree; strongly disagree. Please explain your answer.*

The cash support from research end-users using HERDC data is one form of indicator for assessing research engagement, based on external funding contributions. However, the compilation of this data was extremely time-consuming. The end-user status of each funding body associated with the projects that contributed to the ERA/HERDC income was not available prior to the assessment. The concept of 'end-user' was not defined until 2018 and, as a result, the end-user status of funding bodies was not something that had been previously determined or collected.

Given that it was not possible to extract the end-user status of funders directly from existing systems, it was necessary to retrospectively compile this information via feedback from our researchers. Only then could the end-user cash support component be determined for each project and reported for each UoA.

Given the subjective nature of compiling this data, it is also highly probable that varied approaches were employed across the sector for determining the end-user status of funding bodies for specific projects. This, in turn, would have impacted upon the comparability of data across the sector. (See also response to Q4.7.)

Q4.18 The research commercialisation income is appropriate for the assessment of research engagement. *Strongly agree; agree; [neither agree nor disagree](#); disagree; strongly disagree. Please explain your answer.*

As per our response to Q4.23.b, research commercialisation income is more likely a proxy measure of impact rather than engagement.

Q4.19 Are there additional metrics that would be appropriate across many or all disciplines? *Yes/[No](#). If you answered 'Yes', please outline the metrics. If you answered 'No', please explain your answer.*

ECU submitted three main types of additional engagement indicators for certain FoRs, dependent upon whether data could be sourced and whether it was likely to be relevant. These included: 1) in-kind support from research end-users; 2) end-user co-authorship of citation database-indexed journal articles; and, 3) repeat business with research end-users. The inclusion of additional metrics should be left to the institution's discretion as relevant to the particular discipline and narrative being submitted.

Q4.20 Are there alternative metrics that would be appropriate across many or all disciplines? *Yes/No. Please specify the metrics.*

Q4.21 Should any of the current Engagement metrics be redesigned? *Yes/No. If you answered 'Yes', which ones and how?*

Q4.22 The co-supervision of HDR students should be made an engagement indicator in future rounds of EI. *Strongly agree; [Agree](#); Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.*

Given end-user co-supervision of HDR students data are now being reported to the Department of Education, Skills and Employment via the Higher Education Student Data Collection (HESDC), it would seem feasible to include it as an engagement indicator. Furthermore, the ARC should be able to source this data directly from the Department.

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

a. **Patents.** *Yes/[No](#). Please explain your answer. Potentially a proxy measure of impact rather than engagement.*

b. **Research commercialisation income.** *Yes/[No](#). Please explain your answer. Potentially a proxy measure of impact rather than engagement. That said, it was included as an EI engagement indicator in 2018.*

c. **Registered designs.** Yes/No. Please explain your answer. Potentially a proxy measure of impact rather than engagement.

d. **Plant breeder's rights.** Yes/No. Please explain your answer. Potentially a proxy measure of impact rather than engagement.

e. **NHMRC endorsed guidelines.** Yes/No. Please explain your answer. Potentially a proxy measure of impact rather than engagement.

Engagement narrative

Q4.24 The narrative approach is suitable for describing and assessing research engagement with end-users. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.

a. If you disagree, what alternative approach could be used to replace the narrative? Please explain your answer. If you are suggesting indicators, please be specific.

It is unclear as to the value of assessing engagement as separate from research impact. Engagement with external end-users is a critical part of the pathway to impact, especially when involved in co-design. To minimise the reporting burden on institutions, it would be preferable that there was a consolidation of these two separate components of the submission.

Q4.25 One engagement submission per broad discipline is sufficient for capturing the research engagement within that discipline. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.

The diversity and breadth of engagement activity occurring across a broad two-digit FoR made it difficult to consolidate and coherently prepare the engagement submission.

Furthermore, the added requirement to also submit an Engagement Indicator Explanatory Statement was burdensome and unnecessary in terms of its value within the assessment process. Therefore, ECU recommends that the Engagement Indicator Explanatory Statements no longer be required in EI submissions.

Q4.26 The engagement narrative needs to be longer. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.

Not necessary to extend the length of the engagement narrative if it is subsumed within the relevant impact narrative, given engagement activities would then be reportable across multiple UoAs.

Q4.27 Additional evidence is needed within the narrative. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.

a. If you agreed, what evidence should be provided? Please describe.

Impact narrative

Q4.28 The narrative approach is suitable for describing and assessing impact. Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.

In order to assess research impact, there is a very real need to tell the story of the journey from engagement to knowledge translation and application leading to eventual impact. However, many researchers do not have the skills or training to do this well, nor do many research support staff employed in universities. This has the effect of increasing the workload for institutions to redress these limitations and there has been the anecdotal suggestion that it is only those institutions which can afford to pay for professional writers to craft these narratives which score well in this exercise.

a. If you disagree, what alternative approach could be used to replace the narrative? *Please explain your answer. If you are suggesting indicators, please be specific.*

Q4.29 One impact study per broad discipline is sufficient for capturing the research impact within that discipline. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.* Please explain your answer.

One impact study per broad two-digit FoR is insufficient for capturing research impact within that discipline. This approach does not enable institutions to profile the research impact across the breadth of research that it is undertaken at the four-digit level. Limiting institutions to a single case study at the two-digit FoR level means that they are limited to selecting the 'best' case study; an approach that does not support a meaningful assessment of impact for the institution as a whole.

Q4.30 The impact narrative needs to be longer. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.* Please explain your answer.

The impact narrative does not necessarily need to be longer, although it would benefit from structural reshaping whereby it would not limit institutions to reporting one given project, but rather enable the submission of the impacts of a program of research across the FoR.

Q4.31 There is a need for additional evidence to be provided within the narrative. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.* Please explain your answer.

As additional evidence may be difficult to obtain, it should remain as an optional addition to the narrative. Although it is anticipated that a lack of evidence would likely negatively influence the final ratings assigned.

a. If yes, what evidence should be provided? *Please explain your answer.*

Q4.32 In your opinion, are there quantitative indicators that could be used to measure the impact of research outside of academia? *Yes/No. Please explain your answer.*

a. If you answered 'yes' to the previous question, please name and describe the quantitative indicator/s, and the disciplines for which they are relevant. *Please list and describe.*

Approach to impact narrative

Q4.33 The narrative approach is suitable for describing and assessing approach to impact. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.* Please explain your answer.

a. If you disagree, what alternative approach could be used to replace the narrative? *Please explain your answer. If you are suggesting indicators, please be specific.*

The approach to impact narratives were often largely repetitive across each UoA as enabling strategies undertaken by the institution are not necessarily discipline-specific. Separate ratings for the impact of the research and the approach to impact for a given FoR was confusing and sent mixed messages to researchers, particularly given the activity reported in the approach to impact section was largely beyond their control.

Q4.34 One approach to impact narrative per broad discipline is sufficient for capturing the activities within that discipline. *Strongly agree; Agree; Neither agree or disagree; Disagree; Strongly disagree.* Please explain your answer.

ECU recommends removing the need to report the approach to impact and suggests that the EI assessment should, preferably, focus on demonstrating the size and nature of the impact of the research only – this is a sufficient driver to subsequently encourage institutional enablers of research impact. Impact can, and does,

occur irrespective of whether the institution has specific enabling strategies in place at a discipline level to support the realisation of impact.

Q4.35 The approach to impact narrative needs to be longer. *Strongly agree; Agree; Neither agree or disagree; [Disagree](#); Strongly disagree. Please explain your answer.*

Not applicable as ECU recommends removing the need to separately report the approach to impact.

Q4.36 There is a need for additional evidence to be provided. *Strongly agree; Agree; [Neither agree or disagree](#); Disagree; Strongly disagree. Please explain your answer.*

Q4.37 Would there be benefit in combining engagement and approach to impact? [Yes](#)/No. *Please explain your answer.*

It is unclear as to the value of assessing engagement as separate from research impact. Engagement with external end-users is a critical part of the pathway to impact. To minimise the reporting burden on institutions, it would be preferable that there was a consolidation of these two separate components of the submission. Certainly, from a researcher point of view, these are seen as different stages along a continuum, and it seems somewhat artificial to separate them.

El rating scales

Q4.38 The engagement rating scale is suitable for assessing research engagement. *Strongly agree; [Agree](#); Neither agree or disagree; Disagree; Strongly disagree. Please explain your answer.*

The engagement rating scale of 'High, Medium and Low' is suitable as it can be readily interpreted by key stakeholders.

Q4.39 The descriptors for the engagement rating scale are suitable. *Strongly agree; Agree; Neither agree or disagree; [Disagree](#); Strongly disagree. Please explain your answer.*

It is unclear why there is a need to include reference to research engagement being integrated or incorporated into the development and ongoing conduct of future research within the UoA. The focus should be on the engagement activities that did occur themselves, rather than whether there are specific processes in place for them into the future.

Q4.40 The impact rating scale is suitable for assessing impact. *Strongly agree; Agree; [Neither agree or disagree](#); Disagree; Strongly disagree. Please explain your answer.*

The impact rating scale of 'High, Medium and Low' is suitable as it can be readily interpreted by key stakeholders.

Q4.41 The descriptors for the impact rating scale are suitable. *Strongly agree; Agree; Neither agree or disagree; [Disagree](#); Strongly disagree. Please explain your answer.*

The descriptors for the impact rating scale could be improved as they do not adequately capture or describe the breadth and focus of the assessment. For example, the High Impact rating could possibly be better expressed as: "The UoA has demonstrated that a highly significant benefit to end-users beyond academia has occurred as a result of the translation and application of its research with a subsequent extensive reach of beneficiaries."

Q4.42 The approach to impact rating scale is suitable for assessing approach to impact. *Strongly agree; Agree; Neither agree or disagree; [Disagree](#); Strongly disagree*. Please explain your answer.

ECU recommends removing the need to report the approach to impact and suggests that the EI assessment should, preferably, focus on the impact of the research only. This would remove the need for a separate approach to impact rating scale and multiple ratings being assigned to a given impact case study.

Q4.43 The descriptions for the approach to impact rating scale are suitable. *Strongly agree; Agree; [Neither agree or disagree](#); Disagree; Strongly disagree*. Please explain your answer.

Not applicable as ECU recommends removing the need to separately assess the approach to impact.

EI 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/[No](#)*. Please explain your answer.

In addition to the primary two-digit FoR code, impact studies could be assigned to up to two additional two-digit FoR codes. Therefore, it was not clear what value the additional “interdisciplinary” impact study provided.

EI and 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/[No](#)*. Please explain your answer.

No low volume threshold should apply to Indigenous Studies (FoR 45) – it should just be an opt in option.

Q4.46 Should the unit of assessment for Aboriginal and Torres Strait Islander research include engagement in EI 2024? *[Yes](#)/No*. Please explain your answer.

If engagement submissions are retained, as distinct from impact submissions, then FoR 45 should be included.

Section 5 – Overarching Issues Common to both ERA and EI

Frequency of ERA and EI

Q5.1 How often should ERA occur? *Every three years; [Every five years](#); Other, please specify*. Please explain your answer.

The short time gap between each of the first four ERA rounds (two years between the first two rounds and three years between the rounds thereafter) represented a significant administrative burden on institutions. The completion of these four ERA rounds have clearly provided assurance that quality research is being conducted in Australian higher education institutions. Although it is important to continue to undertake a stocktake of Australian research, and to gauge the quality of this research, it is no longer necessary to maintain the three-year frequency between rounds. A longer frequency of five years would still enable the quality of Australian research to be assessed but would reduce the administrative cost to the sector.

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? *Please explain your answer*.

A longer assessment cycle would mean that areas that received a low rating would have a longer wait before being able to demonstrate improvements.

Q5.3 How often should the EI assessment occur? *Every three years; [Every five years](#); Other, please specify. Please explain your answer.*

The EI assessment should be every five years for consistency with ERA, although preferably not at the same time.

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? *Please explain your answer.*

Streamlining and simplifying ERA and EI

Q5.5 ERA and EI should be combined into the one assessment. *Strongly agree; Agree; Neither agree nor disagree; Disagree; [Strongly disagree](#). Please explain your answer.*

Unless there is a fundamental redesign of EI, the narrative-centred approach is not compatible with the more quantitative nature of ERA. ERA and EI represent two separate types of exercises and, as such, the workload for institutions is fundamentally unlikely to be reduced by doing both at the same time.

a. What would be the advantages and/or disadvantages. *Please explain your answer.*

See the last response.

Q5.6 Are there other ways to streamline the processes to reduce the cost to universities of participating in ERA and EI? [Yes](#)/No. *Please explain your answer.*

ERA processes would be streamlined if the ARC could source the data directly from external citation databases. However, it would still be necessary to enable institutions to have an opportunity to validate the data prior to assessment and supplement their submission with any other eligible research outputs which were not included in the citation dataset.

Q5.7 In your view, what data sources could ERA utilise? *Please explain your answer.*

ERA could use external citation databases, although it would have to be a source which includes FoRs at the output (versus outlet) level. This would also be subject to using a by-line affiliation approach.

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

The most time-consuming elements of an ERA submission are associated with the preparation of the research outputs component, including FoR and citation database tagging, ensuring compliance and selection of the 30% for peer review, where relevant.

a. Are there efficiencies that could be introduced? [Yes](#)/No. *Please describe.*

It would be more efficient if institutions were only required to submit eligible outputs which are not indexed in citation databases.

Furthermore, a longer lead time between the release of the ERA submission guidelines, business rules and technical specifications and the final submission deadlines of the given round would support institutions to more efficiently and effectively respond to any changes in the reporting requirements.

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

The most time-consuming elements of an EI submission are the production of multiple narratives and the compilation of the engagement data, particularly the identification of end-user cash contributions. From the perspective of preparing the case studies, there is also significant time needed by researchers to document

and/or collate their evidence of impact. With only a limited number of case studies to be lodged, this is not a routine activity for most researchers, who would only attempt to provide this information once it has been identified that their specific research will feature in the EI submission.

a. Are there efficiencies that could be introduced? Yes/No. *Please describe.*

Engagement is a key component in the pathway to impact. Rather than assess engagement and impact separately, consolidate the two components of the submission into one holistic narrative per Unit of Assessment, and allow institutions to only provide metrics which substantiate the narrative.

Furthermore, a longer lead time between the release of the EI submission guidelines, and other essential documentation, and the final submission deadlines of the given round would support institutions to more efficiently and effectively respond to any changes in the reporting requirements.

Utilising technological advances and pre-existing data sources

Q5.10 ORCID iDs should be mandatory for ERA. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree.* Please explain your answer.

Pointless to collect ORCID iDs if not using them to harvest data.

a. What are the advantages and/or disadvantages? *Please explain your answer.*

Q5.11 The automatic harvesting of output data using ORCID iDs would streamline a university's submission process. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree.* Please explain your answer.

ECU disagrees with using ORCID iDs to automatically harvest output data. Researchers may have an ORCID iD, but that does not mean their record is accurately maintained. It would require a significant investment in time and resources from institutions in order to enable ORCID iDs to provide a comprehensive and complete picture of ERA-eligible research outputs.

a. What are the advantages and/or disadvantages? *Please explain your answer*

At present there would be different levels of completeness of publications data across individual ORCID records. This would, in part, be due to the variable approaches to the management of ORCID data across the sector. Also, current tools available to automate the transfer of outputs data into ORCID records are skewed towards journal articles, and somewhat dependent on the disciplinary coverage of major citation providers. This means that some researchers have a greater need to manually add their outputs to ORCID than others (e.g. this would disadvantage researchers in creative arts disciplines, which often have high numbers of NTROs). Additionally, ORCID does not currently provide data fields that would enable FoR codes to be assigned to outputs, meaning that FoR coding would need to be done externally to ORCID. As a result, attempting to harvest data via ORCID iDs would most likely place an even greater administrative burden on institutions in terms of having to curate and maintain the data within their eligible researcher ORCID records.

Q5.12 DOIs should be mandatory for ERA. *Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree.* Please explain your answer.

It would not be applicable to broadly mandate DOIs for ERA as not all ERA-eligible research output types are likely to universally have DOIs (e.g. NTROs, books, book chapters) and, even for journal articles, DOIs are less universally applied in some disciplines (HASS) than others (STEMM). However, even for those outputs that do have a DOI, most of these could be obtained externally by the ARC, if data was sourced from external citation databases via their by-line.

a. What are the advantages or disadvantages? *Please explain your answer.*

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? [Yes/No](#). Please explain your answer.

As noted in Q5.6 and Q5.7, if ERA moves to a by-line affiliation approach, the ARC could source data directly from external citation databases. However, the assignment of outputs to FoRs would need to be considered given the citation databases used to date in ERA do not currently tag FoRs at the article level.

a. What are the advantages and/or disadvantages? *Please explain your answer.*

If the ARC sourced publications data directly from external citation databases, this would reduce the need for institutions to map outputs to citation provider document types and ensure alignment between output metadata in their systems relative to output metadata captured by the citation provider. It would also reduce the volume of outputs data that would need to be prepared by institutions.

However, no single citation provider is likely to index all the ERA-eligible outputs affiliated with each institution during the reference period, and so it will be important that universities have the opportunity to supplement the submission data with any other eligible research outputs. The comprehensiveness of indexation also varies across disciplines, meaning that sourcing data exclusively from a citation provider could be potentially disadvantageous to some disciplines, reinforcing the importance of enabling institutions to supplement submission data with outputs not included by the citation provider. Institutions should also be to validate the data provided by the citation provider prior to assessment.